

# Kennesaw State University's Undergraduate Catalog



for the Academic Year 2023-2024

## **Welcome to KSU's Graduate Catalog!**

The Kennesaw State University Catalog contains important information and is the official source of the university's academic programs, courses, and policies. The Catalog should be used as a guide, in conjunction with an academic advisor and DegreeWorks, in planning a course of study and in meeting requirements for graduation. See the Index for an overview of the information provided.

### **How the Catalog Works**

- If you're looking for another publication (such as the undergraduate catalog, student handbook, micro-credentials inventory, etc.) please use the drop-down menu in the top right corner of the catalog.
- Advanced search features allow you to search for courses, policies, and degree programs using course prefix, course number, exact match or descriptive phrases.
- Navigating to different sections of the catalog is easily done by clicking on the menu options on the right side of the screen.
- Each section has a print-friendly view to allow for cleaner, more attractive pages when you print.
- Help icons are readily available on each page.

*If you're not sure which catalog to use or have questions about choosing courses or degree programs, please reach out to an academic advisor at <http://advising.kennesaw.edu/>.*

# **Catalog Information and User Guide**

## **About the Catalog**

This catalog was prepared for the 2023-2024 academic year. The content in this catalog is for informational purposes only and should not be construed as the basis of a contract between a student and this institution.

While the provisions of this catalog will ordinarily be applied as stated, Kennesaw State University reserves the right to change any provision listed in this catalog, including but not limited to academic requirements for graduation, without notice to individual students.

Every effort will be made to keep students advised of any new information and/or changes in provisions listed in this catalog. The Schedule of Credit Courses is considered an extension of this catalog. Both the online catalog and the Schedule of Credit Courses (<https://registrar.kennesaw.edu/>) are always current.

It is incumbent upon students to keep apprised of the graduation requirements for the degree they are pursuing.

Students have the responsibility to read this catalog, official announcements, notices posted on electronic listservs, and otherwise to be informed completely in regard to the programs of studies, credits, degree requirements, quality points and other facts relating to life at this university. KSU has established a free student account email system and will periodically email students with important messages. The university will use this email system exclusively to communicate with students.

In the event that an administrative hearing officer or a court of record determines that "publications" issued by the university create a contractual or quasi-contractual relationship with any person, the amount of damages recoverable by the parties shall be limited to the amount of consideration paid by the person for the privilege of admission, enrollment, continued enrollment or other service rendered by the institution to such person.

As used herein, the term "publications" (without limiting the generality of the normal meaning of the term) shall be deemed to include any and all written forms or other documents issued by the institution concerning applications for admission, enrollment or continued enrollment, waivers of liability, consents to medical treatment and any and all other written forms, documents, letters or other materials issued by the university in furtherance of its educational mission.

## **Catalog Rights**

Degree candidates are responsible for meeting the university requirements stated in the Kennesaw State University catalog to which they are officially assigned.

Students are initially assigned to the catalog for the academic year in which they are admitted to Kennesaw State University, provided the student attended at least one course in the academic year culminating in a record of enrollment on the student's academic transcript.

Students who interrupt their enrollment in the university for one year or longer (three consecutive terms including summer) must be readmitted to Kennesaw State University. Students will be officially reassigned to the catalog in effect when readmitted. Students lose any previous catalog rights and must meet all graduation requirements in effect at the time of readmission.

Students who change their major will be officially reassigned to the catalog in effect at the time of the change. They will lose any previous catalog rights and must meet all graduation requirements in effect at the time of the major change.

A student may petition to the faculty to retain an old catalog's graduation requirements. Please see the Registrar's Office for more information.

## **Disclaimer**

This publication is not a contract. Kennesaw State University reserves the right to review and amend the content of the catalog with respect to course offerings, degree requirements, services provided and other subjects addressed in the publication. Every effort has been made to ensure the accuracy of the information in this publication.

Students are expected to have read and remain familiar with the contents of the catalog. The information in this publication is provided solely for the convenience of the reader, and the university expressly disclaims any liability which may otherwise be incurred.

# Admissions

## General Information

Kennesaw State University welcomes applications from all qualified applicants regardless of race, sex, sexual orientation, age, religion, disability, or national origin. Admission to Kennesaw State is based on a number of factors depending upon an applicant's admission type and previous educational experience. The University's admission requirements have been developed in accordance with the rules and regulations of the KSU faculty and the Board of Regents of the University System of Georgia (BOR Policy Manual 4.2. and BOR Academic and Student Affairs Handbook 3.2). It is the responsibility of the applicant to review admission standards in advance to determine the likelihood of eligibility.

Applicant credentials must indicate a reasonable chance of successful completion of academic work at Kennesaw State University. Admission decisions are based on an applicant's previous record of academic preparation, academic performance, test scores, personal qualities, and experience.

It may become necessary to request additional testing for a more accurate assessment of an applicant's ability to succeed or for appropriate course placement. If an application file is not completed in time for such testing to be scheduled prior to registration, it may be necessary for an applicant to reapply for a future term.

If an applicant fails to enroll for the term of application, a new application and application processing fee must be submitted. After twelve months, all documents are purged and destroyed and the entire application process, including credentials, must be repeated. Approval for admission is valid only for the term specified at the time of acceptance and does not imply that approval will be granted for a term not specified. Prior to enrollment, any changes in an applicant's record due to completion of additional course work will necessitate a new review of the application file.

## Right of Refusal

An applicant's file will be reviewed to ensure the applicant meets the above noted satisfactory academic performance, good character, and good conduct requirements if an applicant: (a) is on probation, suspension, expulsion, or any other type of academic warning at any previously attended institution, (b) is ineligible to enroll at any previously attended institution, (c) is currently charged with, or has been found guilty of, any violation of academic honesty, honor code, or conduct regulations of a previously attended institution, (d) left a previous institution while there were pending charges of any violation of academic honesty, honor code, or conduct regulations, (e) is currently charged with or has been found guilty of any violation of a federal, state, or municipal law, regulation or ordinance other than minor traffic violations, including offenses for which any type of first offender status has been granted, (f) has ever entered a plea of guilty, no contest, nolo contendere, or an Alford plea, or has otherwise accepted responsibility for the commission of a crime, (g) has received any

type of discharge from military service other than honorable discharge. If, after a letter of acceptance has been issued, information comes to light that shows an applicant did not meet all admission requirements, or an applicant's application contained omissions or misrepresentations, the applicant's offer of admission will be revoked. If this information comes to light after the student has enrolled, the applicant's enrollment at Kennesaw State University will be terminated and earned credit may be revoked.

Prior to enrollment, any changes in a student's record will necessitate a new review of the application. Any omissions or misrepresentations on a student's application for admission will invalidate consideration by, acceptance to, and continuation at Kennesaw State University.

### **Admission Sequence**

Admission to the University is primary and is a sequential prerequisite to any other program admission or departmental or athletic scholarship award.

Admission to Kennesaw State University as an undergraduate student does not automatically admit the individual to teacher education, nursing, business, engineering or other programs with internal admission criteria. Separate application processes are required for formal admission to such professional programs, and those admission decisions are often made after a prescribed amount of course work has been completed with satisfactory grades by the applicant. Details of program level admission requirements can be found in the section of this catalog that outlines degree program requirements.

### **Admission Procedures and Deadlines**

Applications for admission and all required credentials (such as transcripts and test scores) must be submitted by established deadlines. Application deadlines are available on the KSU Office of Undergraduate Admissions website. All application deadlines are subject to change. Unless otherwise noted for a specific applicant type, the application file for admission is complete and ready for review when the Office of Undergraduate Admissions has received the following:

- A completed Undergraduate Application for Admission to Kennesaw State University submitted online with a nonrefundable application processing fee.
- Official scores on all required college entrance tests (typically SAT or ACT; some applicants may also be required to have SAT II subject test scores, TOEFL scores, or placement test scores). All test scores must be sent from the testing service to KSU.
- Official high school and college transcripts mailed directly from those institutions, sent by an approved electronic service, or hand-delivered in a sealed institutional envelope to KSU.

The University reserves the right to withdraw admission, prior to or following enrollment, if the student has falsified application materials or otherwise demonstrated ineligibility as determined by the standards of the University or Board of Regents.

KSU does not discriminate on the basis of an individual's disability and is committed to providing students with full and equal enjoyment of services, facilities, and goods on campus as required by law.

Upon acceptance and prior to enrollment, any student with a documented disability or special need must notify the University of any required accommodations. Please contact the Office of Student Disability Services in the Student Development Center at the Kennesaw campus (470) 578-2666 or Building A on the Marietta campus (470) 578-7361.

### **Admission from High School**

Applicants who have graduated from a high school meeting criteria of the University System of Georgia will be considered for admission based on the Required High School Curriculum, SAT/ACT scores, and the high school academic grade point average.

#### Required High School Curriculum

The Required High School Curriculum (RHSC) is a key factor considered in freshman admissions decisions. Completion of the University System of Georgia's RHSC requirements at a regionally accredited or USG recognized high school is expected of most successful traditional freshman applicants.

<b>Course</b>	<b>Units</b>	<b>Required Course Emphasis</b>
English	4	Literature (American, English, World) integrated with Grammar, Usage and Advanced Composition Skills
Mathematics	4	Algebra I/Coordinate Algebra, Geometry/Analytic Geometry, Algebra II/Advanced Algebra and a fourth unit of advanced math, or equivalent courses
Science	4	The 4 science units should include two courses with a laboratory component. Georgia public high school students should have at least one unit of biology, one unit of physical science or physics, one unit of chemistry, earth systems, environmental science, or an advanced placement course, and a 4th science
Social Science	3	Must include one unit focusing on U.S. Studies and one unit focusing on World Studies
Foreign Language, American Sign Language or Computer Science	2	The 2 units of the same foreign language must have an emphasis on speaking, listening, reading and writing. The 2 units of computer science must have a coding and programming emphasis.

For the most updated information and specific course requirements, see:

[http://www.usg.edu/assets/student\\_affairs/documents/Staying\\_on\\_Course.pdf](http://www.usg.edu/assets/student_affairs/documents/Staying_on_Course.pdf)

The Office of Undergraduate Admissions recalculates the applicant's academic HSGPA using only acceptable academic units (RHSC) while excluding other high school courses such as physical education, vocational courses, ROTC, driver's education, etc. from the calculation. All repeated RHSC courses are calculated in the GPA. This GPA is calculated using a 4-point

scale. Kennesaw State University welcomes students who have pursued accelerated high school courses and national standardization programs such as College Board Advanced Placement (AP), International Baccalaureate (IB), and College Level Examination Program (CLEP). For information about AP, IB and CLEP college credit, please visit the Transfer Services website.

### **Freshman Admission Standards**

Freshmen are recent high school graduates who will be attending college for the first time. KSU's minimum requirements for admission as a freshman include the following:

- Graduation from one of the following:
  - A regionally accredited high school
  - A high school accredited by the Georgia Accreditation Commission
  - The Georgia Private School Accrediting Council
  - A high school accredited by an approved University System of Georgia agency
  - A public school under the authority of the State Department of Education
- Completion of the 17 required RHSC units
- High School academic GPA of at least a 2.5
- In the absence of a minimum academic GPA of 3.2, minimum SAT or ACT scores will also be required as follows:

<b><i>SAT Taken March 2016 or Later</i></b>	<b><i>Minimum Score</i></b>
Evidence Based Reading and Writing Test Score	No lower than 480
Math Test Score	No lower than 440

OR

<b><i>ACT</i></b>	<b><i>Minimum Score</i></b>
ACT-English or ACT Reading	No lower than 17
ACT-Math	No lower than 17

Freshmen applicants may apply after their junior year in high school. After the receipt of all required documents (juniors should include their planned senior year subjects on their application) the Office of Undergraduate Admissions will notify applicants of their admission status. See [admissions.kennesaw.edu](http://admissions.kennesaw.edu) for the most current admission requirements.

Admission is a competitive process and meeting minimum requirements may not guarantee admission. Transfer students satisfying RHSC requirements elsewhere in the University System will be recognized as having met those requirements at Kennesaw State University upon admission.

## **Alternatives for Home School Applicants and Others**

Kennesaw State University recognizes the choice and rights of a family to home educate their children; however, home-educated applicants bear the burden of demonstrating through proper documentation that they meet all the standard requirements for regular or limited freshman admission.

Home school applicants are defined as completing a high school program of study that is not from a regionally accredited or University System recognized high school; and those who have not satisfactorily completed the prescribed Carnegie units of the Required High School Curriculum (RHSC) in a manner acceptable to the University System.

Nevertheless, the University System of Georgia permits home educated applicants to be considered if they demonstrate sufficient Required High School Curriculum preparedness on appropriate standardized subject matter tests. The portfolio review approach for handling exceptions for home school students waives the high school graduation requirement, the academic HSGPA requirement, and the Carnegie unit requirements of the Required High School Curriculum. These waivers are in exchange for satisfactory performance on additional standardized testing or transferable college credit, which validates college preparedness in each area of the RHSC and demonstrates a satisfactory comprehensive high school academic experience. The applicant must meet or exceed the required minimum freshmen average scores on the SAT I or ACT of the prior fall semester freshman class at KSU.

Prospective home school applicants are encouraged to contact the Office of Undergraduate Admissions at least six months prior to the planned date of entry to obtain information and direction as to how to pursue these alternatives and exceptions for admission. Refer to the Home Educated Students website for the current accepted freshman average test scores and for information regarding portfolio procedures and standardized test options.

## **Honors Opportunities and Dual Enrollment**

### Honors Opportunities for First-Year Students

Incoming first-year students may join the University Honors Program if they have each of the following:

- A high school GPA of 3.5 or higher in the 17 units of the Required High School Courses as calculated by the Office of Undergraduate Admissions.
- An Honors application essay assessed to be satisfactory.\*

### Honors Opportunities for Currently Enrolled and Transfer Students

Currently enrolled students may join the University Honors Program if they have:

- Earned at least 15 credit hours and meet the same criteria as First-Year Students.
- Earned 15–45 credit hours and have an Adjusted GPA 3.5 or higher.
- Submitted an Honors application essay assessed to be satisfactory.\*

Transfer students with 15 or fewer credit hours may join the University Honors Program by meeting the same criteria as first-year students. Those who are bringing in 15-45 credit hours must have an Adjusted GPA of 3.5 or better and an Honors application essay assessed to be satisfactory.\*

*\*The University Honors Program application can be found at <https://honors.kennesaw.edu/prospective-students/eligibility.php>*

### Dual Enrollment Program (DEP)

For the current deadline, admissions instructions, and additional program information, visit <https://dep.kennesaw.edu/>, or contact the Office of Undergraduate Admissions.

Rising high school juniors and seniors are eligible for the Dual Enrollment Program if they earn each of the following:

- A cumulative grade point average of 3.0 or better in their core academic course work (not electives) as calculated by KSU and are on track to complete the Required High School Curriculum AND
- Minimum SAT Evidence Based Reading and Writing Test Score of 480 and Math Section Score of 440, or ACT subpart minimums of 17 English or reading and 17 math.

To be admitted to DEP, students must submit an online application, their Dual Enrollment new student forms, dual enrollment juniors or seniors under the age of 16 by the first day of class must submit the dual enrollment program acknowledgment form for minor (this can be found in the required document at <https://admissions.kennesaw.edu/admissions-requirements/dual-enrollment.php>), their official SAT or ACT score report, sent directly from the testing agency; and their high school transcript or homeschool portfolio. The application fee will be waived for Dual Enrollment Program applicants. Prior to registration, accepted students are required to attend a mandatory KSU orientation session. A minimum KSU GPA of 2.0 is required to continue in the program.

### **Prior Learning Assessment (PLA) Opportunities**

Kennesaw State University welcomes students who have pursued accelerated academic course work while in high school or through recognized national standardized programs. Such programs include College Board's Advance Placement (AP), International Baccalaureate (IB), College Level Subject Examination Program (CLEP), Defense Activity for Nontraditional Educational Support (DANTES), and Foreign Language Achievement Testing Services (FLATS).

Students may receive college credit for certain courses based on scores received in the above tests. The criteria for credit awarded under these testing programs are available on the Transfer Evaluation Services website at [transfer.kennesaw.edu](http://transfer.kennesaw.edu).

PLA credit is not awarded based upon high school or college transcripts. Official score reports for AP, IB, CLEP, DSST and FLATS must be sent from the testing agency to Kennesaw State University to be considered for credit.

CLEP exams are administered nationally through Educational Testing Service (ETS) testing centers or through the University's Testing Center. See [testing.kennesaw.edu](http://testing.kennesaw.edu) for testing information. AP tests are given at many high schools throughout the country, and qualified applicants are advised to take these tests in the spring of their senior year in high school. CLEP, IB, DANES, AP and FLATS credits do not count toward the KSU residency requirement or grade point average.

Students demonstrating satisfactory evidence of acquired knowledge from prior learning may receive course credit and hours by a departmental examination for advanced standing. Requests for institutional advanced standing examinations should be initiated with the academic department chair responsible for the course in question and must be approved by the Registrar.

### **Admission from Other Colleges**

Transfer applicants for admission are students who have earned college credit elsewhere at regionally accredited collegiate institutions and wish to transfer to KSU in order to continue their collegiate studies.

KSU's Office of the Registrar conducts transfer evaluations and accepts transfer credit only from such accredited institutions, only in courses comparable to KSU courses or in subject fields appropriate for KSU degrees, only when the grades earned are sufficient for the transfer courses to meet KSU degree requirements, and only when the GPA for all acceptable transfer courses is 2.0 or higher.

Transfer students must make arrangements with each college previously attended, whether credit was completed or not, to have a complete official transcript forwarded to the Office of Undergraduate Admissions at Kennesaw State University.

Official transcripts are required, regardless of the applicant's wishes concerning transfer credit or financial holds, and must be mailed directly from the sending institution, sent by an approved electronic service, or hand-delivered in a sealed college envelope to the Office of Undergraduate Admissions. Transcripts must be issued within one year of the application submission.

Transfer students' records will be evaluated in the same manner as Kennesaw State University resident students. Transfer students must have completed 30 semester hours (or 50 quarter hours) of transferable credit with a 2.0 cumulative GPA or above and be in good academic standing at their most recent college. The 30 semester hours must be from an accredited college or university and does not include PLA credit. Transfer applicants who have been academically dismissed from their previous institution may not enter Kennesaw

State until they are fully eligible to return to their former institution, have attained good academic standing, and have a cumulative grade point average of at least 2.0.

Students transferring from another institution in the University System of Georgia must have satisfied any and all learning support requirements before being admitted to KSU. All admission application deadlines cited earlier apply to transfer applicants. All of the required documents cited earlier for a complete application file apply to transfer applicants with the following exceptions:

- High school transcripts are not required for applicants with 30 or more earned semester hours (or 50 quarter hours) of acceptable transfer credit. (However, all college and university transcripts are required)
- SAT or ACT scores are not required for applicants with 30 or more earned semester hours (or 50 quarter hours) of acceptable transfer credit

### **Transfer Freshman Admission Standards**

Applicants with fewer than 30 semester hours of acceptable transfer credit (or 50 quarter hours) must meet the same admission requirements as recent high school graduates attending college for the first time. Also, an official transcript from each college previously attended indicating the applicant is in good academic standing must be sent directly from the sending institution to KSU's Office of Undergraduate Admissions.

### **Evaluation of Courses for Transfer Credit**

Transfer credit is awarded in accordance with the policies of the University System of Georgia, accrediting agencies, and KSU. Transfer Evaluation Services functions as the liaison between acceptance to the university and academic advising by awarding transfer credit and applying relevant credit to the degree program. For further details regarding the transfer evaluation policy, visit the Transfer Evaluation Services website.

### **Eligibility for Military Transfer Credits**

#### Military Transfer Credit Policy Practice

Military Transfer Credit may be awarded for undergraduate students accepted to Kennesaw State University Fall 2012 or later who have served in the U.S. Military and who desire to have their military experience considered for transfer credit. Students must request their official Joint Services Transcript (JST) be sent directly from JST to the Office of the Registrar, Graduation Audit and Transfer Evaluation Services (G.A.T.E.S.).

### **Special Admission Categories**

In addition to traditional freshmen and transfer applicants, KSU also has a number of special admission categories.

### Non-traditional Adult Learners-Freshmen Admission Standards

Adult learners with 30 semester hours (or 50 quarter hours) of transferable prior college credit may qualify for transfer status. Nontraditional adult learners are those students who meet the following:

- Have graduated from high school at least five years ago or whose high school class graduated at least five years ago.
- Hold a high school diploma from an accredited or approved secondary school or a GED certificate that satisfies the minimum requirements of the State of Georgia.
- Have earned fewer than 30 transferable semester hours (or 50 quarter hours) of college credit.
- Adhere to Board of Regents ACCUPLACER testing and remediation policy.

Applicants eligible for review in this category are exempt from the SAT/ACT and Required High School Curriculum requirements; however, non-traditional students applying in this category will be required to take the ACCUPLACER examination. Minimum scores are required for admission. As an alternative, non-traditional freshmen who have taken either test (ACT/SAT) within the past seven (7) years and scored SAT scores of at least 500 in both Verbal/Critical Reading and Mathematics, if taken prior to March 2016, or a Redesigned SAT score of 480 EBRW and 530 on the Math Section, or ACT scores of at least 21 on both English or Reading and Mathematics, may provide an official score report from the testing service to exempt ACCUPLACER testing. More information about testing can be found at [testing.kennesaw.edu](http://testing.kennesaw.edu).

Support and academic services for adult learners are available through the Adult and Commuter Student Affairs website.

### International Student Admission Standards

All International students should apply online to Kennesaw State University. Application processing and other United States Citizenship and Immigration Service (USCIS) procedures for applicants on a student visa (F1) or exchange visa (J1) will be processed by the Office of Admissions. Applications with other visa types including permanent residents will be processed by the Office of Admissions.

Kennesaw State University supports international education and the philosophy that cross-cultural understanding is vital for creating mutual respect, appreciation, and understanding of diversity. The presence of international students fosters cultural exchanges, which are beneficial to the student body and to the community at large.

International students may enroll in any program of study offered at Kennesaw State University. In addition, there are on-campus apartment complexes where international students can make arrangements for living accommodations. For information, visit the Housing and Residence Life website.

Students are responsible for their own transportation needs. There is limited county bus service to the campus.

KSU has no designated financial assistance for international students. All international applicants must pay nonresident fees unless the individual receives one of the nonresident fee waivers available to international students through the Office of Admissions. As per USCIS regulations, international applicants must present documented evidence that they have sufficient funds to meet their educational and living expenses.

All international students requesting admission to Kennesaw State University must submit the following credentials at least one semester prior to the semester of enrollment:

- A completed Undergraduate Application for Admission to Kennesaw State University submitted online with a nonrefundable application processing fee.
- Official or certified true copies of all high school and/or college/university records with a certified English translation. International students are required to have an official evaluation of credentials done by an outside agency at the student's expense. International applicants may contact NACES at [www.naces.org/members.htm](http://www.naces.org/members.htm) or AICE at <https://aice-eval.org/endorsed-members>. College transcripts should receive a course-by-course evaluation. Official transcripts and evaluations must be mailed directly from the sending institution, sent by an approved electronic service, or hand-delivered in a sealed college envelope. A KSU evaluation of credits will not occur until satisfactory documents are on file. It is up to the academic department as to which credits will actually apply to the degree program
- International students from non-English speaking countries must meet English proficiency requirements by meeting one of the following minimums:
  - TOEFL Internet Based Exam score of 79
  - TOEFL Paper Based Exam score of 550
  - IELTS score of 6.5
  - SAT Critical Reading Score of 450 if test was taken prior to March 2016
  - Redesigned SAT EBRW Test Score of 500 if taken March 2016 or later
  - ACT English or Reading Score of 18
  - EIKEN - Pre-1
  - MELAB (Michigan English Language Assessment Battery) score of 77
  - Cambridge CAE score of 177
  - Cambridge CPE score of 180
  - Pearson PTE Academic score of 58
  - Cambridge International Examinations IGCSE/O Level Exams with B or better
  - UK GCSE English Exam with B or better
  - UK GCE A-Level Exam with B or better
  - EdExcel Intl A-Levels or IGCSE English Exams with B or better
- Completion of the first English Composition college-level courses with a "C" or higher at an accredited American institution
- Successful completion of the High Advanced (Final) level hear at the Kennesaw State University Intensive English Program
- Official scores on the Scholastic Assessment Test (SAT) or American College Test (ACT)

- A valid Certificate of Immunization is required upon enrollment and must be submitted to the KSU Office of the Registrar. Requirements are listed on their website at [immunizations.kennesaw.edu](http://immunizations.kennesaw.edu).
- All international exchange students and F1 Visa holders must purchase medical insurance made available through Kennesaw State University at the Division of Global Affairs (DGA).

To be eligible to register and remain in compliance with the Student Exchange and Visitor Information System (SEVIS), international students must have a current valid F1 visa status. An I-20 Form will be issued only upon the student's full acceptance into the University and supporting documentation such as Sworn affidavit of support from the applicant's financial sponsor. A letter from the sponsor's bank showing that funds (in U.S. dollars) are available for one year of support (for F1 applicants).

In order to maintain F-1 status with the United States Citizenship and Immigration Services (USCIS), international students with a student visa are required to be full-time students (minimum 12 semester hours) for spring and fall semesters, excluding summer term (unless it is the student's first term of enrollment at KSU). The University is required to notify the USCIS whenever a student's course load drops below 12 semester hours.

Upon arriving at Kennesaw State University, all international students are required to visit the International Student and Scholar Services Office and have their passports, I-20 ID, and Arrival-Departure Record copied and placed in their student file. This procedure facilitates the replacement of a lost Arrival-Departure Record and is required by the USCIS.

International transfer students from other educational institutions in the United States who are applying to Kennesaw State University are also required to have their passports, I-20 ID copy, and Arrival-Departure Record copied before enrollment.

### Transient Students

Students who have been enrolled in another college or university and who expect to return to that college or university may apply for temporary (one term) admission and registration at Kennesaw State University as a transient student. Transients must have all documents filed by the deadline to be considered for admission. In fairness to its degree-seeking students and because of limitations on available space, KSU must give its continuing students higher priority for registration than transient students. Transient students have no guarantee that space will be available in the classes they seek and may only enroll in courses for which they qualify. Courses requiring program admission may not be available to transient students.

In addition to completing an online application for admission, which includes paying the non-refundable application fee, prospective transient students must present the following:

- A transient letter from the Registrar of their college (good for the semester of application only)
- The transient letter must grant permission for the applicant to attend KSU as a transient student.

It is the responsibility of the transient applicant to determine (with assistance from the home college) the course(s) that should be taken at Kennesaw State University.

Further information for Transient Students/Applicants:

- Enrollment as a transient student at KSU is limited to one semester.
- Transient students wishing to continue at KSU beyond the initial semester of entry must reapply for admission and present a new written permission from the previous institution's Registrar by the deadline for the term they wish to re-enroll.
- Transient students desiring to continue as transfer students must reapply for admission as a transfer student through the Office of Undergraduate Admissions and furnish all required documents and transcripts by the published deadline.
- For purpose of admission or readmission as a transient student, the summer term will be treated as a semester.
- Transient status is not intended as an alternative to meeting admission standards as a degree-seeking student. Credits earned at KSU will not be considered when a transient student applies to become a transfer student to Kennesaw State University.

### Non-Degree Students

This non-degree category exists for those eligible students who have previously earned a baccalaureate degree from a regionally accredited institution and who wish to enroll in undergraduate courses for personal or professional reasons. Students applying for non-degree status must submit an online application for admission, which includes payment of the non-refundable application processing fee, and an official transcript from the institution that awarded the initial degree (meeting all deadlines). Non-degree seeking students can only take courses for which they are eligible and may not be able to enroll in courses requiring program admission.

Non-degree seeking students do not qualify for financial aid, do not receive a transfer evaluation of previous coursework and are not considered degree-seeking students.

Non-degree seeking students who wish to pursue another undergraduate degree at KSU must meet all pertinent transfer admission requirements and deadlines and apply for admission as a transfer student in order to change status from non-degree to degree seeking.

### Audit Students

Audit applicants must have graduated from high school or hold a GED. To be admitted as an auditor, the individual must complete an online application for admission, which includes payment of the nonrefundable application-processing fee; and provide an official high school transcript reflecting date of graduation, an equivalency (GED) or official transcript from an accredited college or university showing credits earned. These requirements must be submitted prior to the published deadline for the term they wish to enroll.

Audit students attend classes and may participate in course assignments but are not graded and do not receive degree credit for completing the audited courses. Students are not permitted to receive retroactive credit at any future date for their participation in a course as an auditor nor change from an audit to a credit status while enrolled in a course. In determining the student's load for fee computation, audited courses are counted at full value. Students wishing to change their classification from an auditor to a degree-seeking student must reapply for admission for a future term in the appropriate category and meet all pertinent requirements and deadlines. Audited courses do not qualify for educational benefits or financial assistance under the social security laws, veterans, and other federal and state programs.

### Online Learners

Kennesaw State University offers fully-online degree programs, certificate programs, hybrid online programs and a large selection of courses in online and mixed-model versions. Designed and taught by KSU faculty, distance learning at KSU offers high quality degree options with distance learning convenience and flexibility. For more information, visit [learnonline.kennesaw.edu/](http://learnonline.kennesaw.edu/).

### Students 62 Years of Age or Older

Citizens of the State of Georgia who are 62 years of age or older may attend Kennesaw State University without payment of fees (except supplies, laboratory fees, special course or major fees, premium program fees, online tuition, and the parking permit fee). To be eligible for participation under this amendment to the Georgia Constitution, such persons:

- Must meet all University System and Kennesaw State University admission requirements and deadlines to include completing an online application for admission, payment of the nonrefundable application-processing fee and have all documents filed
- Must meet all University System, Kennesaw State University, and legislated degree requirements if they are degree-seeking students
- Must present a birth certificate or driver's license along with the Application for Senior Citizen Waiver to the Bursar's Office prior to registration

### Certificate Seeking Students

Certificate applicants must meet admission requirements for their student type.

### **Immunizations**

Prior to registration, a valid Certificate of Immunization is required to be on file in the KSU Office of the Registrar. The immunization form may be found at [immunizations.kennesaw.edu](http://immunizations.kennesaw.edu). Mail immunization forms to the KSU Immunization Services, Office of the Registrar, 585 Cobb Avenue NW, MD 0116, Kennesaw, GA 30144 or fax to 470-578-9097 or email to: [immunizationsvc@kennesaw.edu](mailto:immunizationsvc@kennesaw.edu).

## **Readmission**

Former Kennesaw State University students that must apply for readmission include those who have not been enrolled at KSU for three or more consecutive semesters, last attended as a transient student or are returning after academic dismissal or learning support exclusion. As well, students who wish to change their status (such as transient to degree seeking, degree seeking to non-degree) must apply for readmission. The application and all required credentials to support the applicant's admission type must be submitted by the application deadline for the term they wish to readmit. Transfer credit for readmission students will be re-evaluated in accordance with the transfer evaluation policies in effect for the term a student is readmitted to KSU.

After taking or attempting an undergraduate course for the second time, students will not be allowed to re-enroll in that class without the permission of the department chair or his/her designee. It is the sole discretion of the department chair/designee to decide if and when a student will be allowed to enroll in a class that they have taken/attempted twice. There is no obligation on the part of the chair to allow a student to enroll in a course after the student's second attempt to take the course. This limitation is in place regardless of previous grades including grades of "W" or "WF". The standing exception to this policy is for courses described in the KSU undergraduate catalog as being repeatable for credit. Students who wish to participate in the Academic Fresh Start program must contact the Office of the Registrar to complete the Academic Fresh Start Request Form. The request must be submitted within three semesters after re-enrollment or one calendar year, whichever comes first. A student can be granted Academic Fresh Start status only one time. Once granted, the petition for Academic Fresh Start cannot be rescinded.

## **Lawful Presence Verification**

The Board of Regents (BOR) of the University System of Georgia has implemented a policy requiring University System Institutions to verify the lawful presence in the United States of all admitted students entering Kennesaw State University who are seeking in-state (resident) tuition status. BOR Policy 4.3.4 states: "University System institution shall verify the lawful presence in the United States of every successfully admitted person applying for resident tuition status (in-state tuition)." For information regarding this requirement and how it can be satisfied, visit <https://lpv.kennesaw.edu/>.

## **Appeals**

Applicants who do not meet freshman admission standards are encouraged to try to improve in the area(s) they do not meet requirements prior to high school graduation by retaking the SAT or ACT and/or improving their grade point average. Their application will be reviewed again based on final grades and new test scores. As an Alternative Pathway to Enrollment, applicants who are not eligible to begin as a freshman are encouraged to attend another college and reapply to KSU in the future as a transfer student once they have completed all Required High School Courses and Learning Support requirements, achieved at least 30 transferable semester hours (or 50 transferable quarter hours) at appropriately

accredited college(s), and obtained a cumulative grade point average of 2.0 on all coursework attempted. Applicants are invited to discuss their alternatives with an admissions counselor. An admissions counselor can advise applicants on an alternative pathway to enrollment as a transfer student, as well as the feasibility for success as a candidate for an admission appeal.

**KSU Admissions Online** at [admissions.kennesaw.edu](http://admissions.kennesaw.edu)

From the admissions website, students can submit an application or check the status of their application and take advantage of the online services including:

- Schedule a campus visit
- Review standards for admission to KSU
- Review FAQs
- Learn about the admissions office
- Check the status of an application
- Check on application deadlines for a particular term
- Check on current tuition costs
- Request information about KSU

It is the responsibility of the student to review admission standards in advance to determine the likelihood of eligibility.

**Resources**

<b>SAT I and II Tests</b>	<b>ACT Tests</b>
College Entrance Examination Board P.O. Box 6200 Princeton, NJ 08541 <i>or register online at: <a href="http://www.collegeboard.com">www.collegeboard.com</a></i> KSU's Institutional Code: 5359	American College Testing Program P.O. Box 414 Iowa City, Iowa 52243 <i>or register online at <a href="http://www.act.org">www.act.org</a></i> KSU's Institutional Code: 0833
<b>TOEFL Exams</b>	<b>Send KSU Dual Enrollment Forms to:</b>
Educational Testing Services P.O. Box 6151 Princeton, NJ 08541, USA <i>or <a href="http://www.toefl.org">www.toefl.org</a></i> KSU's Institutional Code: 5359	KSU Office of Undergraduate Admissions 3391 Town Point Drive, MD 9111 Kennesaw, GA 30144-5591 <a href="http://admissions.kennesaw.edu/">admissions.kennesaw.edu/</a>
<b>Office of Undergraduate Admissions</b>	<b>ACCUPLACER Exam</b>
KSU Office of Undergraduate Admissions 3391 Town Point Drive, MD 9111 Kennesaw, GA 30144-5591 <a href="http://admissions.kennesaw.edu/">admissions.kennesaw.edu/</a> Phone: 470.578.6300	Kennesaw State University Testing Services <a href="http://testing.kennesaw.edu">testing.kennesaw.edu</a> Kennesaw campus: 470-578-4800; Marietta campus: 678-915-3082

# **Tuition, Expenses, & Financial Aid**

## **Tuition and Fee Payment**

Expenses include in-state tuition, out-of-state tuition, mandatory student fees, and other special fees. All fees are due and payable at the time of registration, and registration is not complete until all fees have been paid. Cash, checks, and money orders drawn on U.S. banks and payable in U.S. dollars are accepted. Electronic checks and credit cards will only be accepted on the web. Payment by credit card will incur an additional convenience fee charged by a third party credit card processor. The University reserves and intends to exercise the right to withhold copies of transcripts and other student education records and/or to withdraw students who have unpaid or past due fee balances. Students are required to pay in-state tuition and, when applicable, out-of-state tuition, for enrollment in all courses even if no credit is earned. Per Board of Regents' policy, all tuition, fees, or other charges are subject to change at the end of any academic term. (BOR Policy 10.2.3)

## **Collection of outstanding balances**

Kennesaw State University reserves the right to use a collection agency and to pursue legal action in order to collect the balance of any debt. Once an account is placed in collection or legal action is pursued by the collection agency, the student will be liable for all collection fees, which may be based on a percentage at a maximum of 15 percent of the delinquent account in addition to the amount of the original debt. At this point, the student will no longer be able to pay the University directly, and any communication or correspondence with the University about such debt must be directed through the collection agency.

## **Tuition Rates**

Per Board of Regents' policy, tuition rates for all University System of Georgia (USG) institutions and programs shall be approved annually no later than the May meeting by the Board of Regents to become effective the following fall semester. Exceptions to this requirement may be granted upon recommendation of the Chancellor and approval by the Board of Regents. (BOR 7.3.1.1). Approved tuition and fee schedules will be made available upon receipt by Kennesaw State University. All tuition, fees or other charges are subject to change at the end of any academic term without prior notice to comply with federal, state and institutional policies. (BOR 10.2.3)

Tuition charges can vary based on state residency status and degree program. Residency status is determined by the Office of Admission at the time of acceptance in accordance with the regulations of the Board of Regents of the University System of Georgia.

See <http://fiscalservices.kennesaw.edu/bursar/tuition-fees/tuition-fees.php> for the latest information on tuition and fees.

## **Mandatory Student Health Insurance**

A mandatory insurance plan is in effect for the following student categories:

- All graduate students receiving a full tuition waiver as a result of a GRA, GTA, or GSA assistantship award.
- All undergraduate, graduate, and ESL international students holding F or J visas.
- All undergraduate and graduate students enrolled in programs that require proof of health insurance.
- All graduate students receiving fellowships that fully fund their tuition.
- International Scholars holding J visa status.

A waiver of the health insurance fee may be applied for directly with the insurer. For insurance plan and waiver information go to <http://fiscalservices.kennesaw.edu/bursar/tuition-fees/health-insurance.php>. This plan is optional for all other students.

## **Expenses and Fees**

- Additional Lab, Specialized Course Fees: These fees are charged where applicable.
- Applied Music Fee: The registration fee for one 50-minute private lesson per week is \$150 per semester. Applied music fees are nonrefundable and may not be transferred to subsequent semesters.
- Laboratory Breakage: Students in the laboratory sciences are required to reimburse the university on a cost basis for broken glassware and equipment.
- Late Registration Fee: A \$50 late registration payment fee will be assessed to students enrolling for the first time during drop/add. This includes students who failed to pay by the final payment deadline and were dropped for nonpayment.
- Nursing Expenses: Although the exact costs of nursing expenses will vary, the following are estimated amounts. Mandatory uniforms (must be purchased from designated School of Nursing vendor), shoes, stethoscope, suitable watch, and other supplies cost \$300-350. The initial testing fee is \$500 to cover the cost of achievement exams and related books and other resources during the program. Lab supplies are approximately \$90 per semester. Clinical agency credentialing costs approximately \$400, to include expenses such as background checks, drug screens, and credentialing software activation fees. Possible costs of \$100 - \$200 for immunizations and other healthcare costs depending on health history and insurance coverage. Mandatory health insurance is charged to nursing students who do not have proper coverage. Additional expenses may be incurred throughout the nursing program where applicable.
- Textbooks and Supplies: Textbooks and supplies are available in the university bookstore. Although the exact cost of books and supplies will vary with courses, an estimate is \$750 per semester.

## **Housing Fees**

Kennesaw State University offers several on-campus housing options. All of our housing communities provide fully furnished rooms, individual contracts, all-inclusive rates, and high-speed Wi-Fi. All communities are in close proximity of anywhere you want to go on campus. Housing and residence life personnel offer support 24/7 and strive to make the on-campus housing experience memorable and meaningful. For more specific information, please go to <http://ksuhousing.kennesaw.edu/>.

## **Other Administrative Fees**

- **Advanced Standing Examination Fee:** A fee of \$60 is required for each institutional advanced standing examination attempted; no course may be attempted more than once.
- **Diploma Fee:** A diploma fee of \$50 is required of all degree candidates and is payable at the time a petition to graduate is presented to the Registrar. The fee is nontransferable and nonrefundable. It entitles the student to one diploma.
- **FAX Fee:** There is a priority fee of \$10.00 per document for electronic transmission (FAX) of unofficial transcripts or certification forms/letters.
- **Penalty Fee For Returned Check:** A penalty fee of \$25 will be assessed for each electronic or paper check returned by the bank.

## **Withdrawal/Refund of Student Fees**

To withdraw from one or more classes, students must withdraw online through Owl Express. Students dropping from classes before the end of late registration and drop/add are entitled to a 100% refund. After that date, students will be granted a percentage refund of tuition and fees only if they withdraw completely from the university. Lab, specialized course/major, and insurance fees are not refundable if withdrawal from course(s) is made after the end of late registration and drop/add.

## **KSU Institutional Refund Policy**

The refund amount for students withdrawing from the institution shall be based on a pro rata percentage determined by dividing the number of calendar days in the semester that the student completed by the total calendar days in the semester. The total calendar days in a semester includes weekends, but excludes scheduled breaks of five or more days and days that a student was on an approved leave of absence. The unearned portion will be refunded up to the point in time that the amount earned equals 60%. Students who withdraw from the institution when the calculated percentage of completion is greater than 60% are not entitled to a refund of any portion of institutional charges. (BOR 7.3.5.1) Students will receive refunds only when they withdraw from ALL of their classes and only by the schedule outlined in the University System refund policy. Students enrolled summer term who withdraw from second-

session courses on the first day of those classes will receive a 100% refund. After the first day, no refunds will be processed. Students should refer to the Registrar Academic Calendar webpage for specific dates of each refund period. Students who do not formally withdraw, those suspended for disciplinary reasons, and those who leave the university when disciplinary action is pending are not eligible for a refund on any portion of any fee. A refund of nonresident fees, matriculation fees, and other mandatory fees will be made in the event of the death of a student at any time during an academic semester/summer term. (BOR 7.3.5.2) Refunds will be disbursed by the university's internet bank partner. Students may use their Personal Code number received from Card Services to select a refund payment method: electronic fund transfer or paper check at <https://www.refundselection.com/refundselection/#/welcome/continue>. Details are available at [http://cardservices.kennesaw.edu/docs/Brochure\\_2016\\_O\\_88914\\_55441.pdf](http://cardservices.kennesaw.edu/docs/Brochure_2016_O_88914_55441.pdf).

### **Registration Fee Waiver for Senior Citizens**

Pursuant to the provisions of an amendment to the Georgia Constitution, legal residents of Georgia who are 62 years of age or older on the first day of class for a term may have their standard tuition and fees waived (with the exception of supplies, laboratory fees, special course or major fees, premium program fees, online tuition and the parking permit fee). A driver's license or birth certificate together with the Application for Senior Citizen Waiver must be presented to the Bursar's Office. Details are available at <http://fiscalservices.kennesaw.edu/bursar/tuition-fees/billing.php>.

### **Military Service Refunds & Re-enrollment**

Subject to institutional policies, full refunds of tuition and mandatory fees and pro rata refunds of electives fees are hereby authorized for students who are:

- Military reservists (including members of the National Guard) and who receive emergency orders to active duty after having enrolled in a USG institution and paid tuition and fees;
- Commissioned officers of the United States Public Health Service Commissioned Corps (PHSCC) who receive deployment orders in response to a public health crisis or national emergency after having enrolled in a USG institution and paid tuition and fees;
- Active duty military personnel and who receive an emergency reassignment after having enrolled in a USG institution and paid tuition and fees;
- Those who are otherwise unusually and detrimentally affected by the emergency activation of members of the reserve components or the emergency deployment of active duty personnel of the Armed Forces of the United States and who demonstrate a need for exceptional equitable relief (BOR 7.3.5.3);
- Students who are members of the Georgia National Guard or other reserve components of the U.S. Armed Forces who are re-enrolling after having been summoned to active duty in an emergency situation are to be accorded special

consideration regarding class registration, financial aid processing, payment of fees, etc., so as to expedite their re-enrollment;

- Military personnel on active duty in the U.S. Armed Forces who, before the end of their present station assignment, receive emergency orders for a temporary or permanent change of duty location who later wish to resume their education are to be accorded special consideration regarding class registration, financial aid processing, payment of fees, etc., so as to expedite their re-enrollment.

Tuition and fees awarded by scholarship or grant from an agency or authority of the State of Georgia on behalf of a student receiving a refund under this policy shall be reimbursed to such agency or authority.

### **Tuition Classification**

Under guidelines established by the Board of Regents (BOR) of the University System of Georgia (USG), Kennesaw State University is required to determine the tuition classification for tuition payment purposes of all applicants or students of the University in accordance with BOR Policy 4.3.2 Student Residency. A student's initial tuition classification is determined by the answers they provide on their application for admission. If the student does not agree with their initial tuition classification, they can appeal the decision to the Tuition Classification Officer in the Enrollment Customer Service Center. Should the student enroll as a Non-Resident and later want to be considered a Resident, the student must submit a Petition to Change Tuition Classification. To ensure the student's tuition classification is corrected before payment deadline the student should submit the Petition to Change Tuition Classification at least two weeks prior to final payment deadline. Otherwise, the student has until 30 days after the first day of class of the term they are trying to get in-state tuition to appeal their tuition classification. If approved, the change is not retroactive to prior semesters. If a petition is denied the student may appeal the decision beginning with the Office of the Registrar. Appeals will not be heard by the Board of Regents of University System of Georgia. Information regarding this process and the form can be obtained on-line at <https://registrar.kennesaw.edu/tuition-classification/> or by contacting the Tuition Classification Officer at [tuitionclassification@kennesaw.edu](mailto:tuitionclassification@kennesaw.edu).

### **Board of Regents Policies Governing the Classification of Students for Tuition Purposes and Out-of-State Tuition**

USG BOR policy on classification of students for tuition purposes and out-of-state tuition waivers may be found in the BOR Policy Manual section 4.3.2 and 7.3.4.1 at <https://www.usg.edu/policymanual>.

### **Financial Aid**

Kennesaw State University is committed to ensuring that a post-secondary education is accessible to qualified students. In order to accomplish this commitment, the Office of

Scholarships and Financial Aid subscribes to the following goals to assist students in paying for their educational investment:

- Evaluate the family's financial ability to pay for educational costs;
- Distribute limited resources in an equitable manner; and
- Provide a balance of gift aid and self-help aid.

A wide variety of financial aid programs from scholarships, grants, employment, and loans are available to help students with educational costs. Most awards are based on financial need while some are awarded in recognition of merit or achievement. Financial Aid is awarded based on full-time enrollment status (12 hours). Financial Aid packages for students enrolled less than full-time may require adjustments. Eligibility for awards varies with enrollment status.

For more information, visit the Financial Aid Office, view the website at [financialaid.kennesaw.edu](http://financialaid.kennesaw.edu), or call the automated telephone system at 470- KSU- INFO (470-578-4636), fax at (470) 578-9096, email at [finaid@kennesaw.edu](mailto:finaid@kennesaw.edu) or write to:

Office of Scholarships and Financial Aid  
Kennesaw State University  
585 Cobb Avenue, NW MD #0119  
Kennesaw GA 30144-5591

### **Determination of Need-Based Awards**

Awards based on need are determined by a process called financial need analysis. The analysis is standardized by the U. S. Department of Education (USDE) using a financial formula called Federal Methodology. The Free Application for Federal Student Aid (FAFSA) is the application that is required to begin this process. The electronic FAFSA is the easiest and quickest way to apply. The processing time for USDE is approximately four days. The electronic FAFSA may be accessed on our web site at [financialaid.kennesaw.edu](http://financialaid.kennesaw.edu) or [www.fafsa.gov](http://www.fafsa.gov). Prior to completing the electronic FAFSA, students and parents of dependent students should obtain a FSA ID at <http://fsaid.ed.gov/npas/index.htm>.

When completing the electronic FAFSA for KSU attendance, use the Federal Title IV Code of 001577. KSU will receive your FAFSA information electronically. Students must reapply annually to qualify each academic year.

### **Need-Based Award Application Procedures**

Need-based awards include grants, employment, loans, and some scholarships. It is advisable to complete the FAFSA early. The FAFSA is available on October 1 for the award year that starts each fall semester. The priority date for receipt of the FAFSA at KSU is March 1 of each year. FAFSAs received by the priority date with all requested documents submitted by the student and reviewed by the Office of Scholarships and Financial Aid will be awarded first. New applicants must also apply for admissions through the Office of Admissions for a degree program.

When the FAFSA is analyzed by the U. S. Department of Education, the result is called the Expected Family Contribution (EFC). The EFC is the amount that the family should be able to contribute to the student's cost of attendance (COA). COA is the amount of direct cost (e.g., tuition, fees, room, board, and books) and indirect cost (e.g., transportation and personal expenses). Need-based financial aid is awarded to help students with need (i.e., COA minus EFC).

### **Federal Pell Grant**

This is a federally funded program that provides need-based grants to undergraduate students without a previous bachelor's degree. The application is the Free Application for Federal Student Aid (FAFSA). Eligibility is based on the Estimated Family Contribution (EFC) and the Cost of Attendance (COA). Students receive their EFC information on the Student Report (SAR) after the submitted FAFSA is processed. The EFC range for Federal Pell Grant eligibility and maximum award changes annually. Pell Grant is prorated according to enrollment by each term. Students receiving the Federal Pell Grant may also be eligible for other types of financial aid. Students are limited to one full-time award each academic year. Students are also limited to twelve full-time semesters of payment under the Federal Pell Grant program.

### **Federal Supplemental Education Opportunity Grant**

This federally funded program is designed for undergraduate students without a degree with exceptional need seeking their initial degree. A student must have been awarded the Federal Pell Grant in order to receive this grant. Early FAFSA application is encouraged. Priority for these awards is given to those who file by KSU's priority filing date, March 1st.

### **Student Employment**

#### Federal Work Study (FWS) Program

The program provides part-time jobs for undergraduate and graduate students who demonstrate financial need based on the Free Application for Federal Student Aid (FAFSA). FWS gives the student an opportunity to earn money to help pay for educational expenses while working on campus or in community service work. Early application with the FAFSA is recommended. Awards are generally made on a first come, first serve basis.

#### Institutional Employment

There are a limited number of part-time jobs available in each division of the university. Funds for these jobs are provided by the department or college that employs the student. Interested students should contact the particular division or department of the university or the KSU Career Services Center for information.

## Career Services

The Career Services Center maintains a listing of full-time and part-time off-campus jobs for students who need assistance in locating off-campus employment. Regular listings are posted on the online job postings at [careerctr.kennesaw.edu](http://careerctr.kennesaw.edu). For more information, contact the director of career services.

## **Student Loan Awards**

### Federal Stafford Loan-Subsidized

The Federal Government guarantees low-interest loans made to qualified students. Students may apply for this loan by completing the Free Application for Federal Student Aid (FAFSA). All loans are provided by the U.S. Department of Education. Students are allowed to select their lender and loan amount up to their award maximums. Eligible freshman may borrow up to \$3,500 per year, while sophomores (30+ earned hours) may borrow up to \$4,500 per year. Juniors (60+ earned hours) and seniors (90+ earned hours) may borrow up to \$5,500 per year. Students must be enrolled in at least 6 hours that apply to their program of study each term to receive a Federal Subsidized Stafford Loan. The amount of loan eligibility is based on need as determined by the FAFSA and the cost of attendance.

Subsidized indicates that the federal government will pay the loan interest while the student is enrolled in school.

Interest will accrue during the six months following graduation or when the student ceases to be enrolled at least half time. Specific information on the interest rate and origination fee can be found at: <https://studentaid.gov/understand-aid/types/loans/subsidized-unsubsidized>. Funds are disbursed to the student through the university in two installments. Repayment begins six months after the student ceases to be enrolled at least halftime. Students are allowed 10 years to repay the loan.

### Federal Stafford Loan-Unsubsidized

This loan is available to dependent students up to \$2,000 per year (above the amount of eligibility for the Subsidized Stafford Loan). This loan is also available to independent students who choose to borrow above their Subsidized Stafford eligibility or for dependent students who are not eligible for a Subsidized Stafford Loan. Independent freshmen and sophomores may borrow \$6,000 per year. Independent juniors and seniors may borrow an additional \$7000 (above the amount of eligibility for the Subsidized Stafford Loan). Students borrowing through the Unsubsidized Stafford Loan Program are responsible for the interest on the loan. Specific information on the interest rate and origination fee can be found at: <https://studentaid.gov/understand-aid/types/loans/subsidized-unsubsidized>. Funds are disbursed to the student through the university in two installments. The amount of eligibility is

based on the dependent or independent status of the student and the student's need. The application procedures and fees are the same as the Subsidized Stafford Loan Program. The student must be enrolled in at least 6 hours each term to receive a Federal Unsubsidized Stafford Loan. For the most up to date information on interest rates and loan fees, please visit [studentaid.ed.gov/types/loans/interest-rates](https://studentaid.ed.gov/types/loans/interest-rates).

### Federal PLUS Loan

This program is available to parents of dependent students. Parent borrowers may borrow up to the cost of attendance (at KSU) minus other aid.

A credit check is required for a PLUS credit approval. If a parent's PLUS loan application is denied, federal regulations allow the student to borrow additional Unsubsidized Stafford Loan funds. The student can then request additional unsubsidized loan funds. For the most up to date information on interest rates and loan fees, please visit <https://studentaid.gov/understand-aid/types/loans/interest-rates>.

## **Alternative Loan Program**

Alternative or Private student loans are different from federal student loans in that they are not guaranteed by the federal government, require a credit check, and often a co-signer. Loan approval, interest rates, and repayment requirements are prescribed by the lender. Additional information and application procedures are available from the Office of Scholarships and Financial Aid or the lender. Students must maintain satisfactory academic progress and must complete a FAFSA for our office to certify an alternative loan.

## **Merit-Based Awards**

### HOPE Scholarship Program

The Georgia HOPE Scholarship is a state-funded scholarship program from the Georgia Lottery for Education. Its purpose is to assist Georgia students in attending eligible Georgia postsecondary institutions to increase academic achievement, to keep the best and brightest students in Georgia, and to expand educational opportunities beyond high school to all Georgians.

### Qualifications for the HOPE Scholarship

To be eligible for the HOPE Scholarship, students must meet the following requirements:

- Must complete an application - GSFAPPS or FAFSA;
- Must have at least a 3.0 HOPE GPA, which includes all college level coursework attempted since high school and from any institution attended;

- Must have attempted less than 127 hours;
- Must have not reached their HOPE Expiration Date; and
- Must be a final HOPE Scholar if less than 30 attempted hours.

### HOPE Scholars

If students have recently graduated from high school, they can only be awarded the HOPE Scholarship after the Georgia Student Finance Commission (GSFC) has evaluated their high school transcripts. After noting that they are a HOPE Scholar, students may contact our office by email if not awarded HOPE at KSU.

If students are not HOPE Scholars at the time of high school graduation, they may earn the HOPE Scholarship by achieving a 3.00 HOPE GPA at 30, 60 or 90 attempted hours. If students have a 3.00 HOPE at one of these benchmarks, they should email [finaid@kennesaw.edu](mailto:finaid@kennesaw.edu)

### HOPE GPA Reviews

All students must maintain a 3.00 HOPE GPA at their 30, 60 and 90 attempted hours and at the end of every Spring semester.

### Zell Miller Scholarship

The Zell Miller Scholarship was created in March of 2011 for Georgia's highest performing students. To learn more about the requirements for the Zell Miller Scholarship, please visit <https://www.kennesaw.edu/financial-aid/hope-scholarships/zell-miller-scholarship.php>. Students are determined initially to be eligible for the Zell Miller Scholarship by the Georgia Student Finance Commission (GSFC). Students can check their status for the Zell Miller Scholarship by checking their HOPE GPA at <https://www.gafutures.org/> Students will only be awarded the Zell Miller Scholarship after KSU receives confirmation of their status from GSFC.

### Applying for the Zell Miller Scholarship

To apply for the Zell Miller Scholarship, students must complete a GSFAPPS or the FAFSA and meet the following requirements:

- Must complete an application - GSFAPPS or FAFSA;
- Must be confirmed as a Zell Miller Scholar by GSFC;
- Must have at least a 3.3 HOPE GPA, which includes all college level coursework attempted since high school and from any institution attended;
- Must not have reached the Zell Miller Expiration Date; and
- Must have attempted less than 127 hours.

If students believe they should be a Zell Miller Scholar and have confirmed their status with GSFC by checking their HOPE GPA, they should email our office.

### Zell Miller GPA Reviews

All students must maintain a 3.3 HOPE GPA at 30, 60 and 90 attempted hours and at the end of every Spring semester.

## **Institutional Scholarship Awards**

Several privately supported scholarships for undergraduate students and fellowships for graduate students are available at Kennesaw State University. These awards are normally merit-based but some are need-based. Students may apply for institutional scholarships through the Scholarship Universe portal: <https://www.kennesaw.edu/financial-aid/scholarships/index.php>. The majority of applications are available from November through March for the following academic year.

## **Disbursement Procedure**

After completing the FAFSA or the GSFAPPS application, financial aid funds will be disbursed to registered students in the following procedure:

- **Step One:** Students will receive a notification of a financial aid award letter through the school-assigned email address. Students must then access Owl Express to view their award letter. Any awarded grants or scholarships (including HOPE scholarships) are automatically accepted for the student. New students who want to accept an offered student loan must go to the financial link on their OWL Express account to accept the loan(s). Students must read, accept and submit the Terms and Conditions to be able to accept the loan. Then, the tab to accept the award offer will become a clickable link.
- **Step Two:** Financial aid funds (Pell, SEOG, HOPE, Scholarships, and Loans) are applied to the students' account on the dates indicated at <https://www.kennesaw.edu/financial-aid/>. Students receiving other types of assistance or external assistance should check with the cashier in the Bursars Office to determine the availability of such funds. Funds earned from employment are disbursed to student accounts bi-weekly.
- **Step Three:** At the conclusion of late registration and the drop/add period, students will receive the balance of the semester award after tuition, fees, books, and other charges are deducted. Students must indicate their choice through their Bank Mobile Account.

## **Satisfactory Academic Progress Standards Policy**

Federal regulations, HEA Sec. 484(c), §668.16, 668.34, require all schools participating in Title IV federal financial aid programs to have a Satisfactory Academic Progress (SAP) policy that

conforms to the requirements detailed below. These requirements apply to all students as one determinant of eligibility for financial aid.

- Your SAP status is based on your entire academic record at all schools attended (includes all transferrable hours), regardless of whether you received financial aid.
- SAP is calculated each semester after grades have been posted to academic history by the Registrar's Office.
- Students can view their SAP Status at any time via Owl Express. Students who are put on a warning or failure status are notified via their student email address and mailed a letter via US Mail to their mailing address on record.
- If after the first term of attendance you are not making SAP, you will be put on a Warning status and allowed to keep aid for one term. Your continued eligibility will be determined after the next term checkpoint.
- If your SAP status is Failure after the check is performed, you will not qualify for financial aid for the following term.
- If your SAP status is Failure and you cannot mathematically attain SAP requirements following the next term, an appeal will not be permissible. Documented mitigating circumstances may allow continued eligibility on a case-by-case basis and will require an academic plan.
- A student may appeal their SAP Failure status only twice during their academic career at KSU. Documented mitigating circumstances may allow additional appeals on a case-by-case basis.

## **Quantitative and Qualitative Requirements**

Quantitative Requirement - The quantitative requirement has two parts:

- A maximum time frame
- A required completion ratio

### ***Undergraduate Students***

Maximum time frame (maximum attempted credit hours) - You must earn your degree before reaching 180 attempted credit hours, which includes transferrable credits attempted at any school prior to and while enrolled at Kennesaw State University (KSU). Students who are seeking a second undergraduate degree different from their first degree may be granted additional hours to complete the second degree requirements. Note "Determining Maximum Time Frame" below. Once you reach the maximum attempted credit hours, you are no longer eligible for financial aid as an undergraduate student. Federal regulations stipulate that the maximum time frame for an undergraduate student cannot exceed 150% of the published length of the academic program.

Completion Ratio - You must complete and pass at least 67% of all credit hours you attempted. Courses earned include grades of A, B, C, D, or S. Courses attempted include any course in which grades of A, B, C, D, F, W, WF, I, S, U or IP are given.

## **Graduate Students**

Maximum time frame - To determine the maximum time frame, multiply the total hours required for the degree by 150%. As an example, if the program required 33 hrs.  $\times 150\% = 50\text{hrs.}$  This includes credits attempted at any school prior to and while enrolled at Kennesaw State University (KSU).

Completion Ratio - You must earn at least 67% of all attempted credit hours.

Qualitative Requirement - The qualitative requirements sets a minimum Cumulative Grade Point Average for all students. The cumulative GPA is evaluated at the institutional level and the overall level that includes transfer work. The cumulative GPA includes grades of A, B, C, D, F, WF and I. The cumulative GPA, which is determined by the Registrar's Office processes, will be checked each term for SAP.

- Undergraduate Students - The cumulative GPA requirement is 2.00 for each term.
- Graduate Students - The cumulative GPA requirement is 3.00 for each term.

## Policy Details FAQs

When is SAP determined?

Initial Review - You are considered to be meeting SAP during your first KSU term.

End of Every Semester Review - Your SAP status is calculated at the end of each semester, after grades are posted to your academic history by the Registrar's Office.

- *What happens when you do not meet the requirements?*
  - You are no longer eligible for financial aid - including work study, loans, grants or scholarships. If you're on a Warning Status - eligibility may continue (note below).
  - Because you do not qualify for financial aid, you must pay your tuition and fees by the payment deadline or your registration will be cancelled by the Bursar's Office.
- *Maximum Time Frame (maximum attempted credit hours)* - When you have attempted the maximum credit hours, you are no longer eligible to receive financial aid.
- *Is there extended eligibility for a 2nd bachelor's degree?* - Yes. You may attempt a total of 150% of the hours needed to complete your first degree plus 60 additional hours. The standard is  $120 \times 150\% = 180 + 60 = 240$  attempted hours.
- *Is there extended eligibility for a 2nd master's/graduate degree?* - Yes. You may attempt a total of 150% of the hours needed to complete each degree.
- *Low Completion Ratio* - There are two statuses for low completion ratio before your eligibility for financial aid is cancelled. Probation status is only allowed for one term.
  - Warning Status - The first time you fall short of meeting the required completion ratio, your status is Warning. You remain eligible to receive financial aid while in warning status. If placed on "No Progress" status (note "No Progress" subheading), the student does not receive a Warning Status but goes to Failure Status immediately (note below).
  - Failure Status - After attending one semester on Warning status, if you do not meet the required completion ratio, your status becomes Failure Status. You

are no longer eligible to receive financial aid until the required standards are met. You must successfully appeal to regain eligibility.

- Probation Status - After being placed on a Failure Status, AND a student has successfully appealed and financial aid has been reinstated, the student is eligible to receive financial aid. This status is only for one term and quite often will carry conditions and/or stipulations for continued eligibility.
- *How do you regain eligibility?*
  - SAP Appeal - If extenuating circumstances during a specific term of enrollment prevented you from meeting the requirements, you may file a SAP Appeal.
- *Appeal Requirements:*
  - An explanation of extenuating circumstances associated with Failure Status. Indicate how these circumstances have changed so that you can comply with regulations in the future. Attach supporting documents to corroborate extenuating circumstances mentioned in the letter.
  - Include an "Academic Plan" for improvement.. This requires that you meet with your Academic Advisor and receive a plan for getting back in good academic standing.
  - Attach at least one letter of support from someone that can substantiate the extenuating circumstances. This individual should not be a family member. Examples would include a medical doctor, clergy, professional, etc.
  - Submit the SAP Appeal form.
  - The appeal form must be provided to the Office of Scholarships and Financial Aid within the prescribed dates as noted on the SAP Appeal Form. Failure to provide these within the prescribed dates will result in a delayed determination.
  - An objective committee, composed of selected individuals outside the Office of Scholarships and Financial Aid, determines whether the appeal is approved. The decision of the Appeals Committee is final and cannot be appealed further.
- *Appeal Denials or Non-appeals* - If you are denied an appeal or you decide not to appeal, you must complete the necessary hours and earn the appropriate grades. Once you have reached the prescribed standards you become eligible to receive financial aid.
- *You change from undergraduate to graduate* - If you reach Failure Status as an undergraduate, and then are admitted to a graduate degree program, you will be eligible to receive financial aid as a graduate student. You must be in a degree-seeking status and fully accepted into the graduate program.

### **Academic Circumstances that Affect Your Status:**

- Changes in major, double majors or minors - may cause you to reach your maximum attempted hours, and lose your eligibility before earning a degree.

- Incomplete grades, missing grades, failing grades, course withdrawals – all reduce your completion ratio, because they are counted as attempted, but not earned credits. They also count against your maximum attempted hours.
- Repeated courses – count as attempted credit hours each time you register for them. They also count against the allowed maximum. This can also reduce your completion ratio because repeated credits count as earned credits only once. NOTE: The U. S. Dept. of Education allows only one retake for Title IV credit.
- Academic Fresh Start – count against your maximum attempted credits, and also lower your completion ratio because the credits count as attempted but not earned.
- Transfer credits, credits taken while cross-registered, enrolled in study abroad, transient study – count toward your maximum attempted credits and your completion ratio. NOTE: Credits count as attempted, but not earned, until your official transcript is reviewed and processed by the KSU Registrar's Office. This could cause you to be in a Failure Status.
- Remedial courses – count as attempted and earned credits and are included in the GPA calculation.
- Late posted grades or grade changes.
- Dismissal and Return – students who are suspended academically or choose not to attend because of SAP Failure will not be automatically eligible for financial aid upon their return. Student must meet both qualitative and quantitative standards of SAP. If below standards, a student must appeal or use means other than financial aid for educational expenses. Absence does not restore eligibility for financial aid. It remains the responsibility of the student to be knowledgeable of their SAP standard when returning to school after dismissal or choosing not to return because of SAP Failure.
- Summer Term Courses – all hours attempted and completed in the summer terms are treated as any other semester hours in determining SAP status. SAP will be checked following the summer term as well.
- Audit Courses – students are not eligible to receive financial aid for audit courses. Audited courses are not included in hours attempted or earned for SAP determination.
- Students pursuing dual bachelor's/master's degrees – Students who are pursuing dual degrees are subject to the maximum time frame rules but may be reviewed on a case by case basis by the Office of Scholarships and Financial Aid

The Office of Scholarships and Financial Aid reserves the right to review denied appeals, cumulative GPA's and completion rates on a case by case basis.

## **Other Financial Services**

### Veterans' Benefits

The university is on the approved list of the Georgia State Approving Agency for the training of veterans, disabled veterans, and the children and widows of deceased/disabled veterans who are eligible for benefits under the GI Bill®.

Students using Chapter 33 (Post 9/11) benefits under the GI Bill® are required to pay (by the Final Payment Deadline) any tuition and fees not covered by the VA. The VA does not pay tuition and fees to Kennesaw State University for students using Chapter 30, Chapter 1606, or Chapter 35 benefits. These students are responsible for payment of their tuition and fees by the payment deadline, since they are paid benefits directly through Veterans Affairs. Students using VA Chapter 33 or VA Chapter 31 education benefits will be allowed to attend and participate in their course of education provided they have submitted to their Veteran Certifying Official a current Certificate of Eligibility or Statement of Benefits "eBenefits" (for Chapter 33) or a current VA Form 28-1905 (for Chapter 31). If the VA delays in submitting funds to KSU for these students, these students will have full access to their classes, libraries, and other institutional facilities. They will not be required to borrow funds and will not have penalties or late fees imposed because of the VA's delay.

KSU and the VA do not have an agreement to process tuition/fee waivers; therefore, failure of the VA to pay students in a timely manner does not eliminate or delay a student's financial responsibility to Kennesaw State University. Each VA beneficiary should make financial preparation for at least one semester because benefit checks are sometimes delayed. Eligible veterans and the children and widows of veterans must make application for the benefit to their regional Veterans Affairs. The Military and Veteran Services Office can assist with the application process.

Veterans who wish to use VA Chapter 31 Vocational Rehabilitation benefits must contact the VA Regional Office to be assigned a counselor to help with the application process. All other benefits can be applied for online at [www.vets.gov](http://www.vets.gov). Students in training under Chapter 31 are responsible for making sure their counselor has provided a current VA Form 28-1905 for their benefit, and should check with the University Business Services Office regarding the handling of their account for fees, supplies, etc.

Students attending on the GI Bill® are certified for VA benefits only for those courses required in their particular programs of study. Courses taken for audit are not payable by the VA. Such students must maintain Kennesaw State University standards for academic performance. Those students who are academically dismissed from school will have their benefits interrupted. Upon readmission and re-certification for benefits at Kennesaw State University, the VA will decide if further benefits may be paid for continuation of the program in which the academic deficiency occurred.

Current VA standards require that students attend class and that benefits be terminated when the student has stopped attending or has been suspended for academic or disciplinary reasons. Since VA regulations are subject to periodic change, it is the student's responsibility to keep up to date on requirements for VA benefits while in attendance at Kennesaw State University.

Any veteran or dependent wishing to use the GI Bill® benefits must contact their VA Certifying Official. The offices of the VA Certifying Officials are located in the Office of the Registrar. Students using VA education benefits must submit their letter of eligibility to their Veteran Certifying Official no later than the first day of the course of education. Students must also submit KSU's Veteran's Enrollment Data Sheet and VA Education Benefits Statement of Understanding. Students who do not have the full Chapter 33 benefit (less than 100%), or who enroll in classes not required for their degree program, or who have other financial obligations to Kennesaw State University, are still responsible for their portion by the payment deadline (as listed in the Academic Calendar on the Registrar's website). Failure to pay non-VA covered charges are subject to deletion of classes and late fees.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>.

# **Computing and Information Resources**

## **Computing and Information Resources**

Technology is increasingly an integral part of a student's education. In addition, many student services and information are delivered via technology. To provide the KSU student with a quality education delivered most conveniently, technology is used as an essential part of instruction, for student access to educational materials, and for the delivery of student services.

A technology fee is collected each term to provide students with improved technological resources including: greatly enhanced access to the internet; general and academically-specific software packages delivered online via virtual computing labs; training in the use of computer and audio visual technology; extended computer laboratory hours; electronic study rooms in the Sturgis Library, and extended hours for technical support for campus applications.

The Kennesaw State University website exists to assist students with course registration, the reviewing of grades, and access to the learning management system. In addition, the KSU website delivers quality mobile content for smartphones and tablets. Each year brings new technology, more creative uses of technology on campus, and additional services to meet growing needs.

## **Mandatory KSU E-Mail Account**

KSU generated email accounts are the official means of communication with students. Instructions can be found at [kennesaw.edu/myksu/](http://kennesaw.edu/myksu/)

## **KSU's Vice President for Operations and Chief Information Officer/Chief Business Officer**

The Chief Information Officer (CIO) & Vice President of Information Technology provides leadership in the continuing advancement of information and instructional technology. This position oversees the operations of information technology, which includes the University Information Technology Services division and the technical infrastructure of the KSU Library System

## The KSU Library System

The KSU Library System includes two libraries, the Horace W. Sturgis Library located on the Kennesaw Campus, and the L.V. Johnson Library located on the Marietta Campus. Their locations and contact information are as follows:

### **Horace W. Sturgis Library (Kennesaw Campus)**

#### *Departments & Services:*

385 Cobb Avenue NW, MD1701

Kennesaw, GA 30144

- Check Out Desk - 470-578-6202
- Research Help - 470-578-6325
- Interlibrary Loan - 470-578-6002

### **L. V. Johnson Library (Marietta Campus)**

#### *Departments & Services:*

910 Hornet Loop

Marietta, GA 30060

- Check Out Desk - 470-578-7276
- Research Help - 470-578-7471

### Mission / Vision

The mission of the Kennesaw State University Library System is to support and further KSU's mission of being a powerful, diverse, student-centered, and research-driven university. The Library System carefully cultivates resources, services, and spaces that enhance teaching, learning, scholarship, and creative endeavors for our users. These efforts focus upon supporting student success – especially advancing undergraduate programs, supporting the graduate programs, furthering research with relevance, and promoting lifelong learning.

The vision of the KSU Library system is to advance student success, lifelong learning, and research with relevance through teaching, access, and discovery with the expertise and dedication of our professional faculty and staff.

### Library Resources

The Kennesaw State University Library System holds a growing number of carefully cultivated resources and services designed to assist students and faculty. Collections include over 104,000 e-journal titles; 800,000 e-books; 14,000 Federal Serial Sets (approximately 9.7 million pages); 62,000 federal maps; 1,300,000 music scores; over 10,000,000 audio recordings; and 100 collections of data-sets representing over 12,000,000 data points. The KSU Library System proudly hosts and maintains the university's institutional repository, the Digital Commons, which is home to 13,374 resources and over three million downloads worldwide.

Because the KSU Library System is a participating member of GALILEO Interconnected Libraries (GIL), students and faculty have access to and borrowing privileges from the collections in all of Georgia's public college and university libraries as well as a number of private university libraries. GALILEO and GIL provide access to the collections of the finest doctoral research university libraries in the state. The comprehensive holdings of Georgia's virtual library system include over 10 million volumes and thousands of full-text periodicals accessible through 384 electronic databases. Consequently, the discipline-specific library resources available to support the KSU colleges and programs are extensive. KSU is also a charter member of LYRASIS, a national and international bibliographic cooperative in library resource management. LYRASIS uses its large library membership to secure discounted purchasing prices and licensing fees for a wide variety of eResources and eContent materials.

#### Federal Government Documents Depository

Located at the Johnson Library on the Marietta campus, the KSU Library System houses a partial Federal Government Documents Depository for the 11th Congressional District.

#### Library Services

As a physical and digital library system, we emphasize access to library services regardless of location or need, whether that is, on campus, at off-campus locations, and/or via distance learning technologies. The physical libraries are open about 100 hours per week on each campus with extended hours during exams. For research assistance, the libraries offer both assistance in the libraries as well as a 24/7 chat service where users can receive remote assistance from a librarian at any time. The Library System also offers in depth one-on-one research consultations, both remote and in person. Online library resources are accessible via individual user login authentication all day, every day, and online and distance education students also benefit from ubiquitous access to high-quality information resources. Each library offers orientation sessions and information literacy instruction in a variety of formats, including course integration. For resources external to the KSU Library System, the libraries offer robust borrowing and loan programs. The university's Archives and Special Collections are also located within the libraries and are available via appointment.

#### Study Spaces

Both individual and group study spaces are available at both libraries. In the Sturgis Library, the ground floor provides a community space where students have access to computers and printers. The 1st floor learning area is called OwlSpace, and it is a "noisy" space where students are free to collaborate and work on group projects. OwlSpace also includes computers and multiple presentation rooms. The third floor offers a quieter study area containing individual study cubicles as well as seven glassed-in study rooms for quiet group study, and a printer and microfilm reader.

In the Johnson Library, the first floor Hive area is a "noisy" community space where students have access to computers and communal seating. The second floor provides access to quiet study rooms for group study and individual study cubicles.

### Borrowing Privileges

KSU students and faculty have borrowing privileges not only from the KSU Library System but also from all of the member institutions in the University System of Georgia as well as the Atlanta Regional Consortium for Higher Education (ARCHE). Through the SuperSearch discovery tool, students can instantly access millions of resources including books, ebooks, journals, databases, videos, and government documents. Mobile versions of the library catalog and databases are available. Interlibrary Loan services may be used for items not owned by one of the participating Georgia libraries.

### Digital Commons

The KSU Library System hosts the DigitalCommons@Kennesaw State University. The Digital Commons is a digital resource for KSU's intellectual and creative out-put. With the increase in KSU's graduate programs, the Library System uses the Digital Commons to self-publish dissertations, theses, and capstone projects and make them available online. These resources are fully searchable by keyword or author and are indexed by major search engines such as Google Scholar.

For more information about the libraries visit our webpage at [library.kennesaw.edu](http://library.kennesaw.edu).

## **University Information Technology Services (UITS)**

University Information Technology Services (UITS) provides KSU students with the technical resources needed to carry out scholarship, academic collaboration, research, and innovation. Students can expect the state-of-the-art technology they require for learning management, research and study, course registration, in addition to university classrooms fully equipped with modern audio-visual technology.

Students are assigned a KSU email account, personal web space, and cloud file storage. Students are also eligible to participate in online and face-to-face training sessions for commonly used software, multimedia development, production assistance, and information security.

Student software applications are accessed via a single sign-on authentication with one login ID (NetID) and one password. Student Help Desks with extended hours, telephone and email support, and walk-up services are available at the Kennesaw and Marietta campuses to answer any questions and provide technology advice. Wireless access is available on all campuses and continues to expand as the University grows.

UITS maintains both traditional computer labs with printing and copying services and Virtual Labs that allow students to use productivity- and academically-specific software at home on their own devices.

UITS AV Circulation is a free service provided to students for academic and "Not for Profit" usage on both the Marietta and Kennesaw Campuses. Examples of available equipment include items such as: HD video and still DSLR cameras, professional video production cameras, microphones and lighting equipment, tripods, PA systems, data projectors and projection screens. Walk-ins are welcome; however, advanced reservations are preferred to ensure item availability. Reservations may be made in person or online at [avcheckout.kennesaw.edu](http://avcheckout.kennesaw.edu) .

The rules for use of all campus technology and telecommunications equipment, including telephones, computers, and fax equipment, are found on the KSU website at <https://policy.kennesaw.edu/>. Use of any of these facilities or services implies an understanding of and compliance with these policies.

Visit [uits.kennesaw.edu](http://uits.kennesaw.edu) to learn more about the technology services available for students and to find contact information and operation hours for the KSU Service Desk.

# **Undergraduate Academic Policies**

## **1.0 General University Regulations**

### **1.1 Student Responsibility**

Students are expected to have read this section of the catalog and to be generally familiar with academic rules. Students are expected to consult this section of the catalog and follow the procedures that are outlined herein when the appropriate time in their academic tenure approaches. For example, students who are within a year of graduating should review the graduation section and comply with the timetable for petitioning to graduate.

In a pedagogical setting, students are expected to develop the ability to read and follow instructions as part of their educational experience. Faculty advisors are available to help students interpret what they have read and to encourage appropriate actions. However, it is the student's responsibility to ask questions when in doubt, and to seek out information from official sources rather than to allow rumor to dictate actions.

### **1.2 Student Records**

In accordance with the policy of the Board of Regents of the State of Georgia and under the provisions of the Family Education Rights and Privacy Act of 1974 (FERPA), Kennesaw State University maintains various educational records for each matriculating student.

These records are considered confidential and will not be released for use outside the institution without the written consent of the student. Exceptions as authorized by the Act are noted below.

### **1.3 Directory Information**

The items listed below are designated as "Directory Information" at Kennesaw State University and may be released for any purpose without written consent at the discretion of Kennesaw State University:

- student's name
- major field of study
- academic advisor
- dates of attendance
- degrees awarded
- participation in officially recognized activities or sports
- awards and honors received
- weight and height of athletic participants

- KSU student email address
- enrollment status (part/full time)

Directory information will be withheld if requested by the student. To withhold directory information, the student must complete and submit the Release of Directory Information form or hand deliver the request to the Office of the Registrar located in Kennesaw Hall or email the request to registrar@kennesaw.edu.

Students should consider very carefully the consequences of any decision to withhold "Directory Information." Choosing the item "Student Confidentiality" will result in the exclusion of all student record information, including student name/address from printed materials (i.e. commencement program). Informing Kennesaw State University not to release "Directory Information" means any future requests for such information from non-institutional persons or organizations will be refused.

For additional directory information, please visit <https://www.kennesaw.edu/ferpa/>

#### 1.4 Student Email

The official means of communication between the university and students is the KSU student email. Students are responsible for information sent to their university email accounts.

#### 1.5 Telecommunication Policies

The rules for use of all telecommunications equipment, including telephones, computer and FAX equipment, are found on the KSU Web Site at [uits.kennesaw.edu/](http://uits.kennesaw.edu/) or they can be reached from the KSU Intranet Home Page by choosing the topic Issue Specific System Policies from the "Computing Resources" section. Use of any of these facilities implies an understanding of and compliance with these policies.

#### 1.6 Disclaimer

It should be noted that program and course requirements and university policies are subject to change without advanced notice. Changes in policy and requirements enacted by the Board of Regents take precedence over existing university policies and requirements. The University will make reasonable efforts to accommodate students affected by such changes but reserves the right to determine where and to what extent it will grant exceptions to new policies and requirements. In cases where courses are deleted, students must substitute courses deemed acceptable by the faculty or chair responsible for the degree program in question.

## **2.0 Registration Policies**

### 2.1 Registration Access

Access to registration will be granted by time tickets in Owl Express based on a student's number of overall earned hours (this includes transfer hours).

### 2.2 Maintaining Eligibility to Register

A student must enroll during one semester each calendar year to maintain eligibility to register for courses. If a student is not enrolled three (3) consecutive terms or more (including summer), the student must apply for readmission. See the Admissions section of this catalog for additional details regarding readmission.

### 2.3 Holds on Registration

Holds may be placed on a student's registration in order to satisfy an obligation owed to the University. Failure to return equipment, books, or lab supplies may also result in a financial hold. Registration, transcript, and diploma requests may not proceed unless all holds are removed.

### 2.4 Credit Hour

KSU defines a credit hour as a minimum of 2,250 minutes of academic engagement per semester. For many courses, the time is distributed as 750 minutes of direct, faculty-led instruction and 1,500 minutes of out-of-class academic engagement. For a 15-week semester (i.e., Spring Semester or Fall Semester), that equates to 50 minutes of direct, faculty-led instruction and 100 minutes of out-of-class academic engagement per week. An equivalent amount of work and a minimum of 2,250 minutes of academic engagement per credit hour is required for credit-bearing educational activities, for which the direct, faculty-led instruction time varies, including internship, field experience, cooperative education, and some online courses. Thus, this definition applies regardless of type of course, term length, and delivery mode.

### 2.5 Classification of Courses

Kennesaw State University divides courses completed for academic credit into four categories - lower division, upper division, graduate, and doctoral - representing increasing levels of rigor.

- Lower-division courses are numbered 1000-2999;
- Upper-division, undergraduate courses are numbered 3000-4999;
- Graduate courses are numbered 5000-7999; doctoral courses are numbered 8000-9999.

- Advanced, undergraduate coursework for the five-year, Bachelor of Architecture program are numbered 5000–5999.
- Graduate courses are open only to students accepted to graduate study or in instances where a Double Owl Pathway is in place (maximum 9 credit hours).

Courses numbered below 1000 do not count for degree credit but do count for determining fees and enrollment status.

Graduate students may use graduate level work only to complete their degree requirements. Undergraduate coursework may not substitute or transfer more than one level; (i.e. 1000-level course may not be used for 3000-level courses and vice versa).

### 2.6 Full Time and Maximum Course Load

For an undergraduate student, twelve (12) semester credit hours is a full-time load for determining veteran status, financial aid, insurance eligibility, etc. Nine (9) semester credit hours is a reasonable load for a shorter summer semester. Although, financial aid and insurance rules may require a student to attempt twelve (12) semester credit hours or more. For graduate students, nine (9) semester credit hours is a full-time load.

During fall and spring semesters, a student may register for a maximum of 18 semester credit hours without additional approval. The Office of the Registrar may approve a course load of more than 18 credit hours, if the student's Institutional GPA is 3.5 or higher. Course loads above 21 credit hours require a recommendation from the Department Chair applicable to the student's major.

During summer semester, a student may register for a maximum of 13 semester credit hours without additional approval. The Office of the Registrar may approve a course load of more than 13 credit, if the student's Institutional GPA is 3.5 or higher. Course loads above 15 credit hours require a recommendation from the Department Chair applicable to the student's major.

A student on academic probation should consult policy *4.1.2 Academic Probation* for additional course-load limitations.

### 2.7 Course Audits

A Kennesaw State University (KSU) student may request to audit one or more courses. An audited course does not affect the student's GPA, requires the same tuition and fees as a course taken for credit, and will be noted in Owl Express and on the transcript with the symbol "V." Withdrawal from an audited course is subject to the *2.9 Withdrawal from Classes* policy below. A student may choose to enroll in a previously audited course for a grade or for an additional audit attempt. However, the applicable department may choose to limit course audits.

## 2.8 Prerequisites, Concurrent Prerequisites, and Co-requisites

Unless noted in the catalog, a minimum grade of "C" is required as a prerequisite for all courses.

Registration for many courses is restricted to students who completed certain coursework (i.e., prerequisite course(s)), met certain milestones (engineering standing, admission to the program, earned more than a particular number of credit hours, etc.), or permission from applicable faculty.

- Prerequisites must be completed prior to enrolling in a course.
- Concurrent Prerequisites can be completed prior to enrolling or can be enrolled in during the same term as a course.
- Co-requisites must be enrolled in during the same term as the course.

Each student is responsible for identifying prerequisites, concurrent prerequisites, and co-requisites and planning a program of study in consultation with an academic advisor.

## 2.9 Withdrawal from Classes

A student who officially withdraws from a course by the end of the last day to withdraw without academic penalty will receive a grade of "W" and receive no credit.

A student will receive a refund only when the student withdraws from ALL courses for the applicable semester and only by the schedule outlined in the University refund policy found here: [Tuition, Expenses, & Financial Aid](#)

Students should be aware that a reduction in their hours might result in the loss of full-time student status and thus affect their financial aid, scholarships, athletic and ticket eligibility, University housing accommodations, use of University resources and access to University facilities, visa for international students, and Veterans Educational Benefits. Students should contact the appropriate office and their academic advisor with questions about the impact of their withdrawal from a course before initiating a withdrawal. Veterans and dependents of veterans who receive educational benefits must notify the Veterans Education Benefits Area in the Office of the Registrar of any course load reductions.

### *2.9.1 Hardship Withdrawals*

If a student experiences significant personal hardship (e.g., medical or family emergency, prolonged illness), the Dean of Students can approve a hardship withdrawal from all courses in the term for which the student is currently registered. In the case of an approved hardship withdrawal from all courses, the Registrar will assign grades of "W" for those classes. The deadline for final approval of a hardship withdrawal by Dean of Students is the last day of class for which the hardship withdrawal is sought. If the hardship withdrawal process is not complete by the last

day of class for which the hardship withdrawal is sought, a student must appeal for a retroactive hardship withdrawal from the Academic Standing Committee.

Appeals for retroactive hardship withdrawals must be directed to the Academic Standing Committee. Retroactive hardship withdrawals are rarely granted if it has been more than one year since the last day of class for which the withdrawal is sought. Extraordinary justification must be shown. In the case of approved retroactive hardship withdrawals, the Registrar will assign a grade of "W."

### *2.9.2 University Initiated Withdrawals*

If a student is suspended by the Office of Student Conduct following a violation of the University's Code of Conduct not related to academic dishonesty, the Office of Student Conduct may facilitate a University-initiated withdrawal from courses for which a student is registered for the term. The Registrar will assign grades of "W" for those classes.

### *2.9.3 Military Withdrawals*

A student will receive a "WM" symbol for all courses and a full refund of tuition and mandatory fees and a pro rata refund of other fees for military and other service, as defined by BOR Policy Manual, Section 7.3.5.3. To request a military withdrawal, the student must submit a copy of official orders to the Office of the Registrar.

## 2.10 Military Short-Term Absence Policy

The University recognizes and appreciates the important contributions made in service of our country by Active Duty, Reserve, and National Guard members and their dependents. At times these students may be called to fulfill their duties for training or short-term deployment, which cause students to be absent from classes for a short period of time. These absences qualify as "excused absences" which means that the absence, with proper documentation provided, is not subject to penalty and coursework may be satisfied through agreement between individual instructors and students.

- For any emergency orders where the student will be absent approximately 3 weeks or less: Students are responsible for making arrangements with instructors to maintain and/or make up classwork as needed. Service members should provide instructors with maximum advance notice of absences, providing copies of directives from the Military, Reserve, or National Guard.
- A student who will be absent for up to three weeks will be allowed to make up any missed work within a reasonable time frame (generally up to 30 days) without a grade penalty. Instructors must accommodate absences of up to three weeks for 15-week semesters and a proportional duration for other sessions. It is the responsibility of the student to communicate in writing directly with each instructor, as far in advance as possible, so appropriate accommodations can be made.

- For time-sensitive state or federal emergencies/activations where written documentation may not be available until the end of the obligation, the student is responsible for securing the orders to provide to faculty members upon return to the University.

## 2.11 Cross Registration - Atlanta Regional Consortium for Higher Education (ARCHE)

Kennesaw State University is a member of the Atlanta Regional Consortium for Higher Education (ARCHE), an association of colleges and universities in the Atlanta area offering a combination of reciprocal academic services, such as cross registration, interlibrary loans, and visiting-scholars program. The cross-registration program is available to students officially enrolled in ARCHE institutions. This program is distinct from transient status in that it is possible for a student to register for an approved course at any of the 20 consortium schools and receive credit, while paying tuition costs to the home institution.

The intent is to allow a qualified student to complete coursework in that student's area of study that is not available at the home institution. A student applying to cross register must meet all eligibility requirements under the ARCHE agreement and the partnering school. Courses taken at a partnering school are transferred back as transfer credit. Credits earned through the ARCHE program do not count in the KSU residency requirement.

To be eligible to participate, the student must be in good standing and must have the recommendation of the faculty advisor or Department Chair at the home institution. Cross registration may be pursued only for courses not offered at the home institution for the given term and is not recommended for a student enrolled in the student's last semester before graduation.

A KSU student must be enrolled for at least one semester hour at KSU in order to cross register. To apply for cross registration at an ARCHE member institution, a student must submit a Cross Registration Application to the Office of Registrar. KSU's cross registration coordinator should be consulted for individual member college cross-registration deadlines.

A complete list of the requirements for eligibility and registration procedures are located on the application.

Member Institutions:

Agnes Scott College  
Brenau University  
Clark Atlanta University  
Clayton College & State University  
Columbia Theological Seminary  
Emory University  
Georgia Gwinnett College  
Georgia Institute of Technology

Georgia State University  
Interdenominational Theological Center  
Kennesaw State University  
Mercer University of Atlanta  
Mercer University  
Morehouse College  
Morehouse School of Medicine  
Oglethorpe University  
Savannah College of Art and Design - Atlanta  
Spelman College  
University of Georgia  
University of West Georgia

### 2.12 Attendance Policy

Attendance in classes, laboratories, and lectures is important. Each student is expected to attend the activities corresponding with the student's schedule of courses. The instructor determines the attendance policy for the course and at the beginning of the semester, provides the students a clear statement regarding the absence policies for the course, including academic consequences of absences. A student who is absent because of participation in University-approved activities, such as field trips and extracurricular events, will be permitted to make up the work missed during the absences.

### 2.13 Directed Study

The following institutional regulations apply to directed study. Additional departmental requirements may exist.

General restrictions:

- Content in the directed study must not substantially overlap an existing course in the curriculum.
- A student may not enroll in more than three semester credit hours of directed study coursework per semester.
- A maximum of ten semester hours of directed study may be used to satisfy degree requirements with a maximum of three hours used as related studies electives and a maximum of three hours used as free electives. The department shall determine the maximum number of hours allowed within the major.
- A student must have an overall institutional GPA of at least 3.0 and a cumulative GPA in the major of at least 3.0 in order to be eligible for a directed study

Any student wishing to do a directed study must obtain approval from the department and complete a Directed Study request.

## 2.14 Special Topics

The following institutional regulations apply to special topic courses. Additional departmental requirements may exist.

- Content in the special topic course must not substantially overlap an existing course in the curriculum.
- Special topics courses cannot be required in a degree, concentration, minor, or certificate program because of their temporary nature, but may be included in a list of electives for any program.
- No course may be offered more than three times using a Special Topics course number and/or topic. If after being taught, the course can go through the curriculum process to be approved as a new course.

Note: Special Topics courses are temporary; they are not ongoing courses with variable topics. Variable topics courses offer different content in different semesters and have undergone curricular approval.

## 2.15 Cooperative Education and Internships

The cooperative education (co-op) and internship courses offer participating students work experience relevant to their majors. For information about co-op and internship opportunities, contact the Department of Career Planning and Development or the corresponding academic department. For information about the applicability of co-op and internship courses to a particular major, contact the corresponding academic advisor.

S/U grades will be assigned for co-op classes. One exception is COOP 2000, which is a 12-credit hour cooperative education course taken as an audit, where a grade of 'V' is assigned. The Internship grade structure depends on the academic department involved.

## 2.16 Enrollment Classification

Undergraduate students will be classified based on the number of earned institutional hours.

Freshman	0-29 hours
Sophomore	30-59 hours
Junior	60-89 hours
Senior	90 hours or more

## 2.17 Transient Authorization for a KSU Student to Attend Another College/Institution

To be eligible for transient status, a student must meet the following criteria:

- Be an undergraduate student
- Be in good standing
- Have completed at least one semester at KSU
- Be currently enrolled or enrolled within the past three semesters.

A student not in good academic standing or in the student's first semester of attendance may complete the Transient Letter through Owl Express to acquire a letter of no objection. A student on disciplinary suspension or expulsion will not be issued a transient statement. Transient coursework will not be included in the KSU Institutional GPA. If a student repeats a course previously completed at KSU as a transient student at another institution and receives a higher grade in the transient course, the KSU grade will be excluded from the KSU Institutional GPA. See policy *3.7 Repeated Courses*.

## 2.18 Repeated Course Registration

After attempting an undergraduate course for the second time, including withdrawals (W) but excluding courses approved for repeatability, a student will not be allowed to re-enroll in the course without the permission of the Department Chair or designee. It is the sole discretion of the Department Chair or designee to decide if a student will be allowed to register for a course that the student previously attempted twice. Please see policy *3.7 Repeated Courses* for information on how repeated grades are calculated in a student's GPA.

## 3.0 Grading Policies

### 3.1 Grading System

Issuance of grades and formulation of individual attendance policies are the prerogative of the instructor. The course instructor must make feedback available to each student about that student's academic progress in the course prior to the last published day to withdraw without academic penalty. The Board of Regents (BOR) of the University System of Georgia (USG) Policy Manual, Section 3.5, states grades are expected to conform to those listed below.

The following are the final grades included in the determination of the scholastic grade point average.

<b>Final Grades</b>	<b>Quality Points per Credit Hour*</b>
A (Excellent)	4.00
B (Good)	3.00
C (Satisfactory)	2.00
D (Passing)	1.00
F (Failure)	0.00

### 3.2 Other Grades

**I:** denotes an incomplete grade for the course. An incomplete grade may be awarded only when the student was doing satisfactory work as determined by the faculty member and/or the department chair prior to the last two weeks of the semester but for nonacademic reasons beyond the student's control, was unable to meet the full requirements of the course.

- An incomplete grade cannot be removed by re-enrolling in the course.
- A grade of "I" must be removed by completing the course requirements the subsequent semester from the end of the semester in which the "I" was originally assigned. Thus, an incomplete grade assigned during the fall semester will be required to be completed during the subsequent spring semester, an incomplete grade assigned during the spring semester will be required to be completed during the subsequent fall semester and an incomplete grade assigned during the summer semester will be required to be completed during the subsequent fall semester. The instructor may specify an earlier deadline and may request an incomplete grade extension due to extenuating circumstances that prevents the student and faculty from completing the remaining course assignments within the semester the course assignments are to be completed.
- Faculty must specify the remaining requirements, assignments and deadline to the student.

- Upon completion of the course requirements within the specified time limits, a final grade will be assigned based on the student's total performance.
- If the course requirements are not completed within the specified time limits, the "I" will be changed to an "F" for a course that awards grades of "A", "B", "C", "D", or "F" and the student's cumulative, term and institutional GPAs will be recalculated accordingly, or the "I" will be changed to a "U" for a course which awards a grade of "S" or "U."
- In situations in which the assigning instructor is no longer available to assist the student with completing the remaining requirements, the chair of the department in which the course is housed will fulfill the responsibilities of the faculty.

**IP:** Indicates that credit has not been given in a course that requires a continuation of work beyond the term for which the student enrolled in the course. This symbol cannot be substituted for an "I."

**K:** Indicates credit awarded by examination including, but not limited to, the following:

- Advanced Placement (AP)
- College Level Examination Program (CLEP)
- International Baccalaureate (IB)
- DANTES Subject Standardized Tests (DSST)
- Foreign Language Achievement Testing Service (FLATS)
- Departmental Course Exams for Advanced Standing
- Prior Learning Assessment (portfolio review)
- Military Credit

**NR:** Indicates no grade was reported. The grade will be changed to the appropriate grade once determined.

**NA:** Never Attended (for attendance verification). The grade will be changed to a withdrawal without academic penalty grade (W)

**S:** Indicates satisfactory completion of a credit-bearing course and is not included in the calculation of the grade point average. The use of this grade is approved for thesis hours, student teaching, clinical practicum, and internship. It also indicates satisfactory completion of certain credit laboratory-type courses.

**U:** Indicates unsatisfactory completion of a credit-bearing course and is not included in the calculation of the grade point average. The use of this grade is approved for thesis hours, student teaching, clinical practicum, and internship. It also indicates unsatisfactory completion of certain credit laboratory-type courses.

**V:** Indicates the student was given permission to audit the course. It is not included in the calculation of the grade point average. A student may not transfer from audit to credit status or vice versa.

**W**: Indicates the student was permitted to withdraw from the course without penalty. A course in which a grade of "W" has been assigned will not be included in the calculation of the student's grade point average.

**WM**: Indicates a student was permitted to withdraw without penalty at any time during the term based on a military service refund, as defined by BOR Policy Manual, Section 7.3.5.3.

### 3.3 Grade Point Average (GPA)

Kennesaw State University uses a 4.00 grade point average (GPA) system, calculated to and truncated at two significant digits. The GPA is calculated by dividing the total quality points earned by the total number of credit hours for which grades were assigned, excluding courses in learning support (0998, 0999). Only courses attempted in residence at Kennesaw State University will be calculated in the below grade point averages (GPA). Transfer credit/grades completed at other institutions will not be used in calculating GPAs at Kennesaw State University. Grade point averages are truncated to two decimal points. Courses carrying "S," "U," "W," or "I" grades are not included.

*Term GPA* : Kennesaw State University calculates a term grade point average (Term GPA or Semester GPA) for courses attempted each semester in residence at Kennesaw State University. This GPA is adjusted for course repeats.

*Institutional GPA* : Kennesaw State University calculates an institutional GPA that is used as the primary, overall GPA for courses attempted in residence at Kennesaw State University. Transfer credit/grades will not be used in calculating the institutional GPA. The institutional GPA for the applicable term will be used to determine semester honors and academic standing including probation and dismissal at the end of the term. This GPA is adjusted for course repeats.

*Cumulative GPA* : The average of all grades earned by a student is the cumulative grade point average. Kennesaw State University calculates the cumulative GPA that is used as the primary, overall GPA for courses attempted in residence at Kennesaw State University. This GPA is NOT adjusted for course repeats.

*HOPE GPA* : Please see the Office of Scholarships and Financial Aid website for information regarding the HOPE Scholarship and Information regarding eligibility, excluded grades, and the STEM (Science, Technology, Engineering, and Math) course boost.

### 3.4 Grade Changes

Errors in grades must be reported to the Office of the Registrar immediately. In general, no grade changes will be made after the end of the next semester after the grade was assigned, except with the approval of the Academic Standing Committee. In general, the Academic Standing Committee, as described in University Handbook, Section 3.1.2, will not consider

requests for grade changes beyond one year from the end of the semester in which the grade was assigned. A petition for a grade change will not be accepted after the date of graduation.

### 3.5 Course Specific Grade Policy

Each faculty member must specify their grading policy in the syllabus at the beginning of the course. The faculty member may change the grading policy for cause after that time but must do so uniformly with ample notification to students.

The grading policy must be specific, in writing and distributed or otherwise provided to the class at the beginning of the course. Some departments may also require faculty members to file grading policy statements in the departmental office. Because the student can submit a grade appeal to the Department Chair within 20 business days after the first day of classes of the next academic term after the academic term in which the final grade was awarded to the student (see. *3.6.2 Formal Grade Appeals Procedure*), it is strongly recommended that instructors retain any student papers, tests, projects, or other materials not returned to the student for 90 days after the end of a semester or if an appeal is filed until the appeal is resolved.

### 3.6 Grade Appeal Policy

A student's rights to grad appeals are defined in the University catalog section below. Kennesaw State University is committed to treating students fairly in the grading process. A student may appeal a final grade awarded for a course. Interim grades or grades on specific assignments are not appealable. An appeal must be based on one or more of the following:

- an allegation that the faculty member has violated the stated grading policy,
- an allegation that the faculty member assigned a grade using a different standard than was used with other students in the same course,
- an allegation that the grade was miscalculated.

The student has the burden of proving these allegations. All formal appeals under these procedures will be based only on the written record.

This process does not address academic integrity allegations, faculty misconduct, or discrimination/retaliation. If the student alleges their grade is based on discrimination or retaliation because of their membership in a protected class, the student may file a complaint with the Office of Institutional Equity (OIE) here: <https://discrimination.kennesaw.edu/reporting.php>.

*Please note:* Complaints filed with the OIE are independent of the grade appeal process and are not reviewed by OIE as an appeal of a grade. If an OIE complaint is filed, the grade will remain the final grade and cannot be changed based on OIE authority. However, upon

receiving a finding from the OIE as to whether there is a violation, the Dean may determine whether a change of grade is warranted.

A complaint filed with the OIE and a Formal Grade Appeal may be filed concurrently. Filing a complaint of discrimination/retaliation with the OIE regarding a grade does not change the time requirements for filing a grade appeal based on this policy.

### *3.6.1 Informal Appeal Procedure*

The student is encouraged to discuss concerns and disputes over final course grades with the faculty member, prior to filing a formal grade appeal, to understand the basis of the grade. The faculty member is expected to be available to the student, to respond to emails, and to discuss grades so that, if possible, grade disputes can be resolved informally. If pursuing a grade appeal using the informal process, students and faculty must keep in mind the deadline for filing a formal appeal. An informal appeal does not change the deadline for filing a formal appeal.

### *3.6.2 Formal Appeal Procedure*

In situations where an informal resolution does not occur or is not successful, the student may appeal the final course grade to the Department Chair of the department offering the course, hereby referred to as 'the Chair'. The appeal must be written and emailed. It must describe the precise basis for the appeal (see allegations above). Any pertinent information must be attached to the email and submitted with the appeal in order to be considered in this or subsequent appeals, for example:

- course syllabus,
- instructions for assignments indicating grading procedures/expectations including grading rubrics and grading scales
- emails or other communications between the student and faculty relevant to the allegations.

The appeal must be submitted within twenty (20) business days after the first day of classes of the next academic term (fall, spring, summer) after the academic term in which the final grade was posted in Banner/D2L. The Chair will provide the faculty member who assigned the grade with the opportunity to respond in writing to the student's appeal. The Chair (or the Chair's designee) will review the allegations, conduct any additional fact finding as needed and then provide a decision in writing to the student. The decision should be issued within twenty (20) business days of the receipt of the complaint in the Department. The Chair's written decision will specifically address the relevant issues raised by the student. If there is a delay in issuing a decision by the deadline, the Chair/Chair's designee will notify the student and faculty member explaining the reason for needing additional time to issue a decision. The maximum amount of additional time to issue a decision is ten (10) business days.

The student may appeal the Chair's decision within twenty (20) business days of being notified of the Chair's decision. Such an appeal will be made, in writing, to the Dean of the College in which the Department is located. At the Dean's discretion, the Dean can appoint an advisory panel, consisting of two (2) faculty members from outside the department where the grade was awarded and one (1) student to review the written documentation and make a recommendation to the Dean. The advisory panel may invite the student and the faculty member who awarded the grade to meet with the panel to share each party's position on the grade dispute. The panel will provide a written recommendation to the Dean within ten (10) business days of the receipt of the appeal.

The Dean will issue a decision to the student, in writing, within ten (10) business days of the receipt of the report from the advisory panel or within twenty (20) business days of the receipt of the written complaint from the student if no panel was appointed. If there is a delay in issuing a decision by the deadline, the Dean will notify the student and faculty member explaining the reason for needing additional time to issue a decision. The maximum amount of additional time to issue a decision is ten (10) business days.

The student may appeal the College Dean's decision (or Graduate College Dean's decision if applicable) to the Provost or Provost's designee, in writing, within twenty (20) business days of being notified of the Dean's decision.

The Provost/Provost's designee will issue a decision to the student in writing within twenty (20) business days of receiving the appeal. The Provost/Provost's designee will notify the student and faculty member and provide a justification if there is a delay in issuing a decision by the deadline. The maximum amount of additional time is 10 business days.

***The Provost's decision is final. Decisions regarding grades may not be appealed to the President of KSU nor to the Board of Regents (per BOR Policy Manual, Section 6.26).***

Nothing in this grade appeal process prohibits the parties from settling this matter at any stage. However, any attempt to settle the matter through mediation does not affect the deadlines assigned to each level of the grade appeals process.

It is University policy that students filing grievances and those who are witnesses are protected from retaliation.

### 3.7 Repeated Courses

When an undergraduate course completed at Kennesaw State University is repeated at KSU (excluding courses approved for repeatability with each attempt counting separately for degree completion) with a higher grade, the highest grade received will be counted in the institutional GPA calculations. The student's permanent record and cumulative grade point average will retain all course attempts and grades.

If a student completed a course at KSU then earned a higher grade repeating the same course at another institution during or after Fall Semester 2015, the KSU course grade will be excluded from the student's institutional GPA the next semester the student is enrolled at KSU.

Please see policy *2.18 Repeated Course Registration* for information on registration restrictions for repeated courses.

### 3.8 Semester Honors

#### *3.8.1 Dean's List*

An undergraduate student is eligible for the Dean's list at the end of a term if the student was enrolled in at least 9 credit hours awarding A, B, C, D, or F grades for that term and earned a term grade point average of at least 3.5 (but less than 4.0).

#### *3.8.2 President's List*

An undergraduate student is eligible for the President's list at the end of a term if the student was enrolled in at least 9 credit hours awarding A, B, C, D, or F grades for that term and earned a term grade point average of 4.0.

## **4.0 Academic Standing, Dismissal, & Readmission**

### 4.1 Academic Standing

#### 4.1.1 Good Standing

An undergraduate student is in good standing when the student's institutional GPA is 2.00 or higher.

#### 4.1.2 Academic Probation

A student will be placed on academic probation at the end of any term for which the student's institutional grade point average is below 2.00. A student may enroll in no more than 13 credit hours while on academic probation.

#### 4.1.3 Academic Dismissal

A student on academic probation will be dismissed if:

- the student does not earn a 2.00 or higher term grade point average or
- the student is on academic probation for three (3) consecutive semesters.

An academically dismissed student is not in good academic standing at KSU and is not eligible for immediate readmission.

### 4.2 Reinstatement to the University after Dismissal

- After the first academic dismissal, a student may be considered for readmission after an absence of one semester. A dismissed student must apply for readmission through the Office of Undergraduate Admissions prior to posted deadlines.
- After the second academic dismissal, a student may be considered for readmission after an absence of one calendar year from the end of the semester for which the second dismissal occurred. A dismissed student must apply for readmission through the Office of Undergraduate Admissions prior to posted deadlines.
- After the third academic dismissal, the student will no longer be eligible for readmission.

Any exceptions to this policy must be appealed and approved by the Academic Standing Committee per [BOR Policy Manual, Section 6.26](#). Information on academic appeals is available through the Office of the Registrar [website](#).

### 4.3 Academic Renewal

An undergraduate student who was readmitted to KSU after a period of absence of three calendar years or longer is eligible for Academic Renewal. The institutional GPA may be restarted by petitioning the Office of the Registrar for an Academic Renewal.

The institutional GPA is used to determine academic standing (probation or dismissal), eligibility for program admission, and with some restrictions, eligibility for graduation and honors. Courses completed before Academic Renewal was granted do not count toward residency requirements for graduation or honors.

A student requesting Academic Renewal must contact the Office of the Registrar to complete the Academic Renewal Request Form. The request must be submitted within one calendar year of the first day of classes of the student's first semester of reenrollment. A student can be granted Academic Renewal status only one time within the USG system. Once granted, the petition for Academic Renewal cannot be rescinded.

## 5.0 Program Requirements & Graduation

### 5.1 Graduation Requirements

To be eligible to receive a baccalaureate degree, a student must meet the following requirements:

- Each undergraduate student must have a minimum institutional Grade Point Average (GPA) of 2.0 for graduation with at least 30 hours of credit for KSU coursework not excluded due to Academic Renewal or the Repeated Course Policy. If students have fewer than 30 earned hours of credit for non-excluded KSU coursework, they must have a 2.0 cumulative grade point average. Specific degree programs may have higher GPA requirements.
- Complete all program hour requirements outlined in policy *5.2 Degree Program Hours*
- Meet all residency requirements outline in the policy *5.3 Residency Requirements*
- Successfully complete course work or pass a satisfactory examination that meets *5.9 State Legislative Requirements* outlined in the catalog.
- Complete all required General Education Core Curriculum courses; ENGL 1101 AND ENGL 1102 require a grade of "C" or higher (or equivalents if a transfer student) as outlined in *5.11 Campus Writing Requirement*.
- Complete the chosen program of study with the grade of "C" or better in all courses listed under the major, including those listed as Lower Division Major Requirements (Area F).
- Satisfactory complete any grade of I (Incomplete), IP (In Progress), or NR (Not Reported) grades

In all instances, meeting the requirements for graduation is the responsibility of the student.

### 5.2 Degree Program Hours

Baccalaureate degrees consist of a minimum of 120 semester hours. Exceptions to the maximum degree length requirements have been made with the approval of the Board of Regents. A baccalaureate degree program requires at least 21 semester hours of upper-division courses in the major field to be completed at KSU, and at least 39 semester hours of upper division work overall are required for the degree.

### 5.3 Residency Requirements

Students must earn at least 25 percent of the credit hours required for a baccalaureate degree, which includes at least 21 hours of upper-division courses (Coles College of Business

requires 33 hours), through instruction offered by Kennesaw State. Credit hours earned through instruction offered by KSU does not include coursework transferred from other institutions, prior learning assessments, credit by examination (e.g., CLEP, AP, IB), or credits earned through a consortium that did not originate from KSU (i.e., cross registration).

#### 5.4 Catalog for Graduation Evaluation

A student may elect to be evaluated for graduation from any catalog in effect during the time they have been enrolled, provided that enrollment has been continuous, and the student does not change majors. Continuous enrollment is defined as a student being enrolled in at least one semester per academic year (Fall, Spring, or Summer). If a student changes majors, they will be evaluated for graduation using the catalog in effect at the time of the change, or any subsequent catalog as long as students are continuously enrolled. Catalog selection applies only to the course requirements of that catalog; all other academic procedures and graduation requirements must be satisfied according to regulations in effect at the time of graduation. Students readmitted will be evaluated for graduation from the catalog in effect at the time of readmission or reinstatement, or any catalog in effect during subsequent periods of continuous enrollment.

Students may not elect a catalog for a discontinued/deactivated degree program.

#### 5.5 Age of Credit

Courses, in general, have no limit imposed on the age of credit. However, each department may elect to restrict the age of courses applied to a specific degree program.

#### 5.6 Duplicate Courses or Dual Credit

If students have two courses that are so similar as to be considered the same, they may only use one to meet program of study degree requirements. Only one course may be counted as hours earned, and only one course may be used for graduation purposes.

#### 5.7 Petition to Graduate

Undergraduate students should submit a formal petition for the degree and/or certificate through the online petition process no later than the deadline published on the Registrar's website and pay the graduation fee noted below. Upon degree completion, the degree will be awarded.

*Graduation Petition Fees:*

Certificate Fee	\$15.00
Graduate Petition Fee	\$50.00
Undergraduate Petition Fee	\$50.00

Participation in a commencement ceremony does not constitute earning a degree, and the conferred date on a diploma will coincide with the semester that that degree requirements are completed.

## 5.8 Additional Programs

### *5.8.1 Double Majors*

Double major consists of two separate majors in the same baccalaureate degree (for example, Bachelor of Science with separate majors in Mathematics and Physics). One diploma will be issued for the degree.

The following apply to graduation with a double major:

- All of the requirements for two KSU majors are satisfied, including all residency and institutional requirements for each major; and
- KSU courses taken to meet residency and institutional requirements of one major may be counted toward the residency and institutional requirements for the second major; and
- The second major must be completed at the time of graduation with the first major.

Whether in one degree or two, students may not graduate with more than two majors.

### *5.8.2 Dual Degree*

A dual degree consists of two separate majors leading to different baccalaureate degrees (for example, Bachelor of Arts degree with a major in English and Bachelor of Science degree with a major in Mathematics). Two diplomas will be issued.

The following apply to graduation with a dual degree:

- All of the requirements for two KSU degree programs are satisfied, including all residency and institutional requirements for each degree program; and
- KSU courses taken to meet residency and institutional requirements for one degree may be counted toward the residency and institutional requirements of the second degree; and
- The second degree must be completed at the time of graduation with the first degree.

### *5.8.3 Second Bachelor's Degrees*

A second bachelor's degree consists of students who have previously earned or are currently pursuing a baccalaureate degree from an institution regionally accredited

by the Commission on Colleges and are also enrolling and obtaining a second baccalaureate at KSU. The second degree can be the same as the first degree (for example, Bachelor of Science in Mathematics – first degree, and Bachelor of Science in Physics – second degree) or the second degree can be different from the first degree (for example, Bachelor of Arts in English– first degree, and Bachelor of Science in Mathematics– second degree).

The second baccalaureate degree requires satisfying the following requirements:

- Meet all major requirements (including prerequisite courses) listed for the chosen program of study.
- Meet all General Education Core Curriculum requirements
- Complete the *5.9 Georgia Legislative History and Constitution* requirements.
- Earn at least 25 percent of the credit hours, through instruction offered by Kennesaw State. If the first baccalaureate degree was earned at KSU, these hours must be in excess of any hours used toward the first baccalaureate degree, unless the first degree was received within five years of receiving the second degree.
- Complete at least 21 semester hours of upper-division coursework in residence beyond the courses required for the student's first degree.
- If the first degree is earned at Kennesaw State University, a student may seek a second baccalaureate degree only if the second major is different from the first major.
- Complete (for students with majors in the Bagwell College of Education) the lower division major requirement courses in Education.

#### 5.8.4 Certificate Programs

##### 5.8.4a Stand-Alone Certificate Programs :

- Students must apply for a stand-alone certificate to be awarded the certificate
- Coursework completed for a degree program may be applied to a certificate and vice versa provided a student is admitted in both. 100% sharing between certificate and degree program is permitted.
- The Office of the Registrar will issue the stand-alone certificate upon completion of the requirements.

#### 5.8.4b Embedded Certificates:

- Students must apply for an embedded certificate using the form found on the Registrar's website (<https://kennesaw.edu/registrar>) to be awarded the certificate
- Embedded certificates are those certificates that are only awarded to a student upon completion of a degree and are a self-contained set of courses embedded in a major/stand-alone degree.
- The Office of the Registrar will issue the embedded certificate upon completion of the degree requirements, which include the requirements for the embedded certificate.

#### 5.8.5 Minor Requirements:

- A minor program is a prescribed area of academic study consisting of 15–18 semester hours.
- At least nine of the required hours must be at the upper-division level, i.e. courses numbered 3000 or above.
- At least six credit hours of the upper division credit hours must be earned in residence at KSU.
- The prescribed courses for a minor may be taken from one or more academic disciplines.
- Courses taken to satisfy Core Area F (lower division major requirements) may be counted as coursework in the minor.
- Courses taken to satisfy Core Areas A through E (General Education Core Curriculum) may NOT be counted as coursework in the minor.
- Students must earn a grade of at least "C" in all course work applicable to a formal minor.
- Coursework completed for a degree program may be applied to a minor. 100% sharing between a major and minor is permitted. A course may satisfy the requirements of the major, a first minor and a second minor.
- The minor must be declared and completed before, or at the same time as degree completion. Additional minors must be declared through the Office of the Registrar using a completed and approved minor form posted on the Registrar Forms website [kennesaw.edu/registrar](https://kennesaw.edu/registrar)

It is highly recommended that if a student plans to complete a minor, the student consults an advisor to submit the minor declaration three semesters prior to degree completion.

#### 5.9 State Legislative Requirements

Undergraduate students cannot graduate or receive a degree without successfully completing course work or passing a satisfactory examination on the history of the United

States and the history of Georgia and the provisions and principles of the United States and the Constitution of Georgia.

KSU degree-seeking students satisfy these requirements by attaining a grade of "D" or better in the course POLS 1101 along with the course HIST 2111 or HIST 2112.

Transfer credit may also satisfy all the requirements if transferred work meets the qualifications outlined here [kennesaw.edu/registrar/transfer](http://kennesaw.edu/registrar/transfer)

#### 5.10 Core Curriculum Requirement

Students must complete the General Education Core Curriculum at time of graduation. Per BOR Academic & Student Affairs Handbook policy 2.4.4, students entering the USG system Fall 2012 or later who have earned 30 hours but have not completed Area A must enroll in the next course necessary to make progress toward completing this Area in every semester in which they take classes.

#### 5.11 ENGL 1101 and 1102: The Campus Writing Requirement

At Kennesaw State University ENGL 1101 and ENGL 1102 (English Composition I & II) are required for all undergraduate degrees. A grade of "C" or better is required for ENGL 1101 and ENGL 1102.

#### 5.12 Latin Honors

Recognition will be given to each baccalaureate student who maintained a high institutional grade point average. Graduation with honors requires that students earn at least 30 semester credit hours in residence at Kennesaw State University for the bachelor's degree. Double Owl courses will be included in the 30 earned semester hours required for honors.

<i>Honor Level</i>	<i>GPA</i>
Cum Laude	3.5-3.69
Magna Cum Laude	3.7-3.89
Summa Cum Laude	3.9 or higher

To receive honors at graduation, "second degree" and Academic Renewal students must have at least 30 earned hours of credit at KSU after the "second degree" or Academic Renewal status was granted. Students who have repeated courses must have at least 30 earned hours of credit at KSU after the hours for the repeated courses have been excluded.

## **6.0 Transfer & Placement Policies**

### 6.1 Transfer Evaluations

Once a student is accepted to Kennesaw State University, the transcripts are evaluated for eligible transfer credit for the student's selected degree program. Transfer credit may be awarded from regionally accredited institutions, military experience, and credit by exam as outline below.

Transfer credit evaluations are determined by the Registrar transfer evaluation staff in collaboration with academic departments. Transfer credit evaluations must adhere to USG transfer policies, reciprocity agreements, and other approved articulation agreements.

Transfer credit/grades completed at other institutions will not be used in calculating grade point averages at Kennesaw State University.

Transfer credit may be awarded for course work with a minimum grade of "D". However, a minimum grade of "C" is required for ENGL 1101 & ENGL 1102 and major-related courses and/or prerequisites, unless otherwise noted in the catalog. Provided that native and transfer student are treated equally, institutions may impose additional reasonable expectations, such as a grade of "C" in Area A-F courses.

Transfer credit for readmission students will be re-evaluated in accordance with the transfer evaluation policies in effect for the term a student is readmitted to KSU.

Copies of transcripts from other universities cannot be reissued to the student.

For additional transfer information and links to transferable courses, please visit [transfer.kennesaw.edu](http://transfer.kennesaw.edu)

### 6.2 Accreditation/Transfer Credit Practice

Transfer Credit is awarded from institutions holding Regional Accreditation status. Credit may be accepted for alternative accrediting bodies specifically recognized by AACRAO as long as the acceptance practice is reported as "AG" (generally accepted) by the flagship institution of that state.

### 6.3 Transferring Core Curriculum within University System of Georgia (USG)

Students transferring to Kennesaw State University (KSU) from another University System of Georgia (USG) institution, or from KSU to another USG institution may take advantage of the General Education Program Transfer Rules outlined in Academic & Student Affairs Handbook 2.4.9. Students successfully completing a course in one institution's Areas A-E will receive full credit in Areas A-E for the course upon transfer to another USG institution as long as the following conditions are met:

- The course is within the Area hours limitations of either the sending institution or the receiving institution and
- The student does not change from a non-science or engineering major to a science or engineering major, or a non-health major to a health major

Please note that additional courses may be required if they are prerequisites to major courses. Area F (lower division major) courses require a grade of "C" or better.

#### 6.4 Technical College Systems of Georgia (TCSG)

Credit will be accepted from TCSG institutions in observance of USG/TCSG transfer policy outlined in the Academic & Student Affairs Handbook Section 2.17. Additionally, credit may be accepted for collegiate-level coursework at SACSCOC-accredited TCSG institutions.

#### 6.5 International Transfer Credit Practice

International transcripts must be evaluated and endorsed/certified/accredited by an evaluation agency. The evaluation agency must be a current member of the National Association of Credential Evaluation Services (NACES) or Association of International Credential Evaluators, Inc (AICE). A course-by-course evaluation is required.

For transfer credit evaluations, international course descriptions must have been translated by a recognized translation service and certified as a true and correct translation.

#### 6.6 Military Transfer Credit Practice

Military Transfer Credit may be awarded for undergraduate students accepted to Kennesaw State University Fall 2012 or later who have served in the U.S. Military and who desire to have their military experience considered for transfer credit. Students must request their official Joint Services Transcript (JST) be sent directly from JST to the Office of the Registrar.

Students should submit their JST transcript for evaluation prior to the add/drop period of their first term of matriculation at Kennesaw State University in order to allow for accurate academic advisement and accurate determination of financial aid eligibility. The final deadline for any military transfer credit to be awarded to a student's record is the last day of classes of their first term of matriculation at Kennesaw State University. Students seeking to have any military transfer credit added to their record after this deadline must submit an appeal for review by the Office of the Registrar and the Office of Financial Aid in order to determine if any military transfer credit can be awarded.

All experience and coursework listed on a JST transcript will be evaluated for applicability toward a student's current degree program. Students may have the option of accepting or declining the military credit determined to be applicable toward their degree program. As of Fall 2019, awarded military transfer credit will receive a grade of "K". From Fall 2012 to Summer 2019, all awarded military transfer credit received a grade of "S". For more information

regarding these types of grades please refer to the 3.0 GRADING POLICIES section of this catalog. All previously awarded military transfer credit will remain as a grade of "S" on a student's record. Regardless of the term credit is awarded, military transfer credit cannot be removed from a student's record.

If a student changes their degree program at a future date, they have the option to submit an appeal for the Office of the Registrar and the Office of Financial Aid to review and determine if the student is eligible for any additional JST credit to apply toward their new degree program.

Military Transfer Credit is not applied toward institutional graduation residency requirements and is not calculated in the graduation GPA. Kennesaw State University limits academic residency for active-duty service members (including Reservists and National Guardsmen) to no more than twenty-five percent of the degree requirements for all undergraduate degrees. Active-duty service members can satisfy academic residency requirements at any time during their program of study, specifically avoiding any final year or final semester residency requirement, subject to stated requirements in specific course areas such as majors.

Kennesaw State University affirms its commitment to fair, equitable, and effective policies and practices that recognize and deal with the special conditions faced by military students who want to obtain a college education.

### 6.7 Credit by Exam

Credit by Exam hours are not calculated in the Institutional GPA. The graduation residency requirement serves as the limit for the amount of credit by exam credit a student may receive as Credit by Exam hours are not applied toward the institutional graduation Residency Requirement.

Prior Learning Assessment (PLA) credit is not awarded based upon high school or college transcripts. Official score reports for AP, IB, CLEP, DSST and FLATS must be sent from the testing agency to Kennesaw State University to be considered for credit. The following are examinations that qualify for credit by exam:

#### *6.7.1 College Level Examination Program (CLEP) for Advanced Standing*

Students are eligible to take standardized examinations in a number of areas to earn credit for certain specific courses, provided a minimum score is attained on the tests. Credit earned will be recorded on the student's permanent record. For specific information concerning subject areas in which tests are available, the cost and minimum score required for credit, please visit Academic Testing Services at <http://testing.kennesaw.edu> and review Tests Offered. CLEP credit may not be awarded for a course previously failed or audited. For additional information, please visit <https://www.kennesaw.edu/transfer/resources/credit-by-exam.php>

### *6.7.2 Advance Placement (AP)*

Kennesaw State University honors Advance Placement (AP) credit for certain classes in which an equivalent is offered and for which the required grade is achieved. For details on the scores required and course equivalencies, please visit the Registrar's website and review Credit By Exam at <https://www.kennesaw.edu/transfer/resources/credit-by-exam.php>

### *6.7.3 International Baccalaureate (IB)*

Kennesaw State University honors International Baccalaureate (IB) credit for certain classes in which an equivalent is offered and for which the required grade is achieved. For details on the scores required and course equivalencies, please visit the Registrar's website and review Credit By Exam at <https://www.kennesaw.edu/transfer/resources/credit-by-exam.php>

### *6.7.4 DANES Subject Standardized Test (DSST)*

Kennesaw State University honors DANES Subject Standardized Test (DSST) credit for certain classes in which an equivalent is offered and for which the required grade is achieved. For details on the scores required and course equivalencies, please visit the Registrar's website and review Credit by Exam at <https://www.kennesaw.edu/transfer/resources/credit-by-exam.php> Credit may not be awarded for a course previously failed or audited.

### *6.7.5 Departmental Course Examination for Advanced Standing*

Academic Departments do on occasion offer course examinations for credit to students who offer satisfactory evidence. A list of available exam options may be found on the Prior Learning Assessment website under Exam Options for Credit at <http://pla.kennesaw.edu>. These exam options vary by course and by department. Requirements to sit for the exam are determined by the academic home department and described on the Prior Learning Assessment (PLA) website under information and future Scholarships, Departmental Plans at <http://pla.kennesaw.edu>

If the required score for the examination is met, students will receive the credit equaled with the course.

Authorization will not be given for a course under any of the following circumstances:

- If the student has previously audited the course
- If the student has previously registered and received a grade in the course
- If the student has previously scheduled the course but has withdrawn after the first two calendar weeks from the day the semester begins.
- If the student is currently enrolled in the course.

- If the course is a prerequisite or an introduction to a course already completed. (This provision does not apply to skills courses such as physical education or music, for example).
- If the course may be granted credit by a CLEP exam.
- Credit earned by institutional advanced standing examination may not be used more than one half of the major-field or minor-field requirements in a program of study.

A passing grade for an institutional advanced standing examination is a grade of 75 percent or higher for a lower-division course and a grade of 80 percent or higher for an upper division course.

A fee of \$60 will be assessed for each institutional advanced standing examination attempted; no course may be attempted more than once.

A student must be admitted to the university at the time of application for advanced standing and must be enrolled in the university to receive credit for a course by advanced standing examination.

#### 6.8 Substitutions of Transfer or Advanced Standing credits

Students with advanced standing credits or transfer credits for courses similar to those for the degree, minor, or stand-alone certificate may be permitted to satisfy KSU's requirements through approved course substitutions. Students seeking such substitutions should contact the academic department of the respective course discipline.

#### 6.9 Learning Support

Learning Support programs are intended to serve students who need additional support in mathematics or English (reading/writing) in accordance with University System of Georgia (USG) Academic & Student Affairs Handbook section 2.9.

Students who may be served within the Learning Support program are:

- Students who do not meet USG criteria to exempt Learning Support placement.
- Students who are determined by the institution to need academic assistance even though they are eligible to be admitted without Learning Support requirements under USG policy.
- Students who elect to enroll in Learning Support courses to gain additional support while they are enrolled in entry-level English and mathematics courses.

Learning Support courses are offered exclusively in "co-requisite" format. The co-requisite format means that students requiring Learning Support will enroll in both a collegiate course (ENGL 1101, MATH 1101, MATH 1111 or STAT 1401) and a co-requisite Learning Support course (ENGL

0999, MATH 0997, MATH 0998, or MATH 0999, STAT 0996) that is designed to support mastery of the skills and concepts needed to pass the collegiate course.

Grades received in learning support co-requisite courses are not included in the calculation of a student's grade point average (Institutional or cumulative). Failing grades in these courses will be considered for the purpose of determining satisfactory academic progress.

#### 6.10 Mathematics Placement Policy

Students seeking to enroll in the following courses without taking prerequisite courses may do so under the following conditions:

##### **MATH 1113**

High school GPA  $\geq$  2.8 AND

ACT math score  $\geq$  23 or SAT math score  $\geq$  570 (540 if taken prior to March 2016)

OR

By Placement Exam

##### **MATH 1190 and MATH 1179**

High school GPA  $\geq$  3.2 AND

ACT math score  $\geq$  26 or SAT math score  $\geq$  620 (600 if taken prior to March 2016)

OR

By Placement Exam

##### **MATH 1160**

High school GPA  $\geq$  3.2 AND

ACT math score  $\geq$  26 or SAT math score  $\geq$  620 (600 if taken prior to March 2016)

OR

By Placement Exam

#### 6.11 Mathematics "K" Credit Policy

In order to receive K Credit, the student cannot have any previous attempts in the prerequisite course (incl. Withdrawal, Audit, or any other grade).

Transfer students are granted the appropriate K Credit during their initial transfer evaluation upon admission to KSU. KSU students or their advisor may contact the Registrar's Office by email or by Advanced Standing form to request K-Credit. There is no fee associated with the award of K Credit.

*Students that transfer in:*

- MATH 1179 with a "C" or better and do not have credit for any lower level Math courses can receive K Credit for MATH 1113 only.
- MATH 1190 with a "C" or better and do not have credit for any lower level Math courses can receive K Credit for MATH 1113 only.
- MATH 2202 with a "C" or better and do not have credit for any lower level Math courses can receive K Credit for MATH 1113 and MATH 1190.
- MATH 1160 with a "C" or better and do not have credit for any lower-level Math courses can receive K Credit for MATH 1111 only.

*Mathematics Advisement and Placement (MAP)*

Students who place into:

- MATH 1160 by any MAP mechanism can receive K Credit for MATH 1111 only after successful completion (with a grade of "C" or better) of MATH 1160.
- MATH 1179 or MATH 1190 by any MAP mechanism can receive K Credit for MATH 1113 only after successful completion (with a grade of "C" or better) of MATH 1179 or MATH 1190.
- MATH 1190 by any MAP mechanism and choose to take MATH 1160 are only eligible to receive K Credit for MATH 1111. K Credit for MATH 1111 can only be awarded after successful completion (with a grade of "C" or better) of MATH 1160.

*Credit by Exam*

- Students that receive Credit by Exam for MATH 1190 and have not taken any lower-level courses at KSU or a transfer institution can receive K Credit for MATH 1113 only.

## **7.0 Faculty Curriculum Development Policies**

*\*\*Policies in the section below are for faculty proposing courses.\*\**

### 7.1 Policy on Course Cross-Leveling

A cross-leveled course is a course that is offered by departments across numbers and/or level. The two courses that are cross-leveled are owned by the same department. It must have documentation with the Office of the Registrar and a proper description in the course catalog. (Requests for policy exceptions may be submitted to UPCC and/or GPCC.)

Cross-leveled courses are limited to the following two course pairs: 1) undergraduate upper division course/graduate course, and 2) graduate course/doctoral course. 9000 level special topics, directed study, thesis, internships, practica, and dissertation courses may not be cross-leveled.

Cross-leveled courses must be supported by a rationale for combining students of different levels.

Cross-leveled courses must ensure there is a clear distinction between the requirements of undergraduate and graduate students or graduate and doctoral students, with more advanced course work for the higher level degree program. This will be demonstrated in two different syllabi that include, but are not limited to, different objectives, assessments and/or outcomes.

Cross-leveled courses at the graduate level must be taught by faculty with graduate faculty status.

Sections of cross-leveled courses must share the same modality.

### 7.2 Zero-credit Hour Policy

Zero-credit courses allow students the opportunity to engage in innovative experiences beyond designated credit hours of a program. Programs may develop zero-credit courses for internships, participation in research, experiential learning, career preparation, international education, teaching assistantships, or other enhanced learning experiences for a major. Zero-credit courses may serve as pre-requisites for other courses.

Courses offered for zero-credits must be approved through the regular KSU curriculum approval process. Zero-credit courses are offered for no credit and do not incur tuition or university fee charges; however, course fees may apply. Zero-credit courses have satisfactory/unsatisfactory grading and will be reflected on a student's transcript but will not be included in a student's GPA. These courses must have an instructor of record and a syllabus with all required elements. Courses developed for zero-credit must not exceed 45 experiential hours or 15 contact hours and must recognize faculty workload through teaching

or service. Programs must limit the number of zero-credit courses required to prevent overburdening of the students and the faculty/staff. These courses are not required to adhere to the curricular calendar and may be offered at any point during the year.

Zero-credit courses already in the catalog are exempt from this policy. As with all courses, if a course change is pursued, it is reconsidered under current policies. Exceptions to this policy will be considered if a justification is included in the proposal for curriculum committee review.

# **KSU's General Education Core Curriculum Program**

Kennesaw State University's General Education Core Curriculum program offers a comprehensive series of interrelated courses in the liberal arts and sciences for all KSU students. Whereas the major program contributes depth within a chosen specialization, the General Education Core Curriculum Areas A-E provide a breadth of understanding within a variety of disciplines. Together, the General Education Core Curriculum and the major degree program offer students the knowledge, skills, and perspectives to become informed and engaged citizens living in a diverse and global community.

KSU participates in eCore, a cooperative agreement among SACSCOC-accredited institutions of the University System of Georgia (USG) to offer online general education courses. To learn more about eCore courses click [here](#) for more information.

## **General Education Core Requirements at KSU**

Throughout the University System, the core curriculum consists of 42 credit hours through five areas A, B, C, D, and E.

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### **Area A: Communication and Quantitative Learning (9-10 Credit Hours)**

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#### **Area A1: Communication (6 Credit Hours)**

Learning Outcomes: 1) Students will write and communicate at a college level in various modes, media, and/or rhetorical contexts. 2) Students will demonstrate an ability to comprehend, analyze, and interpret texts in various modes, genres, media and/or contexts.

Complete both of the following courses:

- ENGL 1101: English Composition I
- ENGL 1102: English Composition II

#### **Area A2: Quantitative Learning (3-4 Credit Hours)**

Learning Outcome: Students will demonstrate the ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables) and/or convert information into mathematical forms at a level appropriate for the complexity of programs in a college-level course.

Select one course from the following:

- MATH 1001: Quantitative Reasoning

- MATH 1101: Introduction to Mathematical Modeling
- MATH 1111: College Algebra
- MATH 1113: Precalculus
- MATH 1190: Calculus I
- STAT 1401: Elementary Statistics

**Science Majors:** Students must take MATH 1113

**Engineering Majors:** Students must take MATH 1190

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### **Area B: Institutional Options (5 Credit Hours)**

#### **Area B: Critical Thinking (5 Credit Hours)**

Learning Outcome: Students will evaluate and synthesize information to support ideas and perspectives.

#### **B1: Critical Thinking (2 Credit Hours)**

Complete the following course:

- ECON 1000: Contemporary Economic Issues

#### **B2: Critical Thinking (3 Credit Hours)**

Select one course from the following:

- BLCK 1102: Issues in Africa and African Diaspora Studies
- AMST 1102: American Identities
- ASIA 1102: Introduction to Asian Cultures
- COMM 1100: Human Communication
- FL 1002: Elementary Foreign Language and Culture II
- CHIN 1002: Elementary Chinese II
- FREN 1002: Elementary French II
- GRMN 1002: Elementary German II
- ITAL 1002: Elementary Italian II
- JAPN 1002: Elementary Japanese II
- KOR 1002: Elementary Korean II
- LATN 1002: Elementary Latin II
- PORT 1002: Elementary Portuguese II
- RUSS 1002: Elementary Russian II
- SPAN 1002: Elementary Spanish II
- GWST 1102: Love and Sex
- LALS 1102: Understanding Latin America
- LDRS 2300: Leadership & Intercultural Competence
- PAX 1102: Understanding Peace and Conflict

- PERS 2700: Perspectives of the World of Work
- POLS 2401: Global Issues
- RELS 1102: Introduction to Religion

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### **Area C: Humanities, Fine Arts, and Ethics (6 Credit Hours)**

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#### **Area C1: Humanities**

Learning Outcome: Students analyze, evaluate, and interpret diverse forms of human communication in their studies of the humanities.

#### ***C1: Humanities (3 Credit Hours)***

Select one course from the following:

- ENGL 2110: World Literature
- ENGL 2120: British Literature
- ENGL 2130: American Literature
- ENGL 2140: African American Literature
- PHIL 2010: Introduction to Philosophy

#### **Area C2 : Fine Arts**

Learning Outcome: Students will analyze creative works from multiple international cultures in relation to the historical, political, economic, sociocultural, aesthetic, or personal contexts in which those works emerged.

#### ***C2: Fine Arts (3 Credit Hours)***

Select one course from the following:

- ART 1107: Art in Society
- DANC 1107: Dance in Society
- MUSI 1107: Music in Society
- TPS 1107: Theatre in Society

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### **Area D: Science, Mathematics, and Technology (10-12 Credit Hours)**

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#### **Area D1: Applied Math**

Learning Outcome: Students will demonstrate an ability to effectively apply symbolic representations to model and solve problems.

D1: Applied Math (3- 4 Credit Hours)

Select one course from the following:

- STAT 1401: Elementary Statistics
- DATA 1501: Introduction on Data Science
- MATH 1113: Precalculus
- MATH 1160: Elementary Applied Calculus
- MATH 1179: Calculus for Life Science
- MATH 1190: Calculus I
- MATH 2202: Calculus II

**Science Majors:** Students must take MATH 1179 or higher

**Engineering Majors:** Student must take MATH 2202

**Area D2: Natural Sciences**

Learning Outcome: Students will demonstrate an understanding of college-level scientific principles, theories, laws, and apply them to solve problems and explore natural phenomena.

D2: Natural Sciences (7-8 Credit Hours)

Science Majors and **Engineering Majors:** Select two course pairs from the following (8 Credit Hours)

- CHEM 1211: Principles of Chemistry **and** CHEM 1211L: Principles of Chemistry Laboratory I
- CHEM 1212: Principles of Chemistry II **and** CHEM 1212L: Principles of Chemistry Laboratory II
- PHYS 1111: Introductory Physics I **and** PHYS 1111L: Introductory Physics Laboratory I
- PHYS 1112: Introductory Physics II **and** PHYS 1112L: Introductory Physics Laboratory II
- PHYS 2211: Principles of Physics I **and** PHYS 2211L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II **and** PHYS 2212L: Principles of Physics Laboratory II
- BIOL 1107: Principles of Biology I **and** BIOL 1107L: Principles of Biology I Laboratory
- BIOL 1108: Biological Principles II **and** BIOL 1108L: Biological Principles II Laboratory

Please note: Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

**Health Majors:** Select a two-semester laboratory sequence of courses from the following (8 Credit Hours)

- CHEM 1151: Survey of Chemistry I with CHEM 1151L: Survey of Chemistry Laboratory I
  - **and** CHEM 1152: Survey of Chemistry II with CHEM 1152L: Survey of Chemistry Laboratory II
- CHEM 1211: Principles of Chemistry I with CHEM 1211L: Principles of Chemistry Laboratory I
  - **and** CHEM 1212: Principles of Chemistry II with CHEM 1212L: Principles of Chemistry Laboratory II
- PHYS 1111: Introductory Physics I with PHYS 1111L: Introductory Physics Laboratory I
  - **and** PHYS 1112: Introductory Physics II with PHYS 1112L: Introductory Physics Laboratory II
- BIOL 1107: Principles of Biology I with BIOL 1107L: Principles of Biology I Laboratory
  - **and** BIOL 1108: Biological Principles II with BIOL 1108L: Biological Principles II Laboratory

**All other majors:** Select one course or course pair from the following (4 Credit Hours)

- SCI 1101: Science, Society, and Environment I
- GEOG 1112K: Weather and Climate
- GEOG 1113K: Introduction to Landforms
- CHEM 1151: Survey of Chemistry I **and** CHEM 1151L: Survey of Chemistry Laboratory I
- CHEM 1152: Survey of Chemistry II **and** CHEM 1152L: Survey of Chemistry Laboratory II
- CHEM 1211: Principles of Chemistry I **and** CHEM 1211L: Principles of Chemistry Laboratory I
- CHEM 1212: Principles of Chemistry II **and** CHEM 1212L: Principles of Chemistry Laboratory II
- PHYS 1111: Introduction to Physics I **and** PHYS 1111L: Introductory Physics Laboratory I
- PHYS 1112: Introduction of Physics II **and** PHYS 1112L: Introductory Physics Laboratory II
- PHYS 2211: Principles of Physics I **and** PHYS 2211L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II **and** PHYS 2212L: Principles of Physics Laboratory II
- BIOL 1107: Principles of Biology I **and** BIOL 1107L: Principles of Biology I Laboratory

- BIOL 1108: Biological Principles II **and** BIOL 1108L: Biological Principles II Laboratory

And select one additional course or course paired with a laboratory course from the following (3–4 Credit Hours)

- SCI 1102: Science, Society, and Environment II
- ANTH 1105: Introduction to Physical Anthropology
- GEOG 1110: The Digital Earth
- GEOG 1112K: Weather and Climate
- GEOG 1113K: Introduction to Landforms
- GEOG 1125: Resources, Society, and the Environment
- CHEM 1151: Survey of Chemistry I
- CHEM 1151L: Survey of Chemistry Laboratory I
- CHEM 1152: Survey of Chemistry II
- CHEM 1152L: Survey of Chemistry Laboratory II
- CHEM 1211: Principles of Chemistry I
- CHEM 1211L: Principles of Chemistry Laboratory I
- CHEM 1212: Principles of Chemistry II
- CHEM 1212L: Principles of Chemistry Laboratory II
- PHYS 1111: Introductory Physics I
- PHYS 1111L: Introductory Physics Laboratory I
- PHYS 1112: Introductory Physics II
- PHYS 1112L: Introductory Physics Laboratory II
- PHYS 2211: Principles of Physics I
- PHYS 2211L: Principles of Physics Laboratory II
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II
- BIOL 1107: Principles of Biology I
- BIOL 1107L: Principles of Biology I Laboratory
- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory

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### **Area E: Social Sciences (12 Credit Hours)**

#### **Area E1: U.S. Government**

Learning Outcome: Students will demonstrate a broad understanding of history, political systems or culture of the U.S.

#### ***E1: U.S. Government (3 Credit Hours)***

Complete the following course:

- POLS 1101: American Government

### **Area E2: U.S. History**

Learning Outcome: Students will demonstrate a broad understanding of history, political systems or culture of the U.S.

#### ***E2: U.S. History (3 Credit Hours)***

Select one course from the following:

- HIST 2111: Survey of U.S. History I
- HIST 2112: Survey of U.S. History II

### **Area E3: World History**

Learning Outcome: Students analyze the complexity of how historical, economic, or political relationships develop, persist, or change.

#### ***E3: World History (3 Credit Hours)***

Select one course from the following:

- HIST 1100: Survey of World History
- HIST 1111: Survey of World History I
- HIST 1112: Survey of World History II

### **Area E4: Social Sciences**

Learning Outcome: Students analyze the complexity of how historical, economic, or political relationships develop, persist, or change.

#### ***E4: Social Sciences (3 Credit Hours)***

Select one from the following:

- CRJU 1101: Foundations of Criminal Justice
- GEOG 1101: Introduction to Human Geography
- PSYC 1101: Introduction to General Psychology
- SOCI 1101: Introduction to Sociology
- STS 1101: Science, Technology, and Society
- ANTH 1102: Introduction to Anthropology
- ECON 2106: Principles of Microeconomics

# **General Education Requirements for Specific Programs:**

## **Health Programs at KSU**

At Kennesaw State University, the following programs are considered **Health Programs** for the purposes of General Education Core Curriculum Requirements:

- Exercise Science, B.S.
- Nursing, B.S.N.
- Public Health Education, B.S.

## **Science Programs at KSU**

At Kennesaw State University, the following programs are considered **Science Programs** for the purposes of General Education Core Curriculum Requirements:

- Architecture, B.ARCH
- Biochemistry, B.S.
- Biology, B.S.
- Chemistry, B.S.
- Computer Game Design and Development, BSCGDD
- Computer Science B.S.
- Construction Management, BS
- Cybersecurity B.S.
- Electrical Engineering Technology, B.S.
- Environmental Science, B.S.
- Industrial Engineering Technology, B.S.
- Information Technology, B.A.S.
- Information Technology, BSIT
- Mathematics, B.S.
- Mechanical Engineering Technology, B.S.
- Physics, B.S.
- Secondary Education, B.S.Ed.

## **Engineering Programs at KSU**

At Kennesaw State University the following programs are considered **Engineering Programs** for the purposed of General Education Core Curriculum Requirements:

- Civil Engineering, BSCVE
- Computer Engineering, B.S.
- Electrical Engineering, BSEE
- Environmental Engineering, B.S.
- Industrial and Systems Engineering B.S.
- Mechanical Engineering, BSME
- Mechatronics Engineering B.S.
- Software Engineering, BSSWE

## What is eCore?

eCore is a cooperative arrangement among institutions within the University System of Georgia (USG) to offer online general education courses. The goal of eCore courses is to make higher education more accessible within our state.

eCore courses offer students the opportunity to complete undergraduate requirements in the General Education Core Curriculum Areas A-E completely online. eCore courses are transferable within the USG as well as to most accredited colleges and universities.

### **eCore Courses Format**

eCore courses are offered in a fully online format on the Brightspace by D2L platform. Each course requires either one proctored experience or a major project of significance. eCore courses are designed, developed, taught, and supported by faculty and staff from multiple institutions in the USG, including Kennesaw State University.

Several items to note:

- eCore follows a separate calendar that may or may not coincide with the Kennesaw State University academic calendar.
- Courses are asynchronous, meaning students can log in at any time of day to access the courses. However, there is still a syllabus and schedule to follow for each course.
- All eCore students have access to online tutoring.

### **eCore Courses:**

ARTS 1100	ENGL 1101	HIST 1112	MUSC 1100
BIOL 1011K	ENGL 1102	HIST 2111	PHIL 2010
BIOL 1012K	ENGL 2111	HIST 2112	PHYS 2211K
CHEM 1211K	ENGL 2112	MATH 1001	PHYS 2212K
CHEM 1212K	ENGL 2131	MATH 1101	POLS 1101
COMM 1100	ENGL 2132	MATH 1111	PSYC 1101
CSCI 1301*	ENVS 2202	MATH 1113	SOCI 1101
DATA 1501	GEOL 1121K	(MATH) STAT 1401	SPAN 2001
ECON 2105	HIST 1111	MATH 1501	SPAN 2002

\*Note: This course is granted elective credit at KSU, it does not count towards any General Education Core Curriculum requirements.

ETEC 1101 \*\*Note: This course is not offered through KSU and does not count towards any General Education Core Curriculum requirements. Transfer students should consult the Registrar's Office for transfer-ability.

## **Additional eCore Information**

How to get started with eCore: <https://ecore.kennesaw.edu/starting/starting.php>

For additional course information visit: <http://ecore.usg.edu/courses/description.php>

Registration link: <https://ecore.kennesaw.edu/starting/registration.php>

Information about Tuition and Fees: <https://ecore.kennesaw.edu/whatitcosts/tuition.php>

Need assistance with eCore? <https://ecore.kennesaw.edu/contact/index.php>

To submit an eCore grade appeal, visit: <https://ecore.usg.edu/current-students/student-forms-and-withdrawals>

# **Teacher Education Admission, Enrollment, and Graduation Requirements**

## **Admission Requirements**

Admission to education preparation program is separate from Admissions to Kennesaw State University. Students must meet the program requirements to pursue a degree program that leads to a teaching certificate in Georgia issued by the Georgia Professional Standards Commission (PSC).

Candidates typically apply for admission to Teacher Education as sophomores, as they are completing their general education requirements. Applications for admission to Teacher Education should be submitted online through Owl Express under the "Student Services" menu. There are two phases of the application process and requirements as described below:

### **Phase I:**

1. Coursework:
  - At least 36 semester hours of accredited college coursework.
  - ENGL 1101 and ENGL 1102 with grades of "C" or higher.
  - EDUC 2110\* with a grade of "C" or higher and a satisfactory field experience evaluation. (\*or provide proof of credit from a approved Georgia Pathways Program)
2. GPA Requirements:
  - Achieved a minimum, adjusted or cumulative GPA of 2.5 for all coursework completed at Kennesaw State University
  - Transfer students with a cumulative transfer GPA (as used by KSU Admission) may be considered for teacher education for their first semester at KSU. After their first semester at KSU without teacher admission, transfer students will be required to earn a cumulative or adjusted KSU GPA as explained above.
  - No grade lower than "C" in Lower Division Major and Teaching Field courses as required by the programs in teacher education.
3. Register with the PSC to obtain a MyPSC account and PSC identification number.
4. Pass the Georgia Educator Ethics (test code 360) exam.

5. Some degree programs in teacher education have additional admissions requirements. It is the student's responsibility to consult those departments and program advisors.

Candidates will be informed that they have met Phase 1 admission requirements by email to their Kennesaw State University Student email account. Notification dates will vary depending upon many variables. At that time, you must proceed to Phase 2 to obtain your Pre-service Certification to completion the final admission phase.

### **Phase 2: Pre-service Certification**

7. Obtain Pre-Service Certificate from the PSC
  - KSU will request that teacher education candidates be issued a Pre-Service Certificate by the PSC.

To be eligible for this certificate, candidates must:

- Be admitted to and enrolled in an education preparation program leading to initial teaching certification.
- Complete the following steps through their personal MyPSC account:
  - Complete PSC Personal Affirmation questions.
  - Verify enrollment in a KSU education preparation program.
  - Submit PSC required Verification of Lawful Presence (notarized) and copy of government issued ID.
  - Apply electronically for the Pre-Service Certificate.
- Have a successful background check (conducted as part of the application process). The PSC will NOT award a Pre-Service Certificate to anyone who is currently on probation, regardless of the crime. The PSC requires a copy of the Final Disposition, signed by a judge, in order to consider the issuance of a Pre-Service Certificate.

A Pre-Service Certificate is required before the start of the first semester in which you are admitted to a teacher education program and must be maintained throughout the program to participate in field experiences associated with courses required in teacher education programs. Any field experiences beyond Area F requires a PSC issued Pre-Service Certificate.

If you are unable to receive your pre-service certificate prior to the start of the semester or if your pre-service certificate is revoked at any time during the program, please contact [BCOE\\_Admit@kennesaw.edu](mailto:BCOE_Admit@kennesaw.edu).

## **Admitted and Enrolled**

Candidates must enroll in the semester for which they have been admitted, or their admission is nullified, and they must re-apply and meet the admission requirements for a subsequent semester of intended enrollment.

## **Retention in Teacher Education**

Once admitted to Teacher Education, a candidate may not be eligible to continue in Teacher Education if:

1. Responsible, professional behavior is not exhibited in all classes, field/clinical experiences and interactions with peers and faculty, as judged by the program faculty and/or collaborating teachers and school personnel.
2. Unacceptable dispositions are exhibited in classes, meetings, and field/clinical experiences, as determined by the program faculty.
3. The candidate is found guilty of a major violation of KSU's student code of conduct or civil law.
4. Two or more "D" or "F" grades are earned in required lower and upper division courses in the candidate's institutional (adjusted) or cumulative GPA falls below 2.5 at KSU.
5. The candidate fails to observe or meet the required course and program prerequisites, including field-based teaching methods courses and clinical experiences/internships.
6. Teaching skills and effectiveness are judged by two or more faculty instructors and/or collaborating teachers to be unsatisfactory.
7. The candidate fails to adhere to professional growth feedback, formal notifications of areas for improvement, or remediation plans.
8. Any field-based classes (ex., Yearlong Clinical Experience I & II, practicums, internships, etc.) are not completed satisfactorily.
9. KSU adjusted GPA falls below 2.5 prior to the last clinical experience in the program. (ex., Yearlong Clinical Experience II).
10. The PSC suspends or revokes the Pre-Service Certification.
11. The individual fails to immediately self-report to the PSC and to the CEPP Directory any arrests or potential violations that occur after a criminal background check has been completed.

One or more of these deficiencies will trigger a review by the Admissions and Academic Standing Committee of the appropriate program area, which will determine whether the candidate will be permitted to continue in the Teacher Education program under an individualized remediation plan. Decisions to remove a candidate from the Teacher Education program will be recommended by that committee and approved by the program coordinator, department chair, and the Associate Dean of the Bagwell College of Education. When a candidate is removed from a Teacher Education program, he/she is precluded from entering or transferring into any other Teacher Education program at KSU.

### **Graduation Requirements**

Each student is expected to meet the requirements outlined in Academic Policies: 5.0 Program Requirements & Graduation.

Graduation from a teacher education program requires that you at least attempt the GACE Content exams associated with your degree field. Passing scores are required for certification by the PSC. All upper-level course work requires a grade of "C" or better and there must be a successful completion of all field experiences.

A degree is granted by Kennesaw State University upon completion of all university and program requirements while meeting minimum requirements. Individuals completing a program in education that prepares teachers at the baccalaureate level, and petitioning KSU for a degree, are expected to have met the following requirements:

1. Grades of "C" or higher in all Lower-Division Major Requirements (Area F) teaching field and professional education course work.
2. Grades of "B" or higher in Exceptional Child course (i.e. INED 3304 or similar) taken to fulfill Georgia HB671-Education of the Child with Exceptionalities, as set forth by the PSC.
3. A 2.5 institutional (adjusted) or cumulative GPA in all course work at Kennesaw State University.
4. Maintenance of current PSC issued Pre-Service Certificate.
5. Responsible professional behavior in all classes, field experiences, and interactions with peers and faculty.
6. Acceptable dispositions as determined by program faculty.
7. Attempted the GACE Content Assessment in degree field, as required for the the certification area, by November 15 for Fall graduation or April 15 for Spring graduation.

8. Successful completion of the Yearlong Clinical Experience (YCE) while demonstrating the achievement of program and unit outcomes and proficiencies through the following:
  - The entire YCE experience unless otherwise stated by the program area
  - Candidate Assessment on Performance Standards (CAPS)- The evaluation instrument used for clinical experiences
  - End-of-semester YCE surveys from school-based personnel
9. Some degree programs in teacher education have additional requirements for program completion. It is the student's responsibility to consult those departments and program advisors.

### **Georgia Teacher Certification Requirements**

Individuals completing a program in education at KSU, seeking a teaching certificate through the Georgia PSC, must have met the following requirements:

1. Awarded a KSU bachelor's degree in a teacher education program with a 2.54 institutional (adjusted) or cumulative GPA.
2. Grades of "B" or higher in course taken to meet Georgia HB671-Education of the Child with Exceptionalities.
3. Current PSC issued Pre-Service Certificate or cleared PSC background check if certification is sought after expiration of Pre-Service Certificate.
4. Approved Program Completion Form electronically submitted by KSU Certification Officer.
5. Passing scores on GACE Content Assessment aligned with degree field.
6. Successful completion of field experiences in all required grade bands, as tacked by the CEPP office.
7. Successful completion of the Yearlong Clinical Experience (YCE) under the guidance of a qualified collaborating teacher with 3 or more years of certified teaching experience.
8. Application for PSC certification is made within 5 years of degree completion. Delaying application beyond 5 years may result in additional course work or exam requirements to demonstrate candidates meet current knowledge requirements.

Graduates seeking certification outside of Georgia must first meet Georgia certification requirements. It is only after meeting eligibility requirements for certification in Georgia that paperwork for certification in another state may be completed.

# **Specific Requirements for BBA Degree**

## **Academic Policies Specific to the Coles College of Business**

A summary of some of the most significant admission, progression, and graduation policies for business majors is provided below. For additional information, visit the Business Undergraduate Advising Center on the fourth floor of the Burruss Building and check other sections of this KSU Undergraduate Catalog.

## **Requirements for B.B.A. Degree**

All business majors should take the following courses as part of their KSU General Education requirements:

- MATH 1111 College Algebra (or MATH 1113 - Precalculus)

All business majors must take MATH 1111. Students with stronger math aptitudes or backgrounds, or students considering graduate school, should take MATH 1113 and MATH 1190.

## **Leadership and Career Program**

The Leadership and Career Program is a sequence of three courses you must complete as part of your B.B.A. degree. This program is designed to help you succeed in your Major and to effectively compete in the job market. The three required courses are:

- BUSA 2150 Discovering My Major and Career
- BUSA 3150 Developing My Career Essentials
- BUSA 4150 Driving My Success

Students should take BUSA 2150 as soon as they have completed its prerequisite of ENGL 1101. Successful completion of this course is a requirement for admission to the Coles Undergraduate Professional Program (see later section). The second and third courses cannot be taken until after they are admitted to Coles. BUSA 3150 is a prerequisite for BUSA 4150.

## **Sophomore GPA Requirement**

Before a business major can be admitted to the Coles College Undergraduate Professional Program and enroll in any upper-division business courses (3000-4000 level), she or he must meet the Coles Sophomore GPA Requirement. This involves earning an Adjusted GPA of 3.00 or greater for the following seven courses:

- ACCT 2101 Principles of Accounting I
- ACCT 2102 Principles of Accounting II
- ECON 2106 Principles of Microeconomics
- ECON 2105 Principles of Macroeconomics

- ECON 2300 Business Statistics
- IS 2200 Information Systems & Communications
- BLAW 2200 Legal and Ethical Environment of Business

Regardless of whether the courses are taken at Kennesaw State University or at another acceptable accredited institution, the grades earned will be used to check this GPA requirement. If any of these courses are transferred in and are not awarded three credit hours by KSU, that difference in hours will affect the GPA calculation. A course may be repeated if necessary. However, KSU has limits on the number of course withdrawals a student may have and on the number of times a student may repeat the same course.

### **Admission to the Coles College Undergraduate Professional Program**

Admission to the Coles College Undergraduate Professional Program is separate from admission to Kennesaw State University. Students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement prior to application for admission to Coles. Details about other admission requirements may be obtained from the Business Undergraduate Advising Center (BB 431).

Business majors must apply for and be accepted for admission into the Coles Undergraduate Professional Program in order to take upper-division business courses and to graduate with a B.B.A. degree. The application should be completed and submitted online through your OwlExpress account.

The B.B.A. degree will not be awarded to anyone who has not met the Sophomore GPA Requirement and been admitted to the Coles Undergraduate Professional Program, or to anyone who has not completed our required Leadership and Career Program.

### **Other KSU Requirements**

In order to receive a degree from Kennesaw State University, a student must meet KSU's residency, grade, and graduation requirements. Some of those requirements are summarized here for convenience. Students should check other sections of this KSU Undergraduate Catalog for a complete listing of KSU requirements.

Business majors must earn a minimum of 45 hours of credit in upper-division business courses. Business majors must complete at least 33 hours of business courses in residence at KSU. All business majors except for Accounting must complete at least 12 hours of their Major Field Requirements and Major Field Electives at KSU. Accounting Majors must complete at least 18 hours of their Major Field Requirements and Major Field Electives at KSU. All students must complete at least 20 of the last 30 semester hours immediately preceding graduation at KSU.

Certain B.B.A. courses must be taken at Coles, and there are restrictions on the business courses that may be taken via education abroad options. Students should check with a Coles College Professional Advisor about these restrictions prior to signing up for a study abroad course or semester abroad. Credit for courses taken at other colleges and universities (whether in the U.S. or abroad) will not be given if:

1. the institution does not have acceptable accreditation,
2. the courses were not taken at the same or higher level than comparable courses offered at Kennesaw State University,
3. the courses do not have substantially the same content and rigor, or
4. the courses are too old.

All business majors must earn a grade of "C" or higher in all business courses counted toward their degree. All business majors must earn a grade of "C" or higher in any non-business courses counted in the Major Field section of their degree. Accounting Majors must earn a grade of "B" or higher in ACCT 2101 and ACCT 2102. International Business Majors must earn a grade of "C" or higher in all courses used to satisfy their Foreign Language Requirement and their Education Abroad Requirement.

Students must always meet current course prerequisites, regardless of when they first started at KSU. Always check the most recent KSU Undergraduate Catalog for current course prerequisites. Students will also be expected to meet the current admission requirements for the Coles Undergraduate Professional Program at the time of admission, regardless of when they first started at KSU.

### **Timeliness of Degree Completion**

KSU requires all graduating students to meet the program requirements in a Catalog that is not more than ten years old at the time of graduation. Students who do not complete their degree within ten years of starting at KSU must move up to a more recent Catalog. If a student does not attend continuously and is required by KSU to apply for readmission in order to return, the student will have to move up to the Catalog in effect for the readmission term. In addition, KSU requires students who change majors to move up to the Catalog in effect in the term of change.

Coles requires business majors to successfully complete the B.B.A. degree requirements and graduate within no more than six (6) calendar years after first being admitted to the Coles Undergraduate Professional Program. If a student does not complete the degree within six calendar years, courses may have to be repeated and new B.B.A. program requirements may have to be met prior to graduation.

## Engineering Standing Requirements

The first two years of a program's curriculum are considered to be lower division while the remaining two years are considered the upper division. For the most part, upper division engineering courses are those with course numbers in the 3000's and 4000's. In addition to the stated prerequisites and unless otherwise noted in the catalog, students must apply for and be granted Engineering Standing in order to enroll in any upper division Engineering course taught in the College of Engineering. A 2.70 GPA is required to receive engineering standing in the courses noted below.

The following chart lists the course requirements for students seeking Engineering Standing.  
(Updated May 26, 2018)

Courses	Civil Engineering	Computer Eng	Construction Engineering	Electrical Engineering	Environmental Engineering	Industrial & Systems Engineering	Mechanical Engineering	Mechatronics Engineering
Composition I (ENGL 1101)	X	X	X	X	X	X	X	X
Composition II (ENGL 1102)	X	X	X	X	X	X	X	X
Chemistry I (CHEM 1211 and CHEM 1211L)	X	X	X	X	X	X	X	X
Chemistry II (CHEM 1212 and CHEM 1212L)	X		X		X			
Physics I (PHYS 2211 and PHYS 2211L)	X	X	X	X	X	X	X	X
Physics II (PHYS 2212 and PHYS 2212L)	X	X	X	X		X*	X	X
Biology I (BIOL 1107 and BIOL 1107)					X			
Calculus I (MATH 1190)	X	X	X	X	X	X	X	X
Calculus II (MATH 2202)	X	X	X	X	X	X	X	X
Differential Equations (MATH 2306)	X	X	X	X	X			X
Probability & Data Analysis (STAT 2332)		X		X				

<u>Courses</u>	Civil Engineering	Computer Eng	Construction Engineering	Electrical Engineering	Environmental Engineering	Industrial & Systems Engineering	Mechanical Engineering	Mechatronics Engineering
Applications of Probability (ISYE 2600)						X		
Technical Writing (TCOM 2010)						X		
Programming and Problem Solving I and Lab (CSE 1321 and CSE 1321L)		X		X		X		X
MATLAB for Engineers w/ Applications (ME 1311)							X	
Engineering Graphics I (EDG 1211)							X	X

\*(*PHYS 2212 and PHYS 2212L*) or (*CHEM 1212 and CHEM 1212L*) or (*BIOL 1107 and BIOL 1107L*)

### **Engineering Standing for Non-Engineering Majors**

Non-engineering students who desire to enroll in upper-level engineering courses will need to satisfy the Engineering Standing prerequisite. A 2.7 GPA in the following courses will fulfill the requirement:

- ENGL 1101 - Composition I.
- ENGL 1102 - Composition II
- CHEM 1211 and CHEM 1211L - Chemistry I
- PHYS 2211 and PHYS 2211L - Physics I
- MATH 1190 - Calculus I
- MATH 2202 - Calculus II

12 additional credits from courses in the Southern Polytechnic College of Engineering and Engineering Technology or with prefixes CHEM, CS, CSE, IT, MATH, PHYS, or STAT.

programs in the

**Clarice C. and Leland H. Bagwell**

**College of Education**

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# **Early Childhood Education Birth through Kindergarten, B.S.**

## **Program Description**

Current research indicates that early childhood programs with well-prepared, highly qualified teachers have long-term positive benefits for children and the community. Based on this research and Georgia's approved certification in Birth through Kindergarten (B-K) Education, the Kennesaw State University Bagwell College of Education B-K Early Education Undergraduate Program has been developed to assist individuals who have a desire to instruct and work with infants, toddlers, preschool and kindergarten children.

Graduates of the program will be prepared to provide instruction to very young children. Graduates will also be familiar with global perspectives on early learning and teaching. The B-K Undergraduate Degree Program addresses the needs of the whole child based on national and state standards. Teacher candidates in the program may be placed in diverse field settings that will focus on (1) developmentally appropriate best practices, (2) current research on the development of infant, toddler and young children, (3) families and communities in a global setting, (4) English Language Learners, and (5) children with special learning needs.

This program is a part of the Clarice C. and Leland H. Bagwell College of Education.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to teacher education is separate from Admissions to Kennesaw State University. Students must meet the admission, retention and graduation requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

### Graduation Requirements

Each student is expected to meet the requirements outlined in the section of Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **Birth - Kindergarten Program Required Curriculum**

There are two different concentrations from which students may choose if one is focusing on Birth-Kindergarten - Traditional Certification, or Non-Certification. Both concentrations require the same General Education curriculum and lower division (Area F) courses.

## **General Education Core Curriculum (42 Credit Hours)**

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

EDUC 2110: Investigating Critical & Contemporary Issues in Education  
EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts  
EDUC 2130: Exploring Teaching & Learning  
ECE 2250: Child Development and Early Learning  
ECE 2540: Health, Wellness and the Young Child  
ECE 2590: Families, Communities and Schools: Partners in Education

### **Traditional Certification Concentration**

This concentration prepares graduates to qualify for the Georgia Professional Standards Commission's (PSC) Birth through Kindergarten teaching certificate.

### **Additional Major Requirements (6 Credit Hours)**

ISCI 2001: Life and Earth Science  
or  
ISCI 2002: Physical Science  
MATH 2008: Foundations of Numbers and Operations

### **Major Requirements (17 Credit Hours)**

ECE 2205: Organization and Administration of Early Childhood Programs  
ECE 3364: Children's Literature  
ECE 3510: Fostering Young Children's Learning Through Play  
ECE 3575: International Approaches to Early Care and Learning  
INED 3304: Education of Exceptional Students  
ITEC 3100: Improving Learning with Technology in Elementary Classrooms

### **Professional Education Requirements (37 Credit Hours)**

ECE 3313: Preschool Curriculum and Assessment  
ECE 3565: Infant/Toddler Practicum  
ECE 3570: Preschool Practicum  
ECE 3520: Infant and Toddler Curriculum and Assessment  
ECE 3530: Movement, Music and Art in Birth through Kindergarten Programs  
ECE 4515: Methods in Teaching and the Development of Teaching Language & Literacy in Birth through Kindergarten  
ECE 4525: Methods of Nurturing Second Language Acquisition  
ECE 4535: Methods of Instruction and Identification of B-5 Children with Special Needs  
ECE 4545: Methods in Math & Science in Birth through Kindergarten

ECE 4555: Methods for Teaching Social Studies Birth through Kindergarten  
ECE 4650: Yearlong Clinical Experience I (P-5)  
ECE 4660: Yearlong Clinical Experience II (P-5)  
EDUC 4610: Introduction to the Yearlong Clinical Experience

### **Non-Certification Concentration**

This concentration prepares graduates for work in Birth - Kindergarten settings where teacher certification is not required.

### **Additional Major Requirements (6 Credit Hours)**

ISCI 2001: Life and Earth Science  
or  
ISCI 2002: Physical Science  
MATH 2008: Foundations of Numbers and Operations

### **Major Requirements (17 Credit Hours)**

ECE 2205: Organization and Administration of Early Childhood Programs  
ECE 3364: Children's Literature  
ECE 3510: Fostering Young Children's Learning Through Play  
ECE 3575: International Approaches to Early Care and Learning  
INED 3304: Education of Exceptional Students  
ITEC 3100: Improving Learning with Technology in Elementary Classrooms

### **Professional Education Requirements (37 Credit Hours)**

ECE 3313: Preschool Curriculum and Assessment  
ECE 3565: Infant/Toddler Practicum  
ECE 3570: Preschool Practicum  
ECE 3520: Infant and Toddler Curriculum and Assessment  
ECE 3530: Movement, Music and Art in Birth through Kindergarten Programs  
ECE 4515: Methods in Teaching and the Development of Teaching Language & Literacy in Birth through Kindergarten  
ECE 4525: Methods of Nurturing Second Language Acquisition  
ECE 4535: Methods of Instruction and Identification of B-5 Children with Special Needs  
ECE 4545: Methods in Math & Science in Birth through Kindergarten  
ECE 4555: Methods for Teaching Social Studies Birth through Kindergarten  
ECE 4598: Birth through Five Internship I  
ECE 4599: Birth through Five Internship II

### **Program Total (120 Credit Hours)**

# **Elementary Education, B.S.**

## **Program Description**

This broad-field program is designed to prepare teachers of young children and leads to certification for pre-kindergarten to grade five in Georgia. The cross-disciplinary nature of the program's course requirements, with special emphasis on content studies in mathematics and reading, corresponds to the broad and integrated nature of teaching in the elementary grades and the fundamental importance of developing the reading and mathematical skills of young learners. The program provides candidates with an understanding of developmentally appropriate practices and an awareness of and sensitivity to cultural diversity and individual differences among young learners.

This is part of the Clarice C. and Leland H. Bagwell College of Education.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to teacher education is separate from Admissions to Kennesaw State University. Students must meet the admission, retention and graduation requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

### Graduation Requirements

Each student is expected to meet the requirements outlined in the Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum This program recommends the Statistics Pathway.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

EDUC 2110: Investigating Critical & Contemporary Issues in Education

EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts

EDUC 2130: Exploring Teaching & Learning

MATH 2008: Foundations of Numbers and Operations

ISCI 2001: Life and Earth Science

ISCI 2002: Physical Science

### **Major Required Core Courses (29 Credit Hours)**

HPE 3670: Early Childhood Health and Physical Education for the Classroom Teacher  
MAED 3316: Rational Numbers and Proportional Reasoning for Elementary Teachers  
MAED 3317: Geometry and Measurement for Elementary Teachers  
ECE 3313: Preschool Curriculum and Assessment  
ECE 3320: Teaching Reading and Writing in the Elementary Grades PK-2  
ECE 3370: Child Development and Families  
ECE 3330: Teaching Reading and Writing in the Elementary Grades 3-5  
ECE 3305: Classroom Assessment for Elementary Teachers  
ITEC 3100: Improving Learning with Technology in Elementary Classrooms  
INED 3304: Education of Exceptional Students

### **Professional Education (P-5) Requirements (31 Credit Hours)**

ECE 4402: Teaching Science in Early Childhood Education  
ECE 4403: Teaching Social Studies in Early Childhood Education  
ECE 4408: Teaching Mathematics in Grades P-2  
ECE 4409: Teaching Mathematics in Grades 3-5  
ECE 4410: Reading and Writing Across the Curriculum  
ECE 4650: Yearlong Clinical Experience I (P-5)  
ECE 4660: Yearlong Clinical Experience II (P-5)  
EDUC 4610: Introduction to the Yearlong Clinical Experience  
ECE 4465: Elementary Classroom Management and Learning Environments

### ***Program Total (120 Credit Hours)***

# **Learning, Design, and Technology, B.S.**

## **Program Description**

The need for well-trained, experienced instructional designers in the modern workforce is on the rise. Based on standards from leading organizations in performance improvement and instructional design, the Kennesaw State University Bachelor of Science with a major in Learning, Design, and Technology prepares individuals to design, develop, implement, and evaluate instruction and training in business, medical, educational, and other domains.

Graduates of this program possess the knowledge and practical experience needed to: (a) analyze the education and training needs of an organization; (b) effectively apply instructional design and learning theories in workplace contexts; and (c) design, develop, and evaluate learning solutions for face-to-face, online, and hybrid learning environments. The program will leverage strategic partnerships to place graduates in careers in the corporate, non-profit, and educational sectors.

This program is a part of the Clarice C. and Leland H. Bagwell College of Education.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

LDT 1100: Making Learning Fun

LDT 2100: Tools & Technologies for Learning

Select any one course from the following (3 Credits):

COMM 2033: Visual Communication

CSE 1300: Introduction to Computing Principles  
IS 2200: Information Systems and Communication  
TCOM 2050: Issues in Digital Accessibility

Select any 1000/2000 level courses in ART, BIOL, CGDD, CHEM, COM, CSE, ECE, ECON, EDUC, ENGL, GEOG, HIST, HPE\*, IAD, ICT, ISCI, IS, IT, MAED, MATH, MUAP, MUSI, PHYS, POLS, PSYC, STS, SWE, TCID, TCOM, or WELL for a total of 9 credit hours.

\*Note: HPE 1000 level courses cannot satisfy Area F requirements

### **Major Requirements (33 Credit Hours)**

LDT 3100: Foundations of Instructional Design  
LDT 3200: Foundations of Visual Design for Learning  
LDT 3300: Performance Improvement & Needs Assessment  
LDT 3400: Instructional Design & Development  
LDT 3500: Multimedia Design & Development for Learning  
LDT 3398: Internship in Learning, Design and Technology  
LDT 4100: Evaluation of Educational Programs  
LDT 4200: Interactive Learning Environments  
LDT 4300: Trends & Issues in Instructional Design  
LDT 4500: Project Management of Instructional Design  
LDT 4600: Capstone and Portfolio in Learning, Design, and Technology

### **Major Electives (15 Credit Hours)**

These credit hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Completion of a formal minor or certificate program for 15 hours may be used to satisfy major electives. Students must earn a "C" or better for all coursework.

At least 9 credit hours of upper-division course work (3000 - 4000 level) must be taken and applied as major electives.

An additional 3-credit hours of LDT 3398 Internship in Learning, Design, and Technology may be used to satisfy credit requirements in this area.

### **Free Electives (12 Credit Hours)**

Any courses in the university curriculum totaling 12 credit hours.

### **Program Total (120 Credit Hours)**

# **Middle Grades Education, B.S.**

## **Program Description**

The B.S. with a major in Middle Grades Education is designed to prepare effective teachers for learners in the middle school (grades 4 through 8). It leads to grades 4-8 teacher certification in Georgia. Candidates prepare in two of the five middle grades curriculum areas (mathematics, science, social studies, language arts, or reading). Preparation in the two teaching fields selected is more in-depth than the content requirements of the program for early childhood educators, but less extensive and less specialized than the requirements of programs for secondary educators. The integrated nature of the curriculum and the importance of team teaching strategies are emphasized. Please see the Bagwell College of Education and EPP pages for policies relevant to all education programs.

This program is a part of the Clarice C. and Leland H. Bagwell College of Education.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to teacher education is separate from Admissions to Kennesaw State University. Students must meet the admission, retention and graduation requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

EDUC 2110: Investigating Critical & Contemporary Issues in Education

EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts

EDUC 2130: Exploring Teaching & Learning

## ***Teaching Field Courses***

From the following content areas, choose one as a primary teaching field concentration and another as a secondary teaching field concentration.

Be advised that the Yearlong Clinical Experience placement will be in the primary content area.

### Primary Content Area

Complete both courses, for six credit hours, for the primary content area:

Language Arts:

ENGL 2271: Introduction to Teaching English Language Arts

ENGL 2390: Great Works for Middle Grades Teachers

Math:

MAED 1190: Calculus for Middle Grades Teachers

MAED 2390: Introduction to Mathematical Systems

Science:

ISCI 2002: Physical Science

ASTR 1000K: Introduction to the Universe \*one credit hour counted in Teaching Field Requirements

Social Studies:

GEOG 1130: World Regional Geography

HIST 2111: Survey of U.S. History I

### Secondary Content Area

Complete one course, for three credit hours, from the following for the secondary content area:

Language Arts: ENGL 2271: Introduction to Teaching English Language Arts

Math: MAED 1190: Calculus for Middle Grades Teachers

Science: ASTR 1000K: Introduction to the Universe \*one credit hour counted in Teaching Field Requirements

Social Science: GEOG 1130: World Regional Geography

## **Teaching Field Requirements (21 Credit Hours)**

Candidates must complete an additional nine credit hours of coursework in their primary content area, and twelve credit hours in their secondary content area beyond courses taken in Area F for a total of 15 credit hours in each content area.

## **Mathematics**

It is recommended that candidates take MATH 1113 and STAT 1401 as part of their General Education Core Curriculum requirements.

MAED 2390: Introduction to Mathematical Systems

MAED 3295: Mathematics for Middle Grades and Secondary Teachers

MAED 3395: Geometric Proofs and Applications

MAED 3495: Advanced Perspectives on School Mathematics I

## **Science**

It is recommended that candidates take MATH 1113 and STAT 1401 as part of their General Education Core Curriculum requirements.

ISCI 2002: Physical Science

SCI 3360: Earth Science

EDSM 3000K: Survey of Life Science

One credit hour from ASTR 1000K carried over from Area F

## **Social Studies**

HIST 2111: Survey of U.S. History I \*Secondary Teaching Field only

HIST 3304: History of Georgia

## *Electives*

Select two from the following:

HIST 2206: Origins of Great Traditions

HIST 3305: The World Since 1945

HIST 3366: History of Mexico and Central America

HIST 3367: History of Brazil

HIST 3373: Modern India and South Asia

HIST 3374: Modern China

HIST 3382: North Africa and Middle East in Modern Times

HIST 3391: History of West Africa

HIST 3392: History of Southern, Eastern and Central Africa

HIST 4391: Emerging Themes in African History

GEOG 3312: Geography of Europe

GEOG 3340: Cultural Geography

GEOG 3350: Geography of Sub-Saharan Africa

GEOG 3360: Geography of Asia

GEOG 3370: Geography of Latin America and the Caribbean

GEOG 4380: Geography of North America

### ***Language Arts***

ENGL 2390: Great Works for Middle Grades Teachers

ENGL 3250: Teaching Writing in Middle Grades Language Arts

ENGL 3270: Teaching Grammar and Usage in Middle Grades Language Arts

LING 3025: Linguistics for Education

### **Professional Education (39 Credit Hours)**

Students must be admitted to Teacher Education Program before taking these courses. An application is required for admission to the Yearlong Clinical Experience.

EDMG 3300: Success in the Middle: Adolescent Development and Middle Grades Advocacy

EDMG 3350: Planning, Instruction, and Assessment in the Middle Grades

EDMG 4411: Seminar in Middle Grades Education

EDMG 4650: Yearlong Clinical Experience I

EDMG 4660: Yearlong Clinical Experience II

EDRD 3330: Methods and Materials for Middle Grades Content Area Reading and Writing

EDSM 3360: Classroom Management in the Middle Grades and Secondary Education

EDUC 4610: Introduction to the Yearlong Clinical Experience

INED 3300: Educating Students with Exceptionalities in Inclusive Settings

INED 4431: Foundations for Teaching Diverse English Learners

ITEC 3200: Improving Learning with Technology in Middle Grade Classrooms

### ***Teaching Field Concentration***

Students must complete two courses, for six credit hours, in their selected teaching field.

EDMG 4401: Teaching Mathematics in Middle Grades

EDMG 4402: Teaching Science in Middle Grades

EDMG 4403: Teaching Social Studies in Middle Grades

EDMG 4404: Teaching Language Arts in Middle Grades

### **Program Total (120 Credit Hours)**

# **Secondary Education, B.S.Ed.**

## **Program Description**

These single field programs are designed to prepare teachers of adolescents, largely at the secondary school level (grades 6 through 12). They lead to 6-12 teacher certification in the teaching fields of mathematics, broad field science (with a biology emphasis), chemistry, and physics in Georgia.

This program is a part of the Clarice C. and Leland H. Bagwell College of Education.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to teacher education is separate from Admissions to Kennesaw State University. Students must meet the admission retention and graduation requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

Each student is expected to meet the requirements outlined in Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major:***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Broadfield with Biology Emphasis:**

### ***Lower Division Major Requirements (Area F) (18 Credit Hours)***

BIOL 1107: Principles of Biology I

BIOL 1107L: Principles of Biology I Laboratory  
BIOL 1108: Principles of Biology II  
BIOL 1108L: Principles of Biology II Laboratory  
CHEM 1211: Principles of Chemistry I  
CHEM 1211L: Principles of Chemistry Laboratory I  
CHEM 1212: Principles of Chemistry II  
CHEM 1212L: Principles of Chemistry Laboratory II  
Two credit hours carried over from Area D

### ***Major Requirements (22 Credit Hours)***

BIOL 3300: Genetics  
BIOL 3300L: Genetics Laboratory  
BIOL 3340: Microbiology  
BIOL 3340L: Microbiology Laboratory  
BIOL 3370: Ecology  
BIOL 3370L: Ecology Laboratory  
Upper-Division BIOL elective for 3 credit hours  
SCI 3360: Earth Science  
STAT 3125: Biostatistics

### ***Professional Education (38 Credit Hours)***

EDUC 2110: Investigating Critical & Contemporary Issues in Education  
EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts  
EDUC 2130: Exploring Teaching & Learning  
INED 3300: Educating Students with Exceptionalities in Inclusive Settings  
INED 4431: Foundations for Teaching Diverse English Learners  
ITEC 3300: Improving Learning with Technology in High School Classrooms  
EDUC 4610: Introduction to the Yearlong Clinical Experience  
SCED 4414: Methods of Teaching Secondary Science I  
SCED 4416: Methods of Teaching Secondary Science II  
SCED 4424: Teaching Secondary Science- Practicum I  
SCED 4426: Teaching Secondary Science- Practicum II  
SCED 4650: Yearlong Clinical Experience I  
SCED 4660: Yearlong Clinical Experience II

### **Chemistry:**

### ***Lower Division Major Requirements (Area F) 18 Credit Hours***

CHEM 1211: Principles of Chemistry I  
CHEM 1211L: Principles of Chemistry Laboratory I

CHEM 1212: Principles of Chemistry II  
CHEM 1212L: Principles of Chemistry Laboratory II  
CHEM 2800: Quantitative Analytical Chemistry  
CHEM 2800L: Quantitative Analytical Chemistry Laboratory  
MATH 2202: Calculus II

Two credit hours carried over from Area D

**Major Requirements (22 Credit Hours)**

PHYS 221I: Principles of Physics I  
PHYS 221IL: Principles of Physics Laboratory I  
PHYS 2212: Principles of Physics II  
PHYS 2212L: Principles of Physics Laboratory II  
CHEM 3050: Physical Chemistry  
CHEM 3361: Modern Organic Chemistry I  
CHEM 3361L: Modern Organic Chemistry Lab I  
CHEM 3362: Modern Organic Chemistry II  
CHEM 3362L: Modern Organic Chemistry Lab II

CHEM 3700: Environmental Chemistry  
or

CHEM 3400: The Teaching and Learning of Chemistry  
or

CHEM 4400: Directed Study

**Professional Education (38 Credit Hours)**

EDUC 2110: Investigating Critical & Contemporary Issues in Education  
EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts  
EDUC 2130: Exploring Teaching & Learning  
INED 3300: Educating Students with Exceptionalities in Inclusive Settings  
INED 4431: Foundations for Teaching Diverse English Learners  
ITEC 3300: Improving Learning with Technology in High School Classrooms  
EDUC 4610: Introduction to the Yearlong Clinical Experience  
SCED 4414: Methods of Teaching Secondary Science I  
SCED 4416: Methods of Teaching Secondary Science II  
SCED 4424: Teaching Secondary Science- Practicum I  
SCED 4426: Teaching Secondary Science- Practicum II  
SCED 4650: Yearlong Clinical Experience I  
SCED 4660: Yearlong Clinical Experience II

## **Physics:**

### ***Lower Division Major Requirements (Area F) 18 Credit hours***

MATH 2202: Calculus II  
MATH 2203: Calculus III  
PHYS 221I: Principles of Physics I  
PHYS 221IL: Principles of Physics Laboratory I  
PHYS 2212: Principles of Physics II  
PHYS 2212L: Principles of Physics Laboratory II  
Two credit hours carried over from Area D

### ***Major Requirements (22 Credit Hours)***

MATH 2306: Ordinary Differential Equations  
PHYS 2213: Principles of Physics III  
PHYS 3210: Mechanics I  
PHYS 3220: Electromagnetism I  
PHYS 3260: Mathematical Physics  
PHYS 3710: Modern Physics  
PHYS 3720L: Modern Physics Laboratory  
PHYS 4230: Thermal Physics

### ***Professional Education (38 Credit Hours)***

EDUC 2110: Investigating Critical & Contemporary Issues in Education  
EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts  
EDUC 2130: Exploring Teaching & Learning  
INED 3300: Educating Students with Exceptionalities in Inclusive Settings  
INED 4431: Foundations for Teaching Diverse English Learners  
ITEC 3300: Improving Learning with Technology in High School Classrooms  
EDUC 4610: Introduction to the Yearlong Clinical Experience  
SCED 4414: Methods of Teaching Secondary Science I  
SCED 4416: Methods of Teaching Secondary Science II  
SCED 4424: Teaching Secondary Science- Practicum I  
SCED 4426: Teaching Secondary Science- Practicum II  
SCED 4650: Yearlong Clinical Experience I  
SCED 4660: Yearlong Clinical Experience II

## **Mathematics:**

### ***Lower Division Major Requirements (Area F) 18 Credit Hours***

EDUC 2110: Investigating Critical & Contemporary Issues in Education  
EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts  
STAT 2332: Probability and Data Analysis  
MATH 2202: Calculus II  
MATH 2203: Calculus III

One credit hour carried over from Area D

### **Major Requirements (27 Credit Hours)**

Students must take the following courses plus two credit hours from any MATH/STAT 3000/4000 level courses except MATH 3316, MATH 3317, MATH 3390.

MATH 2390: Introduction to Logic, Set Theory, and Proofs  
MATH 3260: Linear Algebra I  
MATH 4361: Modern Algebra I  
MAED 3295: Mathematics for Middle Grades and Secondary Teachers  
MAED 3395: Geometric Proofs and Applications  
MAED 3475: Historical and Modern Approaches to Mathematics  
MAED 3495: Advanced Perspectives on School Mathematics I  
MAED 4495: Advanced Perspectives on School Mathematics Part II  
MATH/STAT Elective for two credit hours  
One credit hour carried over from Area D

### **Professional Education (33 Credit Hours)**

EDUC 2130: Exploring Teaching & Learning  
INED 3300: Educating Students with Exceptionalities in Inclusive Settings  
INED 4431: Foundations for Teaching Diverse English Learners  
ITEC 3300: Improving Learning with Technology in High School Classrooms  
EDSM 3360: Classroom Management in the Middle Grades and Secondary Education  
EDUC 4610: Introduction to the Yearlong Clinical Experience  
MAED 4414: Pedagogical Content Knowledge for Mathematics I  
MAED 4416: Pedagogical Content Knowledge for Mathematics II  
MAED 4418: Pedagogical Content Knowledge for Mathematics III  
MAED 4424: Teaching Secondary Mathematics- Practicum I  
MAED 4426: Teaching Secondary Mathematics- Practicum II  
MAED 4650: Yearlong Clinical Experience I  
MAED 4660: Yearlong Clinical Experience II

### **Program Total (120 Credit Hours)**

# **Learning, Design, and Technology Minor**

## **Contact Information**

Phone: 470-578-3262

Email: [itecdepartment@kennesaw.edu](mailto:itecdepartment@kennesaw.edu)

Website: <https://bagwell.kennesaw.edu/departments/itec/programs/bs/index.php>

## **Program Description**

The need for well-trained and experienced instructional designers in the modern workforce is on the rise. Based on standards from leading organizations in performance improvement and instructional design, the Kennesaw State University Minor in Learning, Design, and Technology (LDT) prepares students to (a) analyze the education and training needs of an organization; (b) effectively apply instructional design and learning theories in workplace contexts; and (c) design, develop, and evaluate learning solutions for face-to-face, online, and hybrid learning environments.

The Minor in LDT is made up of 15 credit hours across five (5) courses. These courses provide the foundational skills and knowledge for instructional design work in business, medical, educational, or other domains, and can be a useful complement to a large number of degrees at KSU.

The minor in LDT requires a minimum of 15 credit hours including:

A required of 12 credits must be completed in 3000 and 4000 level LDT course work.

A flexible three (3) credits in a choice of five LDT courses.

All courses must be passed with a 'C' grade or higher.

\*\*\*The minor does not lead to any state teacher certification.

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

LDT 3100: Foundations of Instructional Design

LDT 3300: Performance Improvement & Needs Assessment

LDT 3400: Instructional Design & Development

LDT 4100: Evaluation of Educational Programs

### **Elective (3 Credit Hours)**

Select one of the following for three credit hours:

LDT 1100: Making Learning Fun

LDT 2100: Tools & Technologies for Learning  
LDT 3200: Foundations of Visual Design for Learning  
LDT 3500: Multimedia Design & Development for Learning  
LDT 4200: Interactive Learning Environments  
LDT 4300: Trends & Issues in Instructional Design  
LDT 4500: Project Management of Instructional Design

***Program Total (15 Credit Hours)***

# **ESOL (English to Speakers of Other Languages)**

## **Endorsement (Elementary Education, BS majors only)**

### **Contact Information**

Website: <https://bagwell.kennesaw.edu/departments/eece/index.php>

Phone: (470) 578-6121

### **Program Description**

The ESOL (English to Speakers of Other Languages) Endorsement is embedded in the B.S. in Elementary Education. Preservice candidates enrolled in the B.S. program take two courses taught by TESOL faculty (INED 4482 (Applied Linguistics for Teachers of K-5 English Learners) and INED 4483 (Methods and Materials for Teaching ESOL in the K-5 Classroom). Additionally, cultural issues objectives are embedded throughout the program of study. In order to receive the endorsement, candidates must receive a "B" in INED 4482 & INED 4483 a score of 3 (meets) or higher on each criterion of the performance based Key Assessments.

### **Program Course Requirements**

INED 4482: Applied Linguistics for Teachers of K-5 English Learners

INED 4483: Methods and Materials for Teaching ESOL in the K-5 Classroom

programs in the

**College of Architecture and  
Construction Management**

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# **Architecture, B.ARCH**

## **Program Description**

Kennesaw State University's College of Architecture and Construction Management is the only public state institution in Georgia to offer an accredited five-year professional degree: The Bachelor of Architecture. It offers unique educational opportunities for its students including: The Summer Design Workshop, the Focus Studio: a research-based studio with and invited studio critic, and an individually structured Thesis project. The Program also offers students organized travel opportunities within the U.S. and abroad.

The curriculum is divided into two components; the lower division and the upper division. The lower division constitutes the first two years of the program and its curriculum is designed to introduce basic skill sets, fundamentals of design and building technologies. The upper division constitutes the last three years of the program. Its curriculum is designed to enhance the students understanding of the relationship between people and the built environment, the role of technology, structures in comprehensive design, the importance of history and theory to design and introduce the broader challenges of urbanism and design research.

The mission of the Architecture Department is to expand and extend the University's mission into the realm of Architecture, preparing students for professional practice in the design, planning, development and stewardship of the built environment. The Architecture Program fosters invention, creativity and craft through hands-on exploration that is the foundation of technological innovation. Moreover, knowledge of cultural diversity, communication, history and criticism is seen as inseparable from the application of such innovation. This holistic process is "the making of architecture."

This program is part of the College of Architecture and Construction Management .

## **Accreditation**

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The Bachelor of Architecture program at KSU is a 5-year, NAAB accredited, first professional degree in architecture, leading to eligibility for licensure (Architectural Registration Exam). The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture and the Doctor of Architecture. A program may be granted an 8-year or 2- year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned

sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The NAAB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within 6 years of achieving candidacy, if its plan is properly implemented. In order to meet the educational requirement set forth by the National Council of Architectural Registration Boards (NAAB), an applicant for an NCARB Certificate must hold a professional degree in architecture from a program accredited by the NAAB; the degree must have been awarded not more than two years prior to initial accreditation. However, meeting the educational requirement for the NCARB Certificate may not be equivalent to meeting the education requirement for registration in a specific jurisdiction. Please contact NCARB for more information.

The Kennesaw State University, Department of Architecture has been accredited since 1995 and offers the following NAAB-accredited degree:

***5- year B.ARCH (150 undergraduate credits)***

The next accreditation visit for the B.ARCH program is 2023.

**Admission, Enrollment, and Graduation Policies**

Admissions Requirements

Admission to the Architecture program is separate from Admissions to Kennesaw State University. Students must meet the program admission requirements, outlined below.

Students seeking entry to the lower division of the B.ARCH program as freshmen must first be accepted to KSU and in addition must have:

- 3.0 High School GPA
- And either the minimum SAT OR minimum ACT scores:
  - SAT minimums: EBRW 500 and Math 570
  - ACT minimums: 18 English or Reading sub-score, 23 Math sub-score

Current KSU students may apply for a Change of Major to Architecture. The following conditions must be met for acceptance:

- 24 KSU credit hours earned
- 2.5 KSU GPA
- Ready to take MATH 1113 or higher upon acceptance

Transfer students seeking entry to the lower division of the B.ARCH program must first be accepted to KSU and in addition must have:

- 2.5 College GPA
- Completed MATH 1111 (or higher) and ENGL 1101 with a minimum grade of "C"

Accepted transfer students with course work from an architecture or related design program may make a Curriculum Placement Request to the Architecture Department Chair. Please see the Curriculum Placement Request requirements here: <https://www.kennesaw.edu/cacm/academics/architecture/about/admission.php>

Select students may be admitted into the B.ARCH Accelerated Program. This program is a three-semester track (Fall/Spring/Summer), that fulfills the requirements of the lower-division Architecture curriculum. Entry into this track is for change of major and transfer students with 36 or more degree-applicable credit hours, who have completed a minimum of 6 General Education courses required by the Architecture curriculum, including Math 1113 or higher.

### Enrollment Requirements

#### Degree Progression

To progress into upper-division course work students must pass Portfolio Review.

Requirements include:

- 2.5 minimum university adjusted GPA
- Meet all ARCH core course requirements of the lower division with a "C" or higher
- 2.5 minimum ARCH course GPA
- Have completed all General Education Core Curriculum courses required in the program map with a grade of "C" or higher
- Submit a portfolio of work for evaluation with a minimum score 2.5 or higher

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **5 Year Professional Degree**

#### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

#### ***General Education Core Curriculum Requirements Specific to This Major:***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- PHYS 1111: Introductory Physics I
  - PHYS 1111L: Introductory Physics Laboratory I  
or
  - PHYS 2211: Principles of Physics I
  - PHYS 2211L: Principles of Physics Laboratory I
- 
- ARCH 1000: Introduction to Architecture
  - ARCH 1241: Design Communication I
  - ARCH 2242: Design Communication II
  - ARCH 2211: Architecture Structures I - Introduction to Structures
  - ARCH 2111: Architecture Culture I: Early Civilizations & Medieval
  - Two Credit Hours from General Education Core Curriculum Area D

### **Studio Requirements (40 Credit Hours)**

#### ***Lower Division Studio***

Note: Accelerate Studio courses must have Department Chair permission for enrollment

- ARCH 1001: Architecture Studio I
- ARCH 1002: Architecture Studio II
- ARCH 2003: Architecture Studio III
- ARCH 2004: Architecture Studio IV  
OR
- ARCH 1011: Accelerated Studio I
- ARCH 1012: Accelerated Studio II
- ARCH 2013: Accelerated Studio III

#### ***Upper Division Studio***

- ARCH 3011: Architecture Studio V

- ARCH 3012: Architecture Studio VI
- ARCH 4013: Architecture Studio VII: Integrative Design
- ARCH 4014: Architecture Studio VIII: Urban Lab
- ARCH 5015: Focus Studio
- ARCH 5017: Thesis Studio

### **Major Requirements (39 Credit Hours)**

- ARCH 2311: Environmental Tech I –Systems Selection and Materials
- ARCH 3112: Architecture Culture II – The Renaissance through 1850
- ARCH 3113: Architecture Culture III: Historicism and the Emergence of New Traditions
- ARCH 3211: Architecture Structures II: Steel and Wood
- ARCH 3212: Architecture Structures III: Concrete and Lateral Loads
- ARCH 3313: Environmental Technology II: Human Comfort and Building Systems
- ARCH 3314: Environmental Technology III: Lighting, Electrical and Acoustics
- ARCH 4114: Architecture Cultures IV: The Development of Architecture into the Twenty-First Century
- ARCH 4116: Urban Planning and Design Theory
- ARCH 4117: Thesis Prep
- ARCH 4224: Professional Practice I: Codes and Technical Documents
- ARCH 4225: Professional Practice II – Cost Control
- ARCH 4226: Professional Practice III: Practice and Ethics
- ARCH 5016: Thesis Research

### **Electives (11 Credit Hours)**

The electives pursued towards the BARCH degree should be at or above the 2000 level or equivalent. Transfer credits not meeting this threshold may be accepted upon review and approval. These criteria will also apply to courses that were completed towards a minor that is no longer pursued.

**Program Total: 150 Credit Hours**

# **Construction Management, BS**

## **Program Description**

The Construction Management Department offers students the bachelor's degree with a major in Construction Management and the Master of Science in Construction Management. While professional experience is preferred, students with a bachelor's degree or higher in architecture, construction management, technology, engineering, or related fields are encouraged to apply. Certificates are also available in project management, land development, and specialty construction.

This program is a part of the College of Architecture and Construction Management

### Accreditation

The KSU Department of Construction Management Bachelor's and Master's programs are accredited by the American Council of Construction Education (ACCE).

## **Admission, Enrollment and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only Admissions to Kennesaw State University is required.

### Graduation Requirements

Each student is expected to meet the requirements outlined in the Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

#### ***General Education Core Curriculum Requirements Specific to This Major:***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

Lower Division Requirements (Area F) (18 Credit Hours)

- CM 1000: Orientation to Construction and Development
  - ACCT 2101: Principles of Accounting I
  - BLAW 2200: Legal and Ethical Environment of Business
  - SURV 2200: Construction Measurements
  - PHYS 1111: Introductory Physics I
  - PHYS 1111L: Introductory Physics Laboratory I
- Carryover 1 credit hour from D1  
Carryover 1 credit hour from D2

Major Requirements (57 Credit Hours)

- CM 2000: Construction Graphics
  - CM 2210: Introduction to Structures
  - CM 3000: Computer Applications in Construction
  - CM 3040: Building Information Modeling I
  - CM 3110: Residential and Light Construction Methods
  - CM 3180: Mechanical and Electrical Building Systems
  - CM 3400: Risk and Quality Management
  - CM 3410: Construction Quantity Surveying
  - CM 3800: Construction Finance
  - CM 4510: Construction Scheduling
  - CM 4560: Construction Project Management
  - CM 4660: Advanced Scheduling & Project Management
  - CM 4710: Construction Safety
  - CM 4760: Construction and Real Estate Property Law
  - CM 4900: Capstone Project
  - ECON 2105: Principles of Macroeconomics
- or
- ECON 2106: Principles of Microeconomics
  - MGT 3100: Management and Behavioral Sciences
  - IS 2200: Information Systems and Communication
  - TCOM 2010: Technical Writing

**Choose One of the Following Concentrations (12 Credit Hours):**

General Concentration

- CM 3500: Building Codes
- CM 3260: Temporary Structures
- CM 3420: Construction Estimating and Bid Preparation

- CM Elective or MKTG 3100: Principles of Marketing

#### Land Development Concentration

- CM 3310: Real Estate Development Practices
- CM 3710: Market and Site Analysis
- CM 4620: Development Process and Finance
- CM Elective or MKTG 3100: Principles of Marketing

#### Specialty Construction Concentration

- CM 3280: Building Mechanical and Electrical Codes and Loads
- CM 3480: Mechanical and Electrical Systems Estimating
- CM 4480: Design/Build MEP Systems
- CM Elective or MKTG 3100: Principles of Marketing

#### Heavy Construction Concentration

- CM 3170: Heavy Construction Practices
- CM 3440: Heavy Estimating
- CM 4230: Heavy Materials & Temporary Structures
- CM Elective or MKTG 3100: Principles of Marketing

#### Facilities Management Concentration

- CM 3270: Facility Management Strategies
- CM 3290: Finance for Facility Managers
- CM 4190: Sustainable Operation & Maintenance
- CM Elective or MKTG 3100: Principles of Marketing

#### Residential Concentration

- CM 3310: Real Estate Development Practices
- CM 3910: Sustainable Residential Practices
- CM 4512: Emerging Trends in Residential Construction
- CM Elective or MKTG 3100: Principles of Marketing

***Program Total (129 Credit Hours)***

# **Facilities Management Certificate**

## **Contact Information**

**Website:** [https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/facility\\_management.php](https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/facility_management.php)

**Phone:** (470) 578-4215

**Email:** [constructionmanagement@kennesaw.edu](mailto:constructionmanagement@kennesaw.edu)

## **Program Description**

The Facilities Management Certificate program is designed to provide students with the skills related to the ongoing operation of built environments in accordance with IFMA eleven core competencies. This Certificate program requires 18 credit hours and can potentially be completed in one year.

## **Program Course Requirements**

### **Core Courses (12 Credit Hours)**

- CM 3180: Mechanical and Electrical Building Systems
- CM 3270: Facility Management Strategies
- CM 3290: Finance for Facility Managers
- CM 4190: Sustainable Operation & Maintenance

### **Electives (6 Credit Hours)**

Choose two of the following:

- CM 3110: Residential and Light Construction Methods
- CM 3190: Sustainable Construction
- CM 3310: Real Estate Development Practices
- CM 3400: Risk and Quality Management
- CM 3410: Construction Quantity Surveying
- CM 3800: Construction Finance
- CM 4620: Development Process and Finance

### **Program Total (18 Credit Hours)**

# **Land Development Certificate**

## **Contact Information**

**Website:** [https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/land\\_development](https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/land_development.php)

[.php](https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/land_development.php)

**Phone:** (470) 578-4215

**Email:** [constructionmanagement@kennesaw.edu](mailto:constructionmanagement@kennesaw.edu)

## **Program Description**

In addition to providing a students with a core knowledge of construction materials and methods, the Certificate in Land Development is designed for those with an interest in the pre-construction process, including market analysis, site planning, development law and finance. This Certificate program requires 18 credit hours and can potentially be completed in one year.

## **Program Course Requirements**

### **Core Courses (12 Credit Hours)**

- CM 3310: Real Estate Development Practices
- CM 3710: Market and Site Analysis
- CM 3800: Construction Finance
- CM 4620: Development Process and Finance

### **Electives (6 Credit Hours)**

Choose 2 from the following courses:

- CM 3000: Computer Applications in Construction
- CM 3040: Building Information Modeling I
- CM 3110: Residential and Light Construction Methods
- CM 3190: Sustainable Construction
- CM 3400: Risk and Quality Management
- CM 3410: Construction Quantity Surveying
- CM 3440: Heavy Estimating
- CM 4760: Construction and Real Estate Property Law

**Program Total: (18 Credit Hours)**

# **Project Management Certificate**

## **Contact Information**

**Website:** [https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/project\\_management.php](https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/project_management.php)

**Phone:** (470) 578-4215

**Email:** [constructionmanagement@kennesaw.edu](mailto:constructionmanagement@kennesaw.edu)

## **Program Description**

The Certificate in Project Management is designed to provide students with skills used by construction managers, such as estimating, scheduling and general knowledge on how to management construction projects. This Certificate program requires 18 credit hours and can potentially be completed in one year.

## **Program Course Requirements**

### **Core Courses (12 Credit Hours)**

- CM 2000: Construction Graphics
- CM 3000: Computer Applications in Construction
- CM 3110: Residential and Light Construction Methods
- CM 4560: Construction Project Management

### **Electives (6 Credit Hours)**

Choose 2 of the following courses:

- CM 3040: Building Information Modeling I
- CM 3190: Sustainable Construction
- CM 3410: Construction Quantity Surveying
- CM 3420: Construction Estimating and Bid Preparation
- CM 4510: Construction Scheduling
- CM 4660: Advanced Scheduling & Project Management
- CM 4710: Construction Safety
- CM 4760: Construction and Real Estate Property Law

**Program Total: (18 Credit Hours)**

# **Specialty Construction Certificate**

## **Contact Information**

**Website:** [https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/specialty\\_construction.php](https://cacm.kennesaw.edu/constructionmanagement/programs/certificates/specialty_construction.php)

**Phone:** (470) 578-4215

**Email:** [constructionmanagement@kennesaw.edu](mailto:constructionmanagement@kennesaw.edu)

## **Program Description**

The Specialty Construction Certificate program is designed for students who are interested in mechanical, electrical and plumbing projects, with an emphasis on energy project management. This Certificate program requires 18 credit hours and can potentially be completed in one year,

## **Program Course Requirements**

### ***Core Courses (12 Credit Hours)***

- CM 3180: Mechanical and Electrical Building Systems
- CM 3280: Building Mechanical and Electrical Codes and Loads
- CM 3480: Mechanical and Electrical Systems Estimating
- CM 4190: Sustainable Operation & Maintenance

### ***Electives (6 Credit Hours)***

Choose 2 from the following courses:

- CM 3000: Computer Applications in Construction
- CM 3040: Building Information Modeling I
- CM 3190: Sustainable Construction
- CM 3400: Risk and Quality Management
- CM 3800: Construction Finance
- CM 4480: Design/Build MEP Systems
- CM 4710: Construction Safety

**Program Total: (18 Credit Hours)**

# **Architecture Minor**

## **Contact Information**

**Website:** <https://cacm.kennesaw.edu/architecture/programs/minor-architecture.php>

## **Program Description**

The minor in Architecture provides students with a focused introduction to the profession in one of three general areas; History/Theory, Environmental Technology or Structures. The Minor in Architecture requires a minimum of 15 hours including:

- A minimum of 9 credits must be completed in 3000 and 4000 level course work
- A maximum of 6 credits in ARCH 1000, ARCH 2242, ARCH 2111, ARCH 2311 may be applied to the minor.
- Architecture upper division free electives are limited to 3 credits
- All courses must be passed with a 'C' grade or higher.

Students seeking the minor in architecture should consult the Minor course flow chart with a CACM advisor for prerequisite requirements.

## **Program Course Requirements**

### **Required Courses Options- (12 Credit Hours)**

Students must select 12 credit hours from the following courses. The courses have been grouped by interest and support courses.

- ARCH 3112: Architecture Culture II - The Renaissance through 1850
- ARCH 3113: Architecture Culture III: Historicism and the Emergence of New Traditions
- ARCH 4114: Architecture Cultures IV: The Development of Architecture into the Twenty-First Century
  
- ARCH 2311: Environmental Tech I -Systems Selection and Materials
- ARCH 3313: Environmental Technology II: Human Comfort and Building Systems
- ARCH 3314: Environmental Technology III: Lighting, Electrical and Acoustics
  
- ARCH 2211: Architecture Structures I - Introduction to Structures
- ARCH 3211: Architecture Structures II: Steel and Wood
- ARCH 3212: Architecture Structures III: Concrete and Lateral Loads

- ARCH 1000: Introduction to Architecture
- ARCH 2242: Design Communication II
- ARCH 2111: Architecture Culture I: Early Civilizations & Medieval
- ARCH 4116: Urban Planning and Design Theory

**Electives (3 Credit Hours)**

Choose any ARCH 3000 level, or higher, course(s) for a maximum of three credit hours.

***Program Total (15 Credit Hours)***

# **Construction Management Minor**

## **Contact Information**

**Website:** <https://cacm.kennesaw.edu/constructionmanagement/programs/minor.php>

**Phone:** (470) 578-4215

**Email:** [constructionmanagement@kennesaw.edu](mailto:constructionmanagement@kennesaw.edu)

## **Program Description**

Students seeking a bachelor's degree in other majors may pursue a minor in Construction Management.

## **Program Course Requirements**

### **Requirements**

- CM 2000: Construction Graphics
- CM 3000: Computer Applications in Construction
- CM 3110: Residential and Light Construction Methods
- CM 3410: Construction Quantity Surveying
- CM 4510: Construction Scheduling

***Program Total (15 Credit Hours)***

programs in the

**College of Computing and  
Software Engineering**

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# Computer Game Design and Development, BSCGDD

## Program Description

The Bachelor of Science in Computer Game Design and Development equips students and graduates with the skills and knowledge to apply computing and software engineering techniques to the design and production of digital media for entertainment, research, and education. As a specialization within the field of computing, game design and development builds on and applies expertise in computing hardware and software to create engaging and immersive multimedia systems.

This program is a part of the College of Computing and Software Engineering.

### Accreditation

The Bachelor of Science in Computer Game Design and Development program is accredited by the Computing Accreditation Commission of ABET, <https://www.abet.org/>

## Admission, Enrollment, and Graduation Policies

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required.

### Enrollment Requirements

Progression through the program requires students to successfully complete or transfer the equivalent of CSE 1321, CSE 1321L, CSE 1322, and CSE 1322L with a grade of 'B' or better in all four courses.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION

## Program Course Requirements

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

### ***General Education Core Curriculum Requirements Specific to This Major***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\* Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- CSE 1321:Programming and Problem Solving I
- CSE 1321L:Programming and Problem Solving I Laboratory
- CSE 1322:Programming and Problem Solving II
- CSE 1322L:Programming and Problem Solving II Laboratory
- CSE 2300:Discrete Structures for Computing  
or
- MATH 2345:Discrete Mathematics
- STAT 2332:Probability and Data Analysis
- CGDD 2012:Fundamentals of Game Design
- CGDD 2014:Fundamentals of Digital Game Development
  - One credit hour carried over from Area D2

### **Major Required Courses (46 Credit Hours)**

- CSE 3153:Database Systems
- CSE 3801:Professional Practices and Ethics
- CS 3305:Data Structures
- CS 4306:Algorithm Analysis
- CS 4722:Computer Graphics and Multimedia
- SWE 3313:Introduction to Software Engineering
- SWE 3643:Software Testing & Quality Assurance
- SWE 4324:User-Centered Design
- CGDD 4242:Agent-Based Artificial Intelligence
- CGDD 3103:Application Extension and Scripting
- CGDD 4003:Digital Media and Interaction
- CGDD 4203:Introduction to Mobile and Immersive Gaming
- CGDD 4303:Educational and Serious Game Design
- CGDD 4803:Studio
- CGDD 4814:Studio 2
- One credit hour carried over from Area D1

## **Major Elective Tracks (14 Credit Hours)**

### **Media-Production Track**

*Required Courses (9 Credit Hours)*

- MATH 3260:Linear Algebra I
- CGDD 4113:3D Modeling and Animation
- CGDD 4603:Production Pipeline and Asset Management

*Free Electives (5 Credit Hours)*

Select any courses in the university curriculum.

### **Educational-Serious Track**

*Required Courses (12 Credit Hours)*

- CGDD 4313:Designing Online Learning Content and Environments
  - TCOM 2010:Technical Writing
- Select any two approved TCOM courses for six credit hours

*Free Electives (2 Credit Hours)*

Select any courses in the university curriculum.

### **Planning-Management Track**

*Required Courses (9 Credit Hours)*

Select at least three courses for nine credit hours from of the following:

- MGT 3100:Management and Behavioral Sciences
- MGT 4185:Technology and Innovation Management
- ENTR 4122:Venture Analysis
- ENTR 4490:Special Topics in Entrepreneurship
- SWE 3623:Software Systems Requirements
- SWE 4663:Software Project Management

*Free Electives (5 Credit Hours)*

Select any courses in the university curriculum, including additional courses from the list above.

### **Simulations-Informatics Track**

#### *Required Courses (6 Credit Hours)*

- CGDD 4703:Data Modeling and Simulation  
One Approved Upper-Level CSE/CGDD/SWE/CS/IT Special Topics/Internship/Directed Study in this area for three credit hours

#### *Free Electives (8 Credit Hours)*

Select any courses in the university curriculum.

### **Creative Content Track**

#### *Required Courses (12 Credit Hours)*

- CGDD 4113:3D Modeling and Animation
- MEBU 2270:Entertainment Media Production  
Select at least two courses from the following:
  - MEBU 3370:Fundamentals of Audio Production and Technology
  - MEBU 4470:Advanced Audio Production and Technology
  - MEBU 4490:Special Topics in the Music and Entertainment Business  
Contact MEBUS Program for other available options

#### *Free Electives (2 Credit Hours)*

Select any courses in the university curriculum.

### **Computer Science Track**

#### *Required Courses (9 Credit Hours)*

Select 9 credit hours of upper-division CS courses, which must be non-duplicative hours with the major requirements.

#### *Free Electives (5 Credit Hours)*

Select any courses in the university curriculum.

### **Custom Track**

#### *Required Courses (9 Credit Hours)*

Must contain at least 9 credit hours upper-level coursework. Please see advisor for course selection. \*Note: Students are encouraged to consider Special Topics, Internships, and/or Directed Studies courses, examples listed below.

- CGDD 4400:Directed Study
- IT 4490:Special Topics in Information Technology
- SWE 4490:Special Topics
- CSE 4983:CSE Computing Internship

*Free Electives (5 Credit Hours)*

Select any course in the university curriculum.

**Program Total (120 Credit Hours)**

# **Computer Science B.S.**

## **Program Description**

The Bachelor of Science with a major in Computer Science program (BSCS) provides a blend of the foundations of computer science (CS) and applications in the information technology (IT) industry. The BSCS program emphasizes the study of computer systems architecture, software development, and data communications. Core technology areas include programming, computer architecture, operating systems, data communication, database systems, and software engineering. These areas are supported by a strong foundation in computing principles such as the design of programming languages, data structures, and operating system principles. The program includes a mathematics component and mathematics concepts are incorporated into many of the major courses.

Graduates of the CS program are prepared for a variety of careers in CS and IT, especially in the development of software for distributed systems. Example job titles from KSU graduates of the CS program include information technology specialist, programmer analyst, software engineer, network administrator, software developer, artificial intelligence engineer, back-end engineer/full stack developer, and software consultant. This program also prepares students for graduate studies in computing-related fields.

This program is a part of the College of Computing and Software Engineering.

### Accreditation

The Bachelor of Science with a major in Computer Science program is accredited by the Computing Accreditation Commission of ABET, <https://www.abet.org/>

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required.

### Enrollment Requirements

Progression through the program requires students to successfully complete or transfer the equivalent of CSE 1321, CSE 1321L, CSE 1322, and CSE 1322L with a grade of 'B' or better in all four courses.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies: 5.0  
PROGRAM REQUIREMENTS & GRADUATION

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

#### ***General Education Core Curriculum Requirements Specific to This Major:***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1 .

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\* Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- CSE 1321:Programming and Problem Solving I
- CSE 1321L:Programming and Problem Solving I Laboratory
- CSE 1322:Programming and Problem Solving II
- CSE 1322L:Programming and Problem Solving II Laboratory
- MATH 2202:Calculus II
- MATH 2345:Discrete Mathematics
- TCOM 2010:Technical Writing

### **Major Core Requirements (40 Credit Hours)**

- CS 3305:Data Structures
- CS 3503:Computer Organization and Architecture
- CS 3502:Operating Systems
- SWE 3313:Introduction to Software Engineering
- CS 3410:Introduction to Database Systems
- CS 4306:Algorithm Analysis
- CS 3622:Fundamentals of Data Communications
- CS 4504:Parallel and Distributed Computing
- CS 4308:Concepts of Programming Languages
- CSE 3801:Professional Practices and Ethics
- CS 4850:Computer Science Senior Project
- STAT 2332:Probability and Data Analysis
- MATH 3260:Linear Algebra I  
One credit hour from Area D1  
  
One credit hour from Area D2

## **Major Electives (15 Credit Hours)**

Complete 15 credit hours from Major Electives list with at least 9 credit hours within the discipline, OR select one concentration area and complete its requirements.

- SWE 3633:Software Architecture and Design
- SWE 3643:Software Testing & Quality Assurance
- SWE 3683:Embedded Systems Analysis and Design
- SWE 4633:Cloud Software Development
- CSE 4983:CSE Computing Internship
- Any CS 3000-level or 4000-level course.

## **Artificial Intelligence Concentration (15 Credit Hours)**

*Required Courses (12 Credit Hours)*

- CS 3642:Artificial Intelligence
- CS 4267:Machine Learning
- CS 4732:Machine Vision
- CS 4742:Natural Language Processing

*Elective (3 Credit Hours)*

Choose One:

- CS 4277:Deep Learning
- CS 4491:Advanced Topics in Computer Science (in concentration)
- CS 4492:Undergraduate Research
- CSE 4983:CSE Computing Internship (in concentration)

## **Data Science Concentration (15 Credit Hours)**

*Required Courses (12 Credit Hours)*

- CS 4265:Big Data Analytics
- CS 4412:Data Mining
- CS 4422:Information Retrieval
- CS 4522:HPC & Parallel Programming

*Elective (3 Credit Hours)*

Choose One:

- CS 4524:Cloud Computing

- CS 4722:Computer Graphics and Multimedia
- CS 4491:Advanced Topics in Computer Science (in concentration)
- CS 4492:Undergraduate Research
- CSE 4983:CSE Computing Internship (in concentration)

**Cyber and Network Security Concentration (15 Credit Hours)**

*Required Courses (12 Credit Hours)*

- CS 3626:Cryptography
- CS 4612:Software Security
- CS 4622:Computer Networks
- CS 4626:Computer and Network Security

*Elective (3 Credit Hours)*

Choose One:

- CS 4491:Advanced Topics in Computer Science (in concentration)
- CS 4492:Undergraduate Research
- CSE 4983:CSE Computing Internship (in concentration)
- IT 4823:Information Security Administration & Privacy
- IT 4833:Wireless Security
- IT 4843:Ethical Hacking for Effective Defense
- IT 4853:Computer Forensics
- IT 4883:Infrastructure Defense

**Free Electives (5 Credit Hours)**

Any courses in the university curriculum.

**Program Total (120 Credit Hours)**

# **Data Science and Analytics, B.S.**

## **Program Description**

The Bachelor of Science with a major in Data Science and Analytics will provide a student with foundational mathematical, statistical, and computational knowledge, skills, and methodologies within the context of the ethical and professional standards of Data Science. A student will also complete at least 16 hours of courses in either a domain of expertise in data science and analytics or a minor to provide them a context in which to apply their data science abilities. Thus, the degree will enable the student to either begin a career in industry, government, or community and non-profit organizations in a range of domains, or pursue graduate study.

Students will begin the program by building a foundation in mathematics, statistics, computer programming, and algorithmic techniques. They will then take 38 credit hours of data science core courses covering the fundamentals of data science, programming, machine learning, data mining, data science ethics, and communication. After completing the core, students will complete 6 credit hours of elective courses in data science and statistical learning. Students will also be required to take at least 16 hours in a suitable domain knowledge concentration to begin exploring an expert area of application. The program will conclude with a required data science capstone course, in which the student will demonstrate overall knowledge of the discipline by completing a data science project, incorporating all the knowledge learned in the courses.

This program is a part of the College of Computing and Software Engineering.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies: 5.0  
PROGRAM REQUIREMENTS & GRADUATION

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **General Education Core Curriculum Requirements Specific to this Major:**

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1190 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L\*, PHYS 2211/L\*, PHYS 2212/L\*, BIOL 1107/L, or BIOL 1108/L.

\* Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- MATH 2202:Calculus II
  
- CSE 2300:Discrete Structures for Computing  
or
- MATH 2345:Discrete Mathematics
  
- STAT 1401:Elementary Statistics  
or
- STAT 2332:Probability and Data Analysis
  
- CSE 1321:Programming and Problem Solving I
- CSE 1321L:Programming and Problem Solving I Laboratory
- CSE 1322:Programming and Problem Solving II
- CSE 1322L:Programming and Problem Solving II Laboratory

### **Major Requirements (38 Credit Hours)**

- One carry over credit hour from Area D1
- One carry over credit hour from Area D2
- DATA 3010:Computer Applications of Statistics
  
- STAT 3120:Statistical Methods I  
or
- STAT 3125:Biostatistics
  
- STAT 3130:Statistical Methods II
- DATA 3230:Data Visualization

- MATH 3260:Linear Algebra I
- DATA 3300:Data Science Ethics
  
- CSE 3153:Database Systems  
or
- CS 3410:Introduction to Database Systems
  
- DATA 4000:Data Science Communication
  
- DATA 4030:Programming in R  
or
- DATA 4140:Python for Data Science
  
- STAT 4210:Applied Regression Analysis
- DATA 4310:Statistical Data Mining
- DATA 4990:Data Science Capstone

### **Major Electives (6 Credit Hours)**

Select six credit hours from the following:

- DATA 3396:Cooperative Study
- DATA 3398:Internship
- STAT 4025:Clinical Trial Design
- DATA 4030:Programming in R
- STAT 4120:Applied Experimental Design
- STAT 4125:Analysis of Human Studies
- DATA 4330:Applied Binary Classification
- DATA 4400:Directed Study
- DATA 4490:Special Topics in Statistics
- DATA 4140:Python for Data Science
- CSE 4983:CSE Computing Internship

### **Related Studies (16 Credit Hours)**

A minimum of sixteen hours of additional courses taken at the 1000–4000 level. Students are encouraged to take courses that focus on a particular domain with data science applications. These hours can also be used to earn a minor in another discipline.

### **Program Total (120 Credit Hours)**

# **Information Technology, B.A.S.**

## **Program Description**

The Bachelor of Applied Science with a major in Information Technology is designed for students who have an Associate of Applied Science in computing from a member institution of the Technical College System of Georgia. The courses that you have completed for your AAS will transfer as a block, and you will be required to take an additional 94 credit hours (or approximately 3 years of full-time study) to obtain the BAS degree.

This program is a part of the College of Computing and Software Engineering.

### Accreditation

The Bachelor of Science in Information Technology program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>. The B.A.S. in Information Technology was reviewed & accredited in 2016.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Information Technology B.A.S. degree is separate from admission to Kennesaw State University. Students must meet the program requirements below to pursue this degree program:

- Earn an A.A.S in a computing field with a GPA of 2.3 or better from a TCSG college to transfer into the BASIT program

### Enrollment Requirements

Progression through the program requires students to successfully complete or transfer the equivalent of IT 1114, IT 1114L, CSE 1321, and CSE 1321L with a grade of 'C' or better in all four courses.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **General Education Core Curriculum Requirements Specific to This Major**

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/CHEM 1211L, CHEM 1212/CHEM 1212L, PHYS 1111/PHYS 1111L\*, PHYS 1112/PHYS 1112L, PHYS 2211/PHYS 2211L\*, PHYS 2212/PHYS 2212L, BIOL 1107/BIOL 1107L, or BIOL 1108/BIOL 1108L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- IT 1114:Programming Principles
- IT 1114L:Programming Principles Lab
- CSE 1321:Programming and Problem Solving I
- CSE 1321L:Programming and Problem Solving I Laboratory
  
- CSE 2300:Discrete Structures for Computing  
or
- MATH 2345:Discrete Mathematics
  
- Six credit hour Technical Block transferred from A.A.S. or A.A.T. degree
- One credit hours carried over from Area D2

### **Technical Block (20 Credit Hours)**

The Technical Block requires: 20 hours of CIS/CIST courses from the student's A.A.S. or A.A.T. degree.

### **Major Requirements (37 Credit Hours)**

- CSE 3153:Database Systems
- CSE 3801:Professional Practices and Ethics
- IT 3003:Professional Development & Entrepreneurship
- IT 3123:Hardware and Software Concepts
- IT 3203:Introduction to Web Development
- IT 3223:Software Acquisition and Project Management
- IT 3423:Operating Systems Concepts & Administration
- IT 3883:Advanced Application Development
- IT 4323:Data Communications & Networking
- IT 4683:Management of Information Technology and Human Computer Interaction

- IT 4823:Information Security Administration & Privacy
- IT 4983:IT Capstone
- One credit hour carried over from Area D1

### **Directed Electives (3 Credit Hours)**

At least 3 credit hours 3000/4000 level IT courses, not required as Upper Division Major Courses. Students may choose any IT course not already being used in the major or the following:

- FTA 4001:Foundations of FinTech
- FTA 4002:Financial Technologies
- FTA 4005:Introduction to Financial Data Analytics
- CSE 4983:CSE Computing Internship

### **Program Total (120 Credit Hours)**

*Note: All IT, CS, CSE AND SWE designator courses must have a grade of "C" or higher. Students must earn a grade of "B" or higher in CSE 1321/CSE 1321L and CSE 1322/CSE 1322L.*

# **Information Technology, BSIT**

## **Program Description**

The Bachelor of Science in Information Technology degree, has the primary objective of meeting the high demand for professional degrees in the strategy, development and administration of integrated computing, management, and information technology systems. The degree has core requirements, major requirements and required electives. The major contains those courses considered fundamental to the information technology field and the electives give the student some flexibility in choice.

This program is a part of the College of Computing and Software Engineering.

### Accreditation

The Bachelor of Science in Information Technology degree is accredited by the Computing Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required.

### Enrollment Requirements

Progression through the program requires students to successfully complete or transfer the equivalent of IT 1114, IT 1114L, CSE 1321, and CSE 1321L with a grade of 'C' or better in all four courses.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies: 5.0  
PROGRAM REQUIREMENTS & GRADUATION

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

#### ***General Education Core Curriculum Requirements Specific to the Major***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2.  
Students must choose from CHEM 1211 /CHEM 1211L, CHEM 1212/CHEM 1212L, PHYS 1111/PHYS 1111L\*,

PHYS 1112/PHYS 1112L, PHYS 2211/PHYS 2211L\*, PHYS 2212/PHYS 2212L, BIOL 1107/BIOL 1107L, or BIOL 1108/BIOL 1108L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- IT 1114:Programming Principles
- IT 1114L:Programming Principles Lab
- CSE 1321:Programming and Problem Solving I
- CSE 1321L:Programming and Problem Solving I Laboratory
- CSE 2300:Discrete Structures for Computing  
or
- MATH 2345:Discrete Mathematics
- TCOM 2010:Technical Writing
- STAT 2332:Probability and Data Analysis  
One credit hour carried over from Area D2

### **Major Requirements (40 Credit Hours)**

- CSE 3153:Database Systems
- CSE 3801:Professional Practices and Ethics
- IT 3003:Professional Development & Entrepreneurship
- IT 3123:Hardware and Software Concepts
- IT 3203:Introduction to Web Development
- IT 3223:Software Acquisition and Project Management
- IT 3423:Operating Systems Concepts & Administration
- IT 3883:Advanced Application Development
- IT 4323:Data Communications & Networking
- IT 4683:Management of Information Technology and Human Computer Interaction
- IT 4723:IT Policy and Laws
- IT 4823:Information Security Administration & Privacy
- IT 4983:IT Capstone  
One credit hour carried over from Area D1

### **Upper Level Concentrations (15 Credit Hours)**

All BSIT students are required to take a minimum of 15 credit hours in an upper-level concentration. They choose one of the four concentrations and complete any 4 of the courses listed for that concentration. The 5th course in the concentration can be a course from that same concentration or one of the other concentrations or IT Special Topics course or CSE Internship course.

### **Data Analytics and Technology Concentration**

Complete any four courses for a total of 12 credit hours from the following:

- IT 3703:Introduction to Data Analytics and Technology
- IT 4713:Business Intelligence Systems
- IT 4733:Big Data System Administration
- IT 4773:Machine Learning for Enterprise Applications
- IT 4793:Applied Data Driven Solutions

*5th Course Option: The 5th course can be any Data Analytics and Technology concentration course not already elected or one of the following:*

- CSE 4983:CSE Computing Internship
- IT 3503:Foundations of Health Information Technology
- IT 4153:Advanced Database
- IT 4333:Network Configuration & Administration
- IT 4403:Advanced Web and Mobile Applications
- IT 4603:Introduction to Blockchain Technologies
- IT 4673:Virtual IT Systems
- IT 4833:Wireless Security
- IT 4843:Ethical Hacking for Effective Defense
- IT 4853:Computer Forensics
- IT 4863:Web and Mobile Application Security
- IT 4883:Infrastructure Defense
- IT 4893:Internet of Things: Applications and Security
- IT 4490:Special Topics in Information Technology
- IT 4493:IT Undergraduate Research

### **Enterprise Systems Concentration**

Complete any four courses for a total of 12 credit hours from the following:

- IT 3503:Foundations of Health Information Technology
- IT 4153:Advanced Database
- IT 4333:Network Configuration & Administration
- IT 4403:Advanced Web and Mobile Applications
- IT 4673:Virtual IT Systems

*5th Course Option: The 5th course can be any Enterprise Systems concentration course not already elected or one of the following:*

- CSE 4983:CSE Computing Internship
- IT 3703:Introduction to Data Analytics and Technology

- IT 4603:Introduction to Blockchain Technologies
- IT 4713:Business Intelligence Systems
- IT 4833:Wireless Security
- IT 4843:Ethical Hacking for Effective Defense
- IT 4853:Computer Forensics
- IT 4863:Web and Mobile Application Security
- IT 4883:Infrastructure Defense
- IT 4893:Internet of Things: Applications and Security
- IT 4490:Special Topics in Information Technology
- IT 4493:IT Undergraduate Research

### **Cyber Operations Security Concentration**

Complete any four courses for a total of 12 credit hours from the following:

- IT 4833:Wireless Security
- IT 4843:Ethical Hacking for Effective Defense
- IT 4853:Computer Forensics
- IT 4863:Web and Mobile Application Security
- IT 4883:Infrastructure Defense
- IT 4893:Internet of Things: Applications and Security

*5th Course Option: The 5th course can be any Cyber Operations Security concentration course not already elected or one of the following:*

- CSE 4983:CSE Computing Internship
- IT 3503:Foundations of Health Information Technology
- IT 3703:Introduction to Data Analytics and Technology
- IT 4153:Advanced Database
- IT 4333:Network Configuration & Administration
- IT 4403:Advanced Web and Mobile Applications
- IT 4603:Introduction to Blockchain Technologies
- IT 4673:Virtual IT Systems
- IT 4713:Business Intelligence Systems
- IT 4490:Special Topics in Information Technology
- IT 4493:IT Undergraduate Research

### **Technology and Innovation Concentration**

Complete any four courses for a total of 12 credit hours from the following:

- IT 4603:Introduction to Blockchain Technologies
- IT 4613:Machine Learning Technology in Banking and Investment
- IT 4623:Blockchain Technologies Security & Privacy

- FTA 4001:Foundations of FinTech
- FTA 4002:Financial Technologies
- FTA 4005:Introduction to Financial Data Analytics

*5th Course Option: The 5th course can be any FinTech concentration course not already elected or one of the following:*

- CSE 4983:CSE Computing Internship
- IT 3503:Foundations of Health Information Technology
- IT 3703:Introduction to Data Analytics and Technology
- IT 4153:Advanced Database
- IT 4333:Network Configuration & Administration
- IT 4403:Advanced Web and Mobile Applications
- IT 4633:IT Technology Systems Internship
- IT 4673:Virtual IT Systems
- IT 4713:Business Intelligence Systems
- IT 4833:Wireless Security
- IT 4843:Ethical Hacking for Effective Defense
- IT 4853:Computer Forensics
- IT 4863:Web and Mobile Application Security
- IT 4893:Internet of Things: Applications and Security
- IT 4490:Special Topics in Information Technology
- IT 4493:IT Undergraduate Research

### **Free Electives (5 Credit Hours)**

Any course in the university curriculum.

### **Program Total (120 Credit Hours)**

*Note: All IT, CS, CSE, SWE and CGDD designator courses must have a grade of 'C' or higher. Students must earn a grade of "B" or higher in CSE 1321/L and CSE 1322/L.*

# **Software Engineering, BSSWE**

## **Program Description**

Software Engineering represents the fastest growing segment of software professionals – men and women who solve problems and issues in the development of mission-critical software to meet the needs of business and industry. The undergraduate program in Software Engineering, which is the only one offered at a public university in the state of Georgia, has the primary objective of preparing a new generation of software developers focused on the engineering of software systems; that is, those systems that meet specified requirements, that are built with mission critical quality levels, and that are within cost and schedule requirements.

This program is a part of the College of Computing and Software Engineering.

### Accreditation

The Bachelor of Science in Software Engineering has been accredited by the Engineering Accreditation Commission of ABET since Oct 1, 2012.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required.

### Enrollment Requirements

Progression through the program requires students to successfully complete or transfer the equivalent of CSE 1321, CSE 1321L, CSE 1322 and CSE 1322L with a grade of 'B' or better in all four courses.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies: 5.0 PROGRAM REQUIREMENTS & GRADUATION

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

### ***General Education Core Curriculum Requirements Specific to This Major***

Engineering Majors must take MATH 1190 in Area A2 and MATH 2202 in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- CSE 1321:Programming and Problem Solving I
  - CSE 1321L:Programming and Problem Solving I Laboratory
  - CSE 1322:Programming and Problem Solving II
  - CSE 1322L:Programming and Problem Solving II Laboratory
  - CSE 2300:Discrete Structures for Computing
- or
- MATH 2345:Discrete Mathematics
  - TCOM 2010:Technical Writing
  - STAT 2332:Probability and Data Analysis
- One (1) carryover credit hour from Area A2

### **Major Requirements (49 Credit Hours)**

- CSE 3153:Database Systems
  - CSE 3801:Professional Practices and Ethics
  - CS 3305:Data Structures
  - CS 3503:Computer Organization and Architecture
  - CS 3502:Operating Systems
  - SWE 3313:Introduction to Software Engineering
  - SWE 3623:Software Systems Requirements
  - SWE 3633:Software Architecture and Design
  - SWE 3643:Software Testing & Quality Assurance
  - SWE 4324:User-Centered Design
  - SWE 4663:Software Project Management
  - SWE 4713:SWE Application Domain
  - SWE 4724:Software Engineering Capstone Project
- Two (2) carryover credit hours from Area D

### **Math/ Science Elective (8 Credit Hours)**

Select 8 credit hours from the following prefixes: PHYS (excluding PHYS 1111/L and PHYS 1112/L and if PHYS 1111/L & PHYS 1112/L were taken in Area D, students cannot retake their equivalents PHYS 2211/L & PHYS 2212/L respectively), CHEM (excluding CHEM 1151/L, CHEM 1152/L and CHEM 1210) BIOL (excluding eCore BIOL 1011K and BIOL 1012K), MATH at the level of Calculus 1 or higher (excluding MATH 0097, MATH 0098, MATH 0099, MATH 0989, MATH 0998, MATH

0999, MATH 1001, MATH 1101, MATH 1106, MATH 1107, MATH 1111, MATH 1111L, MATH 1112, MATH 1113, MATH 1160, MATH 1190, MATH 1401, MATH 1501, MATH 2202, MATH 2207, MATH 2332, MATH 2345, MATH 2590, MATH 2595, MATH 3295, MATH 3316, MATH 3317, MATH 3318, MATH 3322, MATH 3495, MATH 4495).

### **Upper Division Electives (6 Credit Hours)**

Choose 2 Courses: One from List 1 and one from List 1 or List 2.

#### **List 1**

- SWE 3683:Embedded Systems Analysis and Design
- SWE 4633:Cloud Software Development
- SWE 4723:Undergraduate Research Methods
- SWE 4743:Object-Oriented Development
- SWE 4783:User Interaction Engineering
- SWE 4490:Special Topics
- SWE 4803:Independent Study
- CSE 4983:CSE Computing Internship
- CS 4720:Internet Programming
- CS 4524:Cloud Computing
- CS 4612:Software Security
- CS 4632:Modeling and Simulation
- CS 4712:User Interface Engineering
- CS 4514:Real-Time Systems
- CS 4308:Concepts of Programming Languages

#### **List 2**

- CS 4504:Parallel and Distributed Computing
- CS 4523:Programming Massively Parallel Processors
- CS 4622:Computer Networks
- CS 4722:Computer Graphics and Multimedia
- CS 4732:Machine Vision
- IT 4823:Information Security Administration & Privacy  
IT, CS, CGDD 4000-level courses- coordinator approval

### **Free Electives (5 Credit Hours)**

Any courses in university curriculum.

### **Program Total (120 Credit Hours)**

# **High Performance Computing Certificate**

## **Contact Information**

**Website:** <https://ccse.kennesaw.edu/cs/programs/cert-hpcc.php>

**Phone:** (470) 578-6005

## **Program Description**

This is a certificate that serves computing and applied computer science majors interested in developing expertise in this area of high-demand and high interest and innovation, with coursework in High Performance Computing Clusters (HPCC) Systems platform, high performance computing and computing languages including ECL, Thor, ROXIE and R. The certificate also serves the students in the BA Applied Computer Science with a certificate that can be used to meet the BA ACS program's requirement of a minor or certificate.

The program is available online, in order to serve non-degree-seeking students including working professionals and those seeking education post graduation expertise.

## **Program Course Requirements**

### **High Performance Computing Certificate Core Requirements (15 Credit Hours)**

- CS 3410:Introduction to Database Systems
- ACST 4320:Data Warehousing and Mining
- ACST 3340:Modern Languages: Theory, Scripting, R, HPC, Fortran
- ACST 3510:Computer Architecture from Foundations to Cloud
- ACST 4570:Cloud Computing and HPCC Systems Platform

### **HPC Certificate Electives (3 Credit Hours)**

Choice of one course from the following:

- ACST 3330:Data Structures and Database Applications
- ACST 3530:Linux Operating Systems and Networking

### **Program Total (18 Credit Hours)**

# **Robotics Programming Certificate**

## **Contact Information**

**Website:** <https://ccse.kennesaw.edu/cs/programs/cert-robotics-prog.php>

**Phone:** (470) 578-6005

## **Program Description**

This certificate is designed to provide additional training to supplement degree programs in other related areas. The curriculum combines aspects of engineering and computer science emphasizing design of physical robotic systems and the software necessary for intelligent control. The certificate introduces students to mechanical, electrical, software, and operational aspects of robotic systems. Students gain practical engineering and software development experience in laboratories and automation-type projects.

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

- MTRE 3810:Device Control and Simulation of Mobile Robots
- MTRE 3810L:Device Control and Simulation of Mobile Robots Laboratory
- MTRE 4001:Modeling and Feedback Control of Dynamic Systems
- MTRE 4002L:Feedback Control Laboratory
- MTRE 4200:Robotics Analysis and Synthesis
- CS 3305:Data Structures

### **Electives (6 Credit Hours)**

Select six credit hours from the following:

- CS 3642:Artificial Intelligence
- CS 4732:Machine Vision
- CS 4267:Machine Learning

### **Program Total (21 Credit Hours)**

# **Computer Game Design & Development Minor**

## **Contact Information**

**Website:** <https://ccse.kennesaw.edu/swegd/programs/minor-cgdd.php>

**Phone:** (470) 578-3790

**Email:** [swe@kennesaw.edu](mailto:swe@kennesaw.edu)

## **Program Description**

To be eligible for a minor in Computer Game Design and Development, the student must complete the following courses with a grade of "C" or better. Any upper level (3000+) courses that are required in the major may not be used as credit for the minor. Other upper level CGDD courses may be used as substituted. Students must have at least 9 upper level CGDD hours not required for their major (CGDD courses taken as electives for your major bachelor degree can be used to complete the minor).

## **Program Course Requirements**

### **Required Courses (10 Credit Hours)**

\*For students with majors outside CCSE, please meet with CCSE Advisors to discuss the possibility of a prerequisite override.

- CSE 132I:Programming and Problem Solving I
- CSE 132IL:Programming and Problem Solving I Laboratory
- CGDD 2012:Fundamentals of Game Design
- CGDD 2014:Fundamentals of Digital Game Development
- CGDD 4003:Digital Media and Interaction

### **Upper Division Electives (6 Credit Hours)**

Select at least 6 credit hours from the following:

- CGDD 3103:Application Extension and Scripting
  - CGDD 4203:Introduction to Mobile and Immersive Gaming
  - CGDD 4303:Educational and Serious Game Design
  - CGDD 4313:Designing Online Learning Content and Environments
  - CGDD 4490:Advanced Topics
- Any other 3000/4000 level CGDD course.

### **Program Total (16 Credit Hours)**

# **Computer Science Minor**

## **Contact Information**

Website: <https://ccse.kennesaw.edu/cs/programs/minor-cs.php>

Phone: (470) 578-6005

## **Program Description**

The Computer Science Minor is designed to provide basic proficiency in computer science. The requirements focus on programming methodology and skills, software development, relevant mathematical skills, structure techniques, and basic computer science concepts such as computer organizations and architecture, design and analysis of algorithms, data communications, operating systems, and security.

Students may need to take MATH 1113, MATH 1190, and (MATH 2345 or CSE 2300) in order to satisfy prerequisites for CS courses. Student must earn a "B" or higher in CSE 1321, CSE 1321L, CSE 1322, and CSE 1322L, and a "C" or higher in all remaining courses for the minor. Completing these requirements provides a strong foundation in computer science.

Students who take recommended courses as minor electives will be able to enter into Master of Science in Computer Science (MSCS) at KSU without taking any additional fundamental courses.

## **Program Course Requirements**

### **Required Courses (11 Credit Hours)**

- CSE 1321:Programming and Problem Solving I
- CSE 1321L:Programming and Problem Solving I Laboratory
- CSE 1322:Programming and Problem Solving II
- CSE 1322L:Programming and Problem Solving II Laboratory
- CS 3305:Data Structures

### **Upper Division Electives (6 Credit Hours)**

Please select two additional CS 3000-level and/or 4000-level courses.

Recommended Elective Courses for students aiming for the Computer Science, MS at KSU:

- CS 3503:Computer Organization and Architecture
- CS 4306:Algorithm Analysis

### **Program Total (17 Credit Hours)**

# **Data Science and Analytics Minor**

## **Contact Information**

Website: <https://datascience.kennesaw.edu/degrees-programs/undergraduate-minor.php>

Phone: (470) 578-2409

## **Program Description**

The Data Science and Analytics minor prepares students to translate data into information to support and improve decision making in any discipline. This Minor has been developed to assist KSU students in three ways:

- Students will differentiate themselves in a competitive job market after graduation by learning knowledge and developing skills in advanced data science and analytics courses.
- Students can engage in undergraduate research, internships, and/or cooperative study, strengthening their employability after graduation.
- Students can also prepare for graduate degrees in computational, analytical, business, or professional fields.

The minor welcomes students from any major at KSU and is especially relevant to students who are looking for an applied analytical skill set to add to their knowledge from their chosen major.

Pre-requisite: STAT 1401 or ECON 2300 or STAT 3125 or STAT 2332 or MATH 3332

- Students can officially declare the minor in OwlExpress after enrolling in DATA 3010.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

- DATA 3010:Computer Applications of Statistics

### ***Select One of the Following:***

- IET 2227:Probability and Statistics I
- ISYE 2600:Probability and Statistics I
- PSYC 3000:Statistical Applications in Psychological Science
- STAT 3120:Statistical Methods I
- STAT 3125:Biostatistics

### ***Select One of the Following:***

- IET 3403:Probability and Statistics II
- ISYE 3600:Probability and Statistics II
- STAT 3130:Statistical Methods II

**Electives (6 Credit Hours)**

Select two of the following:

- IS 4540:Data Mining
- Any 4000 level DATA or STAT course

One of the two upper-division electives may consist of 3 credit hours from either:

- DATA 3396:Cooperative Study  
or
- DATA 3398:Internship

***Program Total (15 Credit Hours)***

# **Information Technology Minor**

## **Contact Information**

Website: <https://ccse.kennesaw.edu/it/programs/minor-it.php>

Phone: (470)-578-3803

Email: [itdepartmentinfo@kennesaw.edu](mailto:itdepartmentinfo@kennesaw.edu)

## **Program Description**

The information technology minor provides students with basic IT skills including programming, web page development, and system administration.

## **Program Course Requirements**

To be eligible for a minor in Information Technology, students must complete the following courses with a grade of "C" or better:

### **Required Courses (15 Credit Hours)**

- CSE 3153:Database Systems
- IT 1113:Introduction to Programming
- IT 3123:Hardware and Software Concepts
- IT 3203:Introduction to Web Development
- IT 4323:Data Communications & Networking

### ***Program Total (15 Credit Hours)***

# **Software Engineering Minor**

## **Contact Information**

Website: <https://ccse.kennesaw.edu/swegd/programs/minor-se.php>

Phone: (470) 578-3790

Email: [swe@kennesaw.edu](mailto:swe@kennesaw.edu)

## **Program Description**

The Software Engineering (SWE) minor is open to all undergraduate students. This minor will help students: differentiate themselves in a competitive job market after graduation and/or prepare for a masters in computing degree (Computer Science, Software Engineering, Information Technology).

Non-major students who desire to enroll in upper-level software engineering courses will additionally need the following prerequisites (3 hours): MATH 1113 (can be completed to satisfy Core Areas A or D), CSE 1321 and CSE 1321L.

## **Program Course Requirements**

### **Required Courses (7 Credit Hours)**

- SWE 3313:Introduction to Software Engineering
- CSE 1322:Programming and Problem Solving II
- CSE 1322L:Programming and Problem Solving II Laboratory

### **Upper-Division Elective Courses (9 Credit Hours)**

- SWE 3623:Software Systems Requirements
  - SWE 3633:Software Architecture and Design
  - SWE 3643:Software Testing & Quality Assurance
  - SWE 4324:User-Centered Design
  - SWE 4783:User Interaction Engineering
  - SWE 4490:Special Topics
- Or any other SWE 3000- or 4000-level course

### **Program Total (16 Credit Hours)**

programs in the

**Michael J. Coles College of Business**

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# **Accounting, B.B.A.**

## **Program Description**

The School of Accountancy aspires to be a nationally recognized leader in influencing the accounting profession by educating our students, performing relevant research, and engaging with the profession.

Accounting provides the tools to measure, interpret and communicate economic information for decision-making. A basic understanding of financial and managerial accounting information is necessary for all business majors. Accounting Majors develop their knowledge of accounting within the framework of accounting information systems. The development of a student's technical, communication, computer, critical-thinking, problem-solving, teamwork, and leadership skills are critical consequences of the program.

The School of Accountancy website above will provide more details about the professional opportunities of earning an Accounting degree and the benefits of Certification.

This program is a part of the Michael J. Coles College of Business.

## **Accreditation Information**

AACSB International

## **Admission, Enrollment, and Graduation Policies**

### **Admissions Requirements**

Admission to Coles B.B.A programs is separate from Admissions to Kennesaw State University. Students must meet the program requirements, outlined below. In order to be able to take upper-division courses in Accounting and graduate with an Accounting B.B.A., students must successfully:

Complete BUSA 2150

Meet Coles College Sophomore GPA Requirement,

Be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

## Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION .

### **Program Course Requirements**

#### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

KSU's General Education Core Curriculum Program

#### ***General Education Core Curriculum Requirements Specific to This Major:***

Area A2: MATH 1111 or higher

#### **Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

#### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

#### **Major Requirements (51 Credit Hours)**

##### ***Business Core (24 Credit Hours)***

BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

##### ***Major Field Requirements (18 Credit Hours)***

ACCT 3100: Intermediate Financial Accounting I  
ACCT 3200: Concepts in Federal Taxation  
ACCT 3300: Accounting Information Systems  
ACCT 4050: Intermediate Financial Accounting II  
ACCT 4150: Auditing and Assurance  
ACCT 4550: Accounting Data Analytics

**Major Field Electives (9 Credit Hours)**

Select 9 credit hours from the following:

ACCT 4100: Advanced Financial Accounting  
ACCT 4152: Internal Auditing  
ACCT 4200: Advanced Managerial Accounting  
ACCT 4250: Advanced Taxation  
ACCT 4300: International Accounting  
ACCT 4350: Accounting Systems Audit and Control  
ACCT 4600: Governmental and Not-for Profit Accounting  
ACCT 4700: Valuation of Closely Held Businesses  
ACCT 4800: Fraud and Forensic Accounting  
ACCT 4400: Directed Study  
ACCT 4490: Special Topics in Accounting

**Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. ACCT courses cannot be used here except ACCT 3397. (A maximum of twelve hours of credit in Accounting Experiential Learning AACT 3397 may be used in this area. Experiential Learning cannot be used in any other area.) See a Coles Staff Advisor before taking MGT courses to count here – some MGT courses cannot be used here.

**Program Total (120 Credit Hours)**

# **Economics, B.B.A.**

## **Program Description**

Economics is the study of business firms; the functioning of regional, national, and global markets; and the development of analytical techniques that aid in decision making and understanding market behavior. The primary focus is on problem definition, model development, data gathering and analysis, model solution, and report generation in the areas of consumer behavior, business behavior, price determination, resource allocation, production and distribution of goods and services, and policies that affect output, employment, income, trade, growth, and inflation. There is a broad range of intellectual challenges within the economics major. Branches of Economics overlap such diverse areas as politics, finance, history, international business, management, marketing, business operations, and psychology.

The program of study in economics prepares students for careers in management, marketing, business research, economic planning, and human resources with employers in industry, trade, banking, and government. Students are also well prepared for graduate study in economics, law, and business.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### **Admission Requirements**

Admission to Coles B.B.A programs is separate from Admissions to Kennesaw State University. Students must meet the program requirements, outlined below. In order to be able to take upper-division courses in Economics and graduate with an Economics B.B.A., students must successfully:

Complete BUSA 2150

Meet Coles College Sophomore GPA Requirement,

Be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

## Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Area A2: MATH 1111 or higher

### **Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

### **Major Requirements (51 Credit Hours)**

#### ***Business Core (27 Credit Hours)***

MATH 1160: Elementary Applied Calculus  
BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

**Major Field Requirement (9 Credit Hours)**

ECON 4510: Microeconomics  
ECON 4610: Macroeconomics

*Select one of the following:*

ECON 4310: Economic Development in Global Perspective  
ECON 4410: International Trade and Finance  
FIN 4420: International Financial Management

**Major Field Electives (15 Credit Hours)**

Select 15 credit hours from the following:

ECON 4210: Money and Financial Markets  
ECON 4310: Economic Development in Global Perspective  
ECON 4410: International Trade and Finance  
ECON 4530: Public and Urban Economics  
ECON 4550: The Economics of Strategy  
ECON 4400: Directed Study  
ECON 4490: Special Topics in Economics and Quantitative Analysis

A maximum of 6 of the 15 credit hours in Major Field Electives may be selected from the following:

ECON 4590: Applied Equity Valuation  
ECON 4710: Econometrics  
ECON 4750: Multivariate Data Analysis  
ECON 4760: Business Forecasting  
ECON 4810: Quantitative Decision Models  
ECON 4850: Decision Analysis and Simulation  
FIN 4220: Corporate Finance  
FIN 4260: Short Term Financial Management  
FIN 4320: Fixed Income Securities  
FIN 4360: Investments  
FIN 4420: International Financial Management  
FIN 4520: Financial Derivatives and Financial Engineering  
FIN 4620: Financial Management of Financial Institutions  
FIN 4460: Financial Statement Analysis  
INS 4500: Principles of Risk Management and Insurance  
FIN 4490: Special Topics in Finance

### **Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. ECON courses cannot be used here. (A maximum of nine hours of credit in Economics Experiential Learning such as Internships and Co-ops may be used in this area. Experiential Learning such as Internships and Co-ops cannot be used in any other area.) See a Coles Staff Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

### **Program Total (120 Credit Hours)**

#### **Guidance for Selecting Electives:**

*Students should select their Major Field Electives and their Business Electives and Non-Business Electives after careful consideration of career and/or graduate school aspirations. Discussions with faculty are advisable. If you are interested in Econometrics, ECON 4710, MATH 3260, and MATH 3332 are recommended to provide the core skills valuable in the workplace and as prerequisites to graduate studies. Students planning on graduate studies in economics should also take Calculus II (MATH 2202), Calculus III (MATH 2203), and Differential Equations (MATH 3310). However, all of these MATH courses will not fit within the 123 hours of the Economics degree. If you are interested in business intelligence or business analytics, ECON 4870, ECON 4810, and ECON 4850 are recommended to provide the core skills valuable in the workplace and as prerequisites to graduate studies.*

# **Entrepreneurship, B.B.A.**

## **Program Description**

The program of study in Entrepreneurship is designed for our students to foster deep thinking, experimentation, observation, and reflection as a means of instigating creativity and action into economic development. The program focus is broad and includes entrepreneurial orientation in a variety of settings including new venture creation, social stewardship, family business, government operations, and corporate endeavors. The goal is for our students to create an entrepreneurial mindset and spirit and the emphasis is on entrepreneurial application rooted in a solid foundation formed by successful organizational practices and theory.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

Admission to Coles B.B.A programs is separate from admission to Kennesaw State University. Students must meet the program requirements, outlined below. In order to be able to take upper-division courses in Accounting and graduate with an Accounting B.B.A., students must successfully:

Complete BUSA 2150

Meet the Coles College Sophomore GPA Requirement

Be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business

### Graduation Requirements

Each student is expected to meet the requirement outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

## **General Education Core Curriculum Requirements Specific to This Major**

Area A2: MATH 1111 or higher

### **Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

### **Major Requirements (48 Credit Hours)**

#### **Business Core (24 Credit Hours)**

BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

#### **Major Field Requirements (15 Credit Hours)**

ENTR 3001: Entrepreneurial Thinking  
ENTR 4002: Venture Creation  
ENTR 4003: Venture Funding  
ENTR 4004: Venture Commercialization  
ENTR 4005: Entrepreneurial Experience

#### **Major Field Electives (9 Credit Hours)**

Select 9 credit hours from the following courses:

ACCT 4700: Valuation of Closely Held Businesses  
BUSA 3500: Culture & International Business  
FIN 4260: Short Term Financial Management  
HMGT 3300: Introduction to Hospitality  
MKTG 3410: Professional Selling  
MKTG 4520: Social Media Marketing  
MKTG 4666: Marketing for Entrepreneurs  
    Any MGT 3000 or 4000 level course (except MGT 3397)

MKTG 4850: Business to Business Marketing  
    Any ENTR 3000 or 4000 level course

**Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000-4000) course offerings outside the Major, but inside the Coles College of Business (including MGT 3397). ENTR courses cannot be used here. See a Coles Staff Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

**Non-Business Electives (3 Credit Hours)**

Three hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

***Program Total (120 Credit Hours)***

# **Finance, B.B.A.**

## **Program Description**

There is a broad range of intellectual challenges within the field of finance which integrates and applies principles and concepts drawn from accounting, economics, business operations, and quantitative analysis in a global business environment. Finance is an analytical discipline dealing with the acquisition and distribution of funds, financial statement analysis, security analysis, risk assessment, valuation of assets and liabilities, functioning of financial markets, and management of investments, acquisitions, funds, assets, liabilities, risk, businesses, and financial institutions.

The program in finance prepares students for careers as bankers, financial managers, stockbrokers, financial analysts, portfolio managers, financial consultants, investment bankers, and financial planners. Students are also well prepared for graduate study in law and business.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to Coles B.B.A programs is separate from Admissions to Kennesaw State University. Students must meet the program requirements, outlined below. In order to be able to take upper-division courses in Finance and graduate with a Finance B.B.A., all business majors must successfully

Complete BUSA 2150

Meet the Coles College Sophomore GPA Requirement

Be admitted to the Coles Undergraduate Professional Program. In order to be approved to take upper-division business courses and graduate with a B.B.A. degree. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

#### ***Specific General Education Core Curriculum Requirements for This Major:***

Area A2: MATH 1111 or higher

### **Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

### **Major Requirements (51 Credit Hours)**

#### ***Business Core (27 Credit Hours)***

MATH 1160: Elementary Applied Calculus  
BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

#### ***Major Field Requirements (9 Credit Hours)***

FIN 4220: Corporate Finance  
FIN 4360: Investments

*Select one of the following:*

FIN 4420: International Financial Management  
ECON 4310: Economic Development in Global Perspective  
ECON 4410: International Trade and Finance

**Major Field Electives (15 Credit Hours)\***

*Group A - Select 12 credit hours from the following:*

FIN 4260: Short Term Financial Management  
FIN 4320: Fixed Income Securities  
FIN 4400: Directed Study  
FIN 4460: Financial Statement Analysis  
FIN 4490: Special Topics in Finance  
FIN 4520: Financial Derivatives and Financial Engineering  
FIN 4560: Behavioral Finance  
FIN 4590: Applied Equity Valuation  
FIN 4620: Financial Management of Financial Institutions  
FIN 4660: Advanced Corporate Finance  
INS 4500: Principles of Risk Management and Insurance  
RE 4500: Real Estate Finance  
FTA 4100: Introduction to Information Security for FinTech  
FTA 4003: Commercial Banking and FinTech

*Group B - Select one (3 credit hours) of the following:*

ECON 4210: Money and Financial Markets  
ECON 4400: Directed Study  
ECON 4510: Microeconomics  
ECON 4550: The Economics of Strategy  
ECON 4610: Macroeconomics  
ECON 4710: Econometrics  
ECON 4750: Multivariate Data Analysis  
ECON 4810: Quantitative Decision Models  
ECON 4850: Decision Analysis and Simulation

**Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. FIN courses cannot be used here. (A maximum of nine hours of credit in Finance Experiential Learning such as Internships and Co-ops may be used in this area. Experiential Learning such as Internships and Co-ops cannot be used in any

other area.) See a Coles Staff Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

***Program Total (120 Credit Hours)***

**\*Guidance for Selecting Major Field Electives:**

If you are interested in a particular area of Finance, following are some suggested courses related to two areas of specialization: Capital Markets and Corporate Finance

***I. Capital Markets***

- FIN 4320: Fixed Income Securities
- FIN 4460: Financial Statement Analysis
- FIN 4520: Financial Derivatives and Financial Engineering
- FIN 4560: Behavioral Finance
- INS 4500: Principles of Risk Management and Insurance

***II. Corporate Finance***

- FIN 4260: Short Term Financial Management
- FIN 4460: Financial Statement Analysis
- FIN 4560: Behavioral Finance
- FIN 4620: Financial Management of Financial Institutions
- FIN 4660: Advanced Corporate Finance
- RE 4500: Real Estate Finance

# **Hospitality Management, B.B.A.**

## **Program Description**

The Bachelor of Business Administration in Hospitality Management program is designed to prepare students for employment in the growing field of hospitality defined broadly as hotels, restaurants, convention and exposition centers, theme and amusement parks etc. Based on a business core foundation, the hospitality program prepares students with a strong business curriculum, experience in the hospitality industry, and content courses that cover key areas of hospitality business. The curriculum lies at the intersection of service management and analytics, through courses in guest service management, revenue management, and strategic analytics in hospitality. In the age of Big Data, the prospective program aims to equip students with skills to analyze and interpret how external and internal factors influence decision making in hospitality enterprises, and thereby impact organizational performance.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

Admission to the Hospitality Management, BBA program is separate from Admissions to Kennesaw State University. Students must meet the program's requirements outlined below to pursue this degree program.

All students must meet the admission requirements for freshmen and/or transfer students as determined by KSU prior to applying to the Coles College Professional Program.

Business majors must apply for and be accepted to the Coles College Undergraduate Professional Program in order to graduate with a B.B.A. degree - a Bachelor of Business Administration.

The Coles B.B.A. requires 120 semester hours. Students apply for this program during or after their sophomore year. Admission to the program gives students access to upper division-business courses needed to complete the B.B.A. degree, as well as professional and career development opportunities.

Once students declare their major as business, they will need to meet with a Coles College Academic Advisor, successfully complete BUSA 2150 and satisfactorily complete the Coles Sophomore GPA requirement.

Students must complete the seven courses in the Lower Division Business Core with a GPA of 3.0 or above, including a grade of "C" or better in each course.

Once a student is accepted into the Coles College of Business, then he/she can proceed with a hospitality management major.

View the special admission, progression, and graduation requirements of the Coles College of Business.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Area A- E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Area A2: MATH 1111 or higher

### **Lower Division Business Core (Area F) (18 Credit hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

### **Major Requirements (48 Credit Hours)**

#### *Business Core (24 Credit Hours)*

BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management

MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

**Major Field Requirements (15 Credit Hours)**

HMGT 3300: Introduction to Hospitality  
HMGT 3500: Guest Service Management  
HMGT 3397: Work Experience In Hospitality Management  
HMGT 4100: Hospitality Marketing and Revenue Management  
HMGT 4300: Hotel Management and Operations  
HMGT 4500: Strategic Analytics for Hospitality Managers

**Major Field Electives (9 Credit Hours)**

BLAW 4960: Current Issues in Business Ethics and Law  
BUSA 3500: Culture & International Business  
HMGT 4490: Special Topics in Hospitality Management  
MGT 3190: Business, Ethics, and Society  
MGT 3600: Introduction to International Business  
MGT 4123: Family Business Management  
MGT 4124: Franchise Management  
ENTR 4125: International Entrepreneurship  
MGT 4130: Commercial Real Estate Ventures  
MGT 4161: Organizational Communications  
MGT 4174: International Human Resource Management  
MGT 4190: International Management  
MGT 4476: Contemporary Global Business Practices  
MGT 4880: Service Operations Management  
MKTG 4620: Services Marketing  
MKTG 4880: Hospitality and Tourism Marketing  
Any additional 4000-level HMGT course

**Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000-4000 level) course offerings outside the Major but inside the Coles College of Business.

**Non-Business Electives (3 Credit Hours)**

Three hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

***Program Total (120 Credit Hours)***

# **Information Security and Assurance, B.B.A.**

## **Program Description**

The purpose of the Bachelor of Business Administration with a major in Information Security and Assurance (BBA-ISA) program is to create technologically proficient, business-savvy information security professionals capable of applying policy, education & training, and technology solutions to protect information assets from all aspects of threats, and to manage the risks associated with modern information usage. Information security is the protection of the confidentiality, integrity, and availability of information while in transmission, storage or processing, through the application of policy, technology, and education and awareness. Information assurance concerns information operations that protect and defend information and information systems by ensuring availability, integrity, authentication, confidentiality, and nonrepudiation. This program spans both areas in its approach to the protection of information in the organization.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to Coles B.B.A. programs is separate from Admissions to Kennesaw State University. Students must meet the program requirements, outlined below. In order to be able to take upper-division courses in Accounting and graduate with an Information Security & Assurance B.B.A., students must successfully:

Complete BUSA 2150

Meet the Coles College Sophomore GPA Requirement

Be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

### NSA Recognition

For those students having successfully completed the study of a prescribed body of knowledge in the Information Security and Assurance, B.B.A., in accordance with the academic regulations of Kennesaw State University, and the National Security Agency designation criteria for required knowledge units for National Centers of Academic Excellence in Cyber Defense Education. Students will receive recognition on their transcript to reflect this.

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

#### ***Specific General Education Core Curriculum Requirements for This Major:***

Area A2: MATH 1111 or higher

### **Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

### **Major Requirements (54 Credit Hours)**

#### ***Business Core (24 Credit Hours)***

BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

### **Major Field Requirements (24 Credit Hours)**

ISA 3010: Security Script Programming  
ISA 3100: Principles of Information Security  
ISA 3200: Network Security  
ISA 3210: Client Systems Security  
ISA 3400: Information Security Governance, Auditing, and Control  
ISA 4213: Cloud Security  
ISA 4220: Server Systems Security  
ISA 4820: Information Security and Assurance Programs and Strategies

### **Major Field Electives (6 Credit Hours)**

Select 6 credit hours from the following:

ISA 3300: Management of Information Security in a Global Environment  
ISA 3397: Experiential Learning in Information Security and Assurance  
ISA 3710: International Issues in Information Security and Assurance  
ISA 4200: Perimeter Defense  
ISA 4330: Incident Response and Contingency Planning  
ISA 4350: Management of Digital Forensics and eDiscovery  
ISA 4400: Directed Study in Information Security and Assurance  
ISA 4490: Special Topics in Information Security and Assurance  
ISA 4700: Emerging Issues in Information Security and Assurance  
ISA 4805: Penetration Testing  
IS 3040: IS Infrastructure and Strategy  
IS 3220: Global IS Project Management  
IS 3920: Application Development II  
Any other courses from IS, ISA, and CRJU as approved by the Department.

FTA 4100: Introduction to Information Security for FinTech  
ECON 3300: Applied Statistical and Optimization Models

### **Business Electives (6 Credit Hours)**

Six hours of credit from upper-division (3000-4000 level) course offerings outside the Major, but inside the Coles College of Business. ISA courses cannot be used here. (A maximum of six hours of credit in Information Security and Assurance Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.) ISA Students are encouraged to take IS courses in this area. See a Coles Professional Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

### **Program Total (120 Credit Hours)**

# **Information Systems, B.B.A.**

## **Program Description**

The BBA degree with a major in information systems (IS) produces students who know how to apply technology as a driver of business strategy. This requires students to have strong technology skills, a clear understanding of business strategy, processes, and environment, and ultimately an ability to envision and apply technology solutions in a business environment. Students earning a BBA with a major in information systems understand web and application development in the context of the business environment. Graduates have capabilities in systems analysis and design, database management, and IT project management. Students also have the opportunity to consider information systems strategy in the global environment and bring everything together into an IS capstone course. The program of study includes general business courses, and business topics are integrated into many IS courses. The BBA in IS provides students with flexible elective options. Elective courses focus on cutting-edge IT topics such as data mining and business intelligence.

Students completing the BBA with a major in IS may choose to pursue graduate studies in IS, business, and related fields, or they may choose to begin careers in industry, government, or other agencies. Graduates of the IS program are prepared for a variety of careers in IS, especially in the design, implementation, and management of IT projects. Example job titles include application developer, application support, business analyst, business intelligence manager, client services analyst, database administrator, database analyst, information resource manager, IT consultant, programmer/analyst, project manager, quality assurance analyst, systems analyst, user support analyst, web developer, web page designer, and webmaster.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### **Admissions Requirements**

Admission to Coles B.B.A programs is separate from Admissions to Kennesaw State University. Students must meet the program requirements, outlined below. In order to be able to take upper-division courses in Information Systems and graduate with an Information Systems B.B.A., students must successfully:

Complete BUSA 2150

Meet the Coles College Sophomore GPA Requirement

Be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State

University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

### **Major Requirements (51 Credit Hours)**

#### ***Business Core (24 Credit Hours)***

BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

## **Major Field Requirements (21 Credit Hours)**

### *Data and Development Requirement (6 Credit Hours)*

- IS 3020: Application Development I
- IS 3280: Data Management

### *Applied Development Requirement (3 Credit Hours)*

Select one of the following. Others may be completed as electives.

- IS 3260: Web Development I
- IS 3815: Blockchain for Business Students should choose this course if they plan to pursue the Financial Technology "FinTech" Track.
- IS 3920: Application Development II
- IS 4000: IS Project Lab
- IS 4490: Special Topics
- IS 4540: Data Mining

### *Systems Analysis and Design Requirement (3 Credit Hours)*

- IS 3060: Systems Analysis and Design

### *Strategic IS Management Requirement (6 Credit Hours)*

IS students need to complete these prior to or at least concurrent with taking IS 4880.

- IS 3040: IS Infrastructure and Strategy
- IS 3220: Global IS Project Management

### *Experiential Learning Requirement (0 credit hours)*

IS students must complete an approved experiential learning experience. This is fulfilled by completing an experience in the IS field and reflecting on it. Qualifying experiences must involve at least 40 hours of experiential activity. The experience can be completed by justifying your current job experience and taking IS 3397 for 0 credit hours, or taking a course for-credit such as IS 3397 an IS internship or coop of 150+ field hours. Students can also take FTA 3890, any KSU-Approved study abroad program, IS4000, or IS4400 for credit and enroll in IS3397 for 0 credit hours to complete the reflection component. If a course is selected for-credit it will apply to the Business Elective hours in your program of study. All experiences must be approved prior to enrolling in IS 3397. In this course you will complete the required reflection assignments.

- IS 3397: Experiential Learning in Information Systems

### *Capstone Project Requirement (3 Credit Hours)*

IS students must complete a capstone project with a client. By default, IS 4880 fills this requirement. FinTech career path students can petition to have the FTA 3890 course count as their capstone requirement once they complete the three FinTech career path courses.

FTA 3890: Experiential Learning

IS 4880: IS Capstone Project

### **Major Field Electives (6 Credit Hours)**

Select 6 credit hours from any upper-division (3000-4000 level) courses with the IS, ISA, or FTA prefixes or any KSU-approved study abroad course. If choosing to take a course to fulfill the Experiential Learning requirement see the following options: • FTA 3890 • any KSU-approved study abroad program • IS research or honors project in a IS 4000 or IS 4400

#### *Design and Development General Track*

The IS degree prepares all IS students to participate in the design and development of new information systems solutions. Students in this track may focus as they wish. Some may prefer more technical or more managerial options. Students are encouraged to complete internships and coops as well as to partner with faculty on research projects for applied learning. Honors students can honorize most courses by contacting the faculty member and making arrangements.

#### *Financial Technology "FinTech" Track*

This track enables students to focus on the FinTech sector and its related needs. These students take IS 3815 as their Applied Development option and the FTA 3810 and FTA 3860 as their major electives. Students who have successfully completed IS 3815, FTA 3810, and FTA 3860 or who can show they will have successfully completed these courses by the end of a current semester may petition the IS Program Coordinator to substitute FTA 3890 Experiential Learning instead of the IS 4880 Capstone Project required major course.

IS 3815: Blockchain for Business

FTA 3810: Payments Processing

FTA 3860: Emerging Payments Technology

### **Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000-4000 level) course offerings inside the Coles College of Business. See a Coles Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

### **Program Total (120 Credit Hours)**

# **Management, B.B.A.**

## **Program Description**

The program of study in Management is designed to prepare students for leadership roles in the field of management. Management is the process of planning, organizing, staffing, directing and controlling activities in an organization that will result in the achievement of a common goal. Managers make decisions and direct resources so that organizational goals and objectives are achieved.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

Admission to Coles B.B.A programs is separate from Admissions to Kennesaw State University. Students must meet the program requirements, outlined below. In order to be able to take upper-division courses and graduate with an Management B.B.A., students must successfully:

Complete BUSA 2150

Meet the Coles College Sophomore GPA Requirement

Be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

#### ***General Education Core Curriculum Requirements Specific to This Major:***

Area A2: MATH 1111 or higher

### **Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

### **Major Requirements (48 Credit Hours)**

#### ***Business Core (24 Credit Hours)***

BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

#### ***Major Field Requirements (15 Credit Hours)***

MGT 4001: Organizational Behavior  
MGT 4002: Human Resource Management  
MGT 4003: Project Management  
MGT 4004: Managing Your Company

*And select 3 credit hours from the following international courses:*

Managing Globally: Management Majors are required to show competency in managing within the global context.

MGT 4174: International Human Resource Management  
MGT 4190: International Management  
MGT 4476: Contemporary Global Business Practices  
MGT 4800: International Supply Chain Management

### **Major Field Electives (9 Credit Hours)\***

Select 9 credit hours from the following, other than the course used above:

BLAW 4960: Current Issues in Business Ethics and Law

BUSA 3500: Culture & International Business

HMGY 3300: Introduction to Hospitality

BLAW 3400: Negotiation

MKTG 4850: Business to Business Marketing

MKTG 4666: Marketing for Entrepreneurs

Any 3000 or 4000 level ENTR course

Any 3000 or 4000 level MGT course

### **Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. MGT courses cannot be used here. (A maximum of nine hours of credit in Management, Entrepreneurship and Hospitality Experiential Learning such as Internships and Co-ops may be used in this area. Experiential Learning such as Internships and Co-ops cannot be used in any other area.)

### **Non-Business Electives (3 Credit Hours)**

Three hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

### **Program Total (120 Credit Hours)**

*Note: Students following this Catalog for the B.B.A. with a Management Major cannot use MGT 4120, MGT 4160, or MGT 4170 in the Major Field Electives section or anywhere else.*

### **\*Guidance for Selecting Major Field Electives:**

*Students interested in further specialization in management are encouraged to complete a minor course of study in human resource management, operations and supply chain management, or entrepreneurship.*

# **Marketing, B.B.A.**

## **Program Description**

Marketing impacts everyone, every day. The activity not only helps organizations promote goods and services to potential customers but also helps nonprofits deliver life-changing messages.

The marketing curriculum merges marketing theory with real-world practice to prepare students for working with either for-profit or nonprofit organizations. Students may choose a general program of study or one of the specialized career paths including advertising and digital media marketing, retail and consumer services, and sports and entertainment marketing. A marketing major prepares students to pursue a rewarding career in advertising, retailing, marketing research, digital marketing, sports marketing, social media, among other areas.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Marketing, BBA program is separate from Admissions to Kennesaw State University. Students must meet the program requirements outlined below to pursue this degree program. In order to be able to take upper-division courses in Marketing and graduate with a Marketing B.B.A., students must successfully:

Complete BUSA 2150

Meet Coles College Sophomore GPA Requirement,

Be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***Specific General Education Core Curriculum Requirements for this Major:***

Area A2: MATH 1111 or higher

### **Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

### **Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

### **Major Requirements (51 Credit Hours)**

#### ***Upper Division Business Core (24 Credit Hours)***

BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
ECON 3300: Applied Statistical and Optimization Models  
MGT 4199: Strategic Management

#### ***Major Field Requirements (15 Credit Hours)***

MKTG 3150: Consumer Behavior  
MKTG 3410: Professional Selling  
MKTG 4100: Marketing Research

MKTG 4820: International Marketing  
MKTG 4990: Marketing Strategy

**Major Field Electives (12 Credit Hours)\***

Select 12 credit hours from the following:

MKTG 3800: Entertainment Marketing  
MKTG 4300: Basic Retailing  
MKTG 4350: Retail Management  
MKTG 4400: Directed Study  
MKTG 4430: Market Analysis  
MKTG 4450: Sales Management  
MKTG 4476: Contemporary Global Business Practices  
MKTG 4490: Special Topics in Marketing  
MKTG 4500: Internet Marketing and Global Business  
MKTG 4520: Social Media Marketing  
MKTG 4620: Services Marketing  
MKTG 4630: Direct Response Marketing  
MKTG 4650: Advertising  
MKTG 4666: Marketing for Entrepreneurs  
MKTG 4670: Promotional Strategy  
MKTG 4750: Advanced Selling  
MKTG 4850: Business to Business Marketing  
MKTG 4870: Sports Marketing  
MKTG 4880: Hospitality and Tourism Marketing  
MKTG 4570: Advanced Social Media Marketing

**Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. MKTG courses cannot be used here. (A maximum of nine hours of credit in Marketing Experiential Learning such as Internships and Co-ops may be used in this area. Experiential Learning such as Internships and Co-ops cannot be used in any other area.) See a Coles Staff Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

**Program Total (120 Credit Hours)**

## **\*Guidance for Selecting Major Field Electives:**

The Department offers a wide variety of marketing courses. Outlined below are suggested courses related to four potential career paths: Channels Marketing, Professional Selling, Social Media and Engagement Marketing, and Sports and Hospitality Marketing. If you would rather create your own path, please consult with a Career Coach or one of the Marketing and Professional Sales Faculty on the Coles Advising Team.

### ***I. Channels Marketing***

Channels marketing is a career path designed to engage channel members responsible for getting products into consumers' hands. Jobs in this field include both online and traditional retailing, business-to-business, and service environments.

- MKTG 4300: Basic Retailing
- MKTG 4350: Retail Management
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4620: Services Marketing
- MKTG 4750: Advanced Selling

### ***II. Professional Selling***

Professional Selling is concerned with designing and delivering effective sales presentations, analyzing and managing individual accounts, and managing a sales force.

- MKTG 4430: Market Analysis
- MKTG 4450: Sales Management
- MKTG 4750: Advanced Selling
- MKTG 4850: Business to Business Marketing

### ***III. Social Media and Engagement Marketing***

Social media and engagement marketing focuses on activities that include consumers as participants. The primary emphasis is on promotions and includes two-way communication as well as digital, mobile, multi-, and traditional media.

- MKTG 4500: Internet Marketing and Global Business
- MKTG 4520: Social Media Marketing
- MKTG 4630: Direct Response Marketing
- MKTG 4650: Advertising
- MKTG 4670: Promotional Strategy

### ***IV. Sports and Hospitality Marketing***

Sports and hospitality marketing concentrates on opportunities in the growing fields of sports, entertainment, restaurants, hotels, travel, and tourism.

MKTG 3800: Entertainment Marketing

MKTG 4620: Services Marketing

MKTG 4870: Sports Marketing

MKTG 4880: Hospitality and Tourism Marketing

# **Professional Sales, B.B.A.**

## **Program Description**

Many job opportunities exist in professional sales for graduates who enjoy the independence and economic rewards that a sales career provides. A major in professional selling focuses on business-to-business selling, helping students learn how to design and deliver effective sales presentations, analyze and manage individual accounts and markets, develop sales plans, and manage the sales force.

This program is a part of the Michael J. Coles College of Business.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to Coles B.B.A programs is separate from Admissions to Kennesaw State University. Students must meet the program requirements outlined below. In order to be able to take upper-division courses and graduate with an Professional Sales B.B.A., students must successfully:

Complete BUSA 2150

Meet the Coles College Sophomore GPA Requirement

Be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or higher in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

**General Education Core Curriculum Requirements Specific to This Major:**

Area A2: MATH 1111 or higher

**Lower Division Business Core (Area F) (18 Credit Hours)**

ACCT 2101: Principles of Accounting I  
ACCT 2102: Principles of Accounting II  
ECON 2105: Principles of Macroeconomics  
ECON 2106: Principles of Microeconomics  
ECON 2300: Business Statistics  
IS 2200: Information Systems and Communication

**Leadership and Career Program (0 Credit Hours)**

BUSA 2150: Professionalism I: Clarifying My Major and Career  
BUSA 3150: Professionalism II: Relevant Work Experience  
BUSA 4150: Professionalism III: Post-Graduate Success

**Major Requirements (48 Credit Hours)**

**Upper Division Business Core (24 Credit Hours)**

BLAW 2200: Legal and Ethical Environment of Business  
MGT 3100: Management and Behavioral Sciences  
MKTG 3100: Principles of Marketing  
FIN 3100: Principles of Finance  
IS 3100: Information Systems Management  
MGT 3200: Operations Management  
MGT 4199: Strategic Management  
ECON 3300: Applied Statistical and Optimization Models

**Major Field Requirements (18 Credit Hours)**

MKTG 3410: Professional Selling  
MKTG 4450: Sales Management  
MKTG 4460: Sales Technology and Analytics  
MKTG 4750: Advanced Selling

*Select two of the following:*

MKTG 4430: Market Analysis  
MKTG 4820: International Marketing  
MKTG 4850: Business to Business Marketing

### **Major Field Electives (6 Credit Hours)**

Select 6 credit hours from the following:

- MKTG 3150: Consumer Behavior
- MKTG 3800: Entertainment Marketing
- MKTG 4100: Marketing Research
- MKTG 4300: Basic Retailing
- MKTG 4350: Retail Management
- MKTG 4400: Directed Study
- MKTG 4476: Contemporary Global Business Practices
- MKTG 4490: Special Topics in Marketing
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4520: Social Media Marketing
- MKTG 4620: Services Marketing
- MKTG 4630: Direct Response Marketing
- MKTG 4650: Advertising
- MKTG 4666: Marketing for Entrepreneurs
- MKTG 4670: Promotional Strategy
- MKTG 4870: Sports Marketing
- MKTG 4880: Hospitality and Tourism Marketing
- MKTG 4990: Marketing Strategy
- MKTG 4570: Advanced Social Media Marketing

### **Business Electives (9 Credit Hours)**

Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. MKTG courses cannot be used here. (A maximum of nine hours of credit in Professional Sales Experiential Learning such as Internships and Co-ops may be used in this area. Experiential Learning such as Internships and Co-ops cannot be used in any other area.) See a Coles Staff Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

### **Non-Business Electives (3 Credit Hours)**

Three hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

### **Program Total (120 Credit Hours)**

# **Accounting Certificate**

## **Program Description**

This certificate will give the student the required pre-requisite courses for the Coles MBA Accounting Concentration.

Students will need to complete the following courses or modules as prerequisites to the certificate:

ACCT 2101 and ACCT 2102; Or MBA Financial Accounting D2L Module and MBA Managerial Accounting D2L Module

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

- ACCT 3200: Concepts in Federal Taxation
- ACCT 3100: Intermediate Financial Accounting I
- ACCT 3300: Accounting Information Systems
- ACCT 4050: Intermediate Financial Accounting II
- ACCT 4150: Auditing and Assurance

### ***Program Total (15 Credit Hours)***

# **Business Fundamentals Certificate**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6055

## **Program Description**

The Business Fundamentals Certificate includes foundation courses in several business functional areas. It is designed to help non-business majors learn business concepts, principles, and skills that can complement their major field competency if they seek a position in, or plan to start, a business.

The Business Fundamentals Certificate is not available to business majors or to Integrative Studies Majors who have Business or Music & Entertainment Business as a focus area. You must meet with a Coles Professional Advisor in the Business Undergraduate Advising Center to declare your intention to complete the Certificate. This meeting should occur as soon as possible, but no later than the end of the Drop/Add period of your graduation term.

At least 12 of the 18 hours counted toward the Certificate must be taken from Coles College of Business. A minimum grade of "C" is required in each course, and a GPA of at least 2.66 is required on the set of courses counted toward the Certificate.

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

ACCT 2101: Principles of Accounting I

ECON 2105: Principles of Macroeconomics  
or

ECON 2106: Principles of Microeconomics

IS 2200: Information Systems and Communication

MGT 3100: Management and Behavioral Sciences

MKTG 3100: Principles of Marketing

**Select one of the following (3 Credit Hours)**

ACCT 2102: Principles of Accounting II

BLAW 2200: Legal and Ethical Environment of Business

ECON 2105: Principles of Macroeconomics

or

ECON 2106: Principles of Microeconomics

FIN 3100: Principles of Finance

***Program Total (18 Credit Hours)***

# **Entrepreneurship Certificate**

## **Program Description**

Entrepreneurship is an important competitive advantage regardless of the size of the organization. This certificate is designed for students who have an interest in seeking out careers that have an entrepreneurial orientation. It is also ideal for students who are pursuing degrees in fields such as sports management, social entrepreneurship, music and entertainment business, management, engineering, etc.

The Certificate in Entrepreneurship offers KSU students the access to the most up-to-date means and methods of learning about and applying an entrepreneurial mindset and skillset.

The Certificate in Entrepreneurship requires two foundation courses – ECON 1000 and ENTR 3001 plus specialty electives courses in a student's interest area.

## **Program Course Requirements**

### **Program Core Requirements (5 Credit Hours)**

ECON 1000: Contemporary Economic Issues  
ENTR 3001: Entrepreneurial Thinking

### **Certificate Tracks (6 Credit Hours)**

#### ***Business Track***

ENTR 4002: Venture Creation  
ENTR 4005: Entrepreneurial Experience

#### ***Social Entrepreneurship Track***

HS 3600: Program Development and Evaluation  
HS 3800: Social Entrepreneurship and Enterprise

#### ***Sports Management Track***

MKTG 4870: Sports Marketing  
SM 4490: Special Topics in Sport Management

#### ***Health Innovation Track***

HPAL 3300: Contemporary Health Issues  
IHS 4445: Healthcare Innovation

***Music & Entertainment Business Track***

MEBU 3100: Fundamentals of the Music and Entertainment Business

MEBU 4100: Emerging Trends of the Music and Entertainment Business

***Computing Technology Entrepreneurship***

CSE 4973: Technology Innovation and Entrepreneurship

SWE 4994: Agile Development and Prototyping

***Entrepreneurship for Engineers***

ENGR 3901: Technology Entrepreneurship: From Ideas to Business Ventures

ENGR 3902: Design Thinking for Engineers

***Program Total (11 Credit Hours)***

# **Information Security and Assurance Certificate**

## **Contact Information**

Website: <https://coles.kennesaw.edu/information-systems/index.php>

Phone: (470) 578-7763

## **Program Description**

The Certificate in Information Security and Assurance is designed for students with an interest in Information Security and its application in the expanding field of technology. The certificate program emphasizes the skills and knowledge necessary to protect and inspect systems, and to detect and react to threats to the security of information in those systems. The certificate requires 15 semester hours (5 courses), and all coursework must be completed with a "C" or better.

This certificate can not be awarded to students who earn the Information Security and Assurance, B.B.A. or the Cybersecurity B.S..

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

ISA 3100: Principles of Information Security

ISA 3200: Network Security

ISA 3210: Client Systems Security

ISA 3400: Information Security Governance, Auditing, and Control

ISA 4330: Incident Response and Contingency Planning

### ***Program Total (15 Credit Hours)***

# **Interdisciplinary Music and Entertainment Business Certificate**

## **Contact Information**

Website: <https://mebus.kennesaw.edu/>

## **Program Description**

The Joel A. Katz Music and Entertainment Business Program is a joint venture between the Coles College of Business and the College of the Arts. The purpose of the Music and Entertainment Business program is to develop leaders for the entertainment industry. The MEBU program creates an intellectual synergy beyond what students can achieve in business or entertainment programs separately. Core content of the program includes: Business Fundamentals; Entertainment Industry Knowledge; Music Fundamentals; Production and Technology; Music, Film, and Digital Entertainment and Hands-on Experiences. The MEBU program provides students the opportunity to be successful in the music and entertainment industry.

## **Program Course Requirements**

### ***For Bachelor of Arts (BA) Candidates:***

*Required (18 Credit Hours)*

ACCT 2101: Principles of Accounting I

MEBU 3100: Fundamentals of the Music and Entertainment Business

MEBU 4100: Emerging Trends of the Music and Entertainment Business

MEBU 4200: Current Topics in the Music and Entertainment Business

MGT 3100: Management and Behavioral Sciences

or

MKTG 3100: Principles of Marketing

MEBU 2270: Entertainment Media Production

or

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)

*MENT/MEBU courses (3 Credit Hours)*

Select one from the following list:

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)

MEBU 3370: Fundamentals of Audio Production and Technology  
MEBU 3380: Principles of Creative Adaptability (Video Production)  
MEBU 3398: Internship in the Music and Entertainment Business  
MENT 4444: Film and Video Structure and Process

*Elective (3 Credit Hours):*

Select one (not used above) from the following:

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)  
MEBU 3370: Fundamentals of Audio Production and Technology  
MEBU 3380: Principles of Creative Adaptability (Video Production)  
MEBU 3398: Internship in the Music and Entertainment Business  
MEBU 4470: Advanced Audio Production and Technology  
MEBU 4480: Advanced Creative Adaptability (Video Production)  
MEBU 4490: Special Topics in the Music and Entertainment Business

***For Bachelor of Music (BM) Candidates:***

*Required (18 Credit Hours):*

ACCT 2101: Principles of Accounting I  
MEBU 3100: Fundamentals of the Music and Entertainment Business  
MEBU 4100: Emerging Trends of the Music and Entertainment Business  
MEBU 4200: Current Topics in the Music and Entertainment Business  
MGT 3100: Management and Behavioral Sciences

or

MKTG 3100: Principles of Marketing

MEBU 2270: Entertainment Media Production

or

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)

*MENT/MEBU Courses (3 Credit Hours)*

Select one from the following list:

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)  
MEBU 3370: Fundamentals of Audio Production and Technology  
MEBU 3380: Principles of Creative Adaptability (Video Production)  
MEBU 3398: Internship in the Music and Entertainment Business  
MENT 4444: Film and Video Structure and Process

*Elective (3 Credit hours):*

Select one (not used above) of from the following:

- MEBU 3280: Fundamentals of Creative Adaptability (Video Production)
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 3380: Principles of Creative Adaptability (Video Production)
- MEBU 3398: Internship in the Music and Entertainment Business
- MEBU 4470: Advanced Audio Production and Technology
- MEBU 4480: Advanced Creative Adaptability (Video Production)
- MEBU 4490: Special Topics in the Music and Entertainment Business

***For Bachelor of Business Administration (BBA) Candidates:***

*Required (12 Credit Hours):*

- MEBU 3100: Fundamentals of the Music and Entertainment Business
- MEBU 4100: Emerging Trends of the Music and Entertainment Business
- MEBU 4200: Current Topics in the Music and Entertainment Business

MEBU 2270: Entertainment Media Production  
or

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)

*MENT/MEBU courses (3 Credit Hours):*

Select one from the following list:

- MEBU 3280: Fundamentals of Creative Adaptability (Video Production)
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 3380: Principles of Creative Adaptability (Video Production)
- MEBU 3398: Internship in the Music and Entertainment Business
- MENT 4444: Film and Video Structure and Process

*Elective (9 Credit Hours)*

Select three (not used above) from the following:

- MEBU 3280: Fundamentals of Creative Adaptability (Video Production)
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 3380: Principles of Creative Adaptability (Video Production)
- MEBU 3398: Internship in the Music and Entertainment Business
- MEBU 4470: Advanced Audio Production and Technology

MEBU 4480: Advanced Creative Adaptability (Video Production)  
MEBU 4490: Special Topics in the Music and Entertainment Business  
MKTG 3800: Entertainment Marketing  
MKTG 4500: Internet Marketing and Global Business  
MKTG 4650: Advertising  
MGT 3190: Business, Ethics, and Society  
MGT 3600: Introduction to International Business

***For Bachelor of Science (BS) Candidates:***

*Required (18 Credit Hours):*

ACCT 2101: Principles of Accounting I  
MEBU 3100: Fundamentals of the Music and Entertainment Business  
MEBU 4100: Emerging Trends of the Music and Entertainment Business  
MEBU 4200: Current Topics in the Music and Entertainment Business  
MGT 3100: Management and Behavioral Sciences

or

MKTG 3100: Principles of Marketing

MEBU 2270: Entertainment Media Production

or

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)

*MENT/MEBU courses (3 Credit Hours):*

Select one from the following list:

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)  
MEBU 3370: Fundamentals of Audio Production and Technology  
MEBU 3380: Principles of Creative Adaptability (Video Production)  
MEBU 3398: Internship in the Music and Entertainment Business  
MENT 4444: Film and Video Structure and Process

*Elective (3 Credit hours):*

Select one (not used above) from the following:

COMM 2230: Introduction to Mass Communication  
MEBU 3280: Fundamentals of Creative Adaptability (Video Production)  
MEBU 3370: Fundamentals of Audio Production and Technology  
MEBU 3380: Principles of Creative Adaptability (Video Production)

MEBU 3398: Internship in the Music and Entertainment Business

MEBU 4470: Advanced Audio Production and Technology

MEBU 4480: Advanced Creative Adaptability (Video Production)

MEBU 4490: Special Topics in the Music and Entertainment Business

***Program Total (24 Credit Hours)***

# **Accounting Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6084

## **Program Description**

The School of Accountancy aspires to be a nationally recognized leader in influencing the accounting profession by educating our students, performing relevant research, and engaging with the profession.

Accounting provides the tools to measure, interpret, and communicate economic information for decision-making. A basic understanding of financial and managerial accounting information is necessary for all business majors. The Accounting Minor expands their knowledge of accounting. A student's technical, communication, computer, critical-thinking, problem-solving, teamwork, and leadership skills are strengthened through accounting coursework.

Students completing an Accounting Minor must earn grades of "B" or higher in ACCT 2101 and ACCT 2102 (ACCT 2101 is a prerequisite to ACCT 2102), and grades of "C" or higher in all other accounting courses.

## **Program Course Requirements**

### **Required Courses (9 credit hours)**

ACCT 2102: Principles of Accounting II

ACCT 3100: Intermediate Financial Accounting I

ACCT 3200: Concepts in Federal Taxation

### **Select two of the following (6 credit hours)**

ACCT 4050: Intermediate Financial Accounting II

ACCT 4100: Advanced Financial Accounting

ACCT 4150: Auditing and Assurance \*

ACCT 4200: Advanced Managerial Accounting

ACCT 4250: Advanced Taxation

ACCT 4300: International Accounting

ACCT 4600: Governmental and Not-for Profit Accounting

### **Program Total (15 credit hours)**

*\*Note: \*An extra prerequisite course (which does not count toward the Minor) is required to take this course.*

# **Advertising and Digital Media Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6060

## **Program Description**

Advertising and Digital Media focuses on activities that include consumers as participants. The primary emphasis is on promotions and includes two-way communication as well as digital, mobile, multi-, and traditional media.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

MKTG 3100: Principles of Marketing

MKTG 4520: Social Media Marketing

MKTG 4650: Advertising

### **Electives (6 Credit Hours)**

#### ***Select one of the following:***

MKTG 4570: Advanced Social Media Marketing

MKTG 4670: Promotional Strategy

#### ***Select one of the following not already taken:***

MKTG 4570: Advanced Social Media Marketing

MKTG 4666: Marketing for Entrepreneurs

MKTG 4670: Promotional Strategy

MKTG 4880: Hospitality and Tourism Marketing

### **Program Total (15 Credit Hours)**

# **Business Law Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6084

## **Program Description**

The Business Law (BLAW) Minor prepares students for living and working with the law. It helps students understand legal issues related to business, and addresses ethical issues arising in business internal and external relationships. Completing the BLAW Minor will benefit students interested in law school.

Students completing a Business Law Minor must earn a grade of "C" or higher in all BLAW courses.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

BLAW 2200: Legal and Ethical Environment of Business

### **Select four of the following (12 Credit Hours)**

BLAW 3400: Negotiation

BLAW 4100: Advanced Business Law

BLAW 4200: Employment Law

BLAW 4300: Real Estate Law

BLAW 4500: Franchise Law

BLAW 4600: International Law: Business Applications

BLAW 4960: Current Issues in Business Ethics and Law

### **Program Total (15 Credit Hours)**

# **Coles Scholars Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6425

## **Program Description**

The Coles College Scholars Program provides exceptional business students with unique and challenging opportunities through a coordinated multi-year program focused on leadership development, integrated and international studies, community engagement and mentorship. Participants must apply, and are screened and selected annually through a rigorous application and interview process.

## **Program Course Requirements**

- CSCH 4010: Applied Leadership in Business
- CSCH 4020: Critical Thinking and Decision Making
- CSCH 4030: Immersion Experience
- CSCH 4040: Consulting & Change Management
- CSCH 4050: Business Intelligence

***Program Total (15 Credit Hours)***

# **Economics Minor**

## **Contact Information**

Website: <https://coles.kennesaw.edu/economics/index.php>

Phone: (470) 578-6091

## **Program Description**

A minor in Economics is an excellent complement to other business degrees, as well as degrees in mathematics and statistics. Supplementing these majors with a minor in Economics avails students to jobs in management, marketing, business research, economic planning, and human resources with employers in industry, trade, banking, and government. Students will also be well prepared for graduate study in economics, law, and business.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

ECON 2105: Principles of Macroeconomics

### **Select four of the following (12 Credit Hours)**

ECON 4210: Money and Financial Markets

ECON 4310: Economic Development in Global Perspective

ECON 4510: Microeconomics

ECON 4550: The Economics of Strategy

ECON 4610: Macroeconomics

ECON 4710: Econometrics

ECON 4760: Business Forecasting

ECON 4810: Quantitative Decision Models

ECON 4850: Decision Analysis and Simulation

### **Program Total (15 Credit Hours)**

# **Entrepreneurship Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu>

Phone: (470) 578-6552

## **Program Description**

The Entrepreneurship Minor is open to all undergraduate students. Students gain an understanding of an entrepreneurial orientation in a variety of settings including new venture creation, social stewardship, family business, government operations, and corporate endeavors.

## **Program Course Requirements**

### **Requirements (15 Credit Hours)**

ENTR 3001: Entrepreneurial Thinking

ENTR 4002: Venture Creation

ENTR 4003: Venture Funding

ENTR 4004: Venture Commercialization

ENTR 4005: Entrepreneurial Experience

### ***Program Total (15 Credit Hours)***

# **Finance Minor**

## **Contact Information**

Website: <https://coles.kennesaw.edu/economics/index.php>

## **Program Description**

A minor in Finance is an excellent complement to other business degrees, particularly Accounting and Economics, as well as degrees in mathematics and statistics. Supplementing these majors with a minor in Finance avails students to jobs as bankers, financial managers, stockbrokers, financial analysts, portfolio managers, financial consultants, investment bankers, and financial planners.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

FIN 3100: Principles of Finance

### **Select four of the following (12 Credit Hours)**

ECON 4210: Money and Financial Markets

FIN 4220: Corporate Finance

FIN 4260: Short Term Financial Management

FIN 4320: Fixed Income Securities

FIN 4360: Investments

FIN 4420: International Financial Management

FIN 4520: Financial Derivatives and Financial Engineering

FIN 4620: Financial Management of Financial Institutions

### **Program Total (15 Credit Hours)**

# **Financial Technologies (FinTech) Minor**

## **Contact Information**

Website: <https://fintech.kennesaw.edu/>

Email: [fintech@kennesaw.edu](mailto:fintech@kennesaw.edu)

## **Program Description**

FinTech is an area composed of the intersection of financial services and technology. Many disruptive technologies such as business analytics, mobile banking, and mobile trading have been applied in the financial services sector to create new and improved products and to increase efficiency. Students in this minor will learn how to leverage technology to create and improve financial services.

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

FTA 3810: Payments Processing  
FTA 3850: Digital Payments Security  
FTA 3890: Experiential Learning  
FTA 4001: Foundations of FinTech

### **Elective Courses (3 Credit Hours)**

Choose any one of the following courses:

FTA 3860: Emerging Payments Technology  
FTA 4002: Financial Technologies  
FTA 4003: Commercial Banking and FinTech  
FTA 4005: Introduction to Financial Data Analytics  
FTA 4100: Introduction to Information Security for FinTech

### **Program Total (15 Credit Hours)**

# **Human Resources Management Minor**

## **Program Description**

The Human Resources Management Minor is designed for Management majors and other business majors in Coles College of Business, as well as majors who are part of the Coles partner program. This minor complements a student's major with courses that increase knowledge of the essential organizational functions of human resources.

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

MGT 3100: Management and Behavioral Sciences  
MGT 4002: Human Resource Management  
MGT 4171: Employee and Labor Relations  
MGT 4172: Compensation and Reward Systems  
MGT 4173: Human Resource Selection

### ***Program Total (15 Credit Hours)***

# **Information Security and Assurance Minor**

## **Contact Information**

Website: <https://coles.kennesaw.edu/information-systems/index.php>

Phone: (470) 578-7763

## **Program Description**

The Minor in Information Security and Assurance is designed for students with an interest in Information Security and its application in the expanding field of technology. The Minor emphasizes the skills and knowledge necessary to protect and inspect systems, and to detect and react to threats to the security of information in those systems. The Minor requires 18 semester hours (6 courses), and all coursework must be completed with a grade of "C" or higher.

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

ISA 3100: Principles of Information Security

ISA 3200: Network Security

ISA 3210: Client Systems Security

ISA 3400: Information Security Governance, Auditing, and Control

### **Select one of the following (3 Credit Hours)**

ISA 4213: Cloud Security

ISA 4220: Server Systems Security

### **Program Total (15 Credit Hours)**

# **Information Systems Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-7763

## **Program Description**

The Minor in Information Systems (IS) is made up of six (6) courses and can be a useful complement for a large number of degrees at KSU. The Minor is designed to prepare students with expertise to identify organizational needs, allocate technology-based solutions, and solve problems.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

IS 2200: Information Systems and Communication

IS 3100: Information Systems Management

IS 3260: Web Development I

### **Select one from the following (3 Credit Hours)**

IS 3020: Application Development I

IS 3060: Systems Analysis and Design

IS 3280: Data Management

### **And select two from the following (6 Credit Hours)**

IS 3080: Information Resource Management

IS 3220: Global IS Project Management

IS 3560: Business Process Management

IS 3720: Advanced IT Project Management

IS 3740: Human Computer Interaction

IS 3760: Web Development II

IS 3920: Application Development II

IS 4400: Directed Study

IS 4490: Special Topics

IS 4540: Data Mining

IS 4860: Global Information Systems Strategy

### **Program Total (18 Credit Hours)**

# **International Business Minor**

## **Program Description**

The International Business Minor fits nicely with anyone pursuing a degree in another area of business. International Business also serves as a complement to many non-business degrees for individuals wishing to pursue a career in international business.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

MGT 4190: International Management  
MKTG 4820: International Marketing

### **Elective Courses (9 Credit Hours)**

Select 9 credit hours from the following:

BUSA 3500: Culture & International Business  
ECON 4310: Economic Development in Global Perspective  
ECON 4410: International Trade and Finance  
ENTR 4125: International Entrepreneurship  
FIN 4420: International Financial Management  
IS 3220: Global IS Project Management  
IS 4860: Global Information Systems Strategy  
MGT 3600: Introduction to International Business  
MGT 4174: International Human Resource Management  
MGT 4476: Contemporary Global Business Practices  
MGT 4800: International Supply Chain Management  
MKTG 4500: Internet Marketing and Global Business

### **Program Total (15 Credit Hours)**

# **Management Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 478-6552

## **Program Description**

The Management Minor is open to all undergraduate students. Students gain an understanding of the organizational processes of planning, organizing, staffing, directing, and controlling activities that result in the achievement of a common goal.

### **Requirements for non-business majors:**

MGT 3100: Management and Behavioral Sciences

MGT 4001: Organizational Behavior

Three (3) courses from BUSA 3500 and 4000-level MGT courses, except NOT MGT 4199

### ***Program Total (15 Credit Hours)***

### **Requirements for business majors:**

MGT 4001: Organizational Behavior

Four (4) courses from BUSA 3500 and 4000-level MGT courses, except NOT MGT 4199

### ***Program Total (15 Credit Hours)***

# **Marketing Minor**

## **Contact Information**

Website: <https://coles.kennesaw.edu/marketing-sales/index.php>

Phone: (470) 578-6060

## **Program Description**

In its role as the "central function of business" (P. Drucker), a Marketing Minor fits nicely with anyone pursuing a degree in another area of business. Marketing also serves as a complement to many non-business degrees for individuals expecting to own their own practices or businesses.

Note: Marketing Majors may NOT earn a Marketing Minor.

## **Program Course Requirements**

### **Required Courses (6 credit hours)**

MKTG 3100: Principles of Marketing

MKTG 3150: Consumer Behavior

### **Elective Courses (9 Credit Hours)**

Choose three other 3000-4000-level MKTG courses except MKTG 3396, MKTG 3398, and MKTG 4990

### **Program Total (15 Credit Hours)\***

\*Note: Professional Sales Majors cannot use courses being counted toward a Marketing Minor as Business Electives, because your Business Electives cannot have a MKTG prefix.

# **Music and Entertainment Business Minor**

## **Contact Information**

Website: <https://mebus.kennesaw.edu/index.php>

## **Program Description**

The Music and Entertainment Business minor offers three capstone courses in music & entertainment business as well as marketing, management, production, communication, and entrepreneurship courses that prepare students for successful careers in the entertainment industry. The MEBUS major is for students with a desire to work in the entertainment industry in areas such as film and television production, audio and video technology, venue and artist management, and concert and event production.

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

MEBU 3100: Fundamentals of the Music and Entertainment Business  
MEBU 4100: Emerging Trends of the Music and Entertainment Business  
MEBU 4200: Current Topics in the Music and Entertainment Business  
MEBU 2270: Entertainment Media Production  
or

MEBU 3398: Internship in the Music and Entertainment Business

### **Electives (6 Credit Hours)**

Select six credit hours of elective courses from the following list:

MEBU 3280: Fundamentals of Creative Adaptability (Video Production)  
MEBU 3370: Fundamentals of Audio Production and Technology  
MEBU 3380: Principles of Creative Adaptability (Video Production)  
MEBU 3398: Internship in the Music and Entertainment Business  
MEBU 4470: Advanced Audio Production and Technology  
MEBU 4480: Advanced Creative Adaptability (Video Production)  
MEBU 4490: Special Topics in the Music and Entertainment Business

\*Note: If attending London Study Abroad, you must take BOTH MEBU 3398 and MEBU 4490

### **Program Total (18 Credit Hours)**

# **Operations and Supply Chain Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6552

## **Program Description**

The Operations and Supply Chain Minor is open to all undergraduate students. This Minor trains students with tangible, marketable skills for their careers, including process improvement, quality management, supply chain management, purchasing, logistics, operations management, and service operations management.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

MGT 3200: Operations Management

MGT 4800: International Supply Chain Management

MGT 4855: Quality Management and Process Improvement

### **Elective Courses (6 Credit Hours)**

Select two of the following for a total of six credit hours:

BLAW 3400: Negotiation

MGT 4003: Project Management

MGT 4880: Service Operations Management

MGT 4185: Technology and Innovation Management

MKTG 4850: Business to Business Marketing

### **Program Total (15 Credit Hours)\***

*\*Note: Management Majors cannot use courses being counted toward an Operations and Supply Chain Minor as Business Electives, because your Business Electives cannot have a MGT prefix.*

# **Professional Sales Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6060

## **Program Description**

Nearly everyone is involved in sales daily and nearly half of all college graduates begin their careers in the field of sales. The Minor in Professional Sales prepares students to excel in sales encounters.

Note: Professional Sales minor is limited to non-professional sales majors.

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

MKTG 3100: Principles of Marketing  
MKTG 3410: Professional Selling  
MKTG 4450: Sales Management  
MKTG 4460: Sales Technology and Analytics

### **Electives (3 Credit Hours)**

MKTG 4430: Market Analysis  
MKTG 4666: Marketing for Entrepreneurs  
MKTG 4750: Advanced Selling  
MKTG 4850: Business to Business Marketing

### **Program Total (15 Credit Hours)\***

*\*Note: Marketing Majors cannot use courses being counted toward a Professional Sales Minor as Business Electives, because your Business Electives cannot have a MKTG prefix.*

# **Retail and Consumer Services Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6060

## **Program Description**

Retail and Consumer Services involve getting products into consumers' hands. Jobs in this field include both online and traditional retailing, business-to-business, and service environments.

## **Program Course Requirements**

### **Required ( 9 Credit Hours)**

MKTG 3100: Principles of Marketing

MKTG 4300: Basic Retailing

MKTG 4350: Retail Management

### **Electives (6 Credit Hours)**

Select two of the following:

ATT 3100: Fashion Merchandising

ATT 3800: Fashion Forecasting, Data Analysis & Consumer Trends

MKTG 3800: Entertainment Marketing

MKTG 4500: Internet Marketing and Global Business

MKTG 4520: Social Media Marketing

MKTG 4620: Services Marketing

MKTG 4650: Advertising

MKTG 4880: Hospitality and Tourism Marketing

### **Program Total (15 Credit Hours)**

# **Sports and Entertainment Marketing Minor**

## **Contact Information**

Website: <http://coles.kennesaw.edu/>

Phone: (470) 578-6060

## **Program Description**

Whether one wants to work in the big leagues or promote a sports and entertainment venue, the Sports and Entertainment Marketing Minor provides understanding of the particular dynamics of this industry and its audiences. Sports marketing includes the administration, coordination, and evaluation of any type of event related to sport.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

MKTG 3100: Principles of Marketing

MKTG 4870: Sports Marketing

MKTG 4880: Hospitality and Tourism Marketing

### **Select three of the following (6 Credit Hours)**

MKTG 3800: Entertainment Marketing

MKTG 4300: Basic Retailing

MKTG 4520: Social Media Marketing

MKTG 4620: Services Marketing

MKTG 4650: Advertising

### **Program Total (15 Credit Hours)**

*\*Note: Marketing Majors and Professional Sales Majors cannot use courses being counted toward a Sports Marketing Minor as Business Electives, because your Business Electives cannot have a MKTG prefix.*

programs in the

**College of The Arts**

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# **Art, B.F.A.**

## **Program Description**

The Bachelor of Fine Arts with a major in Art is a professional degree program. The BFA prepares students for a variety of art and art-related careers or graduate school by providing a thorough grounding in fundamental principles and techniques with opportunities for emphasis in one or more arts areas. This degree focuses on intensive work in art or design supported by a program of general studies. The BFA degree offers concentrations in art education, art history, ceramics, drawing and painting, graphic communications, illustration, photography and video, printmaking, sculpture, sequential art, and textile and surface design.

This program is part of the College of The Arts.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

The following requirements are in addition to the general Admissions requirements for Kennesaw State University.

Each program of study is a sequentially based curriculum beginning the first semester of freshman year. Students who delay entering the major until completion of the General Education Core Curriculum may prolong their academic careers. All prospective art majors are required to complete an application form and submit a portfolio of their artwork.

Study in visual arts studio courses may not be initiated until the student has been fully accepted by Kennesaw State University and the School of Art and Design as an art major.

Admission to the School of Art and Design is contingent upon portfolio review and acceptance by the school. Applications and portfolios will be reviewed by the School of Art and Design Portfolio Review Committee.

Students may only apply twice for admission into any degree program in the School of Art and Design. If the student fails to gain acceptance after two attempts, they will be advised by SOAAD or supporting university advising services on how to proceed in a new degree program outside of the School of Art and Design.

Transfer Admissions Requirements: Students who wish to transfer into the School of Art and Design from another institution follow the same admission procedures as all new students. Transfer credits for courses in studio art are evaluated by portfolio review. Certain courses that are equivalent to those in the foundation core with a grade of "C" or higher are accepted for transfer students from a USG accredited art program. Beyond these courses, other credits will be reviewed by area concentration faculty.

Admission for Second Bachelor Degree, Change of Major or Dual-Degree Students: These applicants are also required to submit an entry portfolio. Direct any additional questions about admission requirements by calling the SOAAD Main office at 470-578-6139.

Change of Degree Program: Students who wish to change degree programs in art must reapply and gain admission status to the new degree program.

Placement: The School of Art and Design holds the exclusive authority to determine appropriate admission level placement, credit evaluation of art courses in studio, art history, and art education.

### Enrollment Requirements

Continuation in Program: All students must maintain the minimum GPA requirement for the University to continue in the School of Art and Design. Art Education concentration students must maintain a 2.5 GPA in alignment with requirements of the Teacher Education Program. Any students in Academic Dismissal with the University are also dismissed from the School of Art and Design. All students must make timely and reasonable progress toward the degree. Non-enrollment or withdrawal from all classes for two or more consecutive semesters will require reapplication to the School of Art and Design.

Art Education Concentration Additional Admission, Retention and Graduation Requirements: Admission to teacher education is separate from admission to Kennesaw State University. Students must meet the admission requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower-Division Major Requirements (Area F) (18 Credit Hours)**

- ART 1100: Two-Dimensional Design and Color Theory
- ART 1150: Drawing I
- ART 1200: Three-Dimensional Design
- ART 2150: Drawing II

- ART 2550: Computer Applications in Art
- ART 2990: Concept, Creativity, and Studio Practice

### **Entrance Portfolio**

All prospective art majors are required to complete an application form and submit a portfolio of their artwork. Admission to degree programs in the School of Art and Design is contingent upon portfolio review and acceptance by the school. Portfolio submission and review must take place before a student can enroll in courses.

### **Major Requirements (24 Credit Hours)**

#### ***2D & 3D Elective Requirements (12 Credit Hours)***

Select four from the following outside the concentration area. At least one 2-D and one 3-D area must be represented.

#### *2-D Courses*

- ANIM 3600: Foundation Animation
- ART 3015: Electronic Illustration
- ART 3150: Figure Drawing
- ART 3160: Painting I Required for Art Education Concentration
- ART 3265: Aqueous Media
- ART 3400: Digital Photography Required for Art Education Concentration
- ART 3410: Film Photography
- ART 3430: Introduction to Video
- ART 3500: Printmaking I Required for Art Education Concentration
- ART 3550: Bookarts, Letterpress and Papermaking
- ART 3600: Illustration I
- ART 3705: Sequential Art I
- ART 3830: Color & Trend Forecasting
- ART 3990: Art As a Public Profession

#### *3-D Courses*

- ART 3120: Ceramics I Required for Art Education Concentration
- ART 3300: Sculpture I
- ART 3320: Jewelry and Small Metals I
- ART 3341: Master Craftsman I
- ART 3430: Introduction to Video
- ART 3550: Bookarts, Letterpress and Papermaking
- ART 3990: Art As a Public Profession

## **Art History (12 Credit Hours)**

Both courses required for all art majors.

- ARH 2750: Ancient through Medieval Art
- ARH 2850: Renaissance through Modern Art

*Select two courses from the following:*

- ARH 3000: Asian Art and Architecture
- ARH 3100: African Art and Architecture
- ARH 3150: Islamic Art and Architecture
- ARH 3200: Ancient American Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 3500: Italian Renaissance Art and Architecture
- ARH 3600: Baroque Art and Architecture
- ARH 3700: Nineteenth-Century Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 3840: History of Illustration
- ARH 3850: Art Since 1900 Required for Art Education Concentration
- ARH 3990: Research Methods in Art History
- ARH 4000: Historical Studio Practices
- ARH 4150: African-American Art
- ARH 4400: Directed Study
- ARH 4490: Special Topics in Art History
- ARH 4500: Women in Art
- ARH 4700: Victorian Art and Culture
- ARH 4750: American Landscape Painting
- ARH 4820: History of Printmaking
- ARH 4840: History of Graphic Design
- ARH 4870: History of Photography
- ARH 4880: History of Textiles and Fashion
- ARH 4900: Contemporary Art
- ARED 3304: Teaching Art History, Criticism and Aesthetics Required for Art Education Concentration

## **Fine Arts Concentrations (36 Credit Hours)**

Select one of the concentration options below:

### ***Art Education Concentration***

Required Courses:

- EDUC 2110: Investigating Critical & Contemporary Issues in Education
- EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts
- EDUC 2130: Exploring Teaching & Learning
- ARED 3302: Teaching, Learning and Development in Visual Arts
- ARED 3306: Materials, Methods and Management for Teaching Art (P-12)
- ARED 3308: Special Populations in Art Education
- ARED 4410: Intercultural Curriculum Model
- ARED 4650: Yearlong Clinical Experience I
- ARED 4660: Yearlong Clinical Experience II
- EDUC 4610: Introduction to the Yearlong Clinical Experience
- ART 3300: Sculpture I
- ARED 4990: Senior Seminar and Portfolio

### ***Art History Concentration***

Required Courses:

- ARH 3990: Research Methods in Art History
- ARH 4990: Senior Capstone Project

### ***ART Electives***

Select any three courses ART 3000- or 4000-level for a total of 9 credit hours.

### ***Art History Electives***

Select six courses from the lists below, including at least one from each area (18 credit hours):

#### **Ancient-Medieval Art and Architecture**

- ARH 3200: Ancient American Art and Architecture
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 3398: Internship
- ARH 4400: Directed Study

- ARH 4490: Special Topics in Art History

#### Global/Non-Western Art and Architecture

- ARH 3000: Asian Art and Architecture
- ARH 3100: African Art and Architecture
- ARH 3150: Islamic Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3398: Internship
- ARH 4400: Directed Study
- ARH 4490: Special Topics in Art History

#### Renaissance–Contemporary Art and Architecture

- ARH 3500: Italian Renaissance Art and Architecture
- ARH 3600: Baroque Art and Architecture
- ARH 3700: Nineteenth-Century Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 3840: History of Illustration
- ARH 3850: Art Since 1900
- ARH 4000: Historical Studio Practices
- ARH 4150: African–American Art
- ARH 4500: Women in Art
- ARH 4700: Victorian Art and Culture
- ARH 4750: American Landscape Painting
- ARH 4820: History of Printmaking
- ARH 4840: History of Graphic Design
- ARH 4870: History of Photography
- ARH 4900: Contemporary Art
- ARH 3398: Internship
- ARH 4400: Directed Study
- ARH 4490: Special Topics in Art History

#### *Free Elective*

Any course in the university curriculum for three credit hours.

#### **Ceramics Concentration**

Required courses:

- ART 3120: Ceramics I
- ART 3360: Wheel Throwing

- ART 3380: Mold Making and Slipcasting
- ART 4361: Advanced Ceramics I
- ART 4362: Advanced Ceramics II
- ART 4363: Advanced Ceramics III
- ART 4990: Senior Art Seminar and Exhibition

*Concentration Electives*

Select one course (3 credit hours):

- ART 4365: Technical Ceramics
- ART 4364: Advanced Ceramics IV

*ART Electives*

Select three courses (9 credit hours): Any ART or ARH 3000- or 4000-Level elective

*Free Elective*

Any course in the university curriculum for three credit hours.

**Graphic Communications Concentration**

Required Courses:

- ART 3011: Typography I
- ART 3020: Typography II
- ART 3021: Publication Design
- ART 4021: Advertising and Packaging
- ART 4022: User Experience
- ART 4023: Interactive Media Design
- ART 4024: Motion Graphics
- ART 4030: Design Practicum
- ART 4980: Senior Portfolio and Applied Project

*Concentration Electives*

Any ART or ARH 3000- or 4000- level elective or ART 3398 with permission of instructor for 6 credit hours.

*Free Elective*

Any course in the university curriculum for three credit hours.

### ***Illustration Concentration***

Required Courses:

- ART 3015: Electronic Illustration
- ART 3150: Figure Drawing
- ART 3160: Painting I
- ART 3265: Aqueous Media
- ART 3500: Printmaking I
- ART 3510: Printmaking II
- ART 3600: Illustration I
- ART 3610: Illustration II
- ART 4600: Advanced Illustration
- ART 4256: Advanced Figure I
- ART 4990: Senior Art Seminar and Exhibition

*Free Elective*

Any course in the university curriculum for three credit hours.

### ***Painting and Drawing Concentration***

Required Courses:

- ART 3150: Figure Drawing
- ART 3160: Painting I
- ART 3260: Painting II
- ART 3265: Aqueous Media
- ART 4990: Senior Art Seminar and Exhibition

*Concentration Electives*

Select four courses (12 credit hours):

- ART 4036: Concept Art I
- ART 4037: Concept Art II
- ART 4151: Advanced Drawing I
- ART 4152: Advanced Drawing II
- ART 4153: Advanced Drawing III
- ART 4154: Advanced Drawing IV
- ART 4256: Advanced Figure I
- ART 4257: Advanced Figure II

- ART 4258: Advanced Figure III
- ART 4259: Advanced Figure IV
- ART 4266: Advanced Painting I
- ART 4267: Advanced Painting II
- ART 4268: Advanced Painting III
- ART 4269: Advanced Painting IV

*ART Electives*

Select two courses (6 credit hours): Any ART or ARH 3000- or 4000-Level elective

*Free Elective*

Any course in the university curriculum for three credit hours.

**Photography and Video Concentration**

Required Courses:

- ART 3400: Digital Photography
- ART 3410: Film Photography
- ART 3430: Introduction to Video
- ART 3441: Intermediate Photography I
- ART 3442: Intermediate Photography II
- ART 3443: Intermediate Photography III
- ART 4411: Advanced Photography I
- ART 4412: Advanced Photography II
- ART 4990: Senior Art Seminar and Exhibition

*ART Electives*

Select two courses (6 credit hours): Any ART or ARH 3000- or 4000-Level elective or ART 3398 with permission of instructor for six credit hours.

*Free Elective*

Any course in the university curriculum for three credit hours.

**Printmaking Concentration**

Required Courses:

- ART 3150: Figure Drawing
- ART 3500: Printmaking I

- ART 3510: Printmaking II
- ART 3520: Planographic Techniques I
- ART 3550: Bookarts, Letterpress and Papermaking
- ART 4990: Senior Art Seminar and Exhibition

#### *Concentration Electives*

Select four courses (12 credit hours):

- ART 3398: Art Internship
- ART 4511: Advanced Printmaking I
- ART 4512: Advanced Printmaking II
- ART 4513: Advanced Printmaking III
- ART 4514: Advanced Printmaking IV
- ART 4520: Planographic Techniques II
- ART 4551: Advanced Bookarts, Letterpress and Papermaking I
- ART 4552: Advanced Bookarts, Letterpress and Papermaking II

#### *ART Elective*

Select one course (3 credit hours): Any ART or ARH 3000- or 4000-level course

#### *Free Elective*

Any course in the university curriculum for three credit hours.

### **Comics & Sequential Art Concentration**

Required Courses:

- ANIM 3620: Storyboarding & Composition
- ART 3015: Electronic Illustration
- ART 3150: Figure Drawing
- ART 3160: Painting I
- ART 3500: Printmaking I
- ART 3600: Illustration I
- ART 3705: Sequential Art I
- ART 3715: Sequential Art II
- ART 4700: Advanced Sequential Art
- ART 4256: Advanced Figure I
- ART 4990: Senior Art Seminar and Exhibition

#### *Free Elective*

Any course in the university curriculum for three credit hours.

### ***Sculpture Concentration***

Required Courses:

- ART 3300: Sculpture I
- ART 3310: Sculpture II: Welding
- ART 3330: Sculpture III: Foundry
- ART 4311: Advanced Sculpture I
- ART 4312: Advanced Sculpture II
- ART 4313: Advanced Sculpture III
- ART 4990: Senior Art Seminar and Exhibition

### ***Concentration Elective***

Select one course (3 credit hours):

- ART 3120: Ceramics I
- ART 3320: Jewelry and Small Metals I
- ART 3360: Wheel Throwing
- ART 3380: Mold Making and Slipcasting
- ART 3341: Master Craftsman I
- ART 4365: Technical Ceramics

### ***ART Electives***

Select three courses (9 credit hours): Any ART or ARH 3000- or 4000-level elective choice

### ***Free Elective***

Any course in the university curriculum for three credit hours.

### ***Textiles and Surface Design Concentrations***

Required Courses:

- ART 3800: Sewing Construction Techniques I
- ART 3810: Sewing Construction Techniques II
- ART 3820: Textile Foundations
- ART 3840: Computer Aided Design for Textiles I
- ART 3860: Weaving I
- ART 3870: Technical Development & Drafting I
- ART 3880: The Textile Industry

- ART 4800: Computer Aided Design for Textiles II
- ART 4810: Weaving II
- ART 4820: Technical Development & Drafting II
- ART 4850: Textile Senior Exit

*Free Elective*

Any course in the university curriculum for three credit hours.

***Program Total (120 Credit Hours)***

# **Dance, B.A.**

## **Program Description**

The Department of Dance at Kennesaw State University fosters an environment of creative and scholarly learning by engaging students as active scholar-artists. The program offers a variety of academic and practical experiences aimed at developing a holistic understanding of dance as an art form, encourage students to investigate dance as a method of analysis, a mode of inquiry, and as an aesthetic experience. Partnerships with professional dance and art organizations provide a variety of practical performance experiences for dance students in the community. Collaborative learning with professional artists and scholars, propel dance students into the profession while they are actively developing their skills as dance artists.

The Department of Dance offers a Bachelor of Arts degree with a major in Dance, with concentrations in modern and ballet, as well as a Dance Minor. Students must audition to be accepted into the dance major through four regularly scheduled auditions every year. A balanced curriculum of dance theory and practice ensure the departmental commitment to training scholar-artists and preparing students to be successful in the professional world. Through the KSU Dance Company, students have the ability to audition and work at a pre-professional level. Guest artists and choreographers complement our program and expose students to professionals in the field. Our educational partnership with Terminus Modern Ballet Theatre and community partnerships with several leading dance organizations in the metro Atlanta area, provide internship and employment opportunities for our students and graduates.

This program is a part of the College of The Arts.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Dance program is separate from Admissions to Kennesaw State University. Students must meet the audition requirements outlined below to pursue this degree.

Audition Requirements: Dance, BA

- All students entering the dance major program must demonstrate technical and artistic aptitude capable of successfully completing the program of study.
- To register for an audition and receive audition information, students must visit the dance website at <https://arts.kennesaw.edu/dance/>.
- Dance minor students are NOT REQUIRED to audition for admission into the dance minor program. This audition requirement is only for students entering the dance major program.

- All dance majors must secure KSU university admission in addition to being accepted into the dance major program. Students who have not yet secured university admission at the time of the dance major audition will be granted admission into the dance major program contingent upon their KSU university admission.
- Students are not required to prepare a solo combination for the audition.
- The audition process will consist of a 45-minute ballet barre, followed by a modern combination.
- Students must bring appropriate footwear to the audition. The program recommends that women wear black leotards and tights and men wear all black dance attire to the audition.
- The dance studio will be available 30 minutes prior to the audition for students to warm-up.
- Following the audition class, students will receive detailed program information and have the opportunity to discuss their interests with the dance faculty.
- Students will be notified about acceptance into the program within two weeks following the audition.

To schedule a special audition (for students who are unable to attend the regularly scheduled audition due to unavoidable circumstances), please contact the KSU Department of Dance Office at 470-578-7673 or e-mail [ksudance@kennesaw.edu](mailto:ksudance@kennesaw.edu).

### Enrollment Requirements

#### KSU Dance Company Auditions

- Auditions for the KSU Dance Company are reserved for dance majors (fall and spring semesters) and include minors (only spring semesters).
- The auditions are held every semester during the first week of classes.
- Students who are accepted into the company are required to register for DANC 2714 (Dance Performance- 2 credits) immediately following the audition.
- All company members are required to attend a mandatory company technique class. Casting is based on technical ability and schedule availability.
- For additional information visit the dance website at [arts.kennesaw.edu/dance/](http://arts.kennesaw.edu/dance/).

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- DANC 1900: Introduction to the Professional Practice of Dance
- DANC 2000: Dance History I

#### ***8 credit hours of the following:***

- DANC 2713: Dance Production \*  
Or
- DANC 2714: Dance Performance \*  
Or
- DANC 2715: Dance Filmmaking \*  
Or
- DANC 2290: Special Topics in Dance \*

#### ***Any two of the following:***

- DANC 2100: African Dance Technique
- DANC 2200: Tap Dance Technique I
- DANC 2210: Tap Dance Technique II
- DANC 2500: Indian Dance Technique

Note: \* DANC 2714: Dance Performance may be taken up to 8 credit hours; DANC 2713: Dance Production may be taken up to 4 credit hours; Dance Filmmaking may be taken up to 2 credit hours; DANC 2290: Special Topics in Dance may be taken up to 3 credit hours.

### **Major Requirements (21 Credit Hours)**

#### ***Core Requirements (12 Credit Hours)***

- DANC 4010: Dance History II
- DANC 4100: Dance Kinesiology
- DANC 4200: Analysis and Criticism of Dance
- DANC 4300: Dance Pedagogy

**Senior Seminar (3 Credit Hours)**

- DANC 4800: Senior Seminar

**Senior Project (3 Credit Hours)**

- DANC 4900: Senior Project

**Applied Profession Skills (3 Credit Hours)**

- DANC 3398: Internship  
or
- DANC 4400: Directed Study

**Plus one of the following concentrations: (15 Credit Hours)**

**Ballet Concentration**

- DANC 3550: Choreography I
- DANC 4500: Choreography II

*Any four from the following for a total of 8 credit hours.*

Ballet II, III and Pas de Deux/Pointe can only be taken up to 4 credit hours each; Ballet IV can be taken up to 8 credit hours.

- DANC 3500: Pas de Deux/Pointe
- DANC 3110: Ballet II: Classical Dance Technique
- DANC 3120: Ballet III: Classical Dance Technique
- DANC 3130: Ballet IV: Classical Dance Technique

*Plus one of the following:*

- DANC 3001: Musical Theater Dance: Styles II
- DANC 3210: Jazz Dance: Styles II
- DANC 3220: Jazz Dance: Styles III
- DANC 3230: Jazz Dance: Style IV
- DANC 3310: Modern Dance II: Contemporary Dance Technique
- DANC 3320: Modern Dance III: Contemporary Dance Technique
- DANC 3330: Modern Dance IV: Contemporary Dance Technique
- DANC 3600: Dance Improvisation
- DANC 3700: Body Conditioning and Somatics

### **Modern Concentration**

- DANC 3550: Choreography I
- DANC 4500: Choreography II

*Any four from the following for a total of 8 credit hours.*

Modern II, III and Dance Improvisation can only be taken up to 4 credit hours each; Modern IV can be taken up to 8 credit hours.

- DANC 3310: Modern Dance II: Contemporary Dance Technique
- DANC 3320: Modern Dance III: Contemporary Dance Technique
- DANC 3330: Modern Dance IV: Contemporary Dance Technique
- DANC 3600: Dance Improvisation

*Plus one of the following:*

- DANC 3001: Musical Theater Dance: Styles II
- DANC 3110: Ballet II: Classical Dance Technique
- DANC 3120: Ballet III: Classical Dance Technique
- DANC 3130: Ballet IV: Classical Dance Technique
- DANC 3210: Jazz Dance: Styles II
- DANC 3220: Jazz Dance: Styles III
- DANC 3230: Jazz Dance: Style IV
- DANC 3500: Pas de Deux/Pointe
- DANC 3700: Body Conditioning and Somatics

### **Upper-Division Electives (12 Credit Hours)**

12 hours of upper-division studies beyond the major requirements. Lower-division courses may also be approved when appropriate. DANC program requirements cannot be taken again.

### **Free Electives (12 Credit Hours)**

Any courses in the university curriculum.

### **Program Total (120 Credit Hours)**

# **Digital Animation, B.F.A**

## **Program Description**

The Bachelor of Fine Arts with a major in Digital Animation is a professional degree program. The BFA prepares students for a variety of animation and animation-related careers or graduate school by providing a thorough grounding in fundamental principles and techniques. This degree focuses on intensive work in digital animation supported by a program of general studies.

This program is a part of the College of The Arts.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

The following requirements are in addition to the general Admissions requirements for Kennesaw State University.

Each program of study is a sequentially based curriculum beginning the first semester of freshman year. Students who delay entering the major until completion of the General Education Core Curriculum may prolong their academic careers.

Admission to degree programs in the School of Art and Design is contingent upon portfolio review and acceptance by the school. Applications and portfolios will be reviewed by the School of Art and Design Portfolio Review Committee.

Students may only apply twice for admission into any degree program in the School of Art and Design. If the student fails to gain acceptance after two attempts, they will be advised by SOAAD or supporting university advising services on how to proceed in a different degree program outside of the School of Art and Design.

### *Transfer Admissions Requirements*

Transfer Admission Students who wish to transfer into the School of Art and Design from another institution follow the same admissions procedure as all new students. Transfer credits for courses in studio art are evaluated by portfolio review. Certain courses that are equivalent to those in the foundation core with a grade of "C" or higher are accepted for transfer students from a USG accredited art program. Beyond these courses, other credits will be reviewed by area concentration faculty.

### *Entrance for Second Bachelor Degree, Change of Major or Dual-Degree Admissions Requirements*

These applicants are also required to submit an entry portfolio.

### *Change of Degree Program*

Students who wish to change degree programs in art must reapply and gain admission status to the new degree program.

### *Placement*

The School of Art and Design holds the exclusive authority to determine appropriate admission level placement, credit evaluation of art courses in studio, art history, and art education.

### Enrollment Requirements

All students must maintain the minimum GPA requirement for the University to continue in the School of Art and Design. Any students in Academic Dismissal with the University are also dismissed from the School of Art and Design. All students must make timely and reasonable progress toward the degree. Non-enrollment or withdrawal from all classes for two or more consecutive semesters will require reapplication to the School of Art and Design.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- ART 1100: Two-Dimensional Design and Color Theory
- ART 1150: Drawing I
- ART 1200: Three-Dimensional Design
- ART 2150: Drawing II
- ART 2550: Computer Applications in Art
- ART 2990: Concept, Creativity, and Studio Practice

### **Major Requirements (57 Credit Hours)**

#### ***Art History (12 Credit Hours)***

Required Courses:

- ARH 2750: Ancient through Medieval Art
- ARH 2850: Renaissance through Modern Art
- ARH 3840: History of Illustration  
or
- ARH 3830: History of Comics, Cartoons and Animation

*Select one course from the following:*

- ARH 3000: Asian Art and Architecture
- ARH 3100: African Art and Architecture
- ARH 3150: Islamic Art and Architecture
- ARH 3200: Ancient American Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 3500: Italian Renaissance Art and Architecture
- ARH 3600: Baroque Art and Architecture
- ARH 3700: Nineteenth-Century Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 3850: Art Since 1900
- ARH 3990: Research Methods in Art History
- ARH 4000: Historical Studio Practices
- ARH 4150: African-American Art
- ARH 4400: Directed Study
- ARH 4490: Special Topics in Art History
- ARH 4500: Women in Art
- ARH 4700: Victorian Art and Culture
- ARH 4820: History of Printmaking
- ARH 4840: History of Graphic Design
- ARH 4870: History of Photography
- ARH 4880: History of Textiles and Fashion
- ARH 4900: Contemporary Art

### ***Animation Core (30 Credit Hours)***

- ART 3015: Electronic Illustration
- ART 3150: Figure Drawing
- ART 3160: Painting I
- ART 4024: Motion Graphics
- ANIM 3600: Foundation Animation
- ANIM 3620: Storyboarding & Composition
- ANIM 3630: Environments for Animation
- ANIM 3640: Character Development
- ANIM 3650: Digital Animation Production I
- ANIM 3660: Digital Animation Production II

### ***Animation Studio (15 Credit Hours)***

Select 15 credits from among the following classes:

- ANIM 4631: 3D Animation Modeling I
- ANIM 4632: 3D Animation Modeling II
- ANIM 4633: 3D Animation Modeling III
- ANIM 4651: Digital Animation Studio I
- ANIM 4652: Digital Animation Studio II
- ANIM 4653: Digital Animation Studio III
- ART 4036: Concept Art I
- ART 4037: Concept Art II
- ART 4256: Advanced Figure I
- ART 4257: Advanced Figure II
- ART 4258: Advanced Figure III
- ART 3398: Art Internship

### ***Senior Review Exhibition (3 Credit Hours)***

- ANIM 4660: Senior Animation Reel

### ***Program Total (120 Credit Hours)***

# **Music Education, B.M.**

## **Program Description**

This single field program is designed to prepare music teachers at all grade levels (pre-kindergarten through grade 12). It leads to P-12 teacher certification in the teaching field of music in Georgia. Candidates complete the equivalent of a major in music and a second major in pedagogical studies with an emphasis on teaching music. Students audition for placement into one of four music education concentrations (General Music, Choral, Band, and Orchestra). The Music Education major is offered with applied instruction in piano, voice, flute, oboe, clarinet, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, guitar, violin, viola, cello, double bass, and harp.

### *Applied Instruction*

All three undergraduate music degrees offer applied instruction in piano, voice, flute, oboe, clarinet, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, harp, guitar, violin, viola, cello, and double bass. Only certain applied areas are offered in the jazz concentration within the Bachelor of Music.

This program is a part of the College of The Arts.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

#### *School of Music Admissions Requirements*

Admission to the Music Education program is separate from Admissions to Kennesaw State University. Students must meet the program requirements to pursue this degree program, outlined below.

- Students must complete a supplemental application and successful audition with the School of Music, and demonstration of successful academic performance.
- All prospective music majors and minors are required to audition for the faculty on their principal instrument or voice. If the student is not accepted based on their first audition, they may complete a second audition for admission in a later term. If, however, they are not accepted after the second audition, the student may not audition again.
- In order to be eligible for admission to the School of Music, prospective transfer students and current KSU students interested in becoming a music major or minor must have a minimum adjusted GPA of 2.0 to audition and apply for entrance into a music degree program.

- Applied music study may not be initiated until the student has been fully accepted as a major or minor by the School of Music. All students enrolling at KSU for a second degree in music must meet the same departmental audition requirements required of all incoming students.
- Prior to admission to a music degree program, the prospective music major/minor is required to submit an application form to the College of the Arts and present an audition in the principal area of applied concentration.
- Applicants may also elect to audition on more than one instrument or an instrument and voice. Auditions, conducted by the music faculty, are held on the Kennesaw State University campus on specific dates.

#### *Audition Dates and Requirements*

Auditions are held on specific dates prior to the term a student begins study as a music student. A description of the audition process, including specific dates and requirements, is detailed in the Supplemental Application for the School of Music located on the School of Music website ([www.kennesaw.edu/music](http://www.kennesaw.edu/music)). Questions regarding the audition process, audition dates, or requirements can be directed to the College of the Arts Office of Admissions and Student Services, 470-578-6614; [COTA-Admissions@kennesaw.edu](mailto:COTA-Admissions@kennesaw.edu).

#### *Transfer Admissions Requirements*

- Students who wish to transfer into the School of Music from another institution follow the same admissions procedure as all new students (see above).
- Transfer students are placed at an academic level in their principal area of applied concentration based upon the transferable amount of study earned at other institutions and the performance level demonstrated at the audition.
- Transfer credit for all course work is evaluated as quickly as possible after a student has been admitted to KSU. Students who transfer completed baccalaureate applied performance credit to KSU will be required to take additional applied performance study and additional ensemble credit so as to parallel remaining semesters of their designated degree program of study at KSU.
- The School of Music accepts students from other schools and colleges at Kennesaw State University on the same basis as new students and/or transfer students from other institutions. Interested and qualified students are encouraged to transfer into the program.

#### *Placement*

The School of Music holds the exclusive authority to determine appropriate admission level placement in the applied concentration, music theory, music history, piano proficiency, and continuity of study. Continuous study in the area of the applied concentration is a requisite. A lapse of two or more semesters of applied study will require an audition for re admittance to the School of Music. General Requirements A variety of School of Music regulations and

policies affect music majors and minors. Included are requirements for recital and ensemble participation, recital and concert attendance, piano proficiency, departmental assessment procedures, and applied juries. Enrollment in an applied area of concentration is required of all music majors as specified in the degree program. Further, music students must be enrolled in an appropriate large ensemble every semester in which the student is enrolled in applied music. The appropriate ensemble director determines a student's large ensemble placement. To earn academic credit toward their degree, music students must earn a grade of "C" or higher in all music courses.

### Enrollment Requirements

#### *Change of Concentration*

Students who wish to change their applied performance concentration must re audition and be accepted for applied studio instruction in the new concentration.

#### *Change of Degree Program*

Students who wish to change degree programs in music must re audition and gain admission status to the new degree program.

#### *General Requirements*

- A variety of School of Music regulations and policies affect music majors and minors.
- Included are requirements for recital and ensemble participation, recital and concert attendance, piano proficiency, departmental assessment procedures, and applied juries.
- Enrollment in an applied area of concentration is required of all music majors as specified in the degree program. Further, music students must be enrolled in an appropriate large ensemble every semester in which the student is enrolled in applied music.
- The appropriate ensemble director determines a student's large ensemble placement. To earn academic credit toward their degree, music students must earn a grade of "C" or higher in all music courses.

#### *Teacher Education Admission Retention and Graduation Requirements*

Admission to teacher education is separate from admission to Kennesaw State University. Students must meet the admission requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- MUAP 1111: Applied Lessons
- MUAP 1112: Applied Lessons
- MUSI 1111: Aural Skills I
- MUSI 2212: Aural Skills II
- MUSI 1121: Music Theory I
- MUSI 2122: Music Theory II
- MUAP 2211: Applied Lessons
- MUAP 2212: Applied Lessons
- MUSI 2311: History of Music I
- MUSI 2312: History of Music II

### **Subject Major Requirements (18 Credit Hours)**

- MUSI 3121: Music Theory III
- MUSI 3122: Music Theory IV
- MUSI 3111: Aural Skills III
- MUSI 3112: Aural Skills IV
- MUED 2210: Music Education Colloquium

### **Piano Requirements (2 Credit Hours)**

Select one course from each group listed below.

#### *Group 1*

- MUSI 1165: Class Piano I
- MUSI 3333: Accompanying

#### *Group 2*

- MUSI 2165: Class Piano II
- MUSI 3333: Accompanying

### **Large Ensemble (7 Credit Hours)**

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will take one large ensemble course seven times (MUSI 3343–MUSI 3349) for 1 credit each repeated 7 times for a total of 7 credit hours.

- MUSI 3343: Jazz Ensemble
- MUSI 3344: University Philharmonic Orchestra
- MUSI 3345: Wind Symphony
- MUSI 3346: Chamber Singers
- MUSI 3347: Wind Ensemble
- MUSI 3348: Symphony Orchestra
- MUSI 3349: Chorale

### **Subject Concentrations (17 Credit Hours)**

#### ***General Music Concentration (for vocalists)***

- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons (senior recital required)
- MUSI 3165: Class Piano III
- MUSI 3166: Class Piano IV
- MUSI 3167: Class Piano V
- MUSI 3331: Choral Conducting
- MUSI 3336: Diction for Singers
- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 3351: String Techniques
- MUED 3353: Guitar Techniques Class
- MUED 3371: Brass/Woodwind/Percussion Techniques  
Select one of the following and repeat for a total of 3 credit hours.
  
- MUSI 3201: Men's Ensemble  
or
  
- MUSI 3202: Women's Choir

#### ***General Music Concentration (for pianists)***

- MUAP 3311: Applied Lessons (one semester in piano)
- MUAP 3312: Applied Lessons (repeat twice: once in piano and once in voice)
- MUAP 4411: Applied Lessons (repeat twice once in piano with senior recital required and once in voice)
- MUAP 4412: Applied Lessons (one semester in voice)
- MUSI 3331: Choral Conducting  
or

- MUSI 3332: Instrumental Conducting
  - MUSI 3336: Diction for Singers
  - MUSI 4434: Vocal Pedagogy for Ensemble Singing
  - MUED 3353: Guitar Techniques Class
  - MUED 3355: Voice Techniques Class
  - MUED 3371: Brass/Woodwind/Percussion Techniques
- Select one of the following courses and repeat for a total of 3 credit hours
- MUSI 3201: Men's Ensemble  
or
  - MUSI 3202: Women's Choir

***General Music Concentration (for all other instruments)***

- MUAP 3311: Applied Lessons (one semester in your primary instrument)
- MUAP 3312: Applied Lessons (repeat twice: once in your primary instrument and once in voice)
- MUAP 4411: Applied Lessons (repeat twice: once in your primary instrument with senior recital and once in voice)
- MUSI 3165: Class Piano III
- MUSI 3166: Class Piano IV
- MUSI 3167: Class Piano V
- MUSI 3331: Choral Conducting  
or
- MUSI 3332: Instrumental Conducting
- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 3353: Guitar Techniques Class
- MUED 3355: Voice Techniques Class
- MUED 3351: String Techniques
- MUED 3371: Brass/Woodwind/Percussion Techniques
- MUSI 3201: Men's Ensemble  
or
- MUSI 3202: Women's Choir

***Choral Concentration (for pianists)***

- MUAP 3311: Applied Lessons (one semester of piano)
- MUAP 3312: Applied Lessons (repeat twice: once in piano and once in voice)
- MUAP 4411: Applied Lessons (repeat twice: once in piano with senior recital required and once in voice)
- MUSI 3331: Choral Conducting

- MUSI 3336: Diction for Singers
- MUSI 3350: Advanced Choral Conducting/Literature
- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 3351: String Techniques
- MUED 3355: Voice Techniques Class
- MUED 3371: Brass/Woodwind/Percussion Techniques  
Select one of the following and repeat for a total of 2 credit hours.
- MUSI 3201: Men's Ensemble  
or
- MUSI 3202: Women's Choir

***Choral Concentration (for vocalists and all other instruments)***

- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons (senior recital required)
- MUSI 3165: Class Piano III
- MUSI 3166: Class Piano IV
- MUSI 3167: Class Piano V
- MUSI 3331: Choral Conducting
- MUSI 3350: Advanced Choral Conducting/Literature
- MUSI 3336: Diction for Singers
- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 3351: String Techniques
- MUED 3371: Brass/Woodwind/Percussion Techniques  
Select one of the following and repeat for a total of 2 credit hours.
- MUSI 3201: Men's Ensemble  
or
- MUSI 3202: Women's Choir

***Orchestra Concentration***

- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons (senior recital required)
- MUSI 3332: Instrumental Conducting
- MUSI 3351: Advanced Instrumental Conducting/Literature
- MUED 3351: String Techniques
- MUED 3353: Guitar Techniques Class
- MUED 3355: Voice Techniques Class

- MUED 3357: Percussion Techniques Class
- MUED 3361: Brass Techniques
- MUED 3365: Woodwind Techniques Class I
- MUED 3366: Woodwind Techniques Class II
- MUED 4000: Advanced Pedagogy and Arranging

Select one of the following for 1 credit hour:

- MUSI 3210: Classical Guitar Ensemble
- MUSI 3211: Jazz Guitar Ensemble
- MUSI 3212: Jazz Combo
- MUSI 3220: Percussion Ensemble
- MUSI 3221: String Ensemble
- MUSI 3222: Woodwind Ensemble
- MUSI 3223: Brass Ensemble
- MUSI 3224: Piano Ensemble
- MUSI 3225: Mixed Chamber

### ***Band Concentration***

- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons (senior recital required)
- MUSI 3332: Instrumental Conducting
- MUSI 3351: Advanced Instrumental Conducting/Literature
- MUED 3351: String Techniques
- MUED 3355: Voice Techniques Class
- MUED 3357: Percussion Techniques Class
- MUED 3361: Brass Techniques
- MUED 3365: Woodwind Techniques Class I
- MUED 3366: Woodwind Techniques Class II
- MUED 3370: Marching Band Techniques
- MUED 4000: Advanced Pedagogy and Arranging

Select one course from the following for 1 credit hour:

- MUSI 3210: Classical Guitar Ensemble
- MUSI 3211: Jazz Guitar Ensemble
- MUSI 3212: Jazz Combo
- MUSI 3220: Percussion Ensemble
- MUSI 3221: String Ensemble
- MUSI 3222: Woodwind Ensemble
- MUSI 3223: Brass Ensemble
- MUSI 3224: Piano Ensemble
- MUSI 3225: Mixed Chamber

### **Professional Education (P-12) Requirements (31 Credit Hours)**

- EDUC 2110: Investigating Critical & Contemporary Issues in Education
- EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts
- EDUC 2130: Exploring Teaching & Learning
- EDUC 4610: Introduction to the Yearlong Clinical Experience
- MUED 3308: Music Education for Exceptional Students
- MUED 3301: General Methods, Materials and Curriculum
- MUED 3302: Choral Methods, Materials, and Curriculum  
or
- MUED 3303: Instrumental Methods, Materials and Curriculum
- MUED 3305: Educational Literature and Technology
- MUED 4650: Yearlong Clinical Experience I
- MUED 4660: Yearlong Clinical Experience II

### **Program Total (126 Credit Hours)**

*Graduation Requirement: Students will be required to pass with a satisfactory grade (S) six semesters of MUAP 1101: Music Symposium, to be eligible to graduate. They must be enrolled every semester in this course until the requirement is accomplished.*

# **Music, B.M.**

## **Program Description**

This program of study offers a Bachelor of Music degree. Students audition for placement into one of six concentrations (Instrumental Performance, Jazz Performance, Piano Performance, Voice Performance, Composition, and Music Theory).

### Applied Instruction

All undergraduate music degrees offer applied instruction in piano, voice, flute, oboe, clarinet, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, harp, guitar, violin, viola, cello, and double bass. Only certain applied areas are offered in the jazz concentration within the Bachelor of Music degree.

This program is a part of the College of The Arts .

### Accreditation

This Bachelor of Music curriculum has been approved by the National Association of Schools of Music (NASM).

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Bachelor of Music program is separate from Admissions to Kennesaw State University. Students must meet the program requirements to pursue this degree program, outlined below.

- Students must complete a supplemental application and successful audition with the Bailey School of Music, and demonstration of successful academic performance.
- All prospective music majors and minors are required to audition for the faculty on their principal instrument or voice. If the student is not accepted based on their first audition, they may complete a second audition for admission in a later term. If, however, they are not accepted after the second audition, the student may not audition again.
- In order to be eligible for admission to the Bailey School of Music, prospective transfer students and current KSU students interested in becoming a music major or minor must have a minimum adjusted GPA of 2.0 to audition and apply for entrance into a music degree program.
- Applied music study may not be initiated until the student has been fully accepted as a major or minor by the Bailey School of Music. All students enrolling at KSU for a second degree in music must meet the same departmental audition requirements required of all incoming students.

- Prior to admission to a music degree program, the prospective music major/minor is required to submit an application form to the College of the Arts and present an audition in the principal area of applied concentration. Applicants may also elect to audition on more than one instrument or an instrument and voice. Auditions, conducted by the music faculty, are held on the Kennesaw State University campus on specific dates.

### Audition Dates and Requirements

Auditions are held on specific dates prior to the term a student begins study as a music student. A description of the audition process, including specific dates and requirements, is detailed in the Supplemental Application for the School of Music located on the Bailey School of Music website ([www.kennesaw.edu/music](http://www.kennesaw.edu/music)). Questions regarding the audition process, audition dates, or requirements can be directed to the College of the Arts Office of Admissions and Student Services, 470-578-6614; [COTA-Admissions@kennesaw.edu](mailto:COTA-Admissions@kennesaw.edu).

### *Transfer Admissions*

- Students who wish to transfer into the Bailey School of Music from another institution follow the same admissions procedure as all new students (see above).
- Transfer students are placed at an academic level in their principal area of applied concentration based upon the transferable amount of study earned at other institutions and the performance level demonstrated at the audition.
- Transfer credit for all course work is evaluated as quickly as possible after a student has been admitted to KSU. Students who transfer completed baccalaureate applied performance credit to KSU will be required to take additional applied performance study and additional ensemble credit so as to parallel remaining semesters of their designated degree program of study at KSU.
- The Bailey School of Music accepts students from other schools and colleges at Kennesaw State University on the same basis as new students and/or transfer students from other institutions. Interested and qualified students are encouraged to transfer into the program.

### Change of Concentration

Students who wish to change their applied performance concentration must reaudition and be accepted for applied studio instruction in the new concentration.

### Change of Degree Program

Students who wish to change degree programs in music must reaudition and gain admission status to the new degree program.

### Placement

The Bailey School of Music holds the exclusive authority to determine appropriate admission level placement in the applied concentration, music theory, music history, piano proficiency, and continuity of study. Continuous study in the area of the applied concentration is a requisite. A lapse of two or more semesters of applied study will require an audition for readmittance to the Bailey School of Music.

### General Requirements

A variety of Bailey School of Music regulations and policies affect music majors and minors. Included are requirements for recital and ensemble participation, recital and concert attendance, piano proficiency, departmental assessment procedures, and applied juries. Enrollment in an applied area of concentration is required of all music majors as specified in the degree program. Further, music students must be enrolled in an appropriate large ensemble every semester in which the student is enrolled in applied music. The appropriate ensemble director determines a student's large ensemble placement. To earn academic credit toward their degree, music students must earn a grade of "C" or higher in all music courses.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- MUSI 1121: Music Theory I
- MUSI 2122: Music Theory II
- MUSI 1111: Aural Skills I
- MUSI 2212: Aural Skills II
- MUAP 1121: Applied Lessons
- MUAP 1122: Applied Lessons
- MUSI 2311: History of Music I
- MUSI 2312: History of Music II

### **Major Requirements (30 Credit Hours)**

- MUAP 2221: Applied Lessons
- MUAP 2222: Applied Lessons

- MUSI 3121: Music Theory III
- MUSI 3122: Music Theory IV
- MUSI 3111: Aural Skills III
- MUSI 3112: Aural Skills IV
- MUSI 3320: Form and Analysis  
or
- MUSI 3313: Jazz Theory
- MUSI 3000: Technology in Music
- MUSI 3390: Music Entrepreneurship

### ***Piano Requirement***

Select one course from each group listed below :

#### *Group 1*

- MUSI 1165: Class Piano I
- MUSI 3333: Accompanying (all students with piano concentration must take this course)

#### *Group 2*

- MUSI 2165: Class Piano II (all students except piano and jazz concentrations must take this course)
- MUSI 3360: Jazz Piano (all non-piano jazz concentration students only)
- MUSI 3333: Accompanying (all student with a piano concentration must take this course)

### ***Large Ensemble Requirement***

Students will complete 8 credit hours of large ensembles (MUSI 3343-3349). Ensembles can be repeated for credit. Note: Placement in a large ensemble is determined by ensemble instructor.

- MUSI 3343: Jazz Ensemble
- MUSI 3344: University Philharmonic Orchestra
- MUSI 3345: Wind Symphony
- MUSI 3346: Chamber Singers
- MUSI 3347: Wind Ensemble
- MUSI 3348: Symphony Orchestra
- MUSI 3349: Chorale

## **Concentrations (30 Credit Hours)**

### ***Instrumental Performance Concentration***

#### *Required Courses (18 Credit Hours)*

- MUSI 3332: Instrumental Conducting
- MUAP 3321: Applied Lessons
- MUAP 3322: Applied Lessons (junior recital required)
- MUAP 4421: Applied Lessons
- MUAP 4422: Applied Lessons (senior recital required)
- MUSI 4435: (Name of Instrument) Pedagogy and Literature

#### Small Ensemble

Students in the Instrumental Performance concentration will complete 5 credit hours of small ensemble courses from the list below. Classical guitarists must take Classical Guitar Ensemble. Percussionists must take Percussion Ensemble. Ensembles can be repeated for credit.

- MUSI 3210: Classical Guitar Ensemble
- MUSI 3211: Jazz Guitar Ensemble
- MUSI 3212: Jazz Combo
- MUSI 3220: Percussion Ensemble
- MUSI 3221: String Ensemble
- MUSI 3222: Woodwind Ensemble
- MUSI 3223: Brass Ensemble
- MUSI 3225: Mixed Chamber

#### *Concentration Electives (12 Credit Hours)*

Chosen from any 3000–4000 level music courses.

### ***Jazz Performance Concentration***

#### *Required courses (26 Credit Hours)*

- MUSI 3319: History of Jazz
- MUSI 3323: Jazz Arranging
- MUSI 3325: Jazz Forms and Composition
- MUSI 3353: Jazz Improvisation I
- MUSI 3354: Jazz Improvisation II
- MUSI 3355: Jazz Improvisation III
- MUAP 3321: Applied Lessons

- MUAP 3322: Applied Lessons (junior recital required)
- MUAP 4421: Applied Lessons
- MUAP 4422: Applied Lessons (senior recital required)
- MUSI 4436: Jazz Pedagogy

#### Small Ensemble

Students in the Jazz Performance concentration will take 5 credits of small ensemble as described below:

- MUSI 3211: Jazz Guitar Ensemble (jazz guitarists must take for all 5 credits)
- MUSI 3361: Piano Accompaniment for Jazz Vocalists Required 1 time for Jazz vocalists
- MUSI 3212: Jazz Combo (Jazz vocalists must take this course 4 times, all other jazz instrumentalists must take this course 5 times)

#### *Major Electives (4 Credit Hours)*

Choose from any 3000–4000 level music courses.

#### **Piano Performance Concentration**

##### *Required Courses (22 Credit Hours)*

- MUSI 3331: Choral Conducting  
or
- MUSI 3332: Instrumental Conducting
- MUSI 3333: Accompanying (take 2 times)  
Students in the Piano concentration will take one small ensemble course from the list below two times for 1 credit each.
- MUSI 3224: Piano Ensemble  
or
- MUSI 3225: Mixed Chamber
- MUSI 4413: Piano Literature I
- MUSI 4414: Piano Literature II
- MUSI 4430: Piano Pedagogy I
- MUSI 4431: Piano Pedagogy II
- MUAP 3321: Applied Lessons
- MUAP 3322: Applied Lessons (junior recital required)
- MUAP 4421: Applied Lessons
- MUAP 4422: Applied Lessons (senior recital required)

*Major Electives (8 Credit Hours)*

Chosen from any 3000–4000 level music courses.

**Voice Performance Concentration**

*Required Courses (28 Credit Hours)*

- MUSI 3315: Vocal Literature
- MUSI 3331: Choral Conducting
- MUSI 3334: Italian and English Diction
- MUSI 3335: German and French Diction
- MUSI 3352: Opera Theater (take 6 times)
- MUAP 3321: Applied Lessons
- MUAP 3322: Applied Lessons (junior recital required)
- MUAP 4421: Applied Lessons
- MUAP 4422: Applied Lessons (senior recital required)
- MUSI 4433: Voice Pedagogy

*Foreign Language Requirement (6 Credit Hours)*

- ITAL 1001: Elementary Italian I
- GRMN 1001: Elementary German I  
or
- FREN 1001: Elementary French I

*Major Electives (2 Credit Hours)*

Choose from any 3000–4000 level music courses.

**Composition Concentration**

*Required Courses (22 Credit Hours)*

- MUSI 3326: Class Composition I  
or
- MUSI 3371: Composition I
- MUSI 3327: Class Composition II  
or
- MUSI 3372: Composition II
- MUSI 4471: Composition III

- MUSI 4472: Composition IV
- MUSI 4473: Composition V
- MUSI 3007: Scoring for Media
- MUSI 3324: Instrumentation/Arranging
- MUSI 4420: Counterpoint
- MUSI 4421: Contemporary Analytical and Compositional Techniques
- MUSI 4496: Senior Capstone Music Project

*Major Electives (8 Credit Hours)*

Choose from any 3000–4000 level music courses.

**Music Theory Concentration**

*Required Courses (23 Credit Hours)*

- MUAP 3311: Applied Lessons
  - MUAP 3312: Applied Lessons
  - MUAP 4411: Applied Lessons
  - MUAP 4412: Applied Lessons
  - MUSI 3321: Advanced Ear Training
  - MUSI 3326: Class Composition I
- or
- MUSI 3371: Composition I
  - MUSI 3168: Advanced Keyboard Harmony
  - MUSI 4419: Introduction to Schenker
  - MUSI 4420: Counterpoint
  - MUSI 4421: Contemporary Analytical and Compositional Techniques
  - MUSI 4422: Music Theory Pedagogy
  - MUSI 4496: Senior Capstone Music Project

*Major Electives (7 Credit Hours)*

Select from any 3000/4000 level music courses

**Program Total (120 Credit Hours)**

*Graduation Requirement: Students will be required to pass with a satisfactory grade (S) six semesters of MUAP 1101: Music Symposium, to be eligible to graduate. They must be enrolled every semester in this course until the requirement is accomplished.*

# **Theatre and Performance Studies, B.A.**

## **Program Description**

The Bachelor of Arts in Theatre and Performance Studies provides undergraduate students with a foundation in theatre and performance studies through the study of a variety of texts and styles, including classical and contemporary plays, musical theatre, folk and literary narratives, performance art, poetry, comedy improv, storytelling, solo performance, and personal narratives. Students choose between concentrations in acting, performance studies, musical theatre or design/technology. Internships with professional organizations and education abroad opportunities are integrated into the curriculum. An innovative season of diverse public performances offers students the opportunity to integrate classroom study with the highest standards of professional practice in research, performance, design, technical theatre, and the creation of original work. The program prepares students for entry into the profession or other related fields and for graduate study in theatre, performance studies, and related fields.

This program is a part of the College of The Arts.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program has specific admission requirements in addition to Admissions to Kennesaw State University. If you have been accepted to Kennesaw State University, and you are interested in becoming a theatre and performance studies major, please fill out the application. Auditions are not required for acceptance into the program. Students interested in applying to this program must meet the following program requirements:

- A high school GPA requirement of 3.0 or higher is required for first-year freshmen applying to be theatre and performance studies majors.
- A college GPA requirement of 3.0 or higher is required for entering transfers and currently-enrolled KSU students seeking a change in major

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- TPS 1500: Introduction to Theatre Studies
- TPS 1600: Introduction to Performance Studies
- TPS 1713: Stagecraft
- TPS 2713: Theatre Production \*Theatre Production must be taken two times for two credits each.
- TPS 2203: Acting I: Principles of Acting
- TPS 2813: Visual Imagination

### **Major Requirements (24 Credit Hours)**

#### ***Upper Division Core Requirements (18 Credit Hours)***

- TPS 3000: Performing Literature
- TPS 3403: Play Analysis for Production
- TPS 4513: History and Theory I: Ancient through Renaissance Theatre and Performance
- TPS 4999: Senior Seminar: The Scholar Artist  
One of the following eight courses:
  - TPS 3493: Performance Art
  - TPS 3093: Performing Folktales and Fairy Tales
  - TPS 3094: Performing Classical Myth
  - TPS 3095: Performing Irish Myth
  - TPS 3193: Performing World Myth
  - TPS 3194: Performing Personal Narrative
  - TPS 3600: Performing Culture
  - TPS 4333: Adapting and Staging Literary Texts  
And one of the following three courses:
- TPS 4523: History and Theory II: Neoclassical through Romantic Theatre and Performance
- TPS 4533: History and Theory III: Victorian through Contemporary Theatre and Performance
- TPS 4543: American Performance Traditions

#### ***Applied Professional Sequence (6 Credit Hours)***

Students must take a total of 6 hours from the following courses

- TPS 3050: Applied Performance and Production
- TPS 3320: Musical Theatre Performance: Applied Voice
- TPS 3398: Internship

- TPS 4010: Storytelling Practicum
- TPS 4015: Musical Theatre Techniques II
- TPS 4020: Musical Theatre Ensemble
- TPS 4050: Advanced Applied Performance and Production
- TPS 4040: Stage Combat
- TPS 4030: Actor's Studio
- TPS 4400: Directed Study
- TPS 4490: Special Topics
- SA 4490: Upper-division Study Abroad

**Plus one of the following concentrations: (12 Credit Hours)**

***Acting Concentration***

- TPS 3223: Acting II: Intermediate Acting
- TPS 3200: The Actor's Voice

*Plus two of the following:*

- TPS 3213: Acting for the Camera
- TPS 3243: Acting III: Acting Styles
- TPS 4243: Audition Practicum

***Performance Studies Concentration***

Select any four courses from the following:

- TPS 3093: Performing Folktales and Fairy Tales
- TPS 3094: Performing Classical Myth
- TPS 3095: Performing Irish Myth
- TPS 3193: Performing World Myth
- TPS 3194: Performing Personal Narrative
- TPS 3400: Performance Composition
- TPS 3493: Performance Art
- TPS 3500: Dramaturgy
- TPS 3600: Performing Culture
- TPS 4313: Principles of Directing
- TPS 4323: Directing Styles
- TPS 4333: Adapting and Staging Literary Texts

***Design/Technology Concentration***

- TPS 3823: Design Skills
- TPS 3853: Period Styles

*Plus two of the following:*

- TPS 4813: Scene Design
- TPS 4823: Lighting Design for the Stage
- TPS 4833: Costume Design

### ***Musical Theatre Concentration***

- TPS 3015: Musical Theatre Techniques I
- TPS 3700: Music Theory for Musical Theatre
- TPS 3713: Acting in Musical Theatre
- DANC 3000: Musical Theatre Dance: Styles I
- TPS 3703: Musical Theatre History and Literature

### ***Related Studies (12 Credit Hours)***

Students must take 12 credit hours of any combination of the following: Any 3000/4000 level TPS course not already required or used in the major or concentration. Any 3000/4000 level course in the University curriculum with the following prefixes is pre-approved for Related Studies: TPS, DANC, MUSI, ART, ENGL, FILM, AMST, AADS, GWST, PSYC, SOC, HIST, FL, FREN, SPAN, ITAL, GERM, JAP, KOR, HEBR, GEOG, ANTH, ARCH, ACCT, ECON, FIN, ENTR, ISA, IS, MKTG, MGMT. Additional approvals may be arranged with an advisor.

### ***Free Electives (12 Credit Hours)***

Any courses in the university curriculum.

### ***Program Total (120 Credit Hours)***

# **Art History Minor**

## **Contact Information**

**Website:** <https://arts.kennesaw.edu/visual-arts/>

**Phone:** (470) 578-6139

## **Program Description**

The Art History minor program welcomes students who are pursuing any major program of study at Kennesaw State. In their art-historical coursework, students learn about visual culture from a range of periods, regions, and cultures, and they develop skills in critical thinking, communication, and global engagement. The minor program therefore helps students to achieve many career and professional goals.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

- ARH 2750: Ancient through Medieval Art
- ARH 2850: Renaissance through Modern Art

### **Electives (12 Credit Hours)**

Select four from the following:

- ARH 3000: Asian Art and Architecture
- ARH 3100: African Art and Architecture
- ARH 3150: Islamic Art and Architecture
- ARH 3200: Ancient American Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 3500: Italian Renaissance Art and Architecture
- ARH 3600: Baroque Art and Architecture
- ARH 3700: Nineteenth-Century Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 3840: History of Illustration

- ARH 3850: Art Since 1900
- ARH 3990: Research Methods in Art History
- ARH 4000: Historical Studio Practices
- ARH 4150: African-American Art
- ARH 4500: Women in Art
- ARH 4700: Victorian Art and Culture
- ARH 4750: American Landscape Painting
- ARH 4820: History of Printmaking
- ARH 4840: History of Graphic Design
- ARH 4870: History of Photography
- ARH 4900: Contemporary Art
- ARH 3398: Internship
- ARH 4400: Directed Study
- ARH 4490: Special Topics in Art History

*Note: Students electing an art history minor who are also in the BFA in Art or Digital Animation degree programs must take six additional art history credits beyond those required for the major. These additional credits may count only as free electives in their degree programs.*

**Program Total (18 Credit Hours)**

# **Classical Studies Minor**

## **Contact Information**

**Website:** <https://www.kennesaw.edu/degrees-programs/minors/classical-studies.php?major=Minor+in+Classical+Studies+&url=https%3A%2F%2Fwww.kennesaw.edu%2Fdegrees-programs%2Fminors%2Fclassical-studies.php>

**Phone:** (470) 578-6139

**Email:** [artsadvising@kennesaw.edu](mailto:artsadvising@kennesaw.edu)

## **Program Description**

This interdisciplinary minor program in the language, culture, and society of Greece and Rome includes courses in anthropology, art history, dance, English, history, Latin, music, philosophy, and theatre and performance studies.

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

Students must complete fifteen (15) credit hours of coursework in Classical Studies. At least nine (9) hours must be at the upper-division (3000-4000) level.

### **Choose two courses from the following. (6 Credit Hours)**

- ARH 2750: Ancient through Medieval Art
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- LATN 1001: Elementary Latin I
- LATN 1002: Elementary Latin II
- LATN 2001: Intermediate Latin I
- LATN 2002: Intermediate Latin II
- HIST 4501: Ancient Greece
- HIST 4502: Ancient Rome
- HIST 4503: Twilight of Antiquity

### **Choose three courses from the following (9 Credit Hours)**

No more than one course (3 credit hours) of Directed Study

- ANTH 1102: Introduction to Anthropology
- ANTH 3305: Principles of Archaeology
- ANTH 4150: Greek Osteology Field School

- ANTH 4411: Bioarchaeology of Greece
- ARH 2750: Ancient through Medieval Art
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 4300: Ancient Mythology in Art
- DANC 2000: Dance History I
- ENGL 4240: Rhetorical Theory
- ENGL 4380: World Literature Before 1800
- HIST 1111: Survey of World History I \* If not used in General Education Area E
- HIST 4501: Ancient Greece
- HIST 4502: Ancient Rome
- HIST 4503: Twilight of Antiquity
- LATN 1001: Elementary Latin I
- LATN 1002: Elementary Latin II
- LATN 2001: Intermediate Latin I
- LATN 2002: Intermediate Latin II
- LATN 3500: Topics in Latin Poetry
- LATN 4500: Topics in Latin Prose
- MUSI 2311: History of Music I
- PHIL 3000: Ancient and Medieval Philosophy
- PHIL 4450: Major Figures in Philosophy (if classical/classical tradition)
- TPS 3094: Performing Classical Myth
- TPS 4513: History and Theory I: Ancient through Renaissance Theatre and Performance
- Any department's 4400 Directed Study or 4490 Special Topics, if the focus of the class is relevant to Classical Studies and it is approved by the Classical Studies advisor.
- Transfer credit if the focus is relevant to Classical Studies and is approved by the Classical Studies advisor.

***Program Total (15 Credit Hours)***

# **Dance Minor**

## **Contact Information**

**Website:** [arts.kennesaw.edu/dance](https://arts.kennesaw.edu/dance)

**Phone:** (470) 578-7673

**Email:** [KSUDance@kennesaw.edu](mailto:KSUDance@kennesaw.edu)

## **Program Description**

The dance minor is designed for students who wish to continue their dance training while pursuing another major field of study offered at Kennesaw State University. Of the 15 credit hours required for the dance minor, 9 must be taken at the upper-division level.

## **Program Course Requirements**

### **Required (3 Credit Hours)**

- DANC 2000: Dance History I

### **Lower-Division Electives (0-3 Credit Hours)**

- DANC 2100: African Dance Technique
- DANC 2200: Tap Dance Technique I
- DANC 2210: Tap Dance Technique II
- DANC 2290: Special Topics in Dance
- DANC 2500: Indian Dance Technique
- DANC 2713: Dance Production
- DANC 2714: Dance Performance
- DANC 2715: Dance Filmmaking

### **Upper-Division Electives (9-12 Credit Hours)**

- DANC 3000: Musical Theatre Dance: Styles I
- DANC 3001: Musical Theater Dance: Styles II
- DANC 3100: Ballet I: Classical Dance Technique
- DANC 3110: Ballet II: Classical Dance Technique
- DANC 3120: Ballet III: Classical Dance Technique
- DANC 3130: Ballet IV: Classical Dance Technique
- DANC 3200: Jazz Dance: Styles I
- DANC 3210: Jazz Dance: Styles II
- DANC 3220: Jazz Dance: Styles III

- DANC 3230: Jazz Dance: Style IV
- DANC 3300: Modern Dance I: Contemporary Dance Technique
- DANC 3310: Modern Dance II: Contemporary Dance Technique
- DANC 3320: Modern Dance III: Contemporary Dance Technique
- DANC 3330: Modern Dance IV: Contemporary Dance Technique
- DANC 3500: Pas de Deux/Pointe
- DANC 3550: Choreography I
- DANC 3600: Dance Improvisation
- DANC 3700: Body Conditioning and Somatics
- DANC 4010: Dance History II
- DANC 4100: Dance Kinesiology
- DANC 4200: Analysis and Criticism of Dance
- DANC 4300: Dance Pedagogy
- DANC 4490: Special Topics
- DANC 4500: Choreography II

***Program Total (15 Credit Hours)***

# **Music Minor**

## **Contact Information**

**Website:** <https://arts.kennesaw.edu/music/>

**Phone:** (470) 578-6151

## **Program Description**

Students must be fully accepted into the Bailey School of Music as a minor by 1) being accepted into KSU, 2) completing a supplemental music application and 3) completing a successful audition for the music faculty. In order to graduate with a minor in music on the student permanent record, the student must complete all requirements and submit to the Registrar's Office a completed and approved "Declaration of Formal Minor" form along with the student's petition to graduate. The Bailey School of Music approves all music minors and advises students as to all specific requirements of the minor. At least six (6) credits must be done in residence at KSU.

### Applied Instruction

All undergraduate music programs offer applied instruction in piano, voice, flute, oboe, clarinet, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, harp, guitar, violin, viola, cello, and double bass. Only certain applied areas are offered in the jazz concentration within the Bachelor of Music degree.

### Admission Requirements

Admission to the Bailey School of Music is separate from Admissions to Kennesaw State University. Students must meet the program requirements to pursue this degree program, outlined below.

- Students must complete a supplemental application and successful audition with the Bailey School of Music, and demonstration of successful academic performance.
- All prospective music majors and minors are required to audition for the faculty on their principal instrument or voice. If the student is not accepted based on their first audition, they may complete a second audition for admission in a later term. If, however, they are not accepted after the second audition, the student may not audition again.
- In order to be eligible for admission to the Bailey School of Music, prospective transfer students and current KSU students interested in becoming a music major or minor must have a minimum adjusted GPA of 2.0 to audition and apply for entrance into a music degree program.
- Applied music study may not be initiated until the student has been fully accepted as a major or minor by the Bailey School of Music. All students enrolling at KSU for a

second degree in music must meet the same departmental audition requirements required of all incoming students.

### Audition Dates and Requirements

Auditions are held on specific dates prior to the term a student begins study as a music student. A description of the audition process, including specific dates and requirements, is detailed in the Supplemental Application for the School of Music located on the Bailey School of Music website ([www.kennesaw.edu/music](http://www.kennesaw.edu/music)). Questions regarding the audition process, audition dates, or requirements can be directed to the College of the Arts Office of Admissions and Student Services, 470-578-6614; [COTA-Admissions@kennesaw.edu](mailto:COTA-Admissions@kennesaw.edu).

### Transfer Admissions

- Students who wish to transfer into the Bailey School of Music from another institution follow the same admissions procedure as all new students (see above).
- Transfer students are placed at an academic level in their principal area of applied concentration based upon the transferable amount of study earned at other institutions and the performance level demonstrated at the audition.
- Transfer credit for all course work is evaluated as quickly as possible after a student has been admitted to KSU. Students who transfer completed baccalaureate applied performance credit to KSU will be required to take additional applied performance study and additional ensemble credit so as to parallel remaining semesters of their designated degree program of study at KSU.
- The Bailey School of Music accepts students from other schools and colleges at Kennesaw State University on the same basis as new students and/or transfer students from other institutions. Interested and qualified students are encouraged to transfer into the program.

### Change of Degree Program

Students who wish to change degree programs in music must reaudition and gain admission status to the new degree program.

### Placement

The Bailey School of Music holds the exclusive authority to determine appropriate admission level placement in the applied concentration, music theory, aural skills, and continuity of study. Continuous study in the area of the applied concentration is a requisite. A lapse of two or more semesters of applied study will require an audition for readmittance to the Bailey School of Music.

### General Requirements

A variety of Bailey School of Music regulations and policies affect music majors and minors. Included are requirements for recital and ensemble participation, recital and concert attendance, departmental assessment procedures, and applied juries.

Further, music students must be enrolled in an appropriate large ensemble every semester in which the student is enrolled in applied music. The appropriate ensemble director determines a student's large ensemble placement. To earn academic credit toward their degree, music students must earn a grade of "C" or higher in all music courses.

### Accreditation

This Music Minor curriculum has been approved by the National Association of Schools of Music (NASM).

## **Program Course Requirements**

### **Required Courses (18 Credit Hours)**

- MUSI 1111: Aural Skills I
- MUSI 2212: Aural Skills II
- MUSI 1121: Music Theory I
- MUSI 2122: Music Theory II
- MUAP 1101: Music Symposium (taken 4 times, see note below)
- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons
- MUAP 4412: Applied Lessons

### ***Choir or Small Ensemble***

Students must select one course from the following list of 1 credit hour courses and repeat the course for a total of 2 Credit hours.

- MUSI 3200: Gospel Choir
- MUSI 3201: Men's Ensemble
- MUSI 3202: Women's Choir
- MUSI 3210: Classical Guitar Ensemble
- MUSI 3211: Jazz Guitar Ensemble
- MUSI 3212: Jazz Combo
- MUSI 3220: Percussion Ensemble
- MUSI 3221: String Ensemble
- MUSI 3222: Woodwind Ensemble
- MUSI 3223: Brass Ensemble
- MUSI 3224: Piano Ensemble
- MUSI 3225: Mixed Chamber

### **Large Ensembles**

Students will complete 4 credit hours of large ensembles (MUSI 3343–3349). Ensembles can be repeated for credit. Note: Placement in a large ensemble is determined by ensemble instructor.

- MUSI 3343: Jazz Ensemble
- MUSI 3344: University Philharmonic Orchestra
- MUSI 3345: Wind Symphony
- MUSI 3346: Chamber Singers
- MUSI 3347: Wind Ensemble
- MUSI 3348: Symphony Orchestra
- MUSI 3349: Chorale

*Note: Music minors will be required to pass with a satisfactory grade (S) four semesters of MUAP 1101: Music Symposium, to be eligible to graduate. They must be enrolled every semester in this course until the requirement is accomplished.*

**Program Total (18 Credit Hours)**

programs in the

**College of Science and Mathematics**

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# **Biochemistry, B.S.**

## **Program Description**

The Bachelor of Science with a major in Biochemistry is designed to prepare students for graduate school in biochemistry or for a variety of professional schools including medical, veterinary, and dental. This degree also provides training for BS level biochemist positions in industrial, academic, and government laboratories.

The Department of Chemistry and Biochemistry provides American Chemical Society (ACS) approved programs. Students completing a baccalaureate degree that meets the ACS Guidelines will receive an ACS-certified degree. See an academic advisor for more information on the requirements for ACS certification.

This program is a part of the College of Science and Mathematics.

### Accreditation

This is an American Chemical Society (ACS) approved program.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

*General Education Core Curriculum Requirements Specific to This Major.*

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1. Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
CHEM 1212:Principles of Chemistry II  
CHEM 1212L:Principles of Chemistry Laboratory II  
CHEM 2800:Quantitative Analytical Chemistry  
CHEM 2800L:Quantitative Analytical Chemistry Laboratory  
MATH 2202:Calculus II

One credit hour from Area D1

One credit hour from Area D2

### **Major Requirements (27 Credit Hours)**

CHEM 3105:Inorganic Chemistry  
CHEM 3105L:Inorganic Synthesis  
CHEM 3361:Modern Organic Chemistry I  
CHEM 3361L:Modern Organic Chemistry Lab I  
CHEM 3362:Modern Organic Chemistry II  
CHEM 3362L:Modern Organic Chemistry Lab II  
CHEM 3501:Biochemistry I: Structure and Function of Biological Macromolecules  
CHEM 3501L:Biochemistry I Laboratory  
CHEM 3502:Biochemistry II: Metabolism  
CHEM 3512L:Biochemistry II laboratory  
CHEM 3601:Physical Chemistry: Quantum Chemistry and Spectroscopy  
CHEM 4500K:Methods in Nucleic Acid and Protein Biochemistry

### **Supporting Discipline Courses (23 Credit Hours)**

SCM 2000:Culture and Success in Science and Mathematics  
BIOL 1107:Principles of Biology I  
BIOL 1107L:Principles of Biology I Laboratory  
BIOL 1108:Principles of Biology II  
BIOL 1108L:Principles of Biology II Laboratory  
BIOL 3300:Genetics  
BIOL 3300L:Genetics Laboratory  
PHYS 2211:Principles of Physics I  
PHYS 2211L:Principles of Physics Laboratory I  
PHYS 2212:Principles of Physics II

PHYS 2212L:Principles of Physics Laboratory II

Note: If BIOL 1107/1107L/1108/1108L or PHYS2211/2122L/2212/2212L or its equivalency were taken in Area D2, choose any course from these prefixes: ASTR, BIOL, CHEM, EDSM, ENVS, GEOG, GEOL, HON, ISCI, MATH, PHYS (Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L), SCI, STAT, or other course approved by the department chair.

### **Supporting Discipline Electives (9 Credit Hours)**

Select nine credit hours from the following:

BIOL 3301K:Introduction to Biotechnology

BIOL 3317:Pathophysiology

BIOL 3327:Medical Genetics

BIOL 3340:Microbiology

BIOL 3400:Drugs and Biologics: From Conception to Regulatory Approval

BIOL 3410:Cell Biology

BIOL 4100K:Molecular Genetics

BIOL 4411K:Stem Cell Technology

BIOL 4412K:Cell and Tissue Culture

BIOL 4420K:Plant Physiology

BIOL 4440:Toxicology

BIOL 4455:Case Studies in Forensic Science

BIOL 4460K:Medical Microbiology

BIOL 4465:Immunology

BIOL 4475:Virology

BIOL 4490:Special Topics in Biology

BIOL 4500K:Bioinformatics I

BIOL 4510K:Bioinformatics II

BIOL 4550:Cancer Biology

BIOL 4630:Advanced Topics in Cell & Molecular Biology

STAT 3125:Biostatistics

Any 3000–4000 level CHEM course(s)

### **Free Electives (1 Credit Hour)**

### **Program Total (120 Credit Hours)**

# **Biology, B.S.**

## **Program Description**

The program of study in Biology leading to a Bachelor of Science degree provides students with the opportunity to pursue biology with the necessary specialization to succeed in a wide array of post-baccalaureate opportunities. Biology is a stepping stone for success in local biotechnology industries, in helping the state navigate biological interactions with people, in helping students into research careers. We are a diverse and inclusive program that can help you get where you want to be.

### *Human Health Concentration:*

Our concentration in Human Health can support students interested careers in health care with a meaningful focus in their educational opportunities. Whether you are interested in giving back as a medical doctor, a dentist, an ophthalmologist, or a myriad other individuals helping people feel better, the courses in this concentration can give you a strong foundation for your further education.

This program is a part of the College of Science and Mathematics.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major:***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/CHEM 1211L , CHEM 1212/CHEM 1212L, PHYS 1111/PHYS 1111L\* ,

PHYS 1112/PHYS 1112L, PHYS 2211/PHYS 2211L\*, PHYS 2212/PHYS 2212L, BIOL 1107/BIOL 1107L, or BIOL 1108/BIOL 1108L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

BIOL 1107:Principles of Biology I  
BIOL 1107L:Principles of Biology I Laboratory  
BIOL 1108:Principles of Biology II  
BIOL 1108L:Principles of Biology II Laboratory  
CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
CHEM 1212:Principles of Chemistry II  
CHEM 1212L:Principles of Chemistry Laboratory II  
Two credit hours carried over from Area D

### **Major Requirements (22 Credit Hours)**

#### ***Biology Requirements (16 Credit Hours)***

BIOL 3300:Genetics  
BIOL 3300L:Genetics Laboratory  
BIOL 3370:Ecology  
BIOL 3370L:Ecology Laboratory  
BIOL 3410:Cell Biology  
BIOL 4399:Seminar may only be taken once for credit.  
CHEM 3361:Modern Organic Chemistry I  
CHEM 3361L:Modern Organic Chemistry Lab I

#### ***Science and Mathematics Requirement (3 Credit Hours)***

SCM 2000:Culture and Success in Science and Mathematics

#### ***Statistics Requirement (3 Credit Hours)***

Select one of the following for 3 credit hours:

IET 2227:Probability and Statistics I  
PSYC 3000:Statistical Applications in Psychological Science  
STAT 1401:Elementary Statistics  
STAT 3125:Biostatistics

## **Concentration Requirement (29 credit hours)**

### ***General Biology Concentration***

Select any 3000- or 4000-level BIOL electives.

Electives must take one additional laboratory course (K or L classes)

May include a maximum of 8 research credits (BIOL 3110L, BIOL 4400, BIOL 4402, BIOL 4450, CHEM 3000, CHEM 4100, CHEM 4120L, CHEM 4400, RES 4000, RES 4100)

May include a maximum of 4 internship credits (BIOL 3398)

May include a maximum of 9 credits of any non-BIOL 3000 or 4000-level course

### ***Human Health Concentration***

Choose 15 credit hours from the following list that focus on Human Health: Must take one additional laboratory course (K or L classes)

BIOL 3317:Pathophysiology

BIOL 3327:Medical Genetics

BIOL 3338K:Histology

BIOL 3340:Microbiology

BIOL 3340L:Microbiology Laboratory

BIOL 3375K:Behavioral Biology

BIOL 4115:Parasitology

BIOL 4350K:Comparative Vertebrate Anatomy

BIOL 4390K:Developmental Biology

BIOL 4431:Human Physiology

BIOL 4431L:Human Physiology Laboratory

BIOL 4440:Toxicology

BIOL 4460K:Medical Microbiology

BIOL 4465:Immunology

BIOL 4475:Virology

BIOL 4486:Bioethics

BIOL 4550:Cancer Biology

BIOL 4610:Advanced Topics in Anatomy & Physiology

CHEM 3010:Medicinal Chemistry

CHEM 3030:Pharmaceutical Analytical Chemistry

CHEM 3030L:Pharmaceutical Analytical Chemistry Laboratory

CHEM 3362:Modern Organic Chemistry II

CHEM 3362L:Modern Organic Chemistry Lab II

CHEM 3500:Biochemistry

CHEM 3500L:Biochemistry Laboratory

STAT 4025:Clinical Trial Design

STAT 4125:Analysis of Human Studies

### *Concentration Electives*

Choose 14 credit hours of any 3000- or 4000-level BIOL electives\* \*Elective choices may include a maximum of 8 research credits (BIOL 3110L, BIOL 4400, BIOL 4402, BIOL 4450, CHEM 4100, CHEM 4120L, CHEM 4400, RES 4000, RES 4100) \*Elective choices may include a maximum of 4 internship credits (BIOL 3398) \*Elective Choices may include a maximum of 9 credits of any non-BIOL 3000 or 4000-level course

### **Free Electives (9 Credit Hours)**

Any courses in university curriculum.

### ***Program Total (120 Credit Hours)***

# **Chemistry, B.S.**

## **Program Description**

The Department of Chemistry and Biochemistry provides American Chemical Society (ACS) approved programs. Students completing a baccalaureate degree that meets the ACS Guidelines will receive an ACS-certified degree. All of the degree concentrations could include the course work and experience necessary to satisfy requirements for ACS certification with proper choice of supporting discipline and elective credits. See an academic advisor or the Chemistry department for more information on the requirements for ACS certification and other aspects of these degree concentrations.

**ACS Certified Chemistry Concentration:** This concentration is designed to prepare students for graduate school in chemistry or the professional workforce and will satisfy the requirements for American Chemical Society certified Bachelor's Degree Programs.

**Integrative Chemistry Concentration:** This concentration is designed to allow flexibility in choosing elective credits that support individual career goals and/or a KSU Minor.

**Forensic Chemistry Concentration:** This concentration is designed to prepare students for graduate school or a career in the forensic field.

**Pharmaceutical Chemistry Concentration:** This concentration is designed to prepare students for pharmacy school while they work towards a degree in Chemistry. Students may also go to graduate school or work in the pharmaceutical industry after completing this concentration. As pharmacy school prerequisites change, students need to be diligent in ensuring they are meeting the requirements of the pharmacy school they wish to attend. The streamlining of both the requirements for a degree in chemistry and the needed prerequisites is best done in consultation with an academic advisor.

This program is a part of the College of Science and Mathematics.

### Accreditation

This is an American Chemical Society (ACS) approved program.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

#### ***General Education Core Curriculum Requirements Specific to This Major:***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.  
Science and Engineering Majors must take two four-hour laboratory sciences in Area D2.  
Students must choose from CHEM 1211/CHEM 1211L, CHEM 1212/CHEM 1212L, PHYS 1111/PHYS 1111L\*,  
PHYS 1112/PHYS 1112L, PHYS 2211/PHYS 2211L\*, PHYS 2212/PHYS 2212L, BIOL 1107/BIOL 1107L, or BIOL  
1108/BIOL 1108L. \*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS  
2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
CHEM 1212:Principles of Chemistry II  
CHEM 1212L:Principles of Chemistry Laboratory II  
CHEM 2800:Quantitative Analytical Chemistry  
CHEM 2800L:Quantitative Analytical Chemistry Laboratory  
MATH 2202:Calculus II

One credit hour from Area D1

One credit hour from Area D2

### **Major Requirements (33 Credit Hours)**

#### ***Lower Division Major Requirements (11 Credit Hours)***

SCM 2000:Culture and Success in Science and Mathematics  
PHYS 2211:Principles of Physics I  
PHYS 2211L:Principles of Physics Laboratory I  
PHYS 2212:Principles of Physics II  
PHYS 2212L:Principles of Physics Laboratory II

\*If PHYS 2211/2122L/2212/2212L or its equivalency were taken in Area D2, choose any  
course from these prefixes: ASTR, BIOL, CHEM, EDSM, ENVS, GEOG, GEOL, HON, ISCI, MATH,

PHYS (Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L), SCI, STAT, or other course approved by the department chair.

**Upper Division Major Requirements (22 Credit Hours)**

CHEM 3000:Chemical Literature  
CHEM 3105:Inorganic Chemistry  
CHEM 3105L:Inorganic Synthesis  
CHEM 3361:Modern Organic Chemistry I  
CHEM 3361L:Modern Organic Chemistry Lab I  
CHEM 3362:Modern Organic Chemistry II  
CHEM 3362L:Modern Organic Chemistry Lab II  
CHEM 3500:Biochemistry \*  
CHEM 3601:Physical Chemistry: Quantum Chemistry and Spectroscopy  
CHEM 4310L:Advanced Analytical Chemistry Lab

\*Students may substitute CHEM 3501 and CHEM 3502 for CHEM 3500, in which case CHEM 3502 will count as a 3000/4000 level elective.

**Concentration Requirement (27 Credit Hours)**

**ACS Certified Chemistry Concentration (27 Credit Hours)**

*Required Courses (14 Credits)*

CHEM 3500L:Biochemistry Laboratory  
CHEM 3601L:Physical Chemistry Lab  
CHEM 3602:Physical Chemistry: Thermodynamics and Reaction Kinetics  
CHEM 4300:Instrumental Analytical Chemistry

Any 3000/4000-level CHEM course of at least three credit hours.

Select two credits from one of the following:

CHEM 4100:Directed Applied Research  
or

CHEM 4120L:Research Methods Laboratory

*Supporting Discipline Courses (7 Credit Hours)*

Any 3000-4000 level course from these prefixes: ASTR, BIOL, CHEM, EDMS, ENVS, GEOG, GEOL, HON, ISCI, MATH, PHYS, SCI, STAT, or other 3000-4000 level course approved by the department chair

MATH 2203:Calculus III

Free Electives (6 Credit Hours)

Any course in university curriculum.

***Integrative Chemistry Concentration (27 Credit Hours)***

*Required Courses (6 Credit Hours)*

Any 3000/4000-level CHEM course of at least three credit hours.

Select one of the following courses for 3 credit hours:

CHEM 3030:Pharmaceutical Analytical Chemistry

or

CHEM 3800:Forensic Analytical Chemistry

or

CHEM 4300:Instrumental Analytical Chemistry

*Integrative Electives (12 Credit Hours)*

12 credit hours must be at the 3000-4000 level. Courses from any department (including chemistry) should be taken that integrate the student's chemical interests and career goals. This area could be used for credit toward a KSU Minor program of study.

*Free Electives (9 Credit Hours)*

Any course in university curriculum.

***Forensic Chemistry Concentration (27 Credit Hours)***

*Required Courses (9 Credit Hours)*

CHEM 3500L:Biochemistry Laboratory

CHEM 3800:Forensic Analytical Chemistry

CHEM 4300:Instrumental Analytical Chemistry

Select two credits from one of the following:

CHEM 3398:Internship

or

CHEM 4100:Directed Applied Research

or

CHEM 4120L:Research Methods Laboratory

*Supporting Discipline Courses (18 Credit Hours)*

CRJU 1101:Foundations of Criminal Justice

CRJU 3301:Research Methods in Criminal Justice

or

CRJU 3320:Criminal Investigation

SOCI 4432:Criminology

Any 3000/4000 level STAT course

Any 3000/4000 level courses from any department (including chemistry) should be taken that integrate the student's chemical interests and career goals.

### ***Pharmaceutical Chemistry Concentration (27 Credit Hours)***

#### *Required Courses (7 Credit Hours)*

CHEM 3010:Medicinal Chemistry

CHEM 3030:Pharmaceutical Analytical Chemistry

CHEM 3500L:Biochemistry Laboratory

#### *Supporting Discipline Courses (18 Credit Hours)*

STAT 3125:Biostatistics

Choose 7 hours from any 3000-4000 level courses CHEM, BIOL, MATH, STAT, PSYC, CRJU, ENVS, PHYS, SCI, MKTG, MGT or other 3000-4000 level course approved by the department chair.

#### Lower-Division Options

Select 8 hours from the following:

BIOL 1107:Principles of Biology I

BIOL 1107L:Principles of Biology I Laboratory

BIOL 1108:Principles of Biology II

BIOL 1108L:Principles of Biology II Laboratory

BIOL 2251:Anatomy & Physiology I

BIOL 2251L:Anatomy & Physiology I Laboratory

BIOL 2252:Anatomy & Physiology II

BIOL 2252L:Anatomy & Physiology II Laboratory

#### *Free Electives (2 Credit Hours)*

Any course in university curriculum.

### ***Program Total (120 Credit Hours)***

# **Environmental Science, B.S.**

## **Program Description**

Environmental Science is a broad and interdisciplinary field primarily concerned with the interrelationships between the lithosphere, the hydrosphere, the atmosphere, and the biosphere. It integrates diverse scientific disciplines such as biology, chemistry, physics, geology, hydrology, atmospheric science, oceanography, and toxicology. Environmental science also touches on many other disciplines such as engineering, psychology, economics, communications, business, and public policy. Environmental science is very inclusive, because we all interact with the environment every single day and it is so critical to our survival.

Kennesaw State University's Bachelor of Science degree with a major in Environmental Science provides students a truly interdisciplinary program drawing on faculty expertise and existing courses in the natural sciences, engineering technology, policy, and law. Students completing this program are prepared to enter into industry, consulting, state agencies, or advanced professional programs in the environmental sciences. Graduates will be educated in assessment and control of pollutants, remediation and restoration of toxic sites, sustainable development, management and conservation of natural resources, and conducting environmental research.

This program is a part of the College of Science and Mathematics.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **General Education Core Curriculum Requirements Specific to This Major**

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

Two credit hours carried over from Area D

BIOL 1107:Principles of Biology I

BIOL 1107L:Principles of Biology I Laboratory

BIOL 1108:Principles of Biology II

BIOL 1108L:Principles of Biology II Laboratory

PHYS 1111:Introductory Physics I

PHYS 1111L:Introductory Physics Laboratory I

or

PHYS 2211:Principles of Physics I

PHYS 2211L:Principles of Physics Laboratory I

GEOL 1121K:Introductory Geosciences I

### **Major Requirements (54 Credit Hours)**

#### **Environmental Science Core Courses (20 Credit Hours)**

ENVS 2202K:Introduction to Environmental Science

BIOL 3370:Ecology

BIOL 3370L:Ecology Laboratory

BIOL 3310K:Invertebrate Zoology

or

BIOL 3315K:Vertebrate Zoology

or

BIOL 4422K:Plant Ecology

ENVS 4300:Environmental Ethics

ENVS 3100K:Soil & Water Science

ENVS 4399:Environmental Science Seminar

#### **Statistics Requirements (3 Credit Hours)**

STAT 3125:Biostatistics

#### **Chemistry Requirements (7 Credit Hours)**

CHEM 3361:Modern Organic Chemistry I

CHEM 3361L:Modern Organic Chemistry Lab I  
CHEM 3700:Environmental Chemistry

**Political Science Requirement (3 Credit Hours)**

POLS 3356:U.S. Environmental Policy & Politics  
or  
POLS 4456:International Environmental Policy  
or  
ENVS 3450:Conservation Biology

**GIS Requirement (3 Credit Hours)**

GEOG 3315:Introduction to Geographic Information Systems

**College of Science and Mathematics Requirement (3 credit hours)**

SCM 2000:Culture and Success in Science and Mathematics

**Science Requirement (0-8 Credit Hours)**

If CHEM 1211/L and/or 1212/L were taken in Area D2, then students will gain those hours as environmental science elective credit in the section below.

CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
CHEM 1212:Principles of Chemistry II  
CHEM 1212L:Principles of Chemistry Laboratory II

**Environmental Science Electives (7-15 Credit Hours)**

Note: A maximum of eight credit hours from BIOL 3110L, BIOL 4400, ENVS 3110L, or ENVS 4400 can be used to satisfy environmental science electives. A maximum of four credit hours of ENVS 3398 may be used to satisfy environmental science electives. Choose from the list below:

BIOL 3110L:Directed Methods  
BIOL 3310K:Invertebrate Zoology  
BIOL 3315K:Vertebrate Zoology  
BIOL 3340:Microbiology  
BIOL 3250K:Ecosystem Ecology  
BIOL 3371K:Freshwater Ecology  
BIOL 3650:Marine Biology  
BIOL 3700K:Ichthyology  
BIOL 3372K:Aquatic Biodiversity  
BIOL 3320K:Plant Morphology  
BIOL 3380:Evolutionary Biology  
BIOL 4115:Parasitology  
BIOL 4400:Directed Study

BIOL 4422K:Plant Ecology  
BIOL 4242K:Ecological Genetics  
CHEM 2800:Quantitative Analytical Chemistry  
CHEM 2800L:Quantitative Analytical Chemistry Laboratory  
CHEM 3701:Atmospheric Chemistry  
ENVS 3110L:Directed Methods  
ENVS 3150K:Environmental Toxicology  
ENVS 3350:Oceanography  
ENVS 3398:Internship \* Maximum four credits can be applied to degree  
ENVS 3720:Sustainability at KSU  
ENVS 3730:Natural Resource Management  
ENVS 3450:Conservation Biology  
ENVS 4000K:Wetlands and Mitigation  
ENVS 4400:Directed Study  
GEOG 3305:Introduction to Cartographic Processes \*\*  
GEOG 3710:Local & Global Sustainability  
GEOG 3800:Climatology  
GEOG 3850:Global Climate Change  
GEOG 4405:Advanced Geographic Information Systems \*\*  
GEOG 4410:Introduction to Remote Sensing \*\*  
GEOG 4500:Advanced Topics in Geospatial Science \*\*  
GEOG 4700:Geomorphology  
GIS 4415:Practicum in Geographic Information Systems \*\*  
DATA 3010:Computer Applications of Statistics  
STAT 3130:Statistical Methods II  
STAT 4120:Applied Experimental Design  
SURV 3320:Photogrammetry and Drone Analysis \*\*  
SURV 3451:Terrain Analysis \*\*

\*\*Students interested in completing the GIS Certificate will need to complete four additional courses. See certificate below for details. Geographic Information Sciences Certificate

### **Free Electives (6 Credit Hours)**

Any credit courses in the university curriculum

### **Program Total (120 Credit Hours)**

# **Mathematics, B.S.**

## **Program Description**

The program of study leading to the Bachelor of Science with a major in Mathematics offers formal training in problem solving, critical and quantitative thinking and logical argument. It also provides a solid foundation in the application of analytical, geometrical, and numerical methods to real world problems. This program is highly customizable. In addition to a core set of mathematics courses, the program also requires completion of a concentration or minor that prepares the student for graduate study or for employment in various mathematics and statistics-related fields. The goal of this major is to assist students in acquiring both a deep understanding of mathematics and an ability to apply it to the science and industry.

This program is a part of the College of Science and Mathematics.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major:***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L\*, PHYS 2211/L\*, PHYS 2212/L\*, BIOL 1107/L, or BIOL 1108/L.

\* Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

MATH 2202:Calculus II  
MATH 2203:Calculus III  
MATH 2306:Ordinary Differential Equations  
MATH 2390:Introduction to Logic, Set Theory, and Proofs  
CSE 1321:Programming and Problem Solving I  
CSE 1321L:Programming and Problem Solving I Laboratory

### **Major Requirements (26 Credit Hours)**

Two carryover hours from General Education Area D requirements.

SCM 2000:Culture and Success in Science and Mathematics  
MATH 3332:Probability Theory  
MATH 3204:Calculus IV  
MATH 3260:Linear Algebra I  
MATH 4361:Modern Algebra I  
MATH 4381:Real Analysis I  
MATH 3261:Numerical Methods I

or

MATH 3262:Mathematical Modeling  
MATH 3322:Graph Theory

or

MATH 3324:Enumerative Combinatorics

### **Concentration (18 Credit Hours)**

#### ***Discrete Mathematics and Operations Research***

MATH 3322:Graph Theory

or

MATH 3324:Enumerative Combinatorics  
MATH 3272:Introduction to Linear Programming

or

ISYE 3400:Deterministic Operations Research

ISYE 3600:Probability and Statistics II

or

MATH 4260:Linear Algebra II

MATH 4362:Modern Algebra II

or

MATH 4382:Real Analysis II

ISYE 4200:Engineering Optimization: Stochastic Decision Models

*Additional Upper Division Elective*

Select any additional course of at least three credits from among the following:

CRJU 3301:Research Methods in Criminal Justice

CS 4306:Algorithm Analysis

FIN 3100:Principles of Finance

IS 3100:Information Systems Management

ISYE 4500:System Modeling & Simulation

ISYE 3400:Deterministic Operations Research

ISYE 3600:Probability and Statistics II

SOCI 4432:Criminology

Any 3000 or 4000 level MATH or STAT course

**Pure Mathematics**

MATH 4260:Linear Algebra II

MATH 4362:Modern Algebra II

MATH 4382:Real Analysis II

MATH 4391:Complex Analysis

MATH 4596:Topology

or

MATH 3496:Elementary Number Theory

*Additional Upper Division Elective*

Select any additional course of at least three credits from the among the following:

CRJU 3301:Research Methods in Criminal Justice

CS 4306:Algorithm Analysis

FIN 3100:Principles of Finance

IS 3100:Information Systems Management

ISYE 3400:Deterministic Operations Research

ISYE 3600:Probability and Statistics II

ISYE 4200:Engineering Optimization: Stochastic Decision Models

ISYE 4500:System Modeling & Simulation

SOCI 4432:Criminology

Any 3000 or 4000 level MATH or STAT course

***Computational and Applied Mathematics***

MATH 3261:Numerical Methods I

or

MATH 3262:Mathematical Modeling

MATH 4260:Linear Algebra II

MATH 4310:Partial Differential Equations

MATH 4391:Complex Analysis

MATH 4362:Modern Algebra II

or

MATH 4382:Real Analysis II

***Additional Upper Division Elective***

Select any additional course of at least three credits from among the following:

CRJU 3301:Research Methods in Criminal Justice

CS 4306:Algorithm Analysis

FIN 3100:Principles of Finance

IS 3100:Information Systems Management

ISYE 4500:System Modeling & Simulation

ISYE 3400:Deterministic Operations Research

ISYE 3600:Probability and Statistics II

ISYE 4200:Engineering Optimization: Stochastic Decision Models

SOCI 4432:Criminology

Any 3000 or 4000 level MATH or STAT course

***Statistics***

Students may declare the Data Science and Analytics Minor as part of the below concentration.

DATA 3010:Computer Applications of Statistics

STAT 3120:Statistical Methods I

or

STAT 3125:Biostatistics

STAT 3130:Statistical Methods II

*Statistics Electives*

Select two of the following for a total of six credits:

IS 4540:Data Mining  
STAT 4025:Clinical Trial Design  
DATA 4030:Programming in R  
STAT 4120:Applied Experimental Design  
STAT 4125:Analysis of Human Studies  
STAT 4210:Applied Regression Analysis  
DATA 4310:Statistical Data Mining  
DATA 4330:Applied Binary Classification  
DATA 4400:Directed Study  
DATA 4490:Special Topics in Statistics

One of the electives may consist of three credit hours of either one of the following:

DATA 3396:Cooperative Study  
or

DATA 3398:Internship

*Additional Upper Division Elective*

Select any additional course of at least three credits from among the following:

CRJU 3301:Research Methods in Criminal Justice  
CS 4306:Algorithm Analysis  
FIN 3100:Principles of Finance  
IS 3100:Information Systems Management  
ISYE 3400:Deterministic Operations Research  
ISYE 3600:Probability and Statistics II  
ISYE 4200:Engineering Optimization: Stochastic Decision Models  
ISYE 4500:System Modeling & Simulation  
SOC 4432:Criminology  
Any 3000 or 4000 level MATH or STAT course

**Related Studies (9 Credit Hours)**

Students select nine credits of 2000 or above coursework from the following prefixes: ACCT, AADS, AMST, ANTH, ATT, ACST, ARCH, ANIM, ART, ARED, ARH, ASIA, BIOL, BUSA, BLAW, CHEM, CHIN, CE, CET, COM, JOUR, MENT, ORGC, PR, CPE, CGDD, CS, CSE, CM, CRJU, CYBR, DATA, DANC, ECE, ECON, EDUC, EDMG, EDRD, ECET, EE, ENGR, EDG, ENGL, ENVS, EUST, ES, FILM, FIN, FTA, HEBR, FREN,

GWST, GEOG, GRMN, HPE, HIST, HON. HMGT, HS, IET, ISYE, IS, IT, IAD, HIS, INTS, ISD, STS, EURO, ITAL, JPN, KOR, ICT, LATN, LRS, MATH, ME, MET, MTRE, MUSI. PAX, PERS, PHIL, PHYS, POLS. PORT, PSYC, RELS, REET, RUSS, SOCI, SWE, SPAN, STAT, SA, SURV, TCOM, or WRIT.

**Free Electives (7 Credit Hours)**

Students may take any course in the university catalog.

***Program Total (120 Credit Hours)***

# **Physics, B.S.**

## **Program Description**

The program of study in physics leading to a Bachelor of Science degree provides students with the opportunity to pursue a major field of concentration in physics with the necessary specialization to succeed in a wide array of post-baccalaureate opportunities. The following concentrations include the course work and experience necessary for student success. See an academic advisor for specific course information and important aspects of each of these concentrations.

**General Physics Concentration:** Physics is the study of matter, motion, force, and energy across space and time. Physicists develop theories and perform experiments to understand the physical world including everything from the elementary constituents of a proton, electric and magnetic phenomena, lasers, high tech materials, and black holes. The general physics concentration will provide students with a broad conceptual understanding of physical phenomena and technical problem-solving skills. Students who earn bachelor's degrees in physics are well prepared to pursue advanced graduate degrees in physics or related areas of study. It also prepares students for 21st-century careers in government and industry as professional physicists.

**Electrical Engineering Concentration:** This concentration in electrical engineering combines the study of physics with electrical engineering by further broadening knowledge and skills. In addition, a degree with an electrical engineering concentration will increase the marketability of the physics student.

**Mechanical Engineering Concentration:** This concentration in mechanical engineering combines the study of physics with mechanical engineering. This curriculum design helps to further broaden the students' analytical skills. In addition, a degree with a mechanical engineering concentration will increase the marketability of the physics student.

This program is a part of the College of Science and Mathematics.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

#### ***General Education Core Curriculum Requirements Specific to This Major:***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, BIOL 1107/L, or BIOL 1108/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

PHYS 221:Principles of Physics I

PHYS 221L:Principles of Physics Laboratory I

PHYS 2212:Principles of Physics II

PHYS 2212L:Principles of Physics Laboratory II

MATH 2202:Calculus II

MATH 2203:Calculus III

Two carryover hour from General Education requirements

### **Math Requirement (3 Credit hours)**

MATH 2306:Ordinary Differential Equations

### **Science and Mathematics Requirement (3 Credit Hours)**

SCM 2000:Culture and Success in Science and Mathematics

OR

PHYS 2900:Undergraduate Research Experience in Physics

### **Upper Division Core Requirements (12 Credit Hours)**

PHYS 3210:Mechanics I

PHYS 3220:Electromagnetism 1

PHYS 3260:Mathematical Physics

PHYS 3710:Modern Physics

### **Concentrations (42 Credit Hours)**

## **General Physics Concentration**

### *Required Physics Courses (26 Credit Hours)*

PHYS 4210:Quantum Mechanics I

Any 3000- or 4000-level of PHYS courses for 23 credit hours\*. \*May include a maximum of 8 credits of any non-PHYS 3000 or 4000-level course. \*May include a maximum of 6 credits of PHYS 3110 or 4400

### *Required Physics Laboratory (6 Credit Hours)*

Any PHYS "K" or PHYS "L" laboratory courses for 6 credit hours\* \*May include a maximum of 3 credits from PHYS 3110

### *Free Electives (10 Credit Hours)*

Any courses in the university curriculum NOTE: These 10 credit hours of free electives combined with any 8 credit hours of 3000- and 4000- level courses would allow a students to take a minor in any discipline at KSU.

## **Electrical Engineering Concentration**

### *Required Physics Courses (9 Credit Hours)*

PHYS 4240:Solid State Physics

PHYS 3500K:Computational Physics I

Any PHYS "K" or PHYS "L" laboratory courses for 3 Credit Hours of laboratory courses \*

\*May include a maximum of 3 credits from either PHYS 3110.

### *Required Electrical Engineering Courses (25 Credit Hours)*

ENGR 2214:Engineering Mechanics - Statics

EE 2301:Circuit Analysis I

EE 2302:Circuit Analysis II

EE 2501:Digital Logic Design

EE 3401:Engineering Electronics

EE 3701:Signals and Systems

EE 4201:Control Systems

### *Upper Division Electives (8 Credit Hours)*

Any 3000- or 4000-level courses

## ***Mechanical Engineering Concentration***

### *Required Physics Courses (9 credit hours)*

PHYS 4230:Thermal Physics

PHYS 3410K:Electronics Laboratory

PHYS 3500K:Computational Physics I

### *Required Mechanical Engineering Courses (23 Credit Hours)*

EDG 1211:Engineering Graphics I

ENGR 2214:Engineering Mechanics - Statics

ENGR 3122:Engineering Mechanics - Dynamics

ENGR 3131:Strength of Materials

ENGR 3132:Strength of Materials Lab

ENGR 3343:Fluid Mechanics

ENGR 3345:Fluid Mechanics Laboratory

ME 4141:Machine Design I

ME 3101:Materials Science and Engineering

### *Upper Division Electives (10 Credit Hours)*

Any 3000- or 4000-level courses

## ***Program Total (120 Credit Hours)***

# **Biology Minor**

## **Contact Information**

Website: <https://csm.kennesaw.edu/biology-minor.php>

Phone: (470) 578-6168

## **Program Description**

A minor in biology is an excellent fit for students interested in integrating the life sciences into their academic pursuit. From students pursuing psychiatry to those interested in biophysics, the biology minor expands a student's potential to tackle the large, integrative questions of our day.

## **Program Course Requirements**

### **Requirements**

To be eligible for a minor in Biology, the student must complete:

A minimum of 18 semester hours of BIOL

9 of the 18 hours in BIOL must be above the 2XXX level

Students who use BIOL 1107/1107L and/or BIOL 1108/1108L to satisfy Core D requirements cannot use these courses to satisfy requirements of the minor.

### ***Program Total (18 Credit Hours)***

# **Chemistry Minor**

## **Contact Information**

Website: <http://csm.kennesaw.edu/chemistry-biochemistry/programs/chemistry-minor.php>

Phone: (470) 578-6159

Email: [chem@kennesaw.edu](mailto:chem@kennesaw.edu)

## **Program Description**

The Chemistry minor consists of 16 semester hours. Courses taken in Core Area F (lower division major requirements) may be counted as coursework in the minor. Courses taken to satisfy Core Areas A through E (general education) may not be counted as coursework in the minor. Students must earn a grade of at least "C" in all course work applicable to a formal minor. When a student's major and minor programs require the same courses, there is no limit on duplicate credit.

We require that a student develop the minor courses with a chemistry advisor and with the approval of the student's major advisor. Biochemistry majors are excluded from earning a minor in Chemistry. At least 6 hours of chemistry must be taken at KSU to satisfy the minor upper-division requirement.

At a minimum, the following courses must be taken as part of a student's course of study for a student to earn a minor in Chemistry.

## **Program Course Requirements**

CHEM 2800:Quantitative Analytical Chemistry

CHEM 2800L:Quantitative Analytical Chemistry Laboratory

CHEM 3361:Modern Organic Chemistry I

CHEM 3361L:Modern Organic Chemistry Lab I

Any 3000- or 4000-level CHEM courses to make the total number of CHEM credit hours equal to 16.

## ***Program Total (16 Credit Hours)***

# **Environmental Science Minor**

## **Contact Information**

Website: <http://csm.kennesaw.edu/eeob/programs/environmental-science-minor.php>

Phone: (470) 578-5100

## **Program Description**

Environmental Science is an interdisciplinary field that examines relationships between the human and physical landscapes. It recognizes that the two landscapes are inextricably linked, and that altering one will affect the other. Topics such as global climate change, deforestation, wetland degradation, water, soil and air pollution, sustainability, economics, ethics, policies and laws, history, and literature all fall under the domain of environmental studies.

## **Program Course Requirements**

### **Required Courses (8 Credit Hours)**

ENVS 2202K:Introduction to Environmental Science

BIOL 3370:Ecology

BIOL 3370L:Ecology Laboratory

### **Elective Courses (7 Credit Hours)**

BIOL 3371K:Freshwater Ecology

BIOL 3650:Marine Biology

BIOL 4431:Human Physiology

BIOL 4486:Bioethics

CHEM 3700:Environmental Chemistry

CHEM 3710L:Environmental Chemistry Lab

ENVS 3100K:Soil & Water Science

ENVS 3350:Oceanography

GEOG 3315:Introduction to Geographic Information Systems

POLS 3356:U.S. Environmental Policy & Politics

ENVS 4300:Environmental Ethics

### **Program Total (15 Credit Hours)**

# **Mathematics Minor**

## **Contact Information**

Website: <https://csm.kennesaw.edu/mathematics/degrees-programs/mathematics-minor.php>

Phone: (470) 678-6327

## **Program Description**

The Minor in Mathematics program consists of fulfilling the general Kennesaw State University requirements for another degree as well as the requirements of the minor. The Math minor documents the student's in-depth knowledge of mathematics and analytical reasoning skills that the study of mathematics promotes.

## **Program Course Requirements**

### **Required Courses (7 Credit Hours)**

MATH 2203:Calculus III

MATH 3260:Linear Algebra I

### **Elective Courses (9 Credit Hours)**

Complete 9 additional hours of MATH or STAT courses from the list below, with at least 6 of these hours at the 3000 level or above:

MATH 2306:Ordinary Differential Equations

MATH 2335:Numerical Methods for Engineers

MATH 2345:Discrete Mathematics

MATH 2390:Introduction to Logic, Set Theory, and Proofs

MATH 3000:Software of Mathematics

MATH 3204:Calculus IV

MATH 3261:Numerical Methods I

MATH 3262:Mathematical Modeling

MATH 3272:Introduction to Linear Programming

MATH 3322:Graph Theory

MATH 3324:Enumerative Combinatorics

MATH 3332:Probability Theory

MATH 3405:Probabilistic Foundations of Actuarial Science

MATH 3496:Elementary Number Theory

MATH 3696:College Geometry

MATH 4260:Linear Algebra II

MATH 4310:Partial Differential Equations  
MATH 4345:Numerical Methods II  
MATH 4361:Modern Algebra I  
MATH 4362:Modern Algebra II  
MATH 4381:Real Analysis I  
MATH 4382:Real Analysis II  
MATH 4391:Complex Analysis  
MATH 4400:Directed Study  
MATH 4490:Special Topics in Mathematics  
MATH 4596:Topology  
MATH 4699:Undergraduate Research  
STAT 2332:Probability and Data Analysis

***Program Total (16 Credit Hours)***

Notes:

\*Students may not receive credit for both MATH 2335 Numerical Methods for Engineers and MATH 3261 Numerical Methods I.

\*Students may not receive credit for both MATH 2345 Discrete Mathematics and MATH 2390 Introduction to Logic, Set Theory, and Proofs

# **Physics Minor**

## **Contact Information**

Website: <http://csm.kennesaw.edu/physics/programs/physics-minor.php>

Phone: (470) 578-4205

## **Program Description**

To be eligible for a minor in Physics, the student must complete at least 15 hours of course work in physics with at least 10 hours in upper division physics courses.

***Program Total (15 Credit Hours)***

programs in the

**The Keeping Sights Upward (KSU)**  
**Journey Honors College**

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# **Honors Ancient and Modern Classics Minor**

## **Contact Information**

Website: <https://honors.kennesaw.edu/index.php>

Phone: 470-578-2364

Email: [honors@kennesaw.edu](mailto:honors@kennesaw.edu)

## **Program Description**

The minor in Honors Ancient and Modern Classics aims to draw students from all disciplines together for the opportunity to study ancient and modern classical literature.

1. A classic book is one which deals with a fundamental question for the first time.
2. A classic book is foundational for thinking that follows it.
3. A classic book is one which has withstood the test of time.

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

- HON 1100: The First-Year Honors Colloquium: An Introduction to Honors Education
- HON 3010: Ancient Classics I (Pre-5th Century BC)
- HON 3020: Ancient Classics II (5th Century BC - 4th Century AD)
- HON 3030: Modern Classics I (12th Century AD - 16th Century AD)
- HON 3040: Modern Classics II (16th Century AD - 19th Century AD)
- HON 4010: Dante's Italy
- HON 4020: Modern Classics of the British Isles & Commonwealth
- HON 4030: British Classics of Modern Democracy
- HON 4495: Honors Ancient and Modern Classics (AMC) Capstone Project

### ***Program Total (15 Credit Hours)***

# **Honors Applied Marketing Minor**

## **Contact Information**

Website: <https://honors.kennesaw.edu/>

Phone: (470) 578-2364

Email: [honors@kennesaw.edu](mailto:honors@kennesaw.edu)

## **Program Description**

The Honors Applied Marketing Minor provides high-achieving Honors Students the opportunity to further develop their marketing skills. Students considering pursuing further education can focus on Marketing Research and Directed Studies related to their topic of interest as well as Special Topics classes. Those students who are wanting to enter the workforce with applied experience are encouraged to pursue Coops/Internships, Special Topics, and Directed Studies focused on applied and service applications.

\*\*If a student enrolled in this minor at any point becomes ineligible for the Honors program, the student will no longer be eligible to obtain the Honors Applied Marketing Minor.

## **Program Course Requirements**

### **Required Courses (9 credit hours)**

Students must enroll in an Honors section and/or complete an Honors designation (e.g. Honors contract) in each of the following:

- MKTG 3100: Principles of Marketing
- MKTG 4990: Marketing Strategy
- One of the following:
  - MKTG 4100: Marketing Research
  - MKTG 4490: Special Topics in Marketing

### **Electives (6 credit hours)**

Students must enroll in an Honors section and/or complete an Honors designation (e.g. Honors contract) in two of the following:

Honors Contract in any MKTG 3000+ course excluding any course taken as part of the minor requirements.

Honors Prefex 3-Hour Courses Related to Marketing – must be approved by department chair.

### **Program Total (15 Credit Hours)**

# **Honors Applied Professional Selling Minor**

## **Contact Information**

Website: <https://honors.kennesaw.edu/>

Phone: (470) 578-2364

Email: [honors@kennesaw.edu](mailto:honors@kennesaw.edu)

## **Program Description**

The Honors Applied Professional Selling Minor provides high-achieving Honors Students the opportunity to further develop their Selling skills. Students considering pursuing further education can focus on Analysis and Directed Studies related to their topic of interest as well as Special Topics classes. Those students who are wanting to enter the workforce with applied experience are encouraged to pursue Coops/Internships, Special Topics, and Directed Studies focused on applied and service applications.

\* If a student enrolled in this minor at any point becomes ineligible for the Honors program, the student will no longer be eligible to obtain the Honors Applied Professional Selling Minor.

## **Program Course Requirements**

### **Required Courses (9 hours)**

Students must enroll in an Honors section and/or complete an Honors designation (e.g. Honors contract) in each of the following:

- MKTG 3100: Principles of Marketing
- MKTG 3410: Professional Selling
- MKTG 4450: Sales Management

### **Elective Courses (6 hours)**

Students must enroll in an Honors section and/or complete an Honors designation (e.g. Honors contract) in two of the following:

Honors Contract in any MKTG 3000+ course.

Honors Prefex 3-Hour Courses Related to Marketing - must be approved by department chair.

### **Program Total (15 Credit Hours)**

# **Honors Computer Science and Applications Minor**

## **Contact Information**

Website: <https://honors.kennesaw.edu/>

Phone: (470) 578-2364

Email: [honors@kennesaw.edu](mailto:honors@kennesaw.edu)

## **Program Description**

The Honors Computer Science Minor is designed to provide a credential to high-achieving Honors students seeking to develop a strong proficiency in data structures, computer architecture, and algorithm analysis. Students may need to take MATH 1113, MATH 1190, and (MATH 2345 or CSE 2300) in order to satisfy prerequisites for CS courses. Student must earn a "B" or higher in CSE 1321, CSE 1321L, CSE 1322, and CSE 1322L, and a "C" or higher in all remaining courses for the minor. Completing these requirements provides a strong foundation in computer science. Students who complete this minor will be eligible to apply for the Master of Science in Computer Science (MSCS) at KSU without taking any additional fundamental courses.

\*If a student enrolled in this minor at any point becomes ineligible for the University Honors Program, the student will no longer be eligible to continue the Honors Computer Science and Applications Minor.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

Students must enroll in an honors section of each of the following:

- CS 3305: Data Structures
- CS 3503: Computer Organization and Architecture
- CS 4306: Algorithm Analysis

### **Electives (6 Credit Hours)**

Select 6 credits from any of the following:

- HON prefix courses
- Honors sections of courses within the College of Computing and Software Engineering College or Southern Polytechnic College of Engineering and Engineering Technology
- Honors contracts in any 3000 or above CS Course
- Any graduate Double Owl courses, CS Courses preferred

### **Program Total (15 Credit Hours)**

# **President's Emerging Global Scholars Minor**

## **Program Description**

The President's Emerging Global Scholars [PEGS] minor includes Honors courses related to community engagement, global competence, leadership, and professional development. Only students in the President's Emerging Global Scholars cohort may participate. Criteria for admission is a 3.7 GPA, ACT of 25 or an SAT score of 1220. To remain in good standing in PEGS, students must maintain a 3.5 GPA or higher; otherwise they will be ineligible to continue taking courses in the minor.

\*If a student enrolled in this minor at point becomes ineligible for the PEGS program, the student will no longer be able to continue obtaining the PEGS Minor.

## **Program Course Requirements**

- HON 3600: Introduction to Community, Service, and Leadership
- HON 3640: Introduction to Civic Engagement
- HON 3301: Honors Interdisciplinary Seminar
- HON 3620: Issues in the Global South
- HON 3660: The Developed World and Global Competency

**Program Total (15 Credit Hours)**

# **University Honors Program**

## **Contact Information**

Website: <https://honors.kennesaw.edu/>

Phone: (470) 578-2364

Email: [honors@kennesaw.edu](mailto:honors@kennesaw.edu)

## **Program Description**

Keeping Sights Upward (KSU) Journey Honors College programs offer a community within the university for academically talented, highly motivated students who enjoy lively discussion, creative expression, and intellectual challenge. KSU Journey Honors College offers colloquia, interdisciplinary honors seminars and special topics courses, opportunities for undergraduate research, domestic and international travel experiences, community service, and other innovative experiences designed especially for motivated and high-achieving Honors students. The Honors College collaborates with other academic colleges to offer small honors sections of core courses in seminar-style classes. Graduation as an Honors Scholar requires completion of the University Honors Program, below, as well as a KSU adjusted GPA of 3.25 or better. A secondary designation, Honors in the Major, is described below. Incoming Honors students have the option of applying for the Great Books Honors cohort or the President's Emerging Global Scholars (PEGS) program. Both programs integrate seamlessly into the Honors Scholar or Honors Research Scholar tracks of the University Honors Program. To remain in the PEGS cohort, a student must maintain a minimum GPA of 3.5.

For information about the University Honors Program's admission criteria, application process, and first-year President's Emerging Global Scholar or Great Books cohorts, please visit <http://honors.kennesaw.edu>.

### Honors Student Expectations

Honors students are expected to represent the Honors College honorably. Membership in the Honors College is a privilege, not a right. Students who are members of the Honors College are expected to be role models and to strive to exceed standards set by the Kennesaw State University Student Code of Conduct, all other college policies, and of the Honors College. As a result, the standards of behavior for Honors students are higher than those for other students at Kennesaw State University.

These expectations apply to Honors student behavior while in Honors courses and while participating in Honors activities such as meetings, events, service, and travel programs. If misbehavior occurs outside of Honors events, but the Dean, Director, or other member of the Honors College administration determines that the behavior violates the Honors College expectations or adversely affects the program or its reputation, students may be dismissed from the University Honors Program. Behavior that violates the Kennesaw State University

Student Code of Conduct will be referred to KSU's Department of Conduct and Academic Integrity as appropriate, in addition to being addressed through the Honors College. Disruptive behavior is defined in the Student Code of Conduct. As the Honors College values academic integrity in particular, any academic dishonesty by an Honors College participant may be grounds for removal from the University Honors Program.

Failure to live up to the behavior expectations of the Honors College can result in a range of consequences. For example, students may be removed or suspended from the University Honors Program, or they may be placed on a probationary status. The consequences will be decided by the Honors Dean and Director, in consultation with other members of the Honors team.

**Note:** To remain in good standing in the Honors program, students must complete an approved Honors Learning Experience (HLE) each semester, participate in Honors Advising each Fall and Spring semester, and maintain an adjusted KSU GPA of 3.25. Honors Learning Experiences are defined elsewhere in this document. Students may complete more than one HLE in a semester, and an additional HLE can be banked for a future semester. Only one additional HLE can be placed in the bank at a time; however, students may make up needed HLEs when they enter the program later in their academic career in order to meet the required number for the designation they wish to earn. Honors students must complete the introduction to Honors requirement (HON 1000 or HON 1100) within the first two semesters of joining the University Honors Program.

#### Honors Research Scholar

To graduate as an Honors Research Scholar, an Honors student must be in good standing with the University Honors Program, satisfy the introduction to Honors requirement (HON 1000 or 1100), complete 6 total HLEs, and submit a fully-approved Honors thesis or other major capstone product that merits a grade of A or B. A student whose major requirements include a senior capstone course or senior seminar may work with the instructor to significantly enhance the thesis or other capstone product for the class, taking HON 4497 and 4499 for zero credit hours. A student seeking to earn Honors Research Scholar who does NOT have a required capstone course or senior seminar may take HON 4497 and HON 4499 for 0-3 credit hours.

#### Honors Scholar

To graduate as an Honors Scholar, an Honors student must be in good standing with the University Honors Program, satisfy the introduction to Honors requirement (HON 1000 or 1100), and complete 8 total HLEs.

#### Honors in the Major

There are two pathways to earn the designation of Honors in the Major. In Pathway 1, students must be in good standing in the University Honors Program, satisfy the introduction to Honors

requirement (HON 1000 or 1100), and complete a minimum of two of three required HLEs in their major plus an approved capstone. For Pathway 2, students must be in good standing in the University Honors Program, satisfy the introduction to Honors requirement (HON 1000 or 1100), and complete 5 HLEs to earn this designation, at least three of which HLEs must be related to the major. Departments/Schools may specify additional requirements.

### Honors Requirement

Complete one of the following within the first two semester of joining the University Honors Program.

- HON 1000: An Introduction to Honors Education  
or
- HON 1100: The First-Year Honors Colloquium: An Introduction to Honors Education

### Honors Learning Experiences (HLEs):

- Honors sections of General Education Core Courses
- HON-prefix courses (with the exception of HON 1000, which satisfies the introduction to Honors requirement but does not count as an HLE)
- Honors contracts in non-Honors courses • Graduate courses for Honors students in the Double Owl Program

### Honors Senior Capstone Experience (0-4 Credit Hours)

- HON 4497: Honors Senior Capstone Proposal Honors students are recommended to take HON 4497 in their junior year
- HON 4499: Honors Senior Capstone Project

programs in the

**Institute for Cybersecurity  
Workforce Development**

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# **Cybersecurity B.S.**

## **Program Description**

The purpose of the Bachelor of Science with a major in Cybersecurity (BS-CYBR) program is to create technologically capable, business-aware cybersecurity professionals capable of applying technical skills and the knowledge of security management to protect computerized information systems from a wide variety of threats, and to manage the risks associated with modern information technology usage. Cybersecurity is a computing-based discipline involving technology, people, information, and processes to enable assured operations. It involves the creation, operation, analysis, and testing of secure computer systems. It is an interdisciplinary course of study, including aspects of information technology, law, policy, human factors, ethics, and risk management often in the context of adversaries.

The Department of Homeland Security and the National Security Agency have jointly designated Kennesaw State University as a National Center of Academic Excellence in Cyber Defense Education with specialized focus areas in Security Policy Development & Compliance and Systems Security Administration.

The Bachelor of Science with a major in Cybersecurity is a fully online degree that has the primary objective of meeting the high demand for professional degrees in the area of cybersecurity. The degree has core requirements, major requirements, major specializations, and required electives. The major contains those courses considered fundamental to the cybersecurity field and the electives give the student some flexibility in choice.

The Institute for Cybersecurity Workforce Development requires that BS-CYBR candidates must earn a grade of "C" or better in all upper-division courses in order to be counted toward their degree.

This program is a part of the Institute for Cybersecurity Workforce Development.

## **Admission, Enrollment, and Graduation Policies**

### **Admissions Requirements**

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the catalog.

Admission to the BS-CYBR degree program will be open to any student who has completed (or is scheduled to complete) the General Education and Area F - Lower Division Major Requirements through any recognized and transferable method. That includes the transfer of credit from other Institutions (following KSU policies for transfer of credit), eCore courses documented by KSU, KSU courses taken on campus as well as KSU online courses.

## Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1. Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/CHEM 1211L, CHEM 1212/CHEM 1212L, PHYS 1111/PHYS 1111L\*, PHYS 1112/PHYS 1112L, PHYS 2211/PHYS 2211L\*, PHYS 2212/PHYS 2212L, BIOL 1107/BIOL 1107L, or BIOL 1108/BIOL 1108L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- ACCT 2101: Principles of Accounting I
  
- ECON 2300: Business Statistics  
or
  
- STAT 2332: Probability and Data Analysis
  
  
- IT 1114: Programming Principles
- IT 1114L: Programming Principles Lab
- CSE 1321: Programming and Problem Solving I
- CSE 1321L: Programming and Problem Solving I Laboratory
- CYBR 2310: Software Assurance  
One credit hour carried forward from Area D

### **Major Requirements (37 Credit Hours)**

### ***Upper Division Technical Core (13 Credit Hours)***

- CYBR 3123: Hardware and Software Concepts
  - CYBR 3423: Operating Systems Concepts & Administration
  - CYBR 4323: Data Communications & Networking
  - CYBR 4423: Linux/Unix Administration
- One credit hour carried over from area D

### ***Upper Division Security Core (21 Credit Hours)***

- CYBR 3100: Principles of Cybersecurity
- CYBR 3200: Network Security
- CYBR 3210: Client Systems Security
- CYBR 3300: Management of Cybersecurity in a Global Environment
- CYBR 4200: Perimeter Defense
- CYBR 4220: Server Systems Security
- CYBR 4330: Incident Response and Contingency Planning

### ***Capstone (3 Credit Hours)***

- CYBR 4810: Cyber Defense

### ***Upper Division Major Specializations (9 Credit Hours)***

All BS-CYBR students are required to take a minimum of 9 credit hours as an upper-level specialization. They must choose one of the following specializations and complete all of the courses listed. The options are:

#### ***Systems Security Track***

- CYBR 3153: Database Systems
- CYBR 4843: Ethical Hacking for Effective Defense  
or
- CYBR 4883: Infrastructure Defense
- CYBR 4350: Management of Digital Forensics and eDiscovery  
or
- CYBR 4853: Computer Forensics

#### ***Network Security Track***

- CYBR 4333: Network Configuration & Administration

- CYBR 4833: Wireless Security
- CYBR 4893: Internet of Things: Applications and Security

### **Cyber Crime Track**

- CRJU 1101: Foundations of Criminal Justice
- CYBR 3305: Technology and Criminal Justice
- CYBR 4305: Technology and Cyber Crime

### **Major Electives (9 Credit Hours)**

Students should choose 9 credit hours from the following:

- CYBR 3220: Global IS Project Management
- CYBR 3223: Software Acquisition and Project Management  
Any CYBR prefix course not included in your chosen concentration
- CYBR 3396: Cooperative Study
- CYBR 3398: Internship
- CYBR 4400: Directed Study
- CYBR 4490: Special Topics in Cybersecurity  
Any 3xxx or 4xxx IS/ISA/IT/CS/CSE/CRJU course for which the student can meet the prerequisites except certain specific restricted ISA or IT Security course (see an advisor for complete listing)

### **Free Electives (5 Credit Hours)**

Any courses in the university curriculum.

### **Program Total (120 Credit Hours)**

# **Cybersecurity Certificate**

## **Contact Information**

**Website:** <https://cyberinstitute.kennesaw.edu/academic-programs.php#certs>

**Phone:** (470) 578-2927

**Email:** [cyberinstitute@kennesaw.edu](mailto:cyberinstitute@kennesaw.edu)

## **Program Description**

The Certificate in Cybersecurity is designed for students with an interest in the security of computer networks and systems and its application in the expanding field of technology. The certificate program emphasizes the skills and knowledge necessary to protect and inspect systems and to detect and react to threats to the security of information in those systems.

The certificate requires 16 semester hours (6 courses), and all coursework must be completed with a "C" or better.

## **Program Course Requirements**

### **Required Courses (16 Credit Hours)**

- CSE 1321: Programming and Problem Solving I
- CSE 1321L: Programming and Problem Solving I Laboratory
- CYBR 3100: Principles of Cybersecurity
- CYBR 3200: Network Security
- CYBR 3210: Client Systems Security
- CYBR 3300: Management of Cybersecurity in a Global Environment

### **Program Total (16 Credit Hours)**

# **Cybersecurity Minor**

## **Contact Information**

**Website:** <https://cyberinstitute.kennesaw.edu/academic-programs.php>

**Phone:** (470) 578-2927

**Email:** [cyberinstitute@kennesaw.edu](mailto:cyberinstitute@kennesaw.edu)

## **Program Description**

The Minor in Cybersecurity addresses students with an interest in the application of information security controls on information systems. The Minor emphasizes the skills and knowledge necessary to defend networks and systems, and to detect and react to threats to those systems.

The Minor requires 18 semester hours (6 courses), and all coursework must be completed with a grade of "C" or higher.

## **Program Course Requirements**

### **Required Courses (18 Credit Hours)**

- CSE 1321: Programming and Problem Solving I
- CSE 1321L: Programming and Problem Solving I Laboratory
- CYBR 3100: Principles of Cybersecurity
- CYBR 3200: Network Security
- CYBR 3210: Client Systems Security
- CYBR 3300: Management of Cybersecurity in a Global Environment
- CYBR 4330: Incident Response and Contingency Planning

### **Program Total (18 Credit Hours)**

programs in the

**Norman J. Radow College of  
Humanities and Social Sciences**

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# **Anthropology, B.S.**

## **Program Description**

The Bachelor of Science with a major in Anthropology provides students with a solid foundation of disciplinary knowledge that prepares them for diverse professional employment opportunities and graduate school. The Anthropology major encompasses a broad education about human biological, behavioral, and cultural stability and change and the comparative study of contemporary societies and cultures around the planet. Majors will take courses in cultural theory and practice, physical anthropology, and archaeology, in addition to foundational courses in the field of anthropology.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

#### ***Required Courses (6 Credit Hours)***

ANTH 1102:Introduction to Anthropology

ANTH 1105:Introduction to Physical Anthropology

#### ***Electives (12 Credit Hours):***

Select any two 1000 or 2000 level courses from ANTH

Select any two 1000 or 2000 level courses from ANTH, FL, HIST, GEOG, PHIL, POLS, PSYC, SOCI

## **Major Requirements (33 Credit Hours)**

### ***Foundations in Anthropology (9 Credit Hours)***

ANTH 3300:Anthropological Theory  
ANTH 3305:Principles of Archaeology  
ANTH 3307:Cultural Anthropology

### ***Anthropological Applications (6 Credit Hours)***

ANTH 3397:Anthropology Practicum  
or  
ANTH 3398:Internship in Anthropology  
ANTH 4450:Research Methods in Anthropology

### ***Upper Division Major Elective Courses (18 Credit Hours)***

Select 18 hours from the courses listed below or any other 3000–4000 level ANTH course not listed. Each student must take at least one course from each of the areas: Cultural Anthropology, Biological Anthropology, and Archaeology

#### *Cultural Anthropology*

ANTH 3303:Introduction to Linguistic Anthropology  
ANTH 3310:Cultural Diversity in the U.S.  
ANTH 3315:Indigenous Peoples of the Southeast United States  
ANTH 3321:Indigenous Peoples of North America  
ANTH 3340:Religion, Magic, and Culture  
ANTH 3345:Food and Culture  
ANTH 3350:Cultures and Societies of the World  
ANTH 3355:Capitalisms and Cultures in Asia  
ANTH 3360:Anthropology and Africa  
ANTH 3365:Afro-Brazilian Culture and Politics  
ANTH 3521:Ethnography of Media: Global Perspectives  
ANTH 3777:Global Ethnographies of Labor  
ANTH 3999:Anthropology of Gender  
ANTH 4430:Environmental Anthropology Field Methods

#### *Biological Anthropology*

ANTH 3301:Human Origins  
ANTH 3320:Methods in Biological Anthropology  
ANTH 4405:Human Variation

ANTH 4150:Greek Osteology Field School  
ANTH 4411:Bioarchaeology of Greece  
ANTH 4420:Methods in Forensic Anthropology  
ANTH 4423:Bone Biomechanics  
ANTH 4424:Paleopathology: Health and Disease in Ancient Populations  
ANTH 4440:Paleoanthropology: The Human Fossil Record

### *Archaeology*

ANTH 3335:Archaeology Field Techniques  
ANTH 3380:Maya Archaeology  
ANTH 3390:Lab in Archaeology  
ANTH 4421:North American Archaeology  
ANTH 4422:Archaeology of Asia  
ANTH 4425:Historical Archaeology  
ANTH 3375:Engaged Archaeology

*Note: (A study abroad course with prior approval of the department or ANTH 4490 can be used to fulfill a requirement in the Upper Division Elective area.)*

### **Upper Electives (12 Credit Hours)**

Twelve hours of upper-division studies beyond the major requirements. 3000-4000 level ANTH courses are permitted in this area. Additional internships may also be approved when deemed appropriate.

### **Free Electives (15 Credit Hours)**

Any courses in the university curriculum.

### **Program Total (120 Credit Hours)**

# **Asian Studies, B.A.**

## **Program Description**

The Asian Studies program at Kennesaw State explores diverse topics and themes on linguistic, literary, cultural, philosophic-religious, aesthetic, social, institutional-political, educational and other related spheres of Asian people and civilization. The program also endeavors to explain the complex interactions among them in terms of both tradition and transformation. Some emphasis is placed not only on the cultural diversity, unity and achievements of Asian countries but also on the comparative and interdisciplinary ways of promoting a broader and deeper understanding of the East. This enterprise may shed new light on Western civilizations, histories, traditions, cultures and modern changes.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

#### ***Required (3 Credit Hours)***

ASIA 1102:Introduction to Asian Cultures

#### ***Lower Division Electives (6 Credit Hours)***

Students must take two courses (six credit hours) from the list below.

ANTH 1102:Introduction to Anthropology

ECON 2106:Principles of Microeconomics  
ENGL 2110:World Literature  
GWST 2050:Global Perspectives on Gender  
ICT 2101:Information and Communications Technology  
PHIL 2110:Religions of the World  
POLS 2240:Introduction to Comparative Politics  
POLS 2250:Introduction to International Relations  
BLAW 2200:Legal and Ethical Environment of Business

***Lower Division Language Requirements (Choose One Language): (9 Credit Hours)***

Nine credit hours of Asian Languages (the three courses must be in the same language) are required.

CHIN 1002:Elementary Chinese II  
CHIN 2001:Intermediate Chinese I  
CHIN 2002:Intermediate Chinese II  
OR

JAPN 1002:Elementary Japanese II  
JAPN 2001:Intermediate Japanese I  
JAPN 2002:Intermediate Japanese II  
OR

KOR 1002:Elementary Korean II  
KOR 2001:Intermediate Korean Language and Culture I  
KOR 2002:Intermediate Korean Language and Culture II

***Major Requirements (30 Credit Hours)***

***Required (3 Credit Hours)***

ASIA 3001:Understanding Asia

***Research Methods (3 Credit Hours)***

Select one course from the following.

ISD 3100:Interdisciplinary Studies Research Methods  
HIST 3100:Historical Methods

***Upper Division Major Electives (12 Credit Hours)***

Select 12 credit hours from the following:

ANTH 3355:Capitalisms and Cultures in Asia  
ASIA 3030:K-pop and the Korean Wave  
ASIA 3306:Understanding China through Films  
ASIA 3309:Survey of Chinese Literature and Culture  
ASIA 3333:Queer Asia  
ASIA 3340:Contemporary South Asian Literature  
ASIA 3398:Asian Studies Internship  
ASIA 3500:Culture & Society of Postwar Japan  
ASIA 3760:Asian American Cultural Identities  
ASIA 3780:Trends in Asian Studies  
ASIA 4001:Teaching English in Asia \*required for Teaching English as a Foreign Language in Asia Embedded Certificate  
ASIA 4400:Directed Study  
ASIA 4422:Archaeology of Asia  
ASIA 4425:Asian Women and Literature  
ASIA 4490:Special Topics for Asian Studies  
ASIA 4517:Tea Cultures in Asia  
HIST 3372:Ancient to Pre-Modern China  
HIST 3373:Modern India and South Asia  
HIST 3374:Modern China  
HIST 3375:Silk Road  
HIST 3380:Premodern Japan  
HIST 3381:Modern Japan  
MGT 3100:Management and Behavioral Sciences  
MKTG 3100:Principles of Marketing  
ORGC 3325:Intercultural Communication  
ISD 3398:Interdisciplinary Studies Internship  
SA 4490:Upper-division Study Abroad  
SOCl 4435:Sociology of South Asia  
Any additional Asian focused course in this area approved by the faculty advisor

***Upper Division Asian Language Requirements (12 Credit Hours)***

Complete four courses for a total of twelve credit hours in one language.

CHIN 3200:Critical Reading and Applied Writing  
CHIN 3302:Practical Conversation  
CHIN 3303:Grammar and Composition  
CHIN 3304:Readings in Culture I

Or

JAPN 3200:Critical Reading and Applied Writing  
JAPN 3302:Practical Conversation  
JAPN 3303:Grammar and Composition

JAPN 3304:Readings in Culture I

Or

KOR 3200:Critical Reading and Applied Writing

KOR 3302:Practical Conversation

KOR 3303:Grammar and Composition

KOR 3304:Readings in Culture I

**Upper-Division Related Studies (9 Credit Hours)**

Select 9 credit hours of 3000-4000 level coursework from the following prefixes: ARH, ART, ASIA, CHIN, FLED, GWST, HIST, ISD, JAPN, KOR, LING, MGT, MKTG, ORGC, PHIL, POLS, PSYC

**Free Electives (21 Credit Hours)**

Any courses in the university curriculum.

***Program Total (120 Credit Hours)***

# **Black Studies, BA**

## **Program Description**

The Bachelor of Arts degree with a major in Black Studies prepares students for careers in a broad range of professions requiring cultural literacy, emotional intelligence, and evidence-based advocacy. Graduates with degrees in Black Studies have found rewarding careers in schools and universities; as counselors in family services and juvenile justice agencies; as diversity consultants; as entrepreneurs; as community organizers, diplomats and ambassadors in the foreign service; as cultural and content specialists in non-governmental organizations; and numerous specialized positions in the private sector. The interdisciplinary degree program fosters an understanding of the global experiences of African, African American, and African-descended peoples with a range of intellectual tools and practical strategies for engaging race, gender, class, and culture. Students will gain an appreciation for the diverse character of humanity through the lens of the Black experience, explore the complex historical and cultural relations between Africans on the continent and African-descended peoples in the Diaspora, and engage in a comparative study of contemporary issues. In consultation with an advisor, students will discuss a specialized degree program that complements core areas of cultural production, social and structural analysis, historical investigation, and community engagement with hands-on experiential and applied learning. Students will apply course concepts in study abroad and/or virtual exchange, internships and/or co-op programs, or entrepreneurship and/or community engagement projects.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information visit the Admissions section of the catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education (42 Credit Hours)**

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

### **Required Courses (9 Credit Hours)**

BLCK 1101:Introduction to Black Studies

or

BLCK 1102:Issues in Black Studies

BLCK 2100:Career Success with Black Studies

BLCK 2200:Black Thought Matters

or

GWST 2000:Introduction to Gender and Women's Studies

or

ISD 2001:Introduction to Diversity and Social Justice

### **Lower-Division Electives (9 Credit Hours)**

Select any three 1000 or 2000 level courses in the undergraduate catalog approved by the faculty advisor. Students are encouraged to take any 1000 or 2000 level courses with the following prefixes: BLCK, ASIA, AMST, GWST, ISD, LALS, LDRS, NAIS, PAX, RELS, or STS.

Note: Per BOR Policy, physical activity courses (HPE 1000-level courses) cannot be used in Area F.

### **Upper Division Field Major Requirements (27 Credit Hours)**

#### **Required Course (6 Credit Hours)**

ISD 3100:Interdisciplinary Studies Research Methods Or any 3000/4000 level Research Methods course approved by faculty advisor

BLCK 4499:Senior Seminar

or

ISD 4498:Senior Seminar in Interdisciplinary Studies

#### **Area I: Cultural Production & Expression (6 Credit Hours)**

Select two courses for a total of 6 credit hours:

BLCK 3100:Black Religion & Spirituality

BLCK 3200:Race and Technology

BLCK 3300:Black Popular Culture

BLCK 3310:Introduction to Hip Hop Studies

BLCK 3510:Black Women Writers

ENGL 3360:Major African American Writers

ENGL 3400:Survey of African Literatures  
ENGL 3500:Topics in African American Literature  
ENGL 3600:Topics in African Diaspora Literatures  
MUSI 3200:Gospel Choir  
MUSI 3411:Survey of African-American Music

**Area II: Social & Structural Analysis (6 Credit Hours)**

Select two courses for a total of 6 credit hours:

BLCK 3400:Black Activism in Brazil  
BLCK 3500:The Black Woman  
BLCK 3520:Black Masculinities  
BLCK 3550:Black Women's Health  
BLCK 4031:Black Panthers  
BLCK 4500:Social Policy & Grassroots Organizing  
BLCK 4550:Black Genocide  
GWST 3020:Black Feminisms

**Area III: Historical Investigation (6 Credit Hours)**

Select two courses for a total of 6 credit hours.

BLCK 3440:Black Biography  
HIST 3333:African American History to 1865  
HIST 3334:The Africans in the Diaspora  
HIST 3335:African American History, 1865 to Present  
HIST 3357:Africans in Asia  
HIST 3358:Africans in Latin America and the Caribbean  
HIST 3382:North Africa and Middle East in Modern Times  
HIST 3391:History of West Africa  
HIST 3392:History of Southern, Eastern and Central Africa  
HIST 4391:Emerging Themes in African History  
HIST 4905:History of the Atlantic World

**Area IV: Community and Professional Engagement (3 Credit Hours)**

Select one course from the following:

BLCK 3380:Study Abroad  
ISD 4497:International Virtual Exchange  
BLCK 3390:Black & Minority Entrepreneurship  
ISD 3398:Interdisciplinary Studies Internship  
BLCK 4100:Directed Applied Research

### **Upper Division Electives (12 Credit Hours)**

Any 3000–4000 level courses in Areas I, II, III, or IV that are not being used to fulfill the requirements for those areas, or any combination of those area courses and the courses below for a total of 12 credit hours.

ANTH 3310:Cultural Diversity in the U.S.

ANTH 3360:Anthropology and Africa

ANTH 3365:Afro–Brazilian Culture and Politics

ARH 3100:African Art and Architecture

ARH 3300:Ancient Egyptian and Nubian Art and Architecture

ARH 4150:African–American Art

BLCK 3780:Contemporary Topics & Trends in Black Studies

BLCK 4040:Major Issues and Figures

BLCK 4400:Directed Study in Black Studies

BLCK 4490:Special Topics in Black Studies

FREN 4434:Topics in Language, Literature, and Culture

GEOG 3350:Geography of Sub–Saharan Africa

POLS 3328:African American Politics

POLS 4412:Urban Politics

POLS 4454:Politics of the Middle East

POLS 4455:International Relations of Africa

PSYC 3355:Cross–Cultural Psychology

PSYC 3385:Ethnic Minority Psychology

SOCI 3314:Race and Ethnicity

SOCI 3350:Intersections of Race, Class, and Gender

SOCI 4434:Emerging Social Issues in Africa

Any other Black Studies related course approved by faculty advisor. Black Studies related courses do not have to have the BLCK prefix.

### **Free Electives (21 Credit Hours)**

Choose any courses from the KSU undergraduate catalog. Students are encouraged to complete the Certificate Track in Black & Minority Entrepreneurship or the Certificate in Diversity & Community Engagement.

### **Program Total (120 Credit Hours)**

# **Criminal Justice, B.S.**

## **Program Description**

The Criminal Justice system is an institution that is at the crux of societal concern. When individuals are asked to define major social problems, the fear of and response to crime are found at the top of the list. People not only want to have a better understanding of these problems; many also want to become a part of the solution. It is these individuals who will be the primary beneficiaries of the Criminal Justice major at KSU. The secondary beneficiaries are members of the community; university educated criminal justice personnel make better criminal justice practitioners. This program of study is timely and relevant. It infuses knowledge about interpersonal communication skills, multicultural issues, leadership and management concerns, moral and ethical considerations, and technological applications into the coursework.

The program is appropriate for pre-service as well as in-service students.

This program is a part of Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

CRJU 1101:Foundations of Criminal Justice

CRJU 2201:Crimes and Defenses

SOCI 1101:Introduction to Sociology

Select three of the following:

ACCT 2101:Principles of Accounting I  
COMM 2240:Communication Law, Ethics and Diversity  
GEOG 1130:World Regional Geography  
HS 2100:Overview of Human Services  
ICT 2101:Information and Communications Technology  
LDRS 2100:Leadership & Historic Social Movements  
POLS 2212:State and Local Government  
SOC 2251:Social Problems  
SPAN 2034:Spanish for Criminal Justice  
FL 1001:Elementary Foreign Language and Culture I  
OR

SPAN 1001:Elementary Spanish I

### **Major Requirements (27 Credit Hours)**

CRJU 3300:Criminal Courts  
CRJU 3301:Research Methods in Criminal Justice  
CRJU 3315:Criminal Procedure  
CRJU 3332:Corrections  
CRJU 4100:Ethics in Criminal Justice  
CRJU 4499:Senior Seminar in Criminal Justice  
SOC 4432:Criminology  
CRJU 3310:Police in America  
OR

CRJU 3311:Police Administration  
Complete three credit hours from one of the following:

CRJU 3396:Cooperative Study  
OR

CRJU 3398:Internship  
OR

SA 4490:Upper-division Study Abroad

### **Cultural Diversity (3 Credit Hours)**

Select one course from the following:

CRJU 3355:Race, Crime, and Justice  
SOC 3314:Race and Ethnicity  
SOC 3350:Intersections of Race, Class, and Gender  
ANTH 3307:Cultural Anthropology

ANTH 3310:Cultural Diversity in the U.S.

### **Criminal Justice Electives (12 Credit Hours)**

Select 12 credit hours from the following:

CRJU 3305:Technology and Criminal Justice  
CRJU 3310:Police in America  
CRJU 3311:Police Administration  
CRJU 3312:State and Federal Law Enforcement Initiatives  
CRJU 3320:Criminal Investigation  
CRJU 3340:Legal Analysis  
CRJU 3352:Juvenile Justice  
CRJU 3355:Race, Crime, and Justice  
CRJU 3365:Profile of the Serial Offender  
CRJU 3398:Internship  
CRJU 3400:Ideological/Group Violence and Law Enforcement  
CRJU 4300:Organized Crime  
CRJU 4305:Technology and Cyber Crime  
CRJU 4400:Directed Study in Criminal Justice  
CRJU 4410:Criminal Profiling and Analysis  
CRJU 4430:Victimology  
CRJU 4490:Special Topics in Criminal Justice  
SOC 3360:Sociology of Violence  
SOC 4200:Drugs, Alcohol, and Society  
SOC 4442:Deviance and Social Control

### **Related Studies (6 Credit Hours)**

Select 6 hours of upper division course work (3000–4000 level) from the following list of prefixes: AADS, AMST, ANTH, ASIA, BIOL, BUSA, CHEM, COM, CRJU, ECON, ENGL, ENVS, EUST, FILM, FL, GEOG, GIS, GWST, HIST, HON, IAD, ISD, JOUR, LING, MENT, MILS, ORGC, PAX, PHIL, POLS, PR, PSYC, RELS, SA, SCI, SOCI, SPAN, STAT, STS, TCID, TCOM, or WRIT.

### **Free Electives (12 Credit Hours)**

Any courses in the university curriculum.

### **Program Total (120 Credit Hours)**

# **English Education, B.S.**

## **Program Description**

This single field program is designed to prepare English teachers of adolescents, largely at the secondary school level (grades 6 through 12). It leads to 6-12 teacher certification in the teaching field of English/Language Arts in Georgia. Candidates complete the equivalent of a major in English/Language Arts and a second major in pedagogical studies with an emphasis on teaching English/Language Arts.

The English Education program aims to prepare teachers who have a broad, rich knowledge of the discipline of English (including courses in British, American, and world literature, language theory, and writing) and who enact an integrated, reflective, and theoretically informed pedagogy for English/Language Arts.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Accreditation**

This program is nationally recognized by NCTE (National Council of Teachers of English) and is fully approved by Georgia's Professional Standards Commission for teacher certification.

## **Admission, Enrollment, and Graduation Policies**

Admission to teacher education is separate from admission to Kennesaw State University. Students must meet the admission, retention and Graduation Requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

Register for an account with the Georgia Professional Standards Commission (<http://mypscc.org>) as soon as possible. Apply for Teacher Education Program (TEP) through Owl Express while taking EDUC 2110 (with teacher recommendation), acquiring a 2.75 GPA, and earning at least 45 hours of accredited college coursework.

EDUC 2110:Investigating Critical & Contemporary Issues in Education  
EDUC 2120:Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts  
ENGL 2145:Introduction to English Studies  
ENGL 2160:American Literature Survey  
ENGL 2172:British Literature, Beginnings to 1660  
ENGL 2174:British Literature, 1660 to Present

### **Major Requirements (36 Credit Hours)**

ENGL 2271:Introduction to Teaching English Language Arts  
ENGL 3241:Technology and Digital Media in English/Language Arts  
ENGL 3310:Principles of Writing Instruction  
ENGL 3391:Teaching Literature to Adolescents  
ENGL 4340:Shakespeare  
EDRD 3320:Understanding the Reader and the Reading Process  
LING 3025:Linguistics for Education  
or

LING 3035:Introduction to Language and Linguistics  
EDUC 2130:Exploring Teaching & Learning

### **Other Teaching Field Requirements**

#### *Cultural Studies of Literature (3 Credit Hours)*

Choose One:

ENGL 3320:Scriptural Literature  
ENGL 3330:Gender Studies  
ENGL 3340:Ethnic Literatures  
ENGL 3342:Topics in Native American Literature  
ENGL 3350:Regional Literature  
ENGL 3360:Major African American Writers  
ENGL 3400:Survey of African Literatures  
ENGL 3500:Topics in African American Literature  
ENGL 3600:Topics in African Diaspora Literatures  
ENGL 4401:Topics in African Literatures  
AMST 3700:American Studies: Principles and Methods  
AMST 3710:U.S. in the World  
AMST 3740:American Popular Culture  
AMST 3750:Place in American Culture  
AMST 3760:Advanced Studies in American Identities  
AMST 3770:American Cultural Productions  
AMST 3780:American Cultural Movements

*Studies in Pre-20th-Century Literature (3 Credit Hours)*

Choose One:

- ENGL 4370:Medieval Literature
- ENGL 4374:Restoration and Eighteenth-Century Literature
- ENGL 4460:19th-Century American Literature
- ENGL 4470:19th-Century British Literature
- ENGL 4480:19th-Century World Literature

*Studies in 20th- and 21st-Century Literature (3 Credit Hours)*

Choose One:

- ENGL 4560:20th-Century and 21st-Century American Literature
- ENGL 4570:20th-Century and 21st-Century British Literature
- ENGL 4580:20th-Century and 21st-Century World Literature

**Yearlong Clinical Experience (24 Credit Hours)**

- ENED 4414:Teaching of English Language Arts I
- ENED 4416:Teaching English Language Arts II
- EDUC 4610:Introduction to the Yearlong Clinical Experience
- ENED 4650:Yearlong Clinical Experience in ELA I
- ENED 4660:Yearlong Clinical Experience in ELA II
- INED 3300:Educating Students with Exceptionalities in Inclusive Settings
- INED 4431:Foundations for Teaching Diverse English Learners

Note: Take GACE II Subject Area - English I and II (<http://gace.ets.org>) only during student teaching. These tests are required for certification.

**Program Total (120 Credit Hours)**

# **English, B.A.**

## **Program Description**

English majors take 18 hours of courses in lower-division major requirements. These courses are designed as an introduction to the field of English Studies. At the 3000/4000 level, students choose one course from each of eight categories: Language, Writing, Genres, Cultural Studies, Theory, and three period requirements. The English major culminates in the Senior Seminar, which is the major's capstone course. All English majors must demonstrate competence in foreign languages up through the level of FL 2002.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

FL 1002:Elementary Foreign Language II  
FL 2001:Intermediate Foreign Language and Culture I  
ENGL 2145:Introduction to English Studies  
ENGL 2160:American Literature Survey  
ENGL 2172:British Literature, Beginnings to 1660  
ENGL 2174:British Literature, 1660 to Present

### **Major Requirements (33 Credit Hours)**

At least 24 of these 33 hours must be taken at Kennesaw State.

**Three hours from each of the following nine groups (27 Credit Hours)**

*I. Intermediate Foreign Language*

FL 2002:Intermediate Foreign Language and Culture II

*II. Linguistics*

LING 3045:Grammar of Contemporary American English

LING 3050:Sociolinguistics

LING 3020:Linguistics and Literature

LING 3025:Linguistics for Education

LING 3030:Studies in Grammar and Linguistics \*

LING 3035:Introduction to Language and Linguistics

LING 3040:History of the English Language

LING 3055:Politics and Language

LING 3760:World Englishes

*III. Writing*

WRIT 3000:Introduction to Creative Writing Genres

WRIT 3100:Poetry Writing

WRIT 3109:Careers in Writing

WRIT 3110:Playwriting

WRIT 3111:Professional Editing

WRIT 3120:Fiction Writing

WRIT 3125:Interactive Narrative & Games

WRIT 3130:Literary Nonfiction

WRIT 3140:Writing in the Workplace

WRIT 3150:Topics in Digital Rhetoric \*

WRIT 3151:Digital Storytelling

WRIT 3152:Digital Community Engagement

WRIT 3160:Argumentative Writing \*

WRIT 3210:Graphic Storytelling

WRIT 3170:Environmental Writing and Literature

WRIT 3650:Introduction to Literacy Studies

WRIT 3810:Research Methods for Writers

FILM 3105:Introduction to Screenwriting

FILM 3125:Introduction to TV Writing

*IV. Genres*

ENGL 3230:Literary Genre

ENGL 3232:Topics in Drama \*  
FILM 3205:Series and Serials  
FILM 3220:Topics in American Cinema  
FILM 3240:Film Genres and Movements  
FILM 3250:Film Authors  
FILM 3200:Film History I  
FILM 3210:Film History II  
FILM 3215:Film History III  
FILM 3230:Topics in World Cinema  
FILM 3560:Women in Film

#### *V. Cultural Studies of Literature*

ENGL 3320:Scriptural Literature \*  
ENGL 3322:Hebrew Scriptures as Literature  
ENGL 3324:New Testament as Literature  
ENGL 3330:Gender Studies \*  
ENGL 3340:Ethnic Literatures \*  
ENGL 3342:Topics in Native American Literature  
ENGL 3350:Regional Literature \*  
ENGL 3360:Major African American Writers \*  
ENGL 3400:Survey of African Literatures  
ENGL 3500:Topics in African American Literature \*  
ENGL 3510:Black Women Writers  
ENGL 3600:Topics in African Diaspora Literatures  
ENGL 4401:Topics in African Literatures \*  
AMST 3700:American Studies: Principles and Methods  
AMST 3710:U.S. in the World  
AMST 3730:Introduction to Native American Studies  
AMST 3740:American Popular Culture  
AMST 3750:Place in American Culture  
AMST 3760:Advanced Studies in American Identities  
AMST 3770:American Cultural Productions  
AMST 3780:American Cultural Movements

#### *VI. Theory*

ENGL 4220:Critical Theory  
ENGL 4230:Theory-Based Studies in Literature \*  
ENGL 4240:Rhetorical Theory  
FILM 4200:Theory-Based Studies in Film

#### *VII. Studies in Literature Before 1800*

ENGL 4340:Shakespeare \*  
ENGL 4360:American Literature Before 1800 \*  
ENGL 4370:Medieval Literature  
ENGL 4372:British Renaissance Literature  
ENGL 4374:Restoration and Eighteenth-Century Literature  
ENGL 4380:World Literature Before 1800 \*

*VIII. Studies in 19th-Century Literature*

ENGL 4460:19th-Century American Literature \*  
ENGL 4470:19th-Century British Literature \*  
ENGL 4480:19th-Century World Literature \*

*IX. Studies in 20th-Century and 21st-Century Literature*

ENGL 4560:20th-Century and 21st-Century American Literature \*  
ENGL 4570:20th-Century and 21st-Century British Literature \*  
ENGL 4580:20th-Century and 21st-Century World Literature \*

*Note:*

\*This course can be taken up to two times (6 credit hours) for credit toward graduation.

**Senior Seminar (3 Credit Hours)**

ENGL 4620:Senior Seminar

**Elective (3 Credit Hours)**

Any 3000 or 4000 level course with the prefix ENGL, FILM, WRIT, or LING.

**Upper Division Electives (9 Credit Hours)**

9 hours of upper-division studies can be selected from any 3000- or 4000-level courses in the university curriculum.

**Free Electives (18 Credit Hours)**

Any courses in the university curriculum.

**Program Total (120 Credit Hours)**

# **Geography, B.A.**

## **Program Description**

The Bachelor of Arts with a major in Geography provides students with an understanding of various aspects of the Earth, including its physical features, the role of humans in modifying the Earth, and the relationships between peoples and places.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major:***

Area D1: STAT 1401 (recommended) Area D2: GEOG 1112 or GEOG 1113 (recommended) It is required that Geography majors complete GEOG 1112 or GEOG 1113 with a grade of "C "or higher.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

FL 1002:Elementary Foreign Language II

FL 2001:Intermediate Foreign Language and Culture I

GEOG 2200:Research Methods

GEOG 1110:The Digital Earth

GEOG 1112K:Introduction to Weather and Climate \*

or

GEOG 1113K:Introduction to Landforms \*  
GEOG 1101:Introduction to Human Geography  
or

GEOG 1125:Resources, Society, and the Environment  
or

GEOG 1130:World Regional Geography

\* one credit hour from GEOG 1112K or GEOG 1113K will be accounted for in the major

### **Major Requirements (31 Credit Hours)**

GEOG 3398:Internship  
or

GEOG 4100:Directed Applied Research  
GEOG 4499:Senior Seminar in Geography  
One credit hour from Area F

### **Major Sub-Groups**

Choose two courses from Group A listed below for a total of six credit hours. Choose two courses from Group B listed below for a total of six credit hours. Choose one course from Group C listed below for a total of three credit hours. Choose three courses from Groups A, B, C, or D listed below for a minimum of nine credit hours.

#### *Group A: Human/Regional Geography*

GEOG 3000:Geography of Beer  
GEOG 3310:Historical Geography  
GEOG 3312:Geography of Europe  
GEOG 3320:Political Geography  
GEOG 3330:Economic Geography  
GEOG 3340:Cultural Geography  
GEOG 3350:Geography of Sub-Saharan Africa  
GEOG 3360:Geography of Asia  
GEOG 3370:Geography of Latin America and the Caribbean  
GEOG 3390:Geography of the Middle East and North Africa  
GEOG 3395:Geography of Clothing  
GEOG 4300:Urban Geography  
GEOG 4345:Population Geography  
GEOG 4349:Health Geography  
GEOG 4380:Geography of North America

*Group B: Physical/Environmental Geography*

GEOG 3700:Introduction to Environmental Studies  
GEOG 3710:Local & Global Sustainability  
GEOG 3800:Climatology  
GEOG 3850:Global Climate Change  
GEOG 3900:Biogeography  
GEOG 4700:Geomorphology

*Group C: Geographic Techniques*

GEOG 3305:Introduction to Cartographic Processes  
GEOG 3315:Introduction to Geographic Information Systems  
GEOG 4405:Advanced Geographic Information Systems  
GEOG 4410:Introduction to Remote Sensing  
SURV 3320:Photogrammetry and Drone Analysis  
SURV 3451:Terrain Analysis

*Group D: Miscellaneous Courses*

Study Abroad 3000-4000 level (any subject)

GEOG 4490:Special Topics in Geography  
Study Abroad 3000-4000 level (any subject)

**Upper-Division Electives (15 Credit Hours)**

Any 3000-4000 level courses from the university curriculum.

**Free Electives (14 Credit Hours)**

Any courses in the university curriculum.

**Program Total (120 Credit Hours)**

# **Geospatial Sciences, B.S.**

## **Program Description**

The Bachelor of Science with a major in Geospatial Sciences (GSS) integrates various geospatial technologies with applied research domains. The GSS program aims at producing high caliber graduates who are well trained in the theory and application of geospatial technologies, including GIS, remote sensing, and land surveying. Students receive fundamental knowledge of geospatial skills, along with specific content in one of three concentration: human-environment systems, information systems, or land surveying. Geospatial Sciences provide students a set of skills to manipulate, analyze, assess, and visualize data by way of digital maps and/or map imagery to solve problems. Graduates of the major have obtained geospatial jobs related to crime analysis, emergency services, engineering, epidemiology, environmental management, forestry, housing, marketing, military sciences, sustainability, land surveying, transportation, urban planning, and utilities, among others.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

GEOG 1110:The Digital Earth

GEOG 2391:Professionalism and Ethics

Select one of the following:

GEOG 1101:Introduction to Human Geography

GEOG 1125:Resources, Society, and the Environment

GEOG 1130:World Regional Geography

Select one of the following:

GEOG 1112K:Introduction to Weather and Climate

GEOG 1113K:Introduction to Landforms

Choose any two 1000 or 2000 level course from any discipline for a total of 6 Credit Hours

### **Major Requirements (24 Credit Hours)**

GEOG 3305:Introduction to Cartographic Processes

GEOG 3315:Introduction to Geographic Information Systems

GEOG 4405:Advanced Geographic Information Systems

GEOG 4410:Introduction to Remote Sensing

SURV 3320:Photogrammetry and Drone Analysis

Select three courses: Two from Group A, and one from Group B for a total of 9 credit hours.

#### ***Group A: GIS and Remote Sensing***

Select two from the following:

GEOG 4500:Advanced Topics in Geospatial Science \* may be repeated for credit if the topics are different.

GIS 3398:Internship \*\*This is an extra 3 hours in addition to the required 6 hours for the Human-Environment Systems and Information Systems concentrations.

GIS 4100:Directed Applied Research

SURV 3451:Terrain Analysis

#### ***Group B: Experience Courses***

Select one from the following:

GEOG 4100:Directed Applied Research

GEOG 4499:Senior Seminar in Geography

Any 3000/4000 level Study Abroad course

### **Major Concentration (36 Credit Hours)**

Select one of the following concentrations:

## **Human-Environmental Concentration**

### *Human-Environment Systems Required Courses (9 Credit Hours)*

GEOG 2200:Research Methods

or

TCOM 2010:Technical Writing

GIS 3398:Internship

### Human-Environment Systems Electives (12 Credit Hours)

Select one course (3 credits) from the Physical and Environmental list. Select one course (3 credits) from the Human and Society list. The remaining two courses (6 credits) can be taken from either list.

### Physical and Environmental Courses

ANTH 4430:Environmental Anthropology Field Methods

ENVS 3720:Sustainability at KSU

ENVS 3730:Natural Resource Management

GEOG 3700:Introduction to Environmental Studies

GEOG 3800:Climatology

GEOG 3850:Global Climate Change

GEOG 3900:Biogeography

GEOG 4700:Geomorphology

POLS 3356:U.S. Environmental Policy & Politics

POLS 4456:International Environmental Policy

### Human and Society Courses

ANTH 3307:Cultural Anthropology

GEOG 3000:Geography of Beer

GEOG 3310:Historical Geography

GEOG 3320:Political Geography

GEOG 3330:Economic Geography

GEOG 3340:Cultural Geography

POLS 4412:Urban Politics

SOCI 4464:Population and Demography

GEOG 4300:Urban Geography

GEOG 4345:Population Geography

### *Free Electives (15 Credit Hours)*

Select any 15 credit hours from the university catalog.

### **Information Systems Concentration**

#### *Information Systems Required Courses (9 Credit Hours)*

IS 2200:Information Systems and Communication  
GIS 3398:Internship

#### *Information Systems Elective Courses (12 Credit Hours)*

Select any four of the following for a total of 12 credit hours:

IS 3020:Application Development I  
IS 3100:Information Systems Management  
IS 3220:Global IS Project Management  
IS 3260:Web Development I  
IS 3280:Data Management  
IS 3740:Human Computer Interaction  
IS 3760:Web Development II  
ISA 3100:Principles of Information Security

#### *Free Electives (15 Credit Hours)*

Select any 15 credit hours from the university catalog.

### **Land Surveying Concentration**

Upon completion of the Geospatial Science, BS degree requirements and this concentration students will be awarded the Land Surveying Certificate.

#### *Land Surveying Required Courses (27 Credit Hours)*

Students will complete the Land Surveying Certificate (18 Credit Hours) plus the following courses.

EDG 2160:Civil Graphics and Computer Aided Drafting  
SURV 3451:Terrain Analysis  
SURV 4110:Geospatial Sciences Practice

#### *Free Electives (9 Credit Hours)*

Select any 9 credit hours from the university catalog.

### **Program Total (120 Credit Hours)**

# **History Education B.S.**

## **Program Description**

The History Education degree leads to 6-12 teacher certification in the state of Georgia. Candidates concentrate on history, as the principal social science discipline in the secondary education curriculum, and take courses in several other social science disciplines (such as political science, economics, and geography) as part of their cross-disciplinary teaching field preparation. After certification in history, graduates can add on certification in additional disciplines.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

### Accreditation

The B.S. with a major in History Education is fully accredited by the National Council for Accreditation of Teacher Education (NCATE), is fully approved by Georgia's Professional Standards Commission for teacher certification, and is nationally recognized by the National Council for the Social Studies (NCSS).

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to teacher education is separate from admission to Kennesaw State University. Students must meet the Admission Requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

EDUC 2110:Investigating Critical & Contemporary Issues in Education

EDUC 2120:Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts

GEOG 1130:World Regional Geography

HIST 2111:Survey of U.S. History I  
HIST 1112:Survey of World History II  
HIST 2206:Origins of Great Traditions

### **Teaching Field Requirements (33 Credit Hours)**

#### ***Required Courses (18 Credit Hours)***

ECON 2106:Principles of Microeconomics  
GEOG 3340:Cultural Geography  
HIST 3100:Historical Methods  
HIST 3304:History of Georgia  
HIST 4488:Approaches to World History  
POLS 3300:U.S. Constitution and Courts

#### ***Upper Division History Electives (15 Credit Hours)***

Courses to be chosen with advisor. One of these history courses must be a research seminar (HIST 4495, HIST 4496, HIST 4497, or HIST 4498).

#### ***American History (6 Credit Hours)***

Choose two:

HIST 3310:The Old South  
HIST 3311:The New South  
HIST 3331:History of Religion in the U.S.  
HIST 3333:African American History to 1865  
HIST 3335:African American History, 1865 to Present  
HIST 3340:U.S. Military Experience  
HIST 3341:Women in U.S. History and Culture  
HIST 4204:The History of the American West  
HIST 4255:Diplomatic History of the United States  
HIST 4251:U.S. Social and Cultural History  
HIST 4245:Business & Economic History of United States  
HIST 4410:Colonial America to 1763  
HIST 4411:The American Revolution  
HIST 4412:The Early Republic  
HIST 4415:Jacksonian America  
HIST 4451:Civil War and Reconstruction  
HIST 4461:Gilded Age & Progressive Era  
HIST 4163:The United States between the World Wars  
HIST 4471:Recent United States History  
HIST 4490:Special Topics in History (as appropriate)

HIST 4495:Research Seminar in US History

*European History (3 Credit Hours)*

Choose one:

- HIST 3350:England to 1688
- HIST 3351:Modern England
- HIST 3361:Themes in Slavic and Eastern European Studies
- HIST 3371:Modern Europe
- HIST 3377:History of Science
- HIST 4428:The Third Reich
- HIST 4440:Medieval Europe
- HIST 4441:The Holy Roman Empire
- HIST 4442:History of Religious Tolerance
- HIST 4445:Age of Enlightenment
- HIST 4453:World War I
- HIST 4454:Twentieth Century Europe
- HIST 4456:World War II
- HIST 4496:Research Seminar in European History
- HIST 4501:Ancient Greece
- HIST 4502:Ancient Rome
- HIST 4503:Twilight of Antiquity
- HIST 4544:Renaissance Europe
- HIST 4545:Reformation Europe
- HIST 4555:Topics in European Culture
- HIST 4558:The Holocaust
- HIST 4633:Modern German History
- HIST 4640:Modern Ireland
- HIST 4654:Russia to 1861
- HIST 4655:Russia Since 1861
- HIST 4490:Special Topics in History (as appropriate)

*Non-Western World Studies (6 Credit Hours)*

Choose two:

- HIST 3305:The World Since 1945
- HIST 3334:The Africans in the Diaspora
- HIST 3357:Africans in Asia
- HIST 3358:Africans in Latin America and the Caribbean
- HIST 3366:History of Mexico and Central America
- HIST 3367:History of Brazil
- HIST 3372:Ancient to Pre-Modern China

HIST 3373:Modern India and South Asia  
HIST 3374:Modern China  
HIST 3375:Silk Road  
HIST 3379:Central Asia in World History  
HIST 3380:Premodern Japan  
HIST 3381:Modern Japan  
HIST 3382:North Africa and Middle East in Modern Times  
HIST 3391:History of West Africa  
HIST 3392:History of Southern, Eastern and Central Africa  
HIST 4373:Modern India and South Asia  
HIST 4374:History of Ancient and Medieval India  
HIST 4375:Themes in Asian History  
HIST 4391:Emerging Themes in African History  
HIST 4497:Research Seminar in non-Western History  
HIST 4498:Research Seminar in World History  
HIST 4760:The Age of Imperialism  
HIST 4765:History of Terrorism  
HIST 4905:History of the Atlantic World  
HIST 4490:Special Topics in History (as appropriate)

**Professional Education (6-12) Requirements (27 Credit Hours)**

Must be admitted to Teacher Education and History Education before taking these courses.

EDUC 2130:Exploring Teaching & Learning  
HIST 3271:Introduction to History Education  
HIED 4550:Methods of History Education  
HIED 4650:Yearlong Clinical Experience I  
HIED 4660:Yearlong Clinical Experience II  
EDUC 4610:Introduction to the Yearlong Clinical Experience  
INED 3300:Educating Students with Exceptionalities in Inclusive Settings  
INED 4431:Foundations for Teaching Diverse English Learners

**Program Total (120) Credit Hours)**

# **History, B.A.**

## **Program Description**

The program of study in history offers a Bachelor of Arts degree. All majors complete several "major requirements" which provide needed background in research and writing, in the theory of the discipline, and in the various fields of history. Students must also complete a capstone experience including two research seminars. Students needing a writing sample or other credential for career advancement or graduate study can complete a Senior Thesis. A degree in history is useful to students interested in careers involving critical thinking, research and oral and written communication. It serves as a prerequisite for graduate study in a number of fields, including history and many other social science disciplines, education, law, and theology. A degree in history prepares students for careers in government, the international arena, law, theology, business, non-profit work, as well as for graduate study.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

HIST 1111:Survey of World History I

or

HIST 1112:Survey of World History II

HIST 2111:Survey of U.S. History I

or

HIST 2112:Survey of U.S. History II  
FL 1002:Elementary Foreign Language II  
FL 2001:Intermediate Foreign Language and Culture I  
Must take 2 of the following 3.

GEOG 1130:World Regional Geography  
HIST 2206:Origins of Great Traditions  
PHIL 2010:Introduction to Philosophy

### **Major Requirements (30 Credit Hours)**

#### ***Required Courses (12 Credit Hours)***

All students must complete the following courses:

HIST 3100:Historical Methods  
FL 2002:Intermediate Foreign Language and Culture II  
Any two Research Seminars:

HIST 4495:Research Seminar in US History  
HIST 4496:Research Seminar in European History  
HIST 4497:Research Seminar in non-Western History  
HIST 4498:Research Seminar in World History

OR

One Research Seminar from List Above

AND

HIST 4499:Senior Thesis in History

#### ***Non-Western History Courses (6 Credit Hours)***

Select two courses from the following:

HIST 3305:The World Since 1945  
HIST 3334:The Africans in the Diaspora  
HIST 3357:Africans in Asia  
HIST 3358:Africans in Latin America and the Caribbean  
HIST 3366:History of Mexico and Central America  
HIST 3367:History of Brazil  
HIST 3372:Ancient to Pre-Modern China  
HIST 3373:Modern India and South Asia  
HIST 3374:Modern China  
HIST 3375:Silk Road

HIST 3379:Central Asia in World History  
HIST 3380:Premodern Japan  
HIST 3381:Modern Japan  
HIST 3382:North Africa and Middle East in Modern Times  
HIST 3391:History of West Africa  
HIST 3392:History of Southern, Eastern and Central Africa  
HIST 4905:History of the Atlantic World  
HIST 4373:Modern India and South Asia  
HIST 4374:History of Ancient and Medieval India  
HIST 4375:Themes in Asian History  
HIST 4391:Emerging Themes in African History  
HIST 4453:World War I  
HIST 4456:World War II  
HIST 4760:The Age of Imperialism  
HIST 4765:History of Terrorism  
HIST 4490:Special Topics in History (as appropriate)

***U.S. History Courses (6 Credit Hours)***

Select two courses from the following:

HIST 3304:History of Georgia  
HIST 3310:The Old South  
HIST 3311:The New South  
HIST 3331:History of Religion in the U.S.  
HIST 3333:African American History to 1865  
HIST 3335:African American History, 1865 to Present  
HIST 3340:U.S. Military Experience  
HIST 3341:Women in U.S. History and Culture  
HIST 4163:The United States between the World Wars  
HIST 4204:The History of the American West  
HIST 4245:Business & Economic History of United States  
HIST 4251:U.S. Social and Cultural History  
HIST 4255:Diplomatic History of the United States  
HIST 4410:Colonial America to 1763  
HIST 4411:The American Revolution  
HIST 4412:The Early Republic  
HIST 4415:Jacksonian America  
HIST 4451:Civil War and Reconstruction  
HIST 4461:Gilded Age & Progressive Era  
HIST 4471:Recent United States History  
HIST 4490:Special Topics in History (as appropriate)

### **European History Courses (6 Credit Hours)**

Select two courses from the following:

HIST 3350:England to 1688  
HIST 3351:Modern England  
HIST 3361:Themes in Slavic and Eastern European Studies  
HIST 4428:The Third Reich  
HIST 4440:Medieval Europe  
HIST 4441:The Holy Roman Empire  
HIST 4442:History of Religious Tolerance  
HIST 4445:Age of Enlightenment  
HIST 4454:Twentieth Century Europe  
HIST 4501:Ancient Greece  
HIST 4502:Ancient Rome  
HIST 4503:Twilight of Antiquity  
HIST 4544:Renaissance Europe  
HIST 4545:Reformation Europe  
HIST 4555:Topics in European Culture  
HIST 4558:The Holocaust  
HIST 4633:Modern German History  
HIST 4640:Modern Ireland  
HIST 4654:Russia to 1861  
HIST 4655:Russia Since 1861  
HIST 4490:Special Topics in History (as appropriate)

### **Upper Division Electives (3 Credit Hours)**

Select any course from the following:

HIST 3325:Introduction to Public History  
HIST 3326:Historic Preservation  
HIST 3327:Architectural History  
HIST 3328:Introduction to Archives and Records Management  
HIST 3376:Historiographical Debates  
HIST 3377:History of Science  
HIST 3378:History of Technology  
HIST 4425:Oral History  
HIST 4426:Documentation and Interpretation of Historic Sites  
HIST 4427:Museum Exhibitions  
HIST 4430:Museum Studies  
HIST 4435:History and Memory  
HIST 4911:Themes in American Environmental History  
HIST 3396:Cooperative Study

HIST 3398: Internship  
HIST 4400: Directed Study  
HIST 4490: Special Topics in History

**Minor, Certificate or Related Studies (18 Credit Hours)**

Students may choose to pursue a minor or a certificate. Please see academic advisor for available minors. Students are encouraged to enroll in an internship or study abroad experience. Students may also enroll in any 3000 or 4000 level course from the following approved courses and prefixes.

Approved Related Studies

**Free Electives (9 Credit Hours)**

Any courses in the university curriculum.

***Program Total (120 Credit Hours)***

# **Interactive Design, B.S.**

## **Program Description**

The Bachelor of Science with a major in Interactive Design provides students with an interdisciplinary, hands-on approach to developing the technical, theoretical, and creative skills needed to serve in the field of interactive design as interaction designers, user interface designers, and information visualization designers. This approach to design merges technical knowledge and aesthetic creativity with an ultimate focus on the human needs of end users. Students will combine practical prototyping skills with theoretical and technical approaches to front-end digital design and culture. The emphasis here is on creating well-rounded designers who are suited to meet the growing marketplace need for interactive design.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

ART 1100:Two-Dimensional Design and Color Theory

ART 1150:Drawing I

IAD 2100:Prototyping I

IT 1113:Introduction to Programming

TCID 2002:Productivity Tools and Technologies

TCID 2170:Introduction to Digital Media and Culture

## **Major Requirements (36 Credit Hours)**

### ***Required Courses (18 credit hours)***

IAD 3000:Interaction Design I  
IAD 3150:Visual Design I  
IAD 3230:User Interface Design I  
TCID 3100:Professional Development  
TCID 3400:Front-End Development I  
TCID 4700:Capstone Project and Portfolio Showcase

### ***Major Electives (18 Credit Hours)***

Choose six of the following for a total of 18 credit hours:

IAD 3300:Ethnography for Designers  
IAD 3398:Internship  
IAD 4000:Interaction Design II  
IAD 4150:Visual Design II  
IAD 4200:Prototyping II  
IAD 4230:User Interface Design II  
IAD 4400:Directed Study  
IAD 4490:Special Topics in Interactive Design  
TCID 3800:Front-End Development II  
TCID 4500:Front-End Development III

### **Upper-Division Electives (12 credit hours)**

Select 12 hours of upper division course work (3000 - 4000 level) inside or outside of the Interactive Design Major passing with a C or better. These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Completion of a Formal Minor or Certificate Program would also satisfy this requirement.

### **Free Electives (12 credit hours)**

Select 12 hours of courses in the university curriculum. This includes any course (1000 - 4000) in the university curriculum (including Interactive Design) passing with a D or better.

### ***Program Total (120 Credit Hours)***

# **Interdisciplinary Studies, B.S.**

## **Program Description**

The Bachelor of Science with a major in Interdisciplinary Studies allows students who desire a broad and flexible program of study the opportunity to integrate more than one disciplinary interest in formulating their degree path. Through this interdisciplinary degree, students acquire and integrate relevant disciplinary perspectives in order to address contemporary political, social, scientific, and humanitarian questions facing their local and global communities. Grounded in principles that promote diversity, community engagement, and social change, a degree in Interdisciplinary Studies prepares students well for the modern workplace and advanced degrees where interdisciplinary approaches offer a unique contribution.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

ISD 1198:Introduction to Interdisciplinary Studies  
ISD 2001:Introduction to Diversity and Social Justice  
or

LDRS 2100:Leadership & Historic Social Movements  
PERS 2700:Perspectives on the World of Work  
or

STS 1101:Science, Technology, and Society

Nine (9) credits of 1000–2000 level coursework\* \*Note: HPAL1000 level courses cannot satisfy Area F requirements

### **Major Requirements (27 Credit Hours)**

#### ***Interdisciplinary Studies Core Courses (15 Credit Hours)***

ISD 3001:Integrative Approaches to Social Justice and Inclusion  
or

ISD 3004:Global Perspectives

ISD 3002:Literacy in Interdisciplinary Studies  
or

ISD 3003:Critical Science Literacy

ISD 3100:Interdisciplinary Studies Research Methods

ISD 3398:Interdisciplinary Studies Internship  
or

LDRS 3400:Leadership and Community Engagement

ISD 4498:Senior Seminar in Interdisciplinary Studies

#### ***Interdisciplinary Major Field Requirements (12 Credit Hours)***

Students complete any 3000 or 4000 level courses with the following prefixes: AADS, ASIA, AMST, GWST, ISD, LALS, LDRS, NAIS, PAX, RELS, or STS.

#### **Upper-Division Electives (12 Credit Hours)**

Students complete 3000 or 4000 level courses to meet this requirement. Those students seeking the Diversity and Community Engagement certificate must take IHS 3240 and IHS 4760.

#### **Free Electives (21 Credit Hours)**

Any courses in the university curriculum totaling 21 credits.

#### ***Program Total (120 Credit Hours)***

## **Embedded Certificate**

Upon completion of the degree requirements and selection of specific courses in the Upper-Division Electives students may earn the following certificates. Students, please consult with your academic advisor regarding declaration of a certificate. Diversity and Community Engagement Certificate - Embedded

# **International Affairs, B.A.**

## **Program Description**

The program of study in International Affairs leads to a Bachelor of Arts degree. The degree plays an integral role in the School of Government and International Affairs. In this interdisciplinary major, the student must complete four required upper division major courses followed by six courses of upper division major electives. This is followed by five classes of interdisciplinary Related Studies. It is within this area that we encourage students to complete a certificate or minor or to participate in a coop/internship program or study abroad. This degree prepares graduates for careers in business, nonprofit organizations, law, or government service.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION . In addition, all IA Majors are required to take the International Affairs Exit Exam immediately before they petition to graduate.

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

Note: FL 1002, FL 2001, and FL 2002 must all be taken in the same foreign language.

DATA 1501 is a prerequisite for POLS 2280

FL 2001:Intermediate Foreign Language and Culture I  
OR

DATA 1501:Introduction to Data Science  
FL 2002:Intermediate Foreign Language and Culture II

OR

POLS 2280:Research Methods  
POLS 2238:Introduction to International Political Economy  
POLS 2240:Introduction to Comparative Politics  
POLS 2250:Introduction to International Relations  
POLS 2285:Applied Research Design in International Affairs

**Lower Division Career Program (6 Credit Hours)**

POLS 2230:Careers in International Affairs  
FL 1002:Elementary Foreign Language II  
OR

POLS 2401:Global Issues

**Upper Division Major Requirements (33 Credit Hours)**

***Upper Division Major Core (12 Credit Hours)***

Students must complete four courses from the following list:

POLS 3350:American Foreign Policy  
POLS 4430:International Law and Organization  
POLS 4436:Politics of Developing Areas  
POLS 4437:Global Security  
POLS 4440:Comparative Democratization

***Upper Division Regional and Thematic Requirements (21 Credit Hours)***

Students must take seven courses (21 credit hours) from the following list. An International Affairs Major who takes POLS 4490 should seek adviser approval prior to enrolling.

POLS 3850:Introduction to Nongovernmental Organizations and Development  
POLS 4100:Directed Applied Research  
POLS 4202:Politics of the U.S. Intelligence Community  
POLS 4431:Politics of International Terrorism  
POLS 4433:European Union Politics  
POLS 4439:Political Economy of Russia and Central Asia in Transition  
POLS 4448:Russian Politics and Culture  
POLS 4449:Russian Foreign Policy  
POLS 4452:Politics of East Asia  
POLS 4453:Latin America: Democracy and Development  
POLS 4454:Politics of the Middle East  
POLS 4455:International Relations of Africa

POLS 4456:International Environmental Policy  
POLS 4457:South Asian Politics: A Comparative Perspective  
POLS 4460:Politics of NATO  
POLS 4490:Special Topics in Political Science  
POLS 4447:Arctic Politics, Policy, and Security in a Changing Environment

### **Related Studies (12 Credit Hours)**

Students are encouraged to complete a minor and/or certificate (these credits may count toward both Related Studies and the minor/certificate). Students are also encouraged to pursue internships in order to gain career experience within the field of International Affairs. Students should work closely with their academic adviser and the SGIA internship coordinator in order to receive academic credit for their internships. Notes: 1) Students may substitute upper-division courses from other disciplines with adviser approval, 2) Student may also complete an "Applied Global Experience" of ten weeks or more in order to receive 15 credit hours in this category. Full-time status will be based upon the criteria set by host institution. Courses must be pre-approved by your International Affairs adviser and by the SGIA school director prior to departure. Students may choose from any of the following courses: Any 3000 - 4000 level course with the Prefix: ANTH, ASIA, BLAW, CRJU, ECON, EURO, FL (all Foreign Languages), GEOG, HIST, MGT, MKTG, PAX, POLS, PSYC, SOCI 3000 - 4000 and

NURS 4423:International Health Policy

### **Free Electives (9 Credit Hours)**

Any courses in the university curriculum.

### **Program Total (120 Credit Hours)**

#### **Embedded Certificates**

Upon completion of the degree requirements and selection of specific courses in either sub-fields, Upper-Division Major Electives, or Related Studies students may earn the following certificates. Students, please consult with your academic advisor regarding declaration of a certificate.

International Law Certificate- Embedded

# **Journalism and Emerging Media, B.S.**

## **Program Description**

Whether you are navigating the media-rich culture as a critical thinker, learning to write and produce news and feature stories as a journalist or are gaining hands-on experience in digital video and audio as a social media expert, Kennesaw State's Journalism and Emerging Media degree offers endless possibilities.

Learn the latest industry trends from faculty members who are award-winning professionals, including reporters, editors and international correspondents at the Associated Press, the Atlanta Journal-Constitution, CNN, NPR, commercial radio stations and various newspapers.

The Journalism and Emerging Media major offers a professionally-focused, marketplace-relevant, and theoretically-rigorous program. It includes courses in news writing, media law, digital media production, sports reporting, investigative reporting, and community-based capstone experience. It encourages students to enroll in a for-credit internship.

Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Journalism and Emerging Media program is separate from Admissions to Kennesaw State University. Students must meet the Admission Requirements to pursue this degree program, outlined below.

All communication and media majors must earn a grade of 'C' or better in all communication and media courses counted toward their degree and pass the Communication Entrance Exam with a score of 78% or higher. Students who fail to pass the grammar test in three attempts must pursue majors in other departments. Meet the School of Communication & Media (SOCM) Sophomore GPA requirement. This Sophomore GPA requirement consists of combined adjusted 2.75 GPA in the following five courses:

COMM 2020  
COMM 2033  
COMM 1110  
COMM 2135  
COMM 2240

Achieve a satisfactory score of 78% or higher on the SOCM Entrance Exams. Students may take the test no more than three times. ***This Entrance Exam requirement will be waived for students in this catalog year.***

## Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies Admissions.

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

COMM 2020:CSI: Communication Sources and Investigations  
COMM 1110:Public Speaking  
COMM 2033:Visual Communication  
COMM 2135:Writing for Public Communication  
COMM 2230:Introduction to Mass Communication  
COMM 2240:Communication Law, Ethics and Diversity

### **Major Requirements: (21 Credit Hours)**

COMM 3340:Digital Media Production  
JOUR 3330:News Reporting and Writing  
JOUR 3700:Fundamentals of Online Journalism  
JOUR 3900:Journalism History  
JOUR 4100:Data Journalism  
JOUR 4470:Media Law  
JOUR 4488:Multi-Media Visions of Community (Capstone)

### **Upper Division Major Electives (9 Credit Hours)**

Select three of the following:

MENT 3300:Entertainment Podcasting  
JOUR 3360:Photojournalism  
JOUR 3820:Video for the Web  
JOUR 4300:Topics in Journalism  
JOUR 4410:Investigative Reporting  
JOUR 4412:Sports Reporting  
JOUR 4420:Advanced Media Writing  
JOUR 4445:Advanced Digital Audio Production  
JOUR 4450:Video News Production

### **Advanced Journalism Professional Practice: (3 Credit Hours)**

Select one of the following:

JOUR 3395:Journalism Study Tour  
COMM 3398:Internship in Communication  
PR 4605:Magazine Media

### **Upper Division SOCM Electives (3 Credit Hours)**

Students may choose from any 3000–4000 level COM, JOUR, MENT, PR or ORGC course not previously taken. The list below provides recommended electives for Journalism and Emerging Media majors. Please take into account any prerequisites required.

COMM 3315:Interviewing  
COMM 3320:Health Communication  
COMM 3350:Editing for Today's Media  
COMM 3398:Internship in Communication  
COMM 4400:Directed Study  
COMM 4490:Special Topics in Communication  
JOUR 3310:Concepts in New Media  
JOUR 3360:Photojournalism  
JOUR 3820:Video for the Web  
JOUR 4300:Topics in Journalism  
JOUR 4410:Investigative Reporting  
JOUR 4412:Sports Reporting  
JOUR 4420:Advanced Media Writing  
JOUR 4430:Advanced Investigative Reporting I  
JOUR 4435:Advanced Investigative Reporting II  
JOUR 4445:Advanced Digital Audio Production  
JOUR 4450:Video News Production  
PR 3335:Public Relations Principles  
PR 3355:Public Relations Cases  
PR 3375:Public Relations Writing  
PR 3429:Persuasion Methods and Strategies  
PR 4405:Digital Publication Design  
PR 4605:Magazine Media  
PR 4210:Social Media for Strategic Communication  
MENT 3100:Fundamentals of Media & Entertainment  
MENT 3300:Entertainment Podcasting  
MENT 3326:International Media  
MENT 4425:Gender, Race and Media  
MENT 4430:Media Management  
MENT 4436:Topics in Entertainment

MENT 4444:Film and Video Structure and Process

MENT 4464:Documentary Filmmaking

MENT 4424:Uses and Effects of Mass Media

ORGC 3345:Team Communication

ORGC 3459:Communication and Conflict

ORGC 4470:Topics in Organizational & Professional Communication

### **Related Studies (12 Credit Hours)**

Upper division course work (3000–4000 level) outside of the School of Communication & Media (SOCM). These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Students should determine needed prerequisites. Completion of Formal Minor or Certificate Program would also satisfy the Related Studies requirement.

### **Free Electives (12 Credit Hours)**

Any course (1000–4000 level) in the university curriculum. Students must earn a grade of D or better.

### ***Program Total: (120 Credit Hours)***

# **Media and Entertainment, B.S.**

## **Program Description**

The Media and Entertainment major at Kennesaw State University invites students to explore the critical ways in which communication and converged media connect with and affect our lives, society, and culture. The theoretically-based program focuses on the forms and effects of media, including radio, film, television, print, and electronic media, and requires that students demonstrate basic digital media production skills.

Our students are critically engaged with creative analysis, production, and research into traditional and emerging forms of media. The curriculum emphasizes media history, media institutions, theory and research, production, ethics, policy, management, and technology and their effects on contemporary life. In addition to producing digital media, students learn to analyze and synthesize important information about media's role both within American society and globally, the formal attributes of a variety of media genres, media as a site of gender and racial identity formation and reflection, and the technological and cultural impacts of digital media. Media and Entertainment Studies majors learn to read and write effectively and look at the world with a critical eye.

Students who graduate with the BS with a major in Media and Entertainment will be ready for careers as media professionals within communication-based industries (i.e., media writing, media production, media editing, media sales, media buyer, media research, public affairs, publishing, public information officer, community outreach, political advocacy, and ministry), government, education, law and policy, management, and/or non-profit organizations. This program also lays the groundwork for further graduate study of mass communication, thus opening the door for employment as instructors in higher education.

The major requires 18 credit hours of lower-division course work (1000-2000 level) comprising various offerings that serve as important groundwork leading to advanced studies. Lower-division offerings include basic courses in communication research, visual communication, public speaking, writing, law and ethics, and an introductory course relevant to the student's selected program of study.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Media and Entertainment program is separate from Admissions to Kennesaw State University. Students must meet the Admission Requirements to pursue this degree program, outlined below.

All communication and media majors must earn a grade of 'C' or better in all communication and media courses counted toward their degree and pass the Communication Entrance Exam with a score of 78% or higher. Students who fail to pass the grammar test in three attempts must pursue majors in other departments.

Meet the School of Communication & Media (SOCM) Sophomore GPA requirement. This Sophomore GPA requirement consists of combined adjusted 2.75 GPA in the following five courses:

- COMM 2020
- COMM 2033
- COMM 1110
- COMM 2135
- COMM 2240

Achieve a satisfactory score of 78% or higher on the SOCM Entrance Exams. Students may take the test no more than three times. This Entrance Exam requirement will be waived for students in this catalog year

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- COMM 2020:CSI: Communication Sources and Investigations
- COMM 2033:Visual Communication
- COMM 1110:Public Speaking
- COMM 2135:Writing for Public Communication
- COMM 2230:Introduction to Mass Communication
- COMM 2240:Communication Law, Ethics and Diversity

### **Major Requirements (33 Credit Hours)**

#### **Major Required Courses (15 Credit Hours)**

- MENT 3100:Fundamentals of Media & Entertainment
- MENT 4424:Uses and Effects of Mass Media
- MENT 4485:Media & Entertainment Capstone
- COMM 3340:Digital Media Production

COMM 3435:Communication Research Methods

**Technology Competency (3 Credit Hours)**

Select one of the following:

- MENT 3300:Entertainment Podcasting
- MENT 4454:moMENTum productions
- MENT 4464:Documentary Filmmaking

**Writing Competency (3 Credit Hours)**

Select one of the following:

- MENT 3200:Writing for Entertainment Media
- FILM 3105:Introduction to Screenwriting
- FILM 3125:Introduction to TV Writing
- WRIT 3150:Topics in Digital Rhetoric
- WRIT 3151:Digital Storytelling
- WRIT 3152:Digital Community Engagement

**Media Literacy Competency (6 Credit Hours)**

Select two courses from the following:

- MENT 3326:International Media
- MENT 4425:Gender, Race and Media
- MENT 4430:Media Management
- MENT 4434:Topics in Media
- MENT 4444:Film and Video Structure and Process
- COMM 3398:Internship in Communication

Internship limited to 3 credit hours in this competency area.

**Entertainment Competency (6 Credit Hours)**

Select two courses from the following:

- MENT 3300:Entertainment Podcasting
- MENT 4436:Topics in Entertainment
- MENT 4444:Film and Video Structure and Process
- MENT 4454:moMENTum productions
- MENT 4464:Documentary Filmmaking
- MENT 4495:Media and Entertainment Study Tour
- MEBU 3100:Fundamentals of the Music and Entertainment Business

**Upper Division SOCM Elective (3 Credit Hours)**

Students may choose one 3000- or 4000-level course from COM, JOUR, MENT, ORGC, or PR. The courses listed below are recommended for MENT majors.

- MENT 3200:Writing for Entertainment Media
- MENT 3300:Entertainment Podcasting

COMM 3315:Interviewing  
COMM 3320:Health Communication  
MENT 3326:International Media  
COMM 3350:Editing for Today's Media  
JOUR 3360:Photojournalism  
MEBU 3370:Fundamentals of Audio Production and Technology  
COMM 3398:Internship in Communication  
Internship limited to 3 credit hours in Upper Division SOCM Electives  
COMM 4200:Directed Applied Research  
MEBU 4100:Emerging Trends of the Music and Entertainment Business  
MEBU 4200:Current Topics in the Music and Entertainment Business  
COMM 4400:Directed Study  
PR 4405:Digital Publication Design  
MENT 4425:Gender, Race and Media  
MENT 4430:Media Management  
MENT 4434:Topics in Media  
MENT 4436:Topics in Entertainment  
MENT 4444:Film and Video Structure and Process  
MENT 4454:moMENTum productions  
JOUR 4445:Advanced Digital Audio Production  
MENT 4464:Documentary Filmmaking  
MEBU 4470:Advanced Audio Production and Technology  
COMM 4490:Special Topics in Communication  
MEBU 4490:Special Topics in the Music and Entertainment Business  
MENT 4495:Media and Entertainment Study Tour

### **Related Studies (12 Credit Hours)**

Select 12 hours of upper division coursework (3000-4000 level) outside of the School of Communication & Media (SOCM). These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Students should determine needed prerequisites. Completion of Formal Minor or Certificate Program would also satisfy the Related Studies requirement.

Recommended courses/minors/certificates include: Interdisciplinary Music and Entertainment Business Certificate /Music and Entertainment Business Minor program; Film Studies Minor; FILM 4105;FILM 4125; 3000- & 4000- level GFA Courses; AMST 3740; ANTH 3521; POLS 3380; WRIT 3150; WRIT 3151; & WRIT 3152

### **Free Electives (12 Credit Hours)**

Any courses (1000-4000) in the university curriculum.

### **Program Total (120 Credit Hours)**

# **Modern Language and Culture, B.A.**

## **Program Description**

Speaking a second language and understanding other cultures are of strategic importance in a world in which international collaboration is not only necessary for political survival, but also indispensable for economic success. The B.A. with a major in Modern Language and Culture prepares graduates who are able to communicate effectively in one or more world languages and have a keen understanding of how humans interact across world cultures. Graduates will be familiar with current global issues and possess the knowledge, skills, and versatility needed to succeed academically and professionally in an ever-changing society.

The B.A. with a major in Modern Language and Culture is designed to develop students' communication skills and understanding of other cultures and to foster respect for difference and diversity in a global society. Students choose one of five primary languages - Chinese, French, German, Italian, or Spanish - in which they develop and refine language proficiency as well as cross-cultural competence. In the course of their studies, Modern Language and Culture majors acquire and practice the communication skills and cultural competence necessary to function effectively in a global society. The curriculum prepares degree candidates for future academic programs and professional careers in which world language proficiency and cultural knowledge are desirable or required or both.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Accreditation**

The B.A. with a major in Modern Language and Culture is fully accredited by NCATE (National Council for Accreditation of Teacher Education) and nationally recognized by ACTFL (American Council on the Teaching of Foreign Languages).

## **Admission, Enrollment, and Graduation Policies**

### **Teacher Education Admission Requirements**

Admission to teacher education is separate from admission to Kennesaw State University. Students must meet the admission, retention and Graduation Requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

### **Graduation Requirements**

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION . In addition, all Modern Language and Culture majors must take an official Oral Proficiency Interview (OPI). In addition, majors choosing the "Teacher Certification in a Foreign Language" concentration must receive a minimum rating

of "Advanced Low" to graduate and to receive a recommendation for certification. For information about the OPI, see <http://www.actfl.org>.

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

Select a primary language: Chinese, French, German, Italian, or Spanish.

CHIN 1002:Elementary Chinese II  
CHIN 2001:Intermediate Chinese I  
CHIN 2002:Intermediate Chinese II  
or

FREN 1002:Elementary French II  
FREN 2001:Intermediate French I  
FREN 2002:Intermediate French II  
or

GRMN 1002:Elementary German II  
GRMN 2001:Intermediate German I  
GRMN 2002:Intermediate German II  
or

ITAL 1002:Elementary Italian II  
ITAL 2001:Intermediate Italian I  
ITAL 2002:Intermediate Italian II  
or

SPAN 1002:Elementary Spanish II  
SPAN 2001:Intermediate Spanish I  
SPAN 2002:Intermediate Spanish II

FL 2209:World Languages and Cultures  
or

FL 2306:Voices of Dissent Around the World

Six credits of lower-division electives. Students should select courses that align with their desired concentration. Students in the Teacher Education Concentration must take

EDUC 2110 and EDUC 2120; it is recommended to meet with an advisor to discuss options. 1000-level HPE courses cannot count in this area.

**Required Core Courses (Chinese, French, German, Italian, or Spanish) (30 Credit Hours)**

***Chinese***

CHIN 3200:Critical Reading and Applied Writing

CHIN 3302:Practical Conversation

CHIN 3303:Grammar and Composition

CHIN 3304:Readings in Culture I

CHIN 3305:Readings in Culture II

CHIN 3398:Internship (Completed in Chinese)

or

CHIN 3390:Upper-division Study Abroad in Chinese

CHIN 4402:Contemporary Culture

CHIN 4434:Topics in Language, Literature, and Culture

CHIN 4456:Advanced Grammar and Linguistics

CHIN 4499:Senior Seminar

***French***

FREN 3200:Critical Reading and Applied Writing

FREN 3302:Practical Conversation

FREN 3303:Grammar and Composition

FREN 3304:Literature and Culture I

FREN 3305:Literature and Culture II

FREN 3398:Internship (completed in French)

or

FREN 3390:Upper-division Study Abroad in French

FREN 4402:Contemporary Culture

FREN 4434:Topics in Language, Literature, and Culture

FREN 4456:Advanced Grammar and Linguistics

FREN 4499:Senior Seminar

## **German**

GRMN 3200:Critical Reading and Applied Writing  
GRMN 3302:Practical Conversation  
GRMN 3303:Grammar and Composition  
GRMN 3304:Literature and Culture I  
GRMN 3305:Literature and Culture II

GRMN 3398:Internship (completed in German)  
or

GRMN 3390:Upper-division Study Abroad in German

GRMN 4402:Contemporary Culture  
GRMN 4434:Topics in Language, Literature, and Culture  
GRMN 4456:Advanced Grammar and Linguistics  
GRMN 4499:Senior Seminar

## **Italian**

ITAL 3200:Critical Reading and Applied Writing  
ITAL 3302:Practical Conversation  
ITAL 3303:Grammar and Composition  
ITAL 3304:Literature and Culture I  
ITAL 3305:Literature and Culture II

ITAL 3390:Upper-division Study Abroad in Italian  
or

ITAL 3398:Internship

ITAL 4402:Contemporary Culture  
ITAL 4434:Topics in Language Literature and Culture  
ITAL 4456:Advanced Grammar and Linguistics  
ITAL 4499:Senior Seminar

## **Spanish**

SPAN 3200:Critical Reading and Applied Writing  
SPAN 3302:Practical Conversation  
SPAN 3303:Grammar and Composition

SPAN 3304:Literature and Culture I  
SPAN 3305:Literature and Culture II

SPAN 3398:Internship (completed in Spanish)  
or

SPAN 3390:Upper-division Study Abroad in Spanish

SPAN 4402:Contemporary Culture  
SPAN 4434:Topics in Language, Literature, and Culture  
SPAN 4456:Advanced Grammar and Linguistics  
SPAN 4499:Senior Seminar

### **Concentration (30 Credit Hours)**

Select one of the following concentrations:

#### ***Second Language and Culture***

Second Language Core (9 Credit Hours)

Select a second language: Chinese, French, German, Italian, Japanese, Korean, Portuguese, or Spanish.

CHIN 1002:Elementary Chinese II  
CHIN 2001:Intermediate Chinese I  
CHIN 2002:Intermediate Chinese II  
or

FREN 1002:Elementary French II  
FREN 2001:Intermediate French I  
FREN 2002:Intermediate French II  
or

GRMN 1002:Elementary German II  
GRMN 2001:Intermediate German I  
GRMN 2002:Intermediate German II  
or

ITAL 1002:Elementary Italian II  
ITAL 2001:Intermediate Italian I  
ITAL 2002:Intermediate Italian II  
or

JAPN 1002:Elementary Japanese II

JAPN 2001:Intermediate Japanese I  
JAPN 2002:Intermediate Japanese II  
or

KOR 1002:Elementary Korean II  
KOR 2001:Intermediate Korean Language and Culture I  
KOR 2002:Intermediate Korean Language and Culture II  
or

PORT 1002:Elementary Portuguese II  
PORT 2001:Intermediate Portuguese I  
PORT 2002:Intermediate Portuguese II  
or

SPAN 1002:Elementary Spanish II  
SPAN 2001:Intermediate Spanish I  
SPAN 2002:Intermediate Spanish II

*Second Language Upper-Division Electives (9 Credit Hours)*

Select 9 credit hours of upper-division coursework in the second language.

*Free Electives (12 Credit Hours)*

Any courses in the university curriculum.

**Teacher Certification in Foreign Languages**

The Teacher Certification in Foreign Language concentration is designed to prepare Foreign Language Education teachers at all grade levels (pre-kindergarten through grade 12). It leads to P-12 teacher certification in the teaching field of (Chinese, French, German, or Spanish) in Georgia. Candidates complete a major in Modern Language and Culture (primary language: Chinese, French, German, or Spanish) and the equivalent of a second major in pedagogical studies with an emphasis on teaching a foreign language.

EDUC 2130:Exploring Teaching & Learning  
FLED 4408:Second Language Acquisition  
FLED 4410:Methods, Materials, and Curriculum of Foreign Language Education, P-8  
FLED 4412:Methods, Materials, and Curriculum of Foreign Language Education, 9-12  
FLED 4414:Technology for Foreign Language Teaching  
EDUC 4610:Introduction to the Yearlong Clinical Experience  
FLED 4650:Yearlong Clinical Experience I  
FLED 4660:Yearlong Clinical Experience II  
INED 3300:Educating Students with Exceptionalities in Inclusive Settings

## ***Applied Business***

### *Business Courses (21 Credit Hours)*

ACCT 2101:Principles of Accounting I  
ACCT 2102:Principles of Accounting II  
ECON 2105:Principles of Macroeconomics  
ECON 2106:Principles of Microeconomics  
MKTG 3100:Principles of Marketing  
MGT 3100:Management and Behavioral Sciences

Select one of the following. Must be the same as the primary language.

CHIN 4404:Commercial Chinese  
FREN 4404:Commercial French  
GRMN 4404:Commercial German  
ITAL 4404:Commercial Italian  
SPAN 4404:Commercial Spanish

### *Free Electives (9 Credit Hours)*

Any courses in the university curriculum.

## ***Cross-Disciplinary Perspectives***

### *Upper-Division Electives (15 Credit Hours)*

Select any 3000-4000 level courses totally 15 credit hours.

### *Free Electives (15 Credit Hours)*

Any courses in the university curriculum.

## ***Program Total (120 Credit Hours)***

# **Organizational and Professional Communication, B.S.**

## **Program Description**

Organizational Communication professionals study the role of communication in increasing corporate productivity and employee satisfaction. KSU is the only Georgia institution offering an undergraduate concentration in Organizational Communication. Organizational Communication students learn the skills they need to develop employee training programs, training manuals, and employee handbooks. Students also conduct communication audits at area companies to measure employee satisfaction with company communication practices. Students often intern in corporate human resources or training and development departments.

The Organizational and Professional Communication major requires 18 credit hours of lower division course work (1000–2000 level) comprising various offerings, both inside and outside of the communication discipline, that serve as important groundwork leading to advanced studies. Lower division offerings include basic courses in communication research, visual communication, public speaking, writing, organizational communication careers, and an introductory course in organizational communication.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Organizational and Professional Communication program is separate from Admissions to Kennesaw State University. Students must meet the Admission Requirements to pursue this degree program, outlined below.

All organizational and professional communication majors must earn a grade of "C" or better in all School of Communication and Media courses counted toward their degree and pass the Communication Entrance Exam with a score of 78% or higher. Students who fail to pass the grammar test in three attempts must pursue majors in other departments.

Meet the School of Communication & Media (SOCM) Sophomore GPA Requirement. This Sophomore GPA requirement consists of combined adjusted 2.75 GPA in the following five courses:

COMM 2020  
COMM 2033  
COMM 1110  
COMM 2135  
COMM 2240

Achieve a satisfactory score on the SOCM Entrance Exam. Students may take the test no more than three times.

### Graduation Requirements

Each student is expected to meet the requirement st outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

COMM 2020:CSI: Communication Sources and Investigations  
COMM 1110:Public Speaking  
COMM 2033:Visual Communication  
COMM 2135:Writing for Public Communication  
COMM 2230:Introduction to Mass Communication  
COMM 2240:Communication Law, Ethics and Diversity

### **Major Requirements (18 Credit Hours)**

ORGC 3025:Introduction to Organizational & Professional Communication  
ORGC 3376:Interpersonal Communication  
COMM 3435:Communication Research Methods  
ORGC 3325:Intercultural Communication  
ORGC 3345:Team Communication  
ORGC 4455:Organizational Communication Practicum (Capstone)

### **Organization Communication Electives (9 Credit Hours)**

Select three courses from the following for a total of nine credit hours:

ORGC 3459:Communication and Conflict  
ORGC 4344:Training and Development  
ORGC 4440:Leadership Communication  
ORGC 4470:Topics in Organizational & Professional Communication  
COMM 3320:Health Communication  
COMM 3398:Internship in Communication

### **Upper Division SOCM Electives (9 Credit Hours)**

Choose three courses from any COMM, JOUR, ORGC, MENT, or PR course not previously taken. The list below provided recommended electives for Organizational and Professional Communication majors. Please take into account any prerequisites required. (These courses may also be taken as Free Electives)

ORGC 3459:Communication and Conflict  
ORGC 4344:Training and Development  
ORGC 4440:Leadership Communication  
ORGC 4470:Topics in Organizational & Professional Communication  
COMM 3315:Interviewing  
COMM 3320:Health Communication  
COMM 3340:Digital Media Production  
COMM 3398:Internship in Communication  
COMM 4490:Special Topics in Communication  
PR 3335:Public Relations Principles  
PR 3355:Public Relations Cases  
PR 3429:Persuasion Methods and Strategies  
PR 3375:Public Relations Writing

### **Related Studies (12 Credit Hours)**

Upper division course work (3000–4000 level) outside of the School of Communication & Media (SOCM). These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Students should determine needed prerequisites. Completion of Formal Minor or Certificate Program would also satisfy the Related Studies requirement.

### **Free Electives (12 Credit Hours)**

Any courses (1000–4000 level) in the university curriculum.

### **Program Total (120 Credit Hours)**

# **Philosophy, B.A.**

## **Program Description**

The program of study in philosophy offers a Bachelor of Arts degree. All majors take several general requirements, including a foreign language through FL 2001 and a three-hour senior seminar. Philosophy majors are expected to demonstrate:

General knowledge of philosophical traditions and their social and historical contexts;

Knowledge of varied philosophical questions, problems, and issues; relevant social and historical contexts; and various methodological approaches to them;

Ability to conduct philosophical research;

Ability to read and think critically; and

Ability to communicate effectively both orally and in writing.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower Division Requirements (AREA F) (18 credit hours):**

PHIL 2100:Values and Society

or

PHIL 2110:Religions of the World

PHIL 2500:Logic

PHIL 2700:Methods and Themes in Comparative Philosophy

FL 1002:Elementary Foreign Language II  
FL 2001:Intermediate Foreign Language and Culture I  
HIST 2206:Origins of Great Traditions

**Major Requirements (30 Credit Hours)**

***Required Courses (18 Credit Hours)***

PHIL 3200:Asian Philosophy  
or

PHIL 3210:Latin American and Caribbean Philosophy

PHIL 3100:Ethics  
or

PHIL 3110:Social and Political Philosophy

PHIL 3000:Ancient and Medieval Philosophy  
PHIL 3010:Modern Western Philosophy

PHIL 4450:Major Figures in Philosophy  
or

PHIL 4460:Major Themes in Philosophy

PHIL 4499:Senior Seminar

***Upper Division Major Electives (12 hours)***

Select twelve credit hours from the following courses:

PHIL 3020:American Philosophy  
PHIL 3030:Existentialism  
PHIL 3100:Ethics  
PHIL 3110:Social and Political Philosophy  
PHIL 3120:Philosophies of Peace  
PHIL 3130:Feminist Philosophy  
PHIL 3200:Asian Philosophy  
PHIL 3210:Latin American and Caribbean Philosophy  
PHIL 4000:Nineteenth Century Western Philosophy  
PHIL 4030:Phenomenology

PHIL 4200:Indian Philosophy  
PHIL 4210:Chinese Philosophy  
PHIL 4220:Japanese Philosophy  
PHIL 4450:Major Figures in Philosophy  
PHIL 4460:Major Themes in Philosophy

**Upper Division Electives (15 credit hours):**

Any 3000 or 4000-level courses or a minor.

**Free Electives (15 Credit Hours)**

Any courses in the university curriculum.

***Program Total (120 credit hours)***

# **Political Science, B.S.**

## **Program Description**

Political Science is the study of the formal institutions of government and the actual behavior of people in public life. It examines both the institutions and processes of government using both empirical and normative research methodologies. A degree with a major in political science is of value to all persons who take the responsibilities and opportunities of membership in a democratic society seriously. Specifically, political science is the undergraduate major of a majority of persons who attend law school; serves as prerequisite for graduate study in a number of social science disciplines; and is an ideal liberal arts major for careers in business, journalism, public and international affairs, the federal government, state and local government, teaching, interest groups, campaign management, communications, and many others.

Supervised internships and cooperative study programs at sites in business, industry and government are available and students are strongly urged to participate.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

DATA 1501:Introduction to Data Science  
POLS 2101:Introduction to Political Science  
POLS 2240:Introduction to Comparative Politics  
POLS 2250:Introduction to International Relations

POLS 2270:Political Ideologies  
POLS 2280:Research Methods

**Major Requirements (21 Credit Hours)**

**Senior Seminar (3 Credit Hours)**

POLS 4499:Senior Seminar

**Subfields (18 Credit Hours)**

Students must choose one course from six of the following seven sub-fields.

*Subfield 1: American Government and Politics*

POLS 3360:The United States Congress  
POLS 3365:United States Judiciary  
POLS 3370:The United States Presidency

*Subfield 2: Political Behavior*

POLS 3380:Mass Media and Politics  
POLS 3385:Campaigns and Elections  
POLS 3387:Political Parties, Interest Groups, and Lobbying

*Subfield 3: International Relations*

POLS 3350:American Foreign Policy  
POLS 4430:International Law and Organization  
POLS 4437:Global Security

*Subfield 4: Comparative Politics*

POLS 4405:Comparative Legal Systems  
POLS 4436:Politics of Developing Areas  
POLS 4440:Comparative Democratization

*Subfield 5: Political Theory*

POLS 4423:Great Political Thinkers  
POLS 4427:American Political Thought  
POLS 4428:Race, Gender, and the Politics of Difference

*Subfield 6: Public Law and Administration*

POLS 3300:U.S. Constitution and Courts  
POLS 3312:Concepts in State and Local Government  
POLS 3343:Principles of Public Administration  
POLS 4412:Urban Politics

*Subfield 7: Research Methods*

POLS 3313:Public Policy Analysis  
POLS 3320:Legal Research  
POLS 3394:Public Polling and Survey Techniques  
POLS 4280:Political Data Analysis

**Upper-Division Major Electives (12 Credit Hours)**

Choose 12 credit hours of 3000/4000 level POLS or RES courses, excluding POLS 3398.

**Related Studies (15 Credit Hours)**

Select 15 credit hours of 3000–4000 level courses from any of the following prefixes: POLS, AADS, AMST, ANTH, ASIA, CHIN, COM, CRJU, ENGL, ENVS, EUST, FILM, FREN, GEOG, GIS, GRMN, GWST, HIST, IAD, ISD, ITAL, JOUR, LALS, LDRS, LING, MENT, MILS, ORGC, PAX, PHIL, PORT, PR, PSYC, RES, SA, SOCI, SPAN, TCID, TCOM, or WRIT.

**Free Electives (12 Credit Hours)**

Any courses in the university curriculum totaling 12 credit hours. While not required, students are encouraged to take POLS 2220 Careers in Political Science as one of the elective courses for the B.S. degree.

**Program Total (120 Credit Hours)**

# **Psychology, B.S.**

## **Program Description**

Psychology is the scientific study of behavior and mental processes. It examines behavior and mental processes in an effort to serve human welfare. The Bachelor of Science degree with a major in Psychology is designed to provide students with strong research, communication, and critical thinking skills. As such, the program requires completion of an Introductory Psychology course, a Careers in Psychology course, three research-focused courses, courses from the primary areas of the discipline, and a senior capstone experience. The undergraduate degree with a major in psychological science provides students with a strong foundation for graduate study in a variety of disciplines. It also provides a broad liberal arts education that can serve as an entry point into bachelor's degree-level careers. Students are encouraged to select courses in consultation with an advisor.

This program is part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower-Division Major Requirements (Area F) (18 Credit Hours)**

PSYC 1101:Introduction to General Psychology

PSYC 2103:Introduction to Human Development

PSYC 2210:Careers in Psychology

PSYC 2500:Research Methods in Psychological Science

Any 1000/2000 level courses in STAT, MATH, BIOL, CHEM, PHYS, IT, TCOM, CSE or DATA (6 credit hours)

### **Major Field Requirements (33 Credit Hours)**

Must earn a "C" or better in all courses in this area. Must earn a "C" or better for prerequisites to be satisfied. Complete one course from each of the four areas and one capstone course. At least 21 of the 33 required hours in this section must be completed at KSU. At least 39 upper-level hours overall are required to graduate. Lower-level courses substituted for upper-level courses may not count toward the 39 hours. A maximum of 6 hours of PSYC 3398 / 4498 can be used in this section. A maximum of 6 hours of PSYC 4400 can be used in this section.

### **Required Courses (6 Credit Hours)**

PSYC 3000:Statistical Applications in Psychological Science  
PSYC 4100:Advanced Laboratory in Psychological Science

### **Diversity and Multicultural Area (3 Credit Hours)**

Choose one course from the following:

PSYC 3355:Cross-Cultural Psychology  
PSYC 3385:Ethnic Minority Psychology  
PSYC 3395:Psychology of Prejudice and Privilege  
PSYC 3425:Psychology of Gender

### **Personality and Social Area (3 Credit Hours)**

Choose one of the following:

PSYC 3325:Social Psychology  
PSYC 3335:Theories of Personality

### **Biological Bases Area (3 Credit Hours)**

Choose one of the following:

PSYC 4410:Physiological Psychology  
PSYC 4415:Perception

### **Learning and Cognition Area (3 Credit Hours)**

Choose one of the following:

PSYC 4345:Learning and Behavior  
PSYC 4455:Cognitive Psychology

### ***Psychology Electives (12 Credit Hours)***

Choose any 3000/4000 level courses within PSYC for a total of 12 credit hours.

### ***Senior Capstone Experience\* (3 Credit Hours)***

\*Prereq: PSYC 4100; submission of an application before registration; and one course from each of the four areas. One of the four areas may be completed concurrently.

\*Students must take the ETS Major Field Test as part of the Capstone Experience. \* PSYC 4400 or HON 4499 may substitute. Application available in department office. Choose one of the following:

PSYC 4498:Capstone Internship in Psychology

PSYC 4499:Capstone Seminar in Psychology

PSYC 4500:Capstone Integrative Project

### ***Upper-Division Electives (12 Credit Hours)***

Choose any 3000/4000 level courses outside of PSYC for a total of 12 credit hours. \*Courses applied towards a minor: 1) typically appear here or in Free Electives, 2) cannot also be applied towards General Education requirements, and 3) must consist of  $\geq 12$  credit hours that are not applied towards the major.

### ***Free Electives (15 Credit Hours)***

Any courses in the university curriculum for a total of 15 credit hours.

### ***Program Total (120 Credit Hours)***

# **Public Relations, B.S.**

## **Program Description**

The Public Relations major at Kennesaw State University offers a professionally-focused, marketplace-relevant, and theoretically-rigorous academic program for aspiring public relations communicators throughout Metro Atlanta and Northwest Georgia. Kennesaw State is one of only three universities in the state of Georgia to offer a specific major in the ever-evolving discipline of Public Relations. The major offers students a public relations education that includes public relations principles, case study analysis, public relations writing, crisis communication, graphic design for organizational publications, persuasion methods and strategies, and use of social media and other multi-media communication strategies in public relations. Internships and study tours to New York and Atlanta public relations agencies supplement the traditional classroom and online learning settings. The major requires 18 credit hours of lower division course work (1000-2000 level) comprising various offerings, both inside and outside of the communication discipline, that serve as important groundwork leading to advanced studies. Lower division offerings include basic courses in communication research, visual communication, public speaking, writing, information systems, and an introductory course relevant to the student's selected program of study.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Media and Entertainment program is separate from Admissions to Kennesaw State University. Students must meet the Admission Requirements to pursue this degree program, outlined below.

All communication and media majors must earn a grade of 'C' or better in all communication and media courses counted toward their degree and pass the Communication Entrance Exam with a score of 78% or higher. Students who fail to pass the grammar test in three attempts must pursue majors in other departments.

Meet the School of Communication & Media (SOCM) Sophomore GPA requirement. This Sophomore GPA requirement consists of combined adjusted 2.75 GPA in the following five courses:

COMM 2020  
COMM 2033  
COMM 1110  
COMM 2135  
COMM 2240

Achieve a satisfactory score of 78% or higher the SOCM Entrance Exam. Students may take the test no more than three times. This Entrance Exam requirement will be waived for students in this catalog year.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway .

### **Lower Division Major Requirement (Area F) (18 hours)**

COMM 2020:CSI: Communication Sources and Investigations  
COMM 1110:Public Speaking  
COMM 2033:Visual Communication  
COMM 2135:Writing for Public Communication  
COMM 2240:Communication Law, Ethics and Diversity  
COMM 2230:Introduction to Mass Communication

### **Major Requirements (33 Credit Hours)**

#### ***Required Courses (18 Credit Hours)***

COMM 3435:Communication Research Methods  
PR 3335:Public Relations Principles  
PR 3355:Public Relations Cases  
PR 3375:Public Relations Writing  
PR 4460:Crisis Communication  
PR 4465:Public Relations Campaigns (Capstone)

#### ***Major Electives (15 Credit Hours)***

Choose five from the courses below. Only 3 credit hours of COM 3398 can count toward a student's major elective hours.

COMM 3340:Digital Media Production  
COMM 3350:Editing for Today's Media  
COMM 3398:Internship in Communication  
JOUR 3310:Concepts in New Media

JOUR 3330:News Reporting and Writing  
JOUR 4420:Advanced Media Writing  
JOUR 4470:Media Law  
PR 3380:PR Strategies and Tactics  
PR 3385:International Public Relations  
PR 3429:Persuasion Methods and Strategies  
PR 4210:Social Media for Strategic Communication  
PR 4405:Digital Publication Design  
PR 4415:Topics in Public Relations  
PR 4425:Media Relations  
PR 4495:Public Relations Study Tour  
PR 4605:Magazine Media  
PR 4670:Crisis Leadership Communication

### **Upper Division Electives (3 Credit Hours)**

Students may choose from any 3000 or 4000-level PR, COM, JOUR, MENT, ORGC course not previously taken. COM 3398 may be repeated. The list below provides recommended electives for Public Relations majors. Please take into account any prerequisites required.

COMM 3315:Interviewing  
COMM 3320:Health Communication  
COMM 3340:Digital Media Production  
COMM 3350:Editing for Today's Media  
COMM 3398:Internship in Communication  
COMM 4200:Directed Applied Research  
COMM 4400:Directed Study  
COMM 4490:Special Topics in Communication  
COMM 4499:Senior Thesis  
JOUR 3310:Concepts in New Media  
JOUR 3330:News Reporting and Writing  
JOUR 3360:Photojournalism  
JOUR 4420:Advanced Media Writing  
JOUR 4470:Media Law  
ORGC 3325:Intercultural Communication  
ORGC 3376:Interpersonal Communication  
ORGC 4440:Leadership Communication  
PR 3380:PR Strategies and Tactics  
PR 3385:International Public Relations  
PR 4210:Social Media for Strategic Communication  
PR 4405:Digital Publication Design  
PR 4415:Topics in Public Relations  
PR 4495:Public Relations Study Tour

PR 4605:Magazine Media  
PR 4670:Crisis Leadership Communication

**Related Studies (12 Credit Hours)**

Upper division course work (3000–4000 level) outside of the School of Communication & Media (SOCM). These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Students should determine needed prerequisites. Completion of Formal Minor or Certificate Program would also satisfy the Related Studies requirement.

**Free Electives (12 Credit Hours)**

Any course (1000–4000) in the university curriculum, with a grade of "D" or better.

***Program Total (120 Credit Hours)***

**Embedded Certificates**

Upon completion of the degree requirements and selection of specific courses in either sub-fields, Upper-Division Major Electives, or Related Studies students may earn the following certificates. Students, please consult with your academic advisor regarding declaration of a certificate.

Political Communication Certificate - Embedded

# **Sociology, B.S.**

## **Program Description**

The Bachelor of Science degree with a major in Sociology prepares students to understand and deal with diversity, modernization, and social change ranging from the local to global scale. The core competencies of the program prepare students to enter careers requiring technological facility, communication skills, data gathering and analysis skills, community awareness and involvement, problem-solving, critical thinking, an understanding of the structure and functioning of groups and organizations, greater awareness of their environment, critical self-reflection, and interpersonal and intercultural skills. Besides career preparation, specific concentrations in the major also provide background for graduate study in sociology and other related disciplines.

Students who graduate with a degree in Sociology would be prepared to work as demographers and data analysts, public survey workers, social research assistants, affirmative action officers, employee specialists, cultural diversity trainers, social services specialists, policy analysts, criminologists in law enforcement and corrections, and numerous other occupations.

The program of study offers students both intellectual growth and marketable technical skills. A degree in Sociology is good preparation for graduate study in various disciplines, including Sociology, Public Health, Law, Business, Social Work, and Psychology. Included in the curriculum are concentrations in:

*Culture and Social Change: Students will acquire a global perspective and the conceptual tools necessary to work in a variety of professional settings and academic positions*

*Criminology: Students will learn about the causes of crime, how to measure the extent of crime, and how to critically examine the approaches used to prevent, sanction, and change criminal behavior.*

*Medical Sociology: Students will develop a critical understanding of the health care delivery system and its various stakeholders, including patients, organizations, and providers. Other areas with the medical sociology concentration include aging, mental health, human sexuality, biotechnology and ethical issues, and substance abuse.*

*General Sociology: Students will be able to choose among all Sociology courses to customize a course of study that is specific to their interests and career goals.*

This program is a part of Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

#### ***Required Courses (9 Credit Hours)***

SOCI 1101:Introduction to Sociology  
SOCI 2210:Professional Development for Sociology Students  
SOCI 2251:Social Problems

#### ***Electives (9 Credit Hours)***

Select three of the following:

BLCK 1101:Introduction to Black Studies  
COMM 2230:Introduction to Mass Communication  
COMM 2240:Communication Law, Ethics and Diversity  
CRJU 2201:Crimes and Defenses  
GEOG 1130:World Regional Geography  
GWST 2000:Introduction to Gender and Women's Studies  
HS 2100:Overview of Human Services  
HS 2200:Fundamentals of Nonprofits  
HS 2300:Cultural Competence in the Human Services  
LDRS 2100:Leadership & Historic Social Movements  
PHIL 2100:Values and Society  
PHIL 2500:Logic  
POLS 2212:State and Local Government  
POLS 2240:Introduction to Comparative Politics

POLS 2250:Introduction to International Relations

### **Major Requirements (21 Credit Hours)**

SOCI 3300:Foundations of Social Theory  
SOCI 3305:Research Methods in Sociology  
SOCI 4499:Senior Seminar in Sociology

Select two of the following:

SOCI 3314:Race and Ethnicity \*  
SOCI 3324:Sociology of Gender \*  
SOCI 3350:Intersections of Race, Class, and Gender \*  
SOCI 3354:Social Class and Mobility \*

Select one of the following:

SOCI 3304:Social Organization

\*

SOCI 3333:Technology and Society

\*

Select one from the following options:

SOCI 3396:Cooperative Study  
SOCI 3398:Internship  
SA 4490:Upper-division Study Abroad

*Note: \*Students cannot use the same upper division level course for their upper division requirement and their concentration requirement.*

### **Major Concentration (18 Credit Hours)**

Select six courses in one concentration area:

#### ***Criminology Concentration***

CRJU 3305:Technology and Criminal Justice  
CRJU 3352:Juvenile Justice  
CRJU 3365:Profile of the Serial Offender  
CRJU 4430:Victimology  
SOCI 3303:Statistics for Sociology  
SOCI 3360:Sociology of Violence  
SOCI 4200:Drugs, Alcohol, and Society  
SOCI 4410:Advanced Qualitative Research Methods in Sociology

SOCI 4420:Advanced Quantitative Research Methods in Sociology  
SOCI 4432:Criminology  
SOCI 4442:Deviance and Social Control  
SOCI 3370:Strategies for Conflict Transformation: Theories and Tools

### ***Culture and Social Change Concentration***

SOCI 3303:Statistics for Sociology  
SOCI 3304:Social Organization  
SOCI 3310:Introduction to Gerontology  
SOCI 3314:Race and Ethnicity  
SOCI 3315:Transnational Sociology  
SOCI 3324:Sociology of Gender  
SOCI 3333:Technology and Society  
SOCI 3334:Religion and Society  
SOCI 3344:Biotechnology and Social Change  
SOCI 3350:Intersections of Race, Class, and Gender  
SOCI 3354:Social Class and Mobility  
SOCI 3364:Sociology of the Family  
SOCI 3374:Sociology of Work and Occupations  
SOCI 4410:Advanced Qualitative Research Methods in Sociology  
SOCI 4420:Advanced Quantitative Research Methods in Sociology  
SOCI 4434:Emerging Social Issues in Africa  
SOCI 4435:Sociology of South Asia  
SOCI 4444:Social Movements and Social Change  
SOCI 3370:Strategies for Conflict Transformation: Theories and Tools

### ***Medical Sociology Concentration***

SOCI 3303:Statistics for Sociology  
SOCI 3310:Introduction to Gerontology  
SOCI 3320:Exploring the Aging Network  
SOCI 3344:Biotechnology and Social Change  
SOCI 3360:Sociology of Violence  
SOCI 3380:Society, Community, & Health  
SOCI 4200:Drugs, Alcohol, and Society  
SOCI 4410:Advanced Qualitative Research Methods in Sociology  
SOCI 4420:Advanced Quantitative Research Methods in Sociology  
SOCI 4443:Medical Sociology  
SOCI 4445:Sociology of Mental Illness  
SOCI 3370:Strategies for Conflict Transformation: Theories and Tools

### ***General Sociology Concentration***

SOCI 3303:Statistics for Sociology  
SOCI 3304:Social Organization  
SOCI 3310:Introduction to Gerontology  
SOCI 3314:Race and Ethnicity  
SOCI 3315:Transnational Sociology  
SOCI 3320:Exploring the Aging Network  
SOCI 3324:Sociology of Gender  
SOCI 3333:Technology and Society  
SOCI 3334:Religion and Society  
SOCI 3344:Biotechnology and Social Change  
SOCI 3350:Intersections of Race, Class, and Gender  
SOCI 3354:Social Class and Mobility  
SOCI 3360:Sociology of Violence  
SOCI 3364:Sociology of the Family  
SOCI 3374:Sociology of Work and Occupations  
SOCI 3380:Society, Community, & Health  
SOCI 4200:Drugs, Alcohol, and Society  
SOCI 4410:Advanced Qualitative Research Methods in Sociology  
SOCI 4420:Advanced Quantitative Research Methods in Sociology  
SOCI 4432:Criminology  
SOCI 4434:Emerging Social Issues in Africa  
SOCI 4435:Sociology of South Asia  
SOCI 4442:Deviance and Social Control  
SOCI 4443:Medical Sociology  
SOCI 4444:Social Movements and Social Change  
SOCI 4445:Sociology of Mental Illness  
SOCI 3370:Strategies for Conflict Transformation: Theories and Tools

**Upper Division Electives (9 Credit Hours)**

Upper Division Electives 9 hours: Nine hours of upper-division (any 3000-4000 courses in the university curriculum) studies beyond the major requirements.

**Free Electives (12 Credit Hours)**

Any courses in the university curriculum.

**Program Total (120 Credit Hours)**

# **Technical Communication, B.S.**

## **Program Description**

Technical communicators work between subject-matter experts and real-world users to make complex ideas clear, easy to understand, and usable. Students in the BS in Technical Communication program are creative, technically adept problem-solvers who feel comfortable working in multiple media, possess strong communication skills, and are open to continually learning new technologies and subject-matter knowledge. BSTC students take classes in technical writing, research methods, website development, usability, instructional design, and visual information design. Hands-on experience in class, combined with a strong theoretical background, allows students to land highly desired jobs as technical communicators, user experience (UX) designers, information architects, information designers, instructional designers, and more.

This program is a part of the Norman J. Radow College of Humanities and Social Sciences.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific Admission Requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

ICT 2101:Information and Communications Technology

TCID 2002:Productivity Tools and Technologies

TCID 2170:Introduction to Digital Media and Culture

TCOM 2010:Technical Writing

TCOM 2030:Research in Technical Communication

Choose One:

COMM 2033:Visual Communication  
STS 1101:Science, Technology, and Society  
TCOM 2050:Issues in Digital Accessibility

### **Major Requirements (39 Credit Hours)**

#### ***Required Courses (21 Credit Hours)***

TCID 3100:Professional Development  
TCID 3400:Front-End Development I  
TCID 4700:Capstone Project and Portfolio Showcase  
TCOM 3011:Technical Writing II  
TCOM 3130:Technical Communication: Theory, Ethics, and Practice  
TCOM 3431:Information Design I  
TCOM 4000:Technical Editing

#### ***Major Electives (18 Credit Hours)***

Select six (6) of the following:

TCID 3800:Front-End Development II  
TCOM 3020:Grants and Proposals  
TCOM 3030:Instructional Design  
TCOM 3046:Information Architecture  
TCOM 3070:User Assistance  
TCOM 3145:Social Media Infrastructure  
TCOM 3245:Search Engine Optimization and Analytics  
TCOM 3398:Internship  
TCOM 4050:Instructional Video  
TCOM 4120:Usability  
TCOM 4400:Directed Study  
TCOM 4431:Information Design II  
TCOM 4490:Special Topics in Technical Communication

#### **Upper-Division Electives (9 Credit Hours)**

Select 9 hours of upper division course work (3000 - 4000 level) inside or outside of the Technical Communication Major passing with a C or better. These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Completion of a Formal Minor or Certificate Program would also satisfy the Related Studies requirement.

Recommended Minors Include: Crisis Preparedness, Foreign Languages (French, Spanish, German, Italian, Korean, Japanese), Linguistics, Medical Sociology, Professional Writing,

Psychology, Sociology, Biology, Chemistry, Environmental Science, Physics, Cybersecurity, Information Technology, Software Engineering.

Recommended Certificates: Health Information Technology, Diversity and Community Engagement, Gender and the Workplace, Political Communication, Leadership Studies.

Recommended Classes: COMM 3320 Health Communication, ORGC 4440 Leadership Communication, LING 3050 Sociolinguistics, GWST 3060 Gender in the Workplace.

**Free Electives (12 Credit Hours)**

Select 12 hours of courses in the university curriculum. This includes any course (1000 - 4000) in the university curriculum (including Technical Communication) passing with a D or better.

***Program Total (120 Credit Hours)***

# **Constitutional Studies Certificate - Embedded**

## **Contact Information**

Website: <https://radow.kennesaw.edu/sgia/programs/cert-cs.php>

Phone: (470) 578-6227

## **Program Description**

The certificate in Constitutional Studies will concentrate on the development of the U.S. Constitution and the Bill of Rights, their interpretation by judges through judicial decisions, and how the constitutional doctrines of federalism, enumerated powers, separation of powers, and the rule of law apply to the national and state governments. The capstone class, the American Legal System, will then examine broader considerations of how fundamental law has acted to define the powers of government and also sought to limit those powers through the institution of civil rights and civil liberties.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

Students must complete six hours (two courses) to complete the core requirements of the certificate.

POLS 3315:American Constitutional Law: Federalism

or

POLS 4415:Civil Liberties

POLS 4410:American Legal System

Writing Requirement: In order to complete the certificate, students must develop a senior level research paper that addresses constitutional issues. The student must submit the paper to certificate coordinator and Legal Studies faculty for approval and successfully present its contents. The research paper can be a revised upper division paper that has been previously submitted in a certificate class or senior seminar.

### **Electives (6 Credit Hours)**

Students must complete six hours (two courses) from the following list of courses:

POLS 4405:Comparative Legal Systems

POLS 4411:Criminal Law

POLS 4420:Judicial Process

POLS 4429:Legal Theory & Philosophy

POLS 4466:Trial Procedure and Evidence

POLS 4416:Law and Gender

### **Program Total (12 Credit Hours)**

# **Diversity & Community Engagement Certificate**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/programs/cert-dce.php>

Email: [cdce@kennesaw.edu](mailto:cdce@kennesaw.edu)

Phone: 470-578-2431

## **Program Description**

The Certificate in Diversity and Community Engagement educates students about the theory and history of diversity concerns (national and global) as these relate to interdisciplinary study and praxis. Students will take courses that focus on regional and global diversity concerns that are likely to impact their choices of community action and/or career; one course will require them to develop their own engagement project focused on social justice issues. This certificate is designed for students in a wide variety of majors interested in studying diversity issues from an interdisciplinary perspective while also participating in a hands-on community engagement project. Students will explore mental health issues and holistic therapies through an interdisciplinary framework and participate in outreach projects to marginalized communities to address suicide ideation, the use of nonprescription drugs/substances, and other social problems.

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

ISD 2001:Introduction to Diversity and Social Justice

IPE 4413:Interprofessional Care and Collaboration

IHS 3240:Fundamentals of Behavioral Health Care

IHS 4760:Integrated Health Science Capstone

or

ISD 3398:Interdisciplinary Studies Internship

### ***Program Total (12 Credit Hours)***

# **Geographic Information Sciences Certificate**

## **Contact Information**

Website: <https://radow.kennesaw.edu/geoanth/programs/cert-gis.php>

Phone: (470) 578-2373

Email: [geoanth@kennesaw.edu](mailto:geoanth@kennesaw.edu)

## **Program Description**

Geographic Information Sciences is a multidisciplinary certificate that considers fundamental questions related to the use of geographic information systems (GIS). GIS is computer-based mapping technologies that visualizes, edits, manipulates and analyzes spatial data and imagery for decision makers. GIS is an essential tool in understanding what is where, and is used in urban and regional design, marketing and industrial location, transportation, precision agriculture, forestry, environmental systems, engineering, emergency services, epidemiology, crime analysis, and utilities, among others. The Certificate can be completed in-class or online.

Students must earn a "B" or higher cumulative grade in all the required courses, with a "C" or higher grade in each course.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

GEOG 3305:Introduction to Cartographic Processes

GEOG 3315:Introduction to Geographic Information Systems

GIS 4415:Practicum in Geographic Information Systems

### **Choose two from the following (6 Credit Hours):**

GEOG 4500:Advanced Topics in Geospatial Science

SURV 3320:Photogrammetry and Drone Analysis

SURV 3451:Terrain Analysis

GEOG 4405:Advanced Geographic Information Systems

GEOG 4410:Introduction to Remote Sensing

### **Program Total (15 Credit Hours)**

# **Intelligence and Homeland Security Certificate**

## **Contact Information**

Website: <https://radow.kennesaw.edu/sgia/programs/cert-intel.php>

Phone: (470) 578-6227

## **Program Description**

This certificate examines the operations and processes of the various agencies connected with the US Intelligence Community as well as those of US Homeland Security.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

CRJU 3400:Ideological/Group Violence and Law Enforcement  
or

POLS 4200:Homeland Security Administration

POLS 4202:Politics of the U.S. Intelligence Community

### **Elective Courses (12 Credit Hours)**

Select four of the following courses for a total of twelve credit hours:

POLS 4431:Politics of International Terrorism

POLS 4439:Political Economy of Russia and Central Asia in Transition

POLS 4448:Russian Politics and Culture

POLS 4449:Russian Foreign Policy

POLS 4452:Politics of East Asia

POLS 4453:Latin America: Democracy and Development

POLS 4454:Politics of the Middle East

POLS 4455:International Relations of Africa

POLS 4457:South Asian Politics: A Comparative Perspective

POLS 3375:Political Psychology

PSYC 3355:Cross-Cultural Psychology

POLS 4447:Arctic Politics, Policy, and Security in a Changing Environment

### **Program Total (18 Credit Hours)**

# **International Law Certificate- Embedded**

## **Program Description**

This certificate examines both legal systems around the world and the system of law governing relations between nation-states. Covering areas such as diplomacy, armed conflict, intelligence, terrorism, trade, the environment, and human rights, this certificate is an appropriate choice for any student interested in law beyond the borders of the United States.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

POLS 4430:International Law and Organization  
POLS 4440:Comparative Democratization  
POLS 3350:American Foreign Policy

### **Electives (9 Credit Hours)**

Select nine credit hours from the following:

BLAW 3400:Negotiation  
BLAW 4100:Advanced Business Law  
BLAW 4600:International Law: Business Applications  
EURO 3234:Introduction to the European Union  
EURO 4130:EU Law & Legal Systems  
POLS 4456:International Environmental Policy  
POLS 4466:Trial Procedure and Evidence  
POLS 4470:Alternative Dispute Resolution  
POLS 4480:Practicum in Alternative Dispute Resolution  
POLS 4429:Legal Theory & Philosophy  
POLS 4431:Politics of International Terrorism  
POLS 4437:Global Security  
POLS 4405:Comparative Legal Systems  
POLS 4411:Criminal Law  
POLS 4415:Civil Liberties  
POLS 4416:Law and Gender  
POLS 4420:Judicial Process  
POLS 4200:Homeland Security Administration  
POLS 4202:Politics of the U.S. Intelligence Community  
POLS 3300:U.S. Constitution and Courts  
POLS 3315:American Constitutional Law: Federalism  
POLS 3320:Legal Research

### **Program Total (18 Credit Hours)**

# **Land Surveying Certificate**

## **Contact Information**

Website: <https://radow.kennesaw.edu/geoanth/programs/cert-ls.php>

Phone: (470) 578-2373

Email: [geoanth@kennesaw.edu](mailto:geoanth@kennesaw.edu)

## **Program Description**

The Land Surveying Certificate program is designed to prepare surveyors with the basic education necessary to take the Fundamentals of Land Surveying Exam and meets the State of Georgia academic registration requirements to become a Professional Land Surveyor.

Please see an academic advisor regarding course prerequisites.

## **Program Course Requirements**

### **Requirements**

SURV 2221:Surveying I

SURV 2221L:Surveying I Lab

SURV 3222:Surveying II

SURV 3222L:Surveying II Lab

SURV 4465:Legal Aspects of Land Surveying

SURV 4470:Land Development Design

SURV 4475:Land Surveying Practice

***Program Total (18 Credit Hours)***

# **Political Communication Certificate - Embedded**

## **Contact Information**

Website: <https://radow.kennesaw.edu/sgia/programs/cert-pc.php>

Phone: (470) 578-6227

## **Program Description**

This certificate program emphasizes the intersection of politics and communication. Students will gain exposure to academic theory and hands-on learning experience that focuses on the relationship between political structures, systems, and processes and professional communication, in particular journalism and public relations. It is designed for students seeking preparation for careers in a number of fields, for example, political consultants, campaign managers, legislative aids, lobbyists, public policy and media analysts, speech writers, political journalists, and public relations professionals.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

PR 3335:Public Relations Principles

or

PR 3429:Persuasion Methods and Strategies

POLS 3380:Mass Media and Politics

POLS 3398:Internship

or

COMM 3398:Internship in Communication

### **Elective Courses (9 Credit Hours)**

No more than 6 hours of elective coursework may come from one department.

JOUR 3310:Concepts in New Media

PR 4415:Topics in Public Relations

POLS 3385:Campaigns and Elections

POLS 3388:Lobbying and Interest Groups

POLS 3390:Political Research On-Line

POLS 3394:Public Polling and Survey Techniques

POLS 4412:Urban Politics

### **Program Total (18 Credit Hours)**

# **Professional Politics Certificate - Embedded**

## **Contact Information**

Website: <https://radow.kennesaw.edu/sgia/programs/cert-pp.php>

Phone: (470) 578-6227

## **Program Description**

Courses in the program focus on applied skills and settings: campaign management, media and politics, polling, public policy, and lobbying.

Students receiving the certificate must complete 15 semester hours, as outlined below. The internship serves as a capstone experience for the program and is limited to professional political settings. Credit hours for the internship may range from 3 to 12 semester hours depending on the number of hours worked per week.

## **Program Course Requirements**

### **Choose 12 hours from the following options:**

- POLS 3313:Public Policy Analysis
- POLS 3380:Mass Media and Politics
- POLS 3385:Campaigns and Elections
- POLS 3388:Lobbying and Interest Groups
- POLS 3390:Political Research On-Line
- POLS 3394:Public Polling and Survey Techniques
- POLS 4410:American Legal System
- POLS 4420:Judicial Process
- POLS 4444:Administrative Practices and Organization

### **Required Capstone Experience (3 Credit Hours)**

- POLS 3398:Internship

### ***Program Total (15 Credit Hours)***

# **Technical Communication Certificate**

## **Contact Information**

Website: <https://radow.kennesaw.edu/tcid/programs/tcomminor.php>

Phone: (470) 578-7202

Email: [tcid@kennesaw.edu](mailto:tcid@kennesaw.edu)

## **Program Description**

The Certificate in Technical Communication provides students with the competencies necessary to communicate about specialized or technical topics through coursework centered on developing usable, reader-centered information. Students have the opportunity to specialize in web technologies, information design, user experience research, or content development.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

TCOM 2010:Technical Writing

### **Elective Courses (9 Credit Hours)**

Select three courses from the following:

TCID 2002:Productivity Tools and Technologies

TCID 3400:Front-End Development I

TCID 3800:Front-End Development II

TCOM 2030:Research in Technical Communication

TCOM 2050:Issues in Digital Accessibility

TCOM 3011:Technical Writing II

TCOM 3020:Grants and Proposals

TCOM 3030:Instructional Design

TCOM 3070:User Assistance

TCOM 3130:Technical Communication: Theory, Ethics, and Practice

TCOM 3145:Social Media Infrastructure

TCOM 3245:Search Engine Optimization and Analytics

TCOM 3431:Information Design I

TCOM 4000:Technical Editing

TCOM 4045:Multi-Media for Technical Communicators

TCOM 4050:Instructional Video

TCOM 4120:Usability

TCOM 4431:Information Design II

### **Program Total (12 Credit Hours)**

# **Workplace Interpersonal Relationships Certificate**

## **Program Description**

The Workplace Interpersonal Relationships Certificate (WIRC) is designed for those interested in learning how to navigate interpersonal relationships in the workplace by understanding the genesis of conflict and by developing strategies and mastering essential skills to address and transform conflict. Competent workers are able to embrace multiplicity of thoughts and opinions and synergize these perspectives for goal accomplishment. Consequently, this interdisciplinary certificate is inviting students at the undergraduate level to learn the basic principles, theories and skills for leading, creating change and transforming conflict. Overall purpose: To provide an understanding of what leads to conflict, theoretical knowledge about how to address it, and skills for living and working in a diverse society. Students will understand the "why" of potential conflict and master the skills for transforming the same.

At completion of the certificate program, students will be able to:

understand theories, concepts, and principles surrounding the causes/ etiology of conflict

develop empathy in conflictual situations and be sensitive to the disparate perspectives provided by stakeholders in managing/facilitating change.

have the ability to transform conflict and be a constructive change agent particularly in challenging work and community environments.

This undergraduate certificate program is appropriate for students from a variety of academic backgrounds and experiences who are interested in becoming effective workers and leaders in constantly changing environment. This is a stand-alone certificate, whose required courses may be allowed as electives in some undergraduate programs. Students are encouraged to speak with their academic advisors before applying to the Workplace Interpersonal Relationships Certificate.

## **Program Course Requirements**

### **Required Courses (10 Credit Hours)**

SOCI 3370:Strategies for Conflict Transformation: Theories and Tools

SOCI 3374:Sociology of Work and Occupations

CMPD 4470:Alternative Dispute Resolution

or

POLS 4470:Alternative Dispute Resolution

**Understanding Conflict Elective (3 Credit Hours)**

Select one of the following:

- ANTH 3307:Cultural Anthropology
- HIST 4251:U.S. Social and Cultural History
- ORGC 3376:Interpersonal Communication
- PERS 2700:Perspectives on the World of Work
- PSYC 3355:Cross-Cultural Psychology
- SOCI 3333:Technology and Society

**Conflict Management Strategy Elective (3 Credit Hours)**

Select one of the following:

- IPE 4413:Interprofessional Care and Collaboration
- LDRS 2200:Contemporary Leadership Issues
- ORGC 3459:Communication and Conflict
- SOCI 3304:Social Organization
- SOCI 4444:Social Movements and Social Change

***Program Total (16 Credit Hours)***

# **African and African Diaspora Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/programs/minor-aads.php>

Phone: 470-578-2431

Email: [isd@kennesaw.edu](mailto:isd@kennesaw.edu)

## **Program Description**

The Minor in African and African Diaspora Studies offers students an interdisciplinary educational experience that fosters an understanding of the transnational experiences of African and African-descended peoples in the US, Caribbean, South America, Europe, and Asia. Students will gain an appreciation for the diverse character of humanity, explore the complex historical and cultural relations between Africans on the continent and African-descended peoples in the Diaspora, and engage in a comparative study of issues affecting Africans in the continent and the Diasporas.

## **Program Course Requirements**

### **Required Courses (3 Credit Hours)**

BLCK 1101:Introduction to Black Studies

### **Electives (12 Credit Hours)**

Select four electives (12 credit hours) from the list. At least three of the electives (9 credit hours) must be 3000 or 4000 level courses.

BLCK 1102:Issues in Black Studies

BLCK 3310:Introduction to Hip Hop Studies

BLCK 3380:Study Abroad

BLCK 3400:Black Activism in Brazil

BLCK 3500:The Black Woman

BLCK 3520:Black Masculinities

BLCK 3550:Black Women's Health

BLCK 3780:Contemporary Topics & Trends in Black Studies

BLCK 4040:Major Issues and Figures

BLCK 4100:Directed Applied Research

BLCK 4400:Directed Study in Black Studies

BLCK 4490:Special Topics in Black Studies

ANTH 3310:Cultural Diversity in the U.S.

ANTH 3360:Anthropology and Africa

ANTH 3365:Afro-Brazilian Culture and Politics  
ARH 3100:African Art and Architecture  
ARH 3300:Ancient Egyptian and Nubian Art and Architecture  
ARH 4150:African-American Art  
ENGL 3360:Major African American Writers  
ENGL 3400:Survey of African Literatures  
ENGL 3500:Topics in African American Literature  
FREN 4434:Topics in Language, Literature, and Culture  
GEOG 3350:Geography of Sub-Saharan Africa  
GWST 3020:Black Feminisms  
HIST 3333:African American History to 1865  
HIST 3334:The Africans in the Diaspora  
HIST 3335:African American History, 1865 to Present  
HIST 3358:Africans in Latin America and the Caribbean  
HIST 3391:History of West Africa  
HIST 4905:History of the Atlantic World  
MUSI 3411:Survey of African-American Music  
POLS 3328:African American Politics  
POLS 4412:Urban Politics  
POLS 4454:Politics of the Middle East  
POLS 4455:International Relations of Africa  
PSYC 3355:Cross-Cultural Psychology  
PSYC 3385:Ethnic Minority Psychology  
Any other AADS-focused course in this area approved by faculty advisor

***Program Total (15 Credit Hours)***

# **Anthropology Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/geoanth/programs/minor-anthropology.php>

Phone: (470) 578-2373

Email: [geoanth@kennesaw.edu](mailto:geoanth@kennesaw.edu)

## **Program Description**

The Minor in Anthropology prepares students for graduate programs in Anthropology and work in professions and fields that require an understanding of the effects of culture on human behavior. This is becoming increasingly useful as the cultural diversity of our society and workplaces and the international focus of businesses and research have created a demand for professionals with anthropological training.

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

A total of 15 credit hours of anthropology courses. At least 9 credit hours of the courses must be 3000-4000 level courses.

ANTH 1102 cannot be used for the minor if it has been used to satisfy a general education requirement. If it has not been used to satisfy a general education requirement, ANTH 1102 can be used for the minor.

### ***Program Total (15 Credit Hours)***

# **Asian Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/>

Phone: (470) 578-2431

Email: [isd@kennesaw.edu](mailto:isd@kennesaw.edu)

## **Program Description**

The minor in Asian Studies consists of 15 credit hours of Asian Studies coursework calculated in the following manner. A minimum of six (6) hours in the minor must be taken in residence at Kennesaw State University.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

ASIA 3001:Understanding Asia

### **Select three of the following (9 Credit Hours)**

ANTH 3335:Archaeology Field Techniques

ANTH 4490:Special Topics in Anthropology

ASIA 3306:Understanding China through Films

ASIA 3309:Survey of Chinese Literature and Culture

ASIA 3340:Contemporary South Asian Literature

ASIA 3355:Cultures and Capitalisms in Asia

ASIA 3670:Survey of Asian Art

ASIA 3950:Technology Strategy in Asia

ASIA 4422:Archaeology of Asia

ASIA 4457:South Asian Politics: A Comparative Perspective

ASIA 4490:Special Topics for Asian Studies

ORGC 3325:Intercultural Communication

ECON 4310:Economic Development in Global Perspective

GEOG 3360:Geography of Asia

HIST 3372:Ancient to Pre-Modern China

HIST 3373:Modern India and South Asia

HIST 3374:Modern China

PHIL 4200:Indian Philosophy

PHIL 4210:Chinese Philosophy

PHIL 4220:Japanese Philosophy

POLS 4452:Politics of East Asia

SA 4490:Upper-division Study Abroad

Any other Asia-focused course approved by faculty advisor

**Select one of the following (3 Credit Hours)**

CHIN 1001:Elementary Chinese I

CHIN 1002:Elementary Chinese II

CHIN 2001:Intermediate Chinese I

CHIN 2002:Intermediate Chinese II

JAPN 1001:Elementary Japanese I

JAPN 1002:Elementary Japanese II

JAPN 2001:Intermediate Japanese I

JAPN 2002:Intermediate Japanese II

KOR 1001:Introduction to Korean Language and Culture I

KOR 1002:Elementary Korean II

KOR 2001:Intermediate Korean Language and Culture I

KOR 2002:Intermediate Korean Language and Culture II

***Program Total (15 Credit Hours)***

# **Chinese Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/wlc/>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

The Minor in Chinese Studies requires 15 hours of CHIN coursework. CHIN 2001 and CHIN 2002 may be counted towards the minor; all remaining course work must be at the upper-division level. Advanced speakers of Chinese should consult with a Chinese Studies advisor about testing options using the Advanced Standing examinations available in the Department of Foreign Languages.

A minimum of six (6) hours in the minor must be taken in residence at Kennesaw State University.

## **Program Course Requirements**

### **Required (6 Credit Hours)**

CHIN 2001:Intermediate Chinese I

CHIN 2002:Intermediate Chinese II

### **Electives Courses (9 Credit Hours)**

Select nine credit hours from the following Chinese Courses:

CHIN 3200:Critical Reading and Applied Writing

CHIN 3302:Practical Conversation

CHIN 3303:Grammar and Composition

CHIN 3304:Readings in Culture I

CHIN 3305:Readings in Culture II

CHIN 3390:Upper-division Study Abroad in Chinese

CHIN 3398:Internship

CHIN 4400:Directed Study

CHIN 4402:Contemporary Culture

CHIN 4404:Commercial Chinese

CHIN 4434:Topics in Language, Literature, and Culture

CHIN 4456:Advanced Grammar and Linguistics

CHIN 4490:Special Topics

FL 3309:Survey of Chinese Literature and Culture

### **Program Total (15 Credit Hours)**

# **Comparative American Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/programs/minor-amst.php>

Phone: (470) 578-7435

Email: [isd@kennesaw.edu](mailto:isd@kennesaw.edu)

## **Program Description**

The Comparative American Studies minor at Kennesaw State University dedicates itself to crossing boundaries: disciplinary, social, cultural, and institutional. The program is multidisciplinary and interdisciplinary, focusing on the study of American cultures as they exist locally, regionally, nationally, and transnationally. With grounding in the content knowledge and methodologies from a range of fields, students are actively encouraged to pursue an understanding and critical analysis of the history, literature, arts, politics, language, philosophy, and social practices of the multitude of American communities.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

Students may take any two of the following courses:

- ISD 2001:Introduction to Diversity and Social Justice
- AMST 3700:American Studies: Principles and Methods
- AMST 3720:America and Empire
- AMST 3730:Introduction to Native American Studies

### **Select one or two of the following (3-6 Credit Hours)**

- AMST 3710:U.S. in the World
- AMST 3740:American Popular Culture
- AMST 3750:Place in American Culture
- AMST 3760:Advanced Studies in American Identities
- AMST 3770:American Cultural Productions
- AMST 3780:American Cultural Movements
- AMST 4490:Special Topics in American Studies

### **Select one or two of the following (3-6 Credit Hours)**

One to two courses in 3000 or 4000 level courses in ISD programs where content of courses relates to the study of cultures of the United States and/or the Americas.

BLCK 3780:Contemporary Topics & Trends in Black Studies  
BLCK 3500:The Black Woman  
BLCK 4040:Major Issues and Figures  
ASIA 3760:Asian American Cultural Identities  
GWST 3010:Queer Theory & Sexuality  
GWST 3030:Gender in Popular Culture  
GWST 3070:Gender and Social Justice  
LALS 3770:Latin American Cinema  
LALS 3780:Trends in Latin American/Latino Studies  
LALS 4490:Special Topics in Latin American/Latino Studies  
RELS 3780:Trends in Religious Studies  
PAX 3780:Trends in Peace Studies  
PAX 3220:Peace and Film

### **Electives (0–3 Credit Hours)**

The balance of credits is drawn from the following. Alternatively, students may take an additional course from the list of program courses above. With the permission of the AS coordinator, English majors may use one ENGL course toward the minor AREA II electives, and history majors may use one HIST course toward the minor AREA II electives.

ANTH 3321:Indigenous Peoples of North America  
ENGL 3340:Ethnic Literatures  
ENGL 3500:Topics in African American Literature  
ENGL 3360:Major African American Writers  
ENGL 4360:American Literature Before 1800  
ENGL 4460:19th-Century American Literature  
ENGL 4560:20th-Century and 21st-Century American Literature  
FILM 3220:Topics in American Cinema  
HIST 3310:The Old South  
HIST 3311:The New South  
HIST 4204:The History of the American West  
HIST 3331:History of Religion in the U.S.  
HIST 3335:African American History, 1865 to Present  
HIST 3341:Women in U.S. History and Culture  
HIST 4435:History and Memory  
PHIL 3020:American Philosophy  
POLS 4427:American Political Thought  
SOCL 3314:Race and Ethnicity  
ANTH 3310:Cultural Diversity in the U.S.  
ANTH 3315:Indigenous Peoples of the Southeast United States  
ANTH 3365:Afro-Brazilian Culture and Politics  
ARH 3200:Ancient American Art and Architecture

ARH 3240:Native North American Art and Architecture  
ARH 3250:Latin American Art and Architecture  
ARH 3750:History of American Art and Architecture  
ARH 4150:African-American Art  
ARH 4750:American Landscape Painting  
MENT 4425:Gender, Race and Media  
HIST 4905:History of the Atlantic World  
HIST 4412:The Early Republic  
HIST 3366:History of Mexico and Central America  
HIST 3367:History of Brazil  
HIST 4911:Themes in American Environmental History  
HIST 4410:Colonial America to 1763  
HIST 4411:The American Revolution  
HIST 4415:Jacksonian America  
HIST 4451:Civil War and Reconstruction  
HIST 4461:Gilded Age & Progressive Era  
HIST 4471:Recent United States History  
PHIL 3210:Latin American and Caribbean Philosophy  
POLS 3300:U.S. Constitution and Courts  
POLS 3315:American Constitutional Law: Federalism  
POLS 3328:African American Politics  
POLS 3350:American Foreign Policy  
POLS 3356:U.S. Environmental Policy & Politics  
SOC1 3350:Intersections of Race, Class, and Gender

***Program Total (15 Credit Hours)***

# **Criminal Justice Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/scj/programs/minor-cj.php>

Phone: (470) 578-6739

Email: [scjdeptksu@kennesaw.edu](mailto:scjdeptksu@kennesaw.edu)

## **Program Description**

Students will learn about crime and criminal justice issues, including interpersonal communication skills, leadership, and management concerns, technological applications, and ethical considerations.

The Minor in Criminal Justice is offered face to face and fully online.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

CRJU 1101:Foundations of Criminal Justice

### **Law Enforcement (3 Credit Hours)**

Select one from the following:

CRJU 3310:Police in America

CRJU 3311:Police Administration

CRJU 3312:State and Federal Law Enforcement Initiatives

### **Corrections (3 Credit Hours)**

Select one from the following:

CRJU 3332:Corrections

CRJU 3352:Juvenile Justice

### **Adjudication (3 Credit Hours)**

Select one from the following:

CRJU 3300:Criminal Courts

CRJU 3315:Criminal Procedure

CRJU 3340:Legal Analysis

### **Elective (3 Credit Hours)**

Select one from the following:

- CRJU 3301:Research Methods in Criminal Justice \*
- CRJU 3305:Technology and Criminal Justice
- CRJU 3320:Criminal Investigation
- CRJU 3400:Ideological/Group Violence and Law Enforcement
- CRJU 4100:Ethics in Criminal Justice
- CRJU 4305:Technology and Cyber Crime
- CRJU 4430:Victimology
- CRJU 4490:Special Topics in Criminal Justice
- SOCI 4432:Criminology \*

### **Program Total (15 Credit Hours)**

*Note: \* Students whose undergraduate degrees are not in criminal justice, criminology, or related studies and who are interested in pursuing a master's degree program in Criminal Justice (MSCJ) at KSU should complete these two undergraduate courses (six hours) in Criminology and Research Methods in Criminal Justice. These two undergraduate courses are pre-requisites for the MSCJ program, and these six credit hours will not count toward the graduate degree requirements.*

# **Criminology Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/scj/programs/minor-criminology.php>

Phone: 470-578-6739

Email: [scjdeptksu@kennesaw.edu](mailto:scjdeptksu@kennesaw.edu)

## **Program Description**

Economic conditions, rapid demographic changes, alterations in social institutions and extensive drug and alcohol abuse have led to high crime rates in the United States. Parallel social changes in other countries reflect concomitant increases in criminal behavior. Internationally, there is an increasing concern about public safety. Students will learn about the causes of crime, how to measure the extent of crime, and how to critically examine the approaches used to prevent, sanction, and change criminal behavior.

The Minor in Criminology is offered face to face and fully online.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

CRJU 1101:Foundations of Criminal Justice

or

SOCI 1101:Introduction to Sociology

SOCI 4432:Criminology

### **Select three of the following (9 Credit Hours)**

CRJU 3352:Juvenile Justice

CRJU 3365:Profile of the Serial Offender

CRJU 4410:Criminal Profiling and Analysis

CRJU 4430:Victimology

GEOG 4300:Urban Geography

POLS 4405:Comparative Legal Systems

POLS 4411:Criminal Law

PSYC 3310:Psychopharmacology

PSYC 4430:Psychopathology

SOCI 3360:Sociology of Violence

SOCI 4200:Drugs, Alcohol, and Society

SOCI 4442:Deviance and Social Control

### **Program Total (15 Credit Hours)**

# **Crisis Preparedness Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/socm/>

Phone: (470) 578-6298

Email: [socm@kennesaw.edu](mailto:socm@kennesaw.edu)

## **Program Description**

Research underscores the need for developing leaders and citizens who can respond appropriately in a crisis. The reality of today's crises is that they are likely to overlap organizational and geographic boundaries and catapult from local to international challenges. Crises—whether pandemics, natural disasters, information security, or terrorism—are realities for organizations and communities. This minor integrates courses from multiple disciplines (public relations, political science, information technology, and others) to prepare leaders and citizens to capitalize on the strengths and innovations needed to be prepared to respond to crises of the future.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

PR 4460:Crisis Communication

ISA 3330:Information Security Approach to Crisis Management

POLS 4200:Homeland Security Administration

### **Elective Courses (6 Credit Hours)**

Choose two of the following:

PR 4415:Topics in Public Relations

CRJU 3400:Ideological/Group Violence and Law Enforcement

CRJU 4100:Ethics in Criminal Justice

PR 4670:Crisis Leadership Communication

LDRS 3400:Leadership and Community Engagement

NURS 4423:International Health Policy

POLS 4431:Politics of International Terrorism

POLS 4437:Global Security

### **Program Total (15 Credit Hours)**

# **Environmental Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/geoanth/programs/minor-es.php>

Phone: (470) 578-2373

Email: [geoanth@kennesaw.edu](mailto:geoanth@kennesaw.edu)

## **Program Description**

Environmental Studies is an interdisciplinary field that examines relationships between the human and physical landscapes. Topics such as global climate change, deforestation, wetland degradation, water, soil and air pollution, sustainability, economics, ethics, policies and laws, history, and literature all fall under the domain of environmental studies. Heightened public awareness about the hazards facing the environment, and the increasing demands placed on the environment by population growth, is spurring demand for environmental specialists. According to the U.S. Department of Labor Bureau of Labor Statistics, "Employment of environmental scientists and specialists is projected to grow 11 percent from 2014 to 2024, faster than the average for all occupations."

## **Program Course Requirements**

### **Required Courses (3 Credit Hours)**

Note: Students must take one of the following courses. Students may elect to take both of the courses; students who take both ANTH 4430 and GEOG 3700 will need an additional 9 credit hours (selected from the options below).

ANTH 4430:Environmental Anthropology Field Methods

- or -

GEOG 3700:Introduction to Environmental Studies

### **Additional Courses (12 Credit Hours)**

Note: Students may select any four courses from the list below. They may also apply credit earned in an environmentally-themed section of Special Topics (GEOG 4490) or Gender Studies (ENGL 3330, GWST 4040) courses with approval of the ENVS program coordinator.

ENVS 3720:Sustainability at KSU

ENVS 3730:Natural Resource Management

ENVS 4300:Environmental Ethics

GEOG 3305:Introduction to Cartographic Processes

GEOG 3710:Local & Global Sustainability

GEOG 3800:Climatology

GEOG 3850:Global Climate Change

GEOG 3900:Biogeography

GEOG 4700:Geomorphology  
WRIT 3170:Environmental Writing and Literature  
POLS 4456:International Environmental Policy  
SCI 3360:Earth Science  
SCI 4700L:Applied Environmental Studies  
ENVS 3398:Internship

***Program Total (15 Credit Hours)***

# **Ethics Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/historyphilosophy/>

Phone: (470) 578-6294

Email: [histphildept@kennesaw.edu](mailto:histphildept@kennesaw.edu)

## **Program Description**

The Ethics Minor focuses on ethical theories and how those theories are applied to issues in personal, professional, and social contexts. The minor has value for students from a wide range of majors who have an interest in thinking critically about ethical questions.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

PHIL 2100:Values and Society

PHIL 3100:Ethics

### **Electives (9 Credit Hours)**

Select 9 credit hours from the following:

PHIL 3110:Social and Political Philosophy

PHIL 3120:Philosophies of Peace

PHIL 3130:Feminist Philosophy

Any directed studies course offered at KSU with content appropriate to Ethics approved by Philosophy Coordinator.

Any 3000-4000 level course offered at KSU with content appropriate to Ethics approved by the Philosophy Coordinator.

Any 3000-4000 level study abroad course offered at KSU with content appropriate to Ethics approved by the Philosophy Coordinator.

Any internship or service learning course offered at KSU with content appropriate to Ethics approved by the Philosophy Coordinator.

### **Program Total (15 Credit Hours)**

# **European Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/foreignlanguages/programs/minor-european.php>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

The Minor in European Studies is an interdisciplinary program. The minor offers courses incorporating basic and applied research, Study Abroad, and experiential learning. The goals of the Minor in European Studies are: to expand knowledge of Europe and its cultures; to encourage students to study a broad range of topics; and to embrace a spirit of engaged humanities at KSU and after graduation. The Minor emphasizes critical thinking skills and encourages the crossing of national and disciplinary boundaries.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

EUST 2050:Introduction to European Studies

EUST 4040:Capstone in European Studies

### **Electives (9 Credit Hours)**

Select three (3) courses from the following:

ARH 2850:Renaissance through Modern Art

ENGL 4570:20th-Century and 21st-Century British Literature

FL 2209:World Languages and Cultures

FREN 3305:Literature and Culture II

FREN 4402:Contemporary Culture

GEOG 3312:Geography of Europe

GEOG 3305:Introduction to Cartographic Processes

GRMN 4402:Contemporary Culture

GWST 2050:Global Perspectives on Gender

HIST 4558:The Holocaust

HIST 3361:Themes in Slavic and Eastern European Studies

HIST 4454:Twentieth Century Europe

HIST 4655:Russia Since 1861

ITAL 3305:Literature and Culture II

ITAL 4402:Contemporary Culture

MUSI 3317:History of Opera

PHIL 4000:Nineteenth Century Western Philosophy

POLS 4433:European Union Politics

POLS 4439:Political Economy of Russia and Central Asia in Transition

POLS 4449:Russian Foreign Policy

POLS 4451:Politics and Government in Post-Communist Europe

PORT 3304:Introduction to Lusophone Literatures and Cultures

SPAN 3305:Literature and Culture II

SPAN 4402:Contemporary Culture

***Program Total (15 Credit Hours)***

# **Film Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/english/programs/minor-fs.php>

Phone: (470) 578-7531

Email: [ksuenglish@kennesaw.edu](mailto:ksuenglish@kennesaw.edu)

## **Program Description**

The Minor in Film Studies provides a broad background in moving image media, art, and entertainment. Along with courses in film analysis, history, and theory, professional training is also offered at various levels in story development, screenwriting, and TV writing. The minor offers interdisciplinary coursework that serves as a credential for students interested in graduate study or in working in the educational, commercial, or entertainment industries, whether locally, nationally, or internationally.

## **Program Course Requirements**

### **Introduction Film Writing Course (3 Credit Hours)**

Select one of the following:

FILM 3105:Introduction to Screenwriting

FILM 3125:Introduction to TV Writing

### **Advanced Film Writing Course (3 Credit Hours)**

Select one of the following:

FILM 4200:Theory-Based Studies in Film

FILM 4105:Advanced Screenwriting \*

FILM 4125:Advanced TV Writing \*

### **Film History Courses (6 Credit Hours)**

Select two of the following:

FILM 3200:Film History I

FILM 3210:Film History II

FILM 3215:Film History III

### **Electives (3 Credit Hours)**

Select one of the following:

- FILM 3205:Series and Serials
- FILM 3220:Topics in American Cinema
- FILM 3230:Topics in World Cinema
- FILM 3240:Film Genres and Movements
- FILM 3250:Film Authors
- FILM 3560:Women in Film

*Notes: Any three credit 3000/4000 level film-based course taught in any other discipline can be taken to satisfy the Elective requirement for the minor with permission of department.*

*\*Although the minor does not require students to do so, FILM 4105 and FILM 4125 can be taken up to two times (6 credit hours) for credit towards graduation.*

**Program Total (15 Credit Hours)**

# **French and Francophone Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/wlc/>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

The minor in French and Francophone Studies requires 15 hours of FREN course work at the level of 2002 or above. These 15 hours must include FREN 3200, FREN 3302, and FREN 3303. Advanced speakers should consult with a French advisor about testing options using the Advanced Standing examinations available in the Department of World Languages and Cultures.

***Program Total (15 credit hours)***

# **Gender and Women's Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/programs/minor-gwst.php>

Phone: (470) 578-2431

Email: [isd@kennesaw.edu](mailto:isd@kennesaw.edu)

## **Program Description**

The Gender & Women's Studies (GWST) minor is designed to increase students' awareness of the impact of changing gender roles. The program encourages students to understand and value diversity by exploring differences among people, promoting dialogue on issues of diversity, and providing service learning experiences in the community.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

GWST 2000:Introduction to Gender and Women's Studies

GWST 4000:Research in Gender and Women's Studies

### **Electives (9 Credit Hours)**

Select three additional GWST-prefixed courses.

### ***Program Total (15 Credit Hours)***

# **Geography Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/geoanth/programs/minor-geography.php>

Phone: (470) 578-2373

Email: [geoanth@kennesaw.edu](mailto:geoanth@kennesaw.edu)

## **Program Description**

The Minor in Geography gives students the opportunity to obtain a geographic or spatial perspective on a variety of issues. Students who understand geography are capable of evaluating the complicated relationship between human communities and the natural environment. Three of geography's major themes are human-environmental interaction, regions of the world, and questions of location. Geographers analyze processes, systems, and behaviors that have spatial expression. Students will learn to apply their knowledge of patterns, distributions, allocations, and circulations towards solving problems in their chosen field of endeavor, be it in the public sector, private sector, or the academe.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

GEOG 1101:Introduction to Human Geography

Or

GEOG 1130:World Regional Geography

### **Any Four Upper-Division Geography Courses (12 Credit Hours)**

Students may take any four courses with a GEOG prefix at the 3000- or 4000-level.

### ***Program Total (15 Credit Hours)***

# **German Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/wlc/>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

The minor in German Studies is a valuable complement to the academic portfolio of a student pursuing any major, who wishes to add an international dimension to their academic and professional profile. When you supplement your degree with a German Studies minor, you are increasing your professional marketability with a great number of international and domestic employers who have connections to or value the German-speaking cultures. As a student in the German Studies minor, you have access to grant-supported study abroad experiences and diverse extracurricular offerings in the KSU German Studies program.

The minor in German Studies requires 15 hours of GRMN course work at the level of 2002 or above. These 15 hours must include GRMN 3200, GRMN 3302, and GRMN 3303. Advanced speakers should consult with a German advisor about testing options using the Advanced Standing examinations available in the Department of World Languages and Cultures.

# **Gerontology Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/scj/programs/minor-gerontology.php>

Phone: (470) 578-6739

Email: [scjdeptksu@kennesaw.edu](mailto:scjdeptksu@kennesaw.edu)

## **Program Description**

The multi-disciplinary field of gerontology deals with the sociology, psychology, and the physiology of aging. A key goal is to develop a more realistic perception of the aging process.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

SOCI 1101:Introduction to Sociology  
SOCI 3310:Introduction to Gerontology  
SOCI 3320:Exploring the Aging Network

### **Select two of the following (6 Credit Hours)**

HS 3700:Aging and the Family  
HS 3750:Death, Dying and Bereavement  
PSYC 3130:Psychology of Aging  
SOCI 4443:Medical Sociology

### **Program Total (15 Credit Hours)**

# **History Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/historyphilosophy/programs/minor-history.php>

Phone: (470) 578-6294

Email: [histphildept@kennesaw.edu](mailto:histphildept@kennesaw.edu)

## **Program Description**

To earn a minor in History students must complete History 2206 (Origins of the Great Traditions) plus twelve (12) hours of History courses at the 3000 or 4000 level. Prerequisites for individual courses can be found in the course description section of the undergraduate catalog. At least twelve hours counted toward the minor must not duplicate hours counted toward the major.

***Program Total (15 Credit Hours)***

# **Interactive Design Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/tcid/>

Phone: (470) 578-7202

Email: [tcid@kennesaw.edu](mailto:tcid@kennesaw.edu)

## **Program Description**

The Minor in Interactive Design introduces students to core skills used by interaction designers. Students majoring in other disciplines will acquire functional abilities with design-related tools, learn and apply principles of user interface design, be introduced to front-end development, and more that they can directly apply to their own majors, use to land jobs, and get ahead in their careers.

## **Program Course Requirements**

### **Required Courses (6 credit hours)**

IAD 2100:Prototyping I

TCID 2002:Productivity Tools and Technologies

### **Electives (9 credit hours)**

Select 9 credit hours from the following:

IAD 3150:Visual Design I

IAD 3230:User Interface Design I

IAD 4150:Visual Design II

IAD 4230:User Interface Design II

TCID 3400:Front-End Development I

TCID 3800:Front-End Development II

### ***Program Total (15 Credit Hours)***

# **International Affairs Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/sgia/programs/minor-ia.php>

Phone: (470) 578-6227

Email: [sgia@kennesaw.edu](mailto:sgia@kennesaw.edu)

## **Program Description**

The International Affairs Minor is designed to provide undergraduate students exposure to the analytical tools and substantive knowledge necessary to make sense of an increasingly complex global environment. The curriculum is flexible enough to engage a wide range of interests. Students can focus on particular geographic regions, including Africa, Asia, Latin America, Europe, and the Middle East. Alternatively, they can focus on substantive issues, such as development, security, or the politics of international economic relations.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

POLS 2240:Introduction to Comparative Politics

POLS 2250:Introduction to International Relations

### **Elective Courses (9 Credit Hours)**

Three (3) elective courses must be selected from the list below. Students cannot have more than one elective in common with their major.

POLS 3350:American Foreign Policy

POLS 3850:Introduction to Nongovernmental Organizations and Development

POLS 4100:Directed Applied Research

POLS 4202:Politics of the U.S. Intelligence Community

POLS 4430:International Law and Organization

POLS 4431:Politics of International Terrorism

POLS 4433:European Union Politics

POLS 4436:Politics of Developing Areas

POLS 4437:Global Security

POLS 4439:Political Economy of Russia and Central Asia in Transition

POLS 4440:Comparative Democratization

POLS 4447:Arctic Politics, Policy, and Security in a Changing Environment

POLS 4448:Russian Politics and Culture

POLS 4449:Russian Foreign Policy

POLS 4452:Politics of East Asia

POLS 4453:Latin America: Democracy and Development

POLS 4454:Politics of the Middle East

POLS 4455:International Relations of Africa

POLS 4456:International Environmental Policy

POLS 4457:South Asian Politics: A Comparative Perspective

POLS 4460:Politics of NATO

POLS 4490:Special Topics in Political Science

***Program Total (15 credit hours)***

# **Italian Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/wlc/>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

The Minor in Italian Studies requires 15 hours of ITAL coursework. ITAL 2001 and ITAL 2002 may be counted towards the minor; all remaining coursework must be at the upper-division level. Advanced speakers of Italian should consult with an Italian Studies advisor about testing options using the Advanced Standing examinations available in the Department of World Languages and Cultures.

A minimum of six (6) hours in the minor must be taken in residence at Kennesaw State University.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

ITAL 2001:Intermediate Italian I

ITAL 2002:Intermediate Italian II

### **Electives (9 Credit Hours)**

Select nine credit hours from the following Italian Courses:

ITAL 3200:Critical Reading and Applied Writing

ITAL 3302:Practical Conversation

ITAL 3303:Grammar and Composition

ITAL 3304:Literature and Culture I

ITAL 3305:Literature and Culture II

ITAL 3390:Upper-division Study Abroad in Italian

ITAL 3398:Internship

ITAL 4400:Directed Study

ITAL 4402:Contemporary Culture

ITAL 4404:Commercial Italian

ITAL 4434:Topics in Language Literature and Culture

ITAL 4456:Advanced Grammar and Linguistics

ITAL 4490:Special Topics in Italian

### **Program Total (15 Credit Hours)**

# **Japanese Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/wlc/>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

A minor in Japanese aims to offer learner-centered courses consistent with the Department of World Languages and Cultures' dual emphasis on linguistic skill building and teaching content throughout the curriculum. Students need to complete 15 credit hours of Japanese, of which a minimum of six (6) must be taken in residence at KSU. Advanced speakers of Japanese should consult with the Japanese Program advisor about testing options using the Advanced Standing examinations available in the Department of World Languages and Cultures.

A native or near-native speaker of Japanese may: take an Advanced Standing Exam for credit in lieu of JPN 2002, or take 2 Elective Courses in lieu of JPN 2002 (the student would still have to take an additional Elective course to fulfill the Elective requirement).

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

Students will select four (4) courses from the following:

- JAPN 2001:Intermediate Japanese I
- JAPN 2002:Intermediate Japanese II
- JAPN 3200:Critical Reading and Applied Writing
- JAPN 3302:Practical Conversation
- JAPN 3303:Grammar and Composition
- JAPN 3304:Readings in Culture I

### **Elective Courses (3 Credit Hours)**

Students will select one course from the following:

- ASIA 4400:Directed Study
- ASIA 4490:Special Topics for Asian Studies
- FL 4400:Directed Study
- ISD 3398:Interdisciplinary Studies Internship
- SA 4490:Upper-division Study Abroad

### **Program Total (15 Credit Hours)**

# **Korean Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/wlc/>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

A minor in Korean aims to offer learner-centered courses consistent with the Department of World Languages and Cultures' dual emphasis on linguistic skill building and teaching content throughout the curriculum. Students need to complete 15 credit hours of Korean, of which a minimum of six (6) must be taken in residence at KSU. Advanced speakers of Korean should consult with the Korean program advisor about testing options using the Advanced Standing Examinations available in the Department of World Languages and Cultures.

A native or near-native speaker of Korean may:

take an Advanced Standing Exam for credit in lieu of KOR 2002, or

take 2 Elective Courses in lieu of KOR 2002 (the student would still have to take an additional Elective course to fulfill the Elective requirement).

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

Students must select four (4) courses from the following:

- KOR 2001:Intermediate Korean Language and Culture I
- KOR 2002:Intermediate Korean Language and Culture II
- KOR 3200:Critical Reading and Applied Writing
- KOR 3302:Practical Conversation
- KOR 3303:Grammar and Composition
- KOR 3304:Readings in Culture I

### **Elective Courses (3 Credit Hours)**

Students must select one course from the following:

- ASIA 4400:Directed Study
- ASIA 4490:Special Topics for Asian Studies
- FL 4400:Directed Study
- ISD 3398:Interdisciplinary Studies Internship
- SA 4490:Upper-division Study Abroad

### **Program Total (15 Credit Hours)**

# **Language and Literary Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/english/programs/minor-lls.php>

Phone: (470) 578-7531

Email: [ksuenglish@kennesaw.edu](mailto:ksuenglish@kennesaw.edu)

## **Program Description**

The minor in language and literary studies cultivates the skills of critical reading and analysis. Students gain proficiency in research as well as in written and oral communication. The minor fosters the crucial ability to understand the complexity of our world and to engage with language in sophisticated ways. These skills prepare students for numerous careers and effectively supplement existing majors in other fields.

## **Program Course Requirements**

### **Select four of the following (12 Credit Hours)**

LING 3020:Linguistics and Literature  
LING 3030:Studies in Grammar and Linguistics  
LING 3035:Introduction to Language and Linguistics  
LING 3040:History of the English Language  
ENGL 3230:Literary Genre  
ENGL 3232:Topics in Drama  
ENGL 3320:Scriptural Literature  
ENGL 3322:Hebrew Scriptures as Literature  
ENGL 3324:New Testament as Literature  
ENGL 3330:Gender Studies  
ENGL 3340:Ethnic Literatures  
ENGL 3342:Topics in Native American Literature  
ENGL 3350:Regional Literature  
ENGL 3360:Major African American Writers  
ENGL 3400:Survey of African Literatures  
ENGL 3500:Topics in African American Literature  
ENGL 3600:Topics in African Diaspora Literatures  
ENGL 4220:Critical Theory  
ENGL 4230:Theory-Based Studies in Literature  
ENGL 4340:Shakespeare  
ENGL 4360:American Literature Before 1800  
ENGL 4370:Medieval Literature  
ENGL 4372:British Renaissance Literature

ENGL 4374:Restoration and Eighteenth-Century Literature  
ENGL 4380:World Literature Before 1800  
ENGL 4401:Topics in African Literatures  
ENGL 4460:19th-Century American Literature  
ENGL 4470:19th-Century British Literature  
ENGL 4480:19th-Century World Literature  
ENGL 4560:20th-Century and 21st-Century American Literature  
ENGL 4570:20th-Century and 21st-Century British Literature  
ENGL 4580:20th-Century and 21st-Century World Literature

*Note: Because all minors require fifteen hours, a fifth course will be selected from the student's Area F requirements in consultation with the advisor for the minor.*

**Program Total (15 Credit Hours)**

# **Latin American and Latinx Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/programs/minor-lals.php>

Phone: (470) 578-2431

Email: [isd@kennesaw.edu](mailto:isd@kennesaw.edu)

## **Program Description**

The Minor in Latin American and Latinx Studies provides a solid foundation for understanding contemporary Latin American society and Latinx communities more broadly. To achieve this goal, this minor offers a range of courses that examine the history, politics, economics, culture, and languages of the Latin American region. The program also emphasizes community engagement and study abroad experiences. The minor is especially useful to undergraduates who wish to deepen their understanding of Latin America as well as Latinx peoples residing in the United States.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

LALS 3780:Trends in Latin American/Latino Studies

### **Select four of the following (12 Credit Hours)**

ANTH 3380:Maya Archaeology

ANTH 3365:Afro-Brazilian Culture and Politics

ARH 3250:Latin American Art and Architecture

GEOG 3370:Geography of Latin America and the Caribbean

HIST 3358:Africans in Latin America and the Caribbean

HIST 3366:History of Mexico and Central America

HIST 3367:History of Brazil

ISD 3333:Year of \_\_\_\_\_ in Interdisciplinary Context I

ISD 3334:Year of \_\_\_\_\_ in Interdisciplinary Context II

ISD 3398:Interdisciplinary Studies Internship

LALS 3550:U.S. Latinx Communities

LALS 3770:Latin American Cinema

LALS 4490:Special Topics in Latin American/Latino Studies

PHIL 3210:Latin American and Caribbean Philosophy

POLS 4436:Politics of Developing Areas

POLS 4453:Latin America: Democracy and Development

PORT 3304:Introduction to Lusophone Literatures and Cultures

SA 4400:Study Abroad Directed Study  
SA 4490:Upper-division Study Abroad  
SPAN 3304:Literature and Culture I  
SPAN 3305:Literature and Culture II  
SPAN 3398:Internship

***Program Total (15 Credit Hours)***

# **Leadership Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/programs/leadership-studies/>

Phone: (470) 578-6124

Email: [ldrs@kennesaw.edu](mailto:ldrs@kennesaw.edu)

## **Program Description**

The Leadership Studies Minor is a unique, interdisciplinary minor that offers learners a rigorous and robust exploration of the Leadership Studies discipline. In this minor, students will critically examine contemporary concepts, theories, and models of leadership and apply what they have learned in practical, real-world contexts. Learners must begin their course of study with LDRS 3000 Foundations of Leadership: History, Theory, and Application and then complete two "Inclusive Leadership" electives and two "Applied Leadership" electives to complete the 15-credit minor. After completing LDRS 3000, the remaining required courses can be taken in any sequence. This minor complements a wide array of major areas of study offered at Kennesaw State University.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

LDRS 3000:Foundations of Leadership: History, Theory, and Application

### **Elective Area 1: Inclusive Leadership (6 Credit Hours)**

Choose two courses from the following:

LDRS 3200:Leadership in a Global Society

LDRS 3201:Leadership and Multiculturalism

LDRS 3700:Leadership and Gender

LDRS 4400:Directed Study

LDRS 4490:Special Topics in Leadership Studies

### **Elective Area 2: Applied Leadership (6 Credit Hours)**

Choose two courses from the following:

LDRS 3100:Change and Conflict Leadership

LDRS 3401:Research and Inquiry in Leadership

LDRS 3600:Ethics In Leadership

LDRS 3800:Building and Leading Effective Teams

LDRS 4400:Directed Study

LDRS 4490:Special Topics in Leadership Studies

### **Program Total (15 Credit Hours)**

# **Legal Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/sgia/>

Phone: (470) 578-6227

Email: [sgia@kennesaw.edu](mailto:sgia@kennesaw.edu)

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

POLS 3300:U.S. Constitution and Courts

### **Select four of the following (12 Credit Hours)**

BLAW 3400:Negotiation

BLAW 4100:Advanced Business Law

JOUR 4470:Media Law

POLS 3315:American Constitutional Law: Federalism

POLS 3320:Legal Research

POLS 4405:Comparative Legal Systems

POLS 4410:American Legal System

POLS 4411:Criminal Law

POLS 4415:Civil Liberties

POLS 4416:Law and Gender

POLS 4420:Judicial Process

POLS 4466:Trial Procedure and Evidence

POLS 4470:Alternative Dispute Resolution

### ***Program Total (15 Credit Hours)***

# **Linguistics Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/english/programs/minor-ling.php>

Phone: (470) 578-6297

Email: [ksuenglish@kennesaw.edu](mailto:ksuenglish@kennesaw.edu)

## **Program Description**

The minor in linguistics deepens students' understanding of the nature of language. Linguistics addresses two fundamental questions: What is language? And how does it work? Courses in the minor explore issues such as language history, structure, and acquisition; dialects; literary language; and the relationship between language and society. The minor would be useful to students who want to pursue careers in fields such as teaching, advertising, communications, computer applications, literature, law, government, and non-profit work.

## **Program Course Requirements**

### **Select four of the following (12 Credit Hours)**

- ANTH 3303:Introduction to Linguistic Anthropology
- FL 2209:World Languages and Cultures
- FLED 4408:Second Language Acquisition
- FREN 4456:Advanced Grammar and Linguistics
- GRMN 4456:Advanced Grammar and Linguistics
- INED 4430:Applied Linguistics and English Language Literacy
- ITAL 4456:Advanced Grammar and Linguistics
- LING 3020:Linguistics and Literature
- LING 3025:Linguistics for Education
- LING 3030:Studies in Grammar and Linguistics
- LING 3035:Introduction to Language and Linguistics
- LING 3040:History of the English Language
- LING 3045:Grammar of Contemporary American English
- LING 3050:Sociolinguistics
- LING 3055:Politics and Language
- LING 3760:World Englishes
- SPAN 4456:Advanced Grammar and Linguistics

*Note: A fifth course will be selected from the student's Area F requirements in consultation with the advisor for the professional writing minor.*

### **Program Total (15 Credit Hours)**

# **Lusophone Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/wlc/>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

This cross-disciplinary program offers opportunities to learn Portuguese as a world language while bringing the world right to you! From literature and listening to one-on-one contact with your professors, the Minor in Lusophone Studies brings the Portuguese-speaking world to life!

The Portuguese Program offers courses in Lusophone (Portuguese-Speaking) Language, Cultures, and Literatures, as well as a Minor in Lusophone Studies which incorporates courses in Foreign Languages, History, Anthropology, and the possibility of Study Abroad experiences.

The Minor in Lusophone Studies consists of 15 credit hours of coursework in Portuguese Language and Lusophone cultures, literature, and history. A minimum of six (6) credit hours must be taken in residence at Kennesaw State University

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

Students must take the following courses or equivalents:

PORT 2002:Intermediate Portuguese II

PORT 3200:Advanced Reading and Writing in Portuguese

PORT 3304:Introduction to Lusophone Literatures and Cultures

### **Elective Courses (6 Credit Hours)**

In addition, students will need to complete at least two (2) courses from the following options, with exception to student who has passes the Advanced Standing Exam and/or is exempt from PORT 2002. Those students will need to complete three (3) courses from the following options:

ANTH 3365:Afro-Brazilian Culture and Politics

FL 4400:Directed Study

*note: Directed Study must be related to Portuguese/Lusophone language, literature, and/or cultures. Please see the Coordinator of Portuguese about this option.*

HIST 3367:History of Brazil

PORT 3302:Conversation in Portuguese

SA 4490:Upper-division Study Abroad

note: Study Abroad must be to a Portuguese-speaking country of region

***Program Total (15 Credit Hours)***

# **Medical Sociology Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/scj/programs/minor-medical-sociology.php>

Phone: (470) 578-6739

Email: [scjdeptksu@kennesaw.edu](mailto:scjdeptksu@kennesaw.edu)

## **Program Description**

Health care is a growing sector of the economy and programs at the governmental, private, and international level are expanding to meet the needs of an increasingly elderly, disabled, and chronically ill population. Medical sociology is a specialty area within sociology concerned with the social dimensions of health, illness, and health care. After completing the medical sociology minor, students should be able to critically examine approaches used to prevent health problems and evaluate their relative merits.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

SOCI 1101:Introduction to Sociology

SOCI 3380:Society, Community, & Health

or

SOCI 4443:Medical Sociology

### **Elective Courses (9 Credit Hours)**

Select three of the following:

SOCI 3310:Introduction to Gerontology

SOCI 3320:Exploring the Aging Network

SOCI 3344:Biotechnology and Social Change

SOCI 3360:Sociology of Violence

SOCI 3380:Society, Community, & Health (If not taken as a required course)

SOCI 4200:Drugs, Alcohol, and Society

SOCI 4400:Directed Study in Sociology (Topic must be relevant to Medical Sociology)

SOCI 4443:Medical Sociology (If not taken as a required course)

SOCI 4445:Sociology of Mental Illness

SOCI 4490:Special Topics in Sociology (Topic must be relevant to Medical Sociology)

### **Program Total (15 Credit Hours)**

# **Military Leadership Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/sgia/index.php>

Phone: (470) 578-6227

Email: [sgia@kennesaw.edu](mailto:sgia@kennesaw.edu)

## **Program Description**

The Military Leadership Minor challenges cadets to study and practice adaptive leadership skills as they are presented with challenging scenarios related to garrison and tactical operations. The challenges increase throughout the minor courses to build cadet awareness and skills leading tactical operations up to a platoon level. They also conduct various styles of briefings to small and large audiences. The focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in Contemporary Operating Environments (COE). The upper-level courses develop individual proficiency in planning, executing, and assessing complex operations; functioning as a member of a staff and providing performance feedback to subordinates. Cadets assess risk, determine ethical decision making, evaluate and instruct cadets at lower levels. Furthermore, cadets will examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. The minor is designed to prepare cadets for their first assignment with case studies, scenarios, and exercises emphasized on practical demands of leading as commissioned officers in the United States Army.

## **Program Course Requirements**

### **Required Courses (16 Credit Hours)**

The following courses must be completed in sequential order:

MILS 3011: Adaptive Tactical Leadership

MILS 3012: Leadership Change Environment

MILS 4011: Developing Adaptive Leadership

MILS 4012: Leaders Complex World

### **Program Total (16 Credit Hours)**

# **Native American and Indigenous Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/programs/minor-nais.php>

Phone: 470-578-2431

Email: [isd@kennesaw.edu](mailto:isd@kennesaw.edu)

## **Program Description**

The minor in Native American and Indigenous Studies promotes understanding of Indigenous cultures, histories, and contemporary issues. The program provides an interdisciplinary foundation that also allows students to focus their studies within a specific discipline. Balancing a regional focus on the Native South with a national and global overview of Indigenous cultures, the program includes a range of courses that demonstrate the continued importance of Indigenous perspectives in the United States and the world.

## **Program Course Requirements**

### **Required (6 Credit Hours)**

AMST 3730:Introduction to Native American Studies

ANTH 3321:Indigenous Peoples of North America

### **Electives (9 Credit Hours)**

Select three of the following:

AMST 3700:American Studies: Principles and Methods

AMST 3720:America and Empire

AMST 3750:Place in American Culture (if related to Native American and Indigenous Studies)

AMST 3760:Advanced Studies in American Identities (if related to Native American and Indigenous Studies)

AMST 4490:Special Topics in American Studies (if related to Native American and Indigenous Studies)

ANTH 3315:Indigenous Peoples of the Southeast United States

ANTH 4100:Directed Applied Research (if related to Native American and Indigenous Studies)

ANTH 4421:North American Archaeology

ANTH 4490:Special Topics in Anthropology (if related to Native American and Indigenous Studies)

ENGL 3342:Topics in Native American Literature

ENGL 3350:Regional Literature (if related to Native American and Indigenous Studies)

GWST 3090:Transnational Feminisms

GWST 3100:Gender and the US South (if related to Native American and Indigenous Studies)

HIST 3366:History of Mexico and Central America

HIST 3367:History of Brazil

HIST 4204:The History of the American West

HIST 4410:Colonial America to 1763

HIST 4905:History of the Atlantic World

LALS 1102:Understanding Latin America

***Program Total (15 Credit Hours)***

# **Organizational & Professional Communication Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/socm/programs/bsopc.php>

Phone: (470) 578-6298

Email: [socm@kennesaw.edu](mailto:socm@kennesaw.edu)

## **Program Description**

The Organizational & Professional Communication minor offers students specialized coursework in effective communication skills specific to traditional corporate workplaces, nonprofit organizations, and emerging organizational groups such as grassroots efforts and civic groups in a multi-cultural, global environment. The minor gives focused attention to interpersonal, intercultural, and/or team communication, project coordination, and leadership communication as well as training and development expertise. Emphasizing experiential and hands-on application of communication theories and practices, the minor supports student efforts to learn successful communication strategies for today's changing marketplace.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

ORGC 3025:Introduction to Organizational & Professional Communication

### **Lower Division Elective. (3 Credit Hours)**

Select one of the following for three credit hours:

BLAW 2200:Legal and Ethical Environment of Business

COMM 1110:Public Speaking

COMM 2033:Visual Communication

### **Upper Division Electives (9 Credit Hours)**

Select three of the following for a total of nine credit hours:

ORGC 3325:Intercultural Communication

ORGC 3345:Team Communication

ORGC 3376:Interpersonal Communication

ORGC 3459:Communication and Conflict

ORGC 4344:Training and Development

ORGC 4440:Leadership Communication

ORGC 4470:Topics in Organizational & Professional Communication

### **Program Total (15 Credit Hours)**

# **Peace and Justice Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/programs/minor-peace-studies.php>

Phone: (470) 578-2431

Email: [isd@kennesaw.edu](mailto:isd@kennesaw.edu)

## **Program Description**

The Peace and Justice Studies Minor serves students who wish to pursue a life dedicated to a more just and peaceful world. This interdisciplinary program prepares students for careers in a wide range of professions, including those in human relations, veteran affairs, patient care, academic services, child services, government and law, nonprofit organizations with community- and regionally-focused objectives, and non-governmental organizations dedicated to transforming international conflict. The minor also helps students prepare for advanced studies in political science, international relations, conflict management, public administration, and a host of other subjects.

The Peace and Justice Studies Minor program consists of five courses (two required and three elective) of undergraduate study across the disciplines. The five courses may be taken in any order, and the capstone is optional. A minimum of six hours in the minor must be taken in residence at Kennesaw State University.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

PAX 3600:Theories of Non-violence

PAX 4000:Peacebuilding Methods

### **Elective Courses (9 Credit Hours)**

Select three (3) courses from the following:

ORGC 3325:Intercultural Communication

GWST 3070:Gender and Social Justice

PAX 3300:Peace and the Environment

PAX 3100:Peace and Religion

PAX 3220:Peace and Film

PAX 3780:Trends in Peace Studies

PAX 4400:Directed Study in Peace Studies

PAX 4490:Special Topics in Peace Studies

PAX 4499:Seminar in Peace Studies

SOCI 3360:Sociology of Violence  
MUSI 3316:Music and the Holocaust  
PHIL 3120:Philosophies of Peace  
PHIL 3100:Ethics  
BIOL 4486:Bioethics

***Program Total (15 Credit Hours)***

# **Philosophy Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/historyphilosophy/index.php>

Phone: (470) 578-6294

Email: [histphildept@kennesaw.edu](mailto:histphildept@kennesaw.edu)

## **Program Description**

Students may earn a minor in Philosophy by completed fifteen (15) hours as described below. At least twelve hours counted toward the minor must not duplicate hours counted toward the major.

## **Program Course Requirements**

### **Select two of the following (6 Credit Hours)**

PHIL 3000: Ancient and Medieval Philosophy

PHIL 3010: Modern Western Philosophy

Any 3000-level Non-Western Philosophy course

### **For the remaining 9 credit hours, students may select from any of the following courses:**

PHIL 2110: Religions of the World

PHIL 2500: Logic

Any 3000 or 4000-level Philosophy course.

### ***Program Total (15 Credit Hours)***

# **Political Science Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/sgia/programs/minor-ps.php>

Phone: (470) 578-6227

Email: [sgia@kennesaw.edu](mailto:sgia@kennesaw.edu)

## **Program Description**

This is a minor in political science requiring one lower division political science course, one upper division course in American politics, policy, or legal system, and one upper division course in international affairs. In addition, students will complete 6 credit hours of elective upper division political science courses.

## **Program Course Requirements**

### **Lower Division Requirements**

Students complete 3 (three) credits from the following courses:

- POLS 2212:State and Local Government
- POLS 2240:Introduction to Comparative Politics
- POLS 2250:Introduction to International Relations
- POLS 2260:Current Political Issues
- POLS 2270:Political Ideologies
- POLS 2280:Research Methods

### **Upper Division Requirements: American Politics, Policy, and Legal Studies**

Students complete 3 (three) credits from the following options:

- POLS 3300:U.S. Constitution and Courts
- POLS 3310:Foundations of Public Policy
- POLS 3313:Public Policy Analysis
- POLS 3315:American Constitutional Law: Federalism
- POLS 3320:Legal Research
- POLS 3328:African American Politics
- POLS 3340:Legal Analysis
- POLS 3343:Principles of Public Administration
- POLS 3356:U.S. Environmental Policy & Politics
- POLS 3360:The United States Congress
- POLS 3370:The United States Presidency
- POLS 3380:Mass Media and Politics
- POLS 3385:Campaigns and Elections
- POLS 3388:Lobbying and Interest Groups
- POLS 3390:Political Research On-Line

POLS 3394:Public Polling and Survey Techniques  
POLS 4200:Homeland Security Administration  
POLS 4280:Political Data Analysis  
POLS 4402:Political Parties  
POLS 4405:Comparative Legal Systems  
POLS 4410:American Legal System  
POLS 4411:Criminal Law  
POLS 4412:Urban Politics  
POLS 4415:Civil Liberties  
POLS 4416:Law and Gender  
POLS 4420:Judicial Process  
POLS 4423:Great Political Thinkers  
POLS 4427:American Political Thought  
POLS 4428:Race, Gender, and the Politics of Difference  
POLS 4429:Legal Theory & Philosophy  
POLS 4444:Administrative Practices and Organization  
POLS 4446:Governmental Budgeting

**Upper Division Requirements: International Affairs**

Students complete 3 (three) credits from the following options:

POLS 4430:International Law and Organization  
POLS 4431:Politics of International Terrorism  
POLS 4433:European Union Politics  
POLS 4435:Comparative Foreign Policy  
POLS 4436:Politics of Developing Areas  
POLS 4437:Global Security  
POLS 4438:International Political Economy  
POLS 4439:Political Economy of Russia and Central Asia in Transition  
POLS 4440:Comparative Democratization  
POLS 4449:Russian Foreign Policy  
POLS 4450:Canada & North America  
POLS 4451:Politics and Government in Post-Communist Europe  
POLS 4452:Politics of East Asia  
POLS 4453:Latin America: Democracy and Development  
POLS 4454:Politics of the Middle East  
POLS 4455:International Relations of Africa  
POLS 4456:International Environmental Policy  
POLS 4457:South Asian Politics: A Comparative Perspective

**Electives**

Complete any 6 (six) credit hours in 3000-4000 level POLS courses.

***Program Total (15 Credit Hours)***

# **Professional Writing Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/english/programs/minor-pw.php>

Phone: (470) 578-7531

Email: [ksuenglish@kennesaw.edu](mailto:ksuenglish@kennesaw.edu)

## **Program Description**

The minor in professional writing prepares students to be critical thinkers, careful researchers, and creative and capable writers who are able to respond effectively to contemporary writing tasks and opportunities. Students receive advanced instruction in rhetoric, editing, technologies of writing, workshop critique, and the production of workplace, academic, and creative texts. The minor provides a credential in writing, which is a desirable supplement to a variety of undergraduate majors.

## **Program Course Requirements**

### **Select four of the following (12 Credit Hours)**

- LING 3760:World Englishes
- FILM 3105:Introduction to Screenwriting
- FILM 3125:Introduction to TV Writing
- FILM 4105:Advanced Screenwriting
- FILM 4125:Advanced TV Writing
- WRIT 3000:Introduction to Creative Writing Genres
- WRIT 3100:Poetry Writing
- WRIT 3109:Careers in Writing
- WRIT 3110:Playwriting
- WRIT 3111:Professional Editing
- WRIT 3120:Fiction Writing
- WRIT 3125:Interactive Narrative & Games
- WRIT 3130:Literary Nonfiction
- WRIT 3140:Writing in the Workplace
- WRIT 3150:Topics in Digital Rhetoric
- WRIT 3151:Digital Storytelling
- WRIT 3152:Digital Community Engagement
- WRIT 3160:Argumentative Writing
- WRIT 3170:Environmental Writing and Literature
- WRIT 3210:Graphic Storytelling

WRIT 3810:Research Methods for Writers

WRIT 3650:Introduction to Literacy Studies

Any 4000-level WRIT course

*Note: A fifth course will be selected from the student's Area F requirements in consultation with the advisor for the professional writing minor.*

**Program Total (15 Credit Hours)**

# **Psychology Minor**

## **Program Description**

The psychology minor is open to all undergraduate students. Students gain a basic understanding and awareness of behavior through a curriculum that emphasizes psychology as a science. By exploring individual areas of interest in psychology through a variety of courses, students learn information that will complement knowledge acquired through their major.

Note: Students using PSYC 1101 for the psychology minor may not use it to fulfill Area E of the General Education Core Curriculum.

## **Program Course Requirements**

### **Lower-Level Required Foundational Courses (6 Credit Hours)**

PSYC 1101:Introduction to General Psychology \*Must be used in the minor. May not be used to fulfill General Education Requirements.

PSYC 2000:The Science of Psychology \*\*May not be used as a substitute for PSYC 2500

### **Upper-Level Psychology Courses (9 Credit Hours)**

Choose three courses:

PSYC 3010:Educational Psychology

PSYC 3130:Psychology of Aging

PSYC 3205:Psychology of Child Development

PSYC 3273:Forensic Psychology

PSYC 3310:Psychopharmacology

PSYC 3315:Psychology of Infant Development

PSYC 3320:Leadership and Group Dynamics

PSYC 3340:The Psychology of Family Interaction: A Developmental Perspective

PSYC 3355:Cross-Cultural Psychology

PSYC 3365:Human Sexuality

PSYC 3370:Industrial-Organizational Psychology

PSYC 3375:Psychology of Career Development

PSYC 3385:Ethnic Minority Psychology

PSYC 3395:Psychology of Prejudice and Privilege

PSYC 3410:Health Psychology

PSYC 3425:Psychology of Gender

PSYC 3505:The Psychology of the Emerging Adult: Late Adolescence through Early Adulthood

PSYC 3510:Psychoneuroimmunology: Mind Body Pathways  
PSYC 3775:The Psychology of Religion: An Empirical Approach  
PSYC 3800:Death & Dying  
PSYC 4420:Ethics and Professional Issues in Applied Psychology  
PSYC 4430:Psychopathology  
PSYC 4440:Clinical and Counseling Psychology: Science and Practice  
PSYC 4460:Child Psychopathology  
PSYC 4475:Psychology of Workplace Motivation and Leadership  
PSYC 4490:Special Topics in Psychology

***Program Total (15 Credit Hours)***

# **Public History Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/historyphilosophy/>

Phone: (470) 578-6294

Email: [histphildept@kennesaw.edu](mailto:histphildept@kennesaw.edu)

## **Program Description**

A minor in public history prepares students to think critically about the public presentation of history and culture and helps students develop tangible skills that will enable them to pursue graduate study in a number of fields as well as professional or avocational work at historic and cultural sites. Classroom and fieldwork combine to deliver both theoretical understanding of memory and history and practical experience in historic preservation, community documentation, museums, and cultural program development.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

HIST 3325:Introduction to Public History

HIST 3398:Internship

### **Electives (12 Credit Hours)**

Select four courses from the following:

ANTH 4425:Historical Archaeology

HIST 4426:Documentation and Interpretation of Historic Sites

HIST 4490:Special Topics in History

HIST 3326:Historic Preservation

HIST 3327:Architectural History

HIST 3328:Introduction to Archives and Records Management

HIST 4424:Museum Education

HIST 4425:Oral History

HIST 4427:Museum Exhibitions

*Course may be repeated once for credit with approval of instructor*

HIST 4430:Museum Studies

HIST 4435:History and Memory

HS 4100:Grant Writing and Fundraising

HIST 3398:Internship

*Internship may be repeated once for credit with approval of instructor*

### **Program Total (18 Credit Hours)**

# **Public Relations Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/socm/>

Phone: (470) 578-6298

Email: [socm@kennesaw.edu](mailto:socm@kennesaw.edu)

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

PR 3335:Public Relations Principles

PR 3355:Public Relations Cases

PR 3429:Persuasion Methods and Strategies

PR 4460:Crisis Communication

### **Elective Courses (3 Credit Hours)**

Choose one of the following:

PR 4415:Topics in Public Relations

PR 4210:Social Media for Strategic Communication

### **Program Total (15 Credit Hours)**

# **Religious Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/isd/programs/minor-religious-studies.php>

Phone: (470) 578-2431

Email: [isd@kennesaw.edu](mailto:isd@kennesaw.edu)

## **Program Description**

The Religious Studies Minor program consists of fifteen (15) credit hours (five courses) of undergraduate study across traditional disciplines. A minimum of six (6) hours in the minor must be taken in residence at Kennesaw State University.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

Select two from the following:

ANTH 3340:Religion, Magic, and Culture

HIST 2206:Origins of Great Traditions

RELS 3200:Religion and Gender

SOCI 3334:Religion and Society

### **Electives (9 Credit Hours)**

Select three courses from the following:

ARH 3150:Islamic Art and Architecture

ENGL 3320:Scriptural Literature

ENGL 3322:Hebrew Scriptures as Literature

ENGL 3324:New Testament as Literature

HIST 3331:History of Religion in the U.S.

HIST 4442:History of Religious Tolerance

ISD 3398:Interdisciplinary Studies Internship

PAX 3100:Peace and Religion

PHIL 2110:Religions of the World

PHIL 3200:Asian Philosophy

PSYC 3775:The Psychology of Religion: An Empirical Approach

RELS 3300:Ethical Issues in Religion

RELS 3500:Religion and Popular Culture

RELS 3780:Trends in Religious Studies

RELS 4400:Directed Study

RELS 4490:Special Topics in Religious Studies

Any course from the list of required courses, if not taken as a requirement.

Any upper division course, including study abroad, deemed appropriate by the Religious Studies Coordinator.

***Program Total (15 Credit Hours)***

# **Slavic, East European, and Eurasian Studies Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/historyphilosophy/programs/minor-seees.php>

Phone: (470) 578-6294

Email: [histphildept@kennesaw.edu](mailto:histphildept@kennesaw.edu)

## **Program Description**

The minor in Slavic, East European, and Asian Studies allows students to study the culture, politics, and history of one of the most significant world regions. Although students in any major will benefit from completing this minor, students in history, international affairs, political science, philosophy, economics, and business will gain knowledge in an area vital to our national interests that advances their career opportunities. At least twelve hours counted toward the minor must not duplicate hours counted toward the major.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

HIST 3379:Central Asia in World History

HIST 4655:Russia Since 1861

POLS 4451:Politics and Government in Post-Communist Europe

### **6 Credit Hours from the following:**

ARH 3150:Islamic Art and Architecture

HIST 4654:Russia to 1861

HIST 3361:Themes in Slavic and Eastern European Studies

HIST 3375:Silk Road

PHIL 2110:Religions of the World

POLS 4431:Politics of International Terrorism

Any directed studies course offered at KSU with content appropriate to Slavic, Eastern European, and Eurasian Studies

Any 3000-4000 level course offered at KSU with content appropriate to Slavic, Eastern European, and Eurasian Studies

Any 3000-4000 level study abroad course offered at KSU with content appropriate to Slavic, Eastern European, and Eurasian Studies

### **Program Total (15 Credit Hours)**

# **Sociology Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/scj/>

Phone: (470) 578-6739

Email: [scjdeptksu@kennesaw.edu](mailto:scjdeptksu@kennesaw.edu)

## **Program Description**

In a society dramatically reshaped by evolving social and technological forces, there is a need for a greater socio-cultural understanding. The Sociology minor provides students majoring in other disciplines with the knowledge and skills necessary to succeed in a radically changing and diverse interpersonal environment. It offers students the opportunity to fit information from their disciplines within a larger social framework.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

SOCI 1101:Introduction to Sociology

### **Select one of the following (3 Credit Hours)**

SOCI 3300:Foundations of Social Theory

SOCI 3314:Race and Ethnicity

SOCI 3354:Social Class and Mobility

SOCI 3305:Research Methods in Sociology

SOCI 3350:Intersections of Race, Class, and Gender

### **Select three of the following (9 Credit Hours)**

Select any three upper division (3000/4000) SOCI courses including the remaining four not chosen above.

### **Program Total (15 Credit Hours)**

# **Spanish Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/foreignlanguages/programs/minor-spanish.php>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

The minor in Spanish requires 15 hours of SPAN course work at the level of 2002 or above. These 15 hours must include SPAN 3200, SPAN 3302, and SPAN 3303. Advanced speakers should consult with a Spanish advisor about testing options using the Advanced Standing examinations available in the Department of Foreign Languages.

***Program Total (15 credit hours)***

# **Technical Communication Minor**

## **Contact Information**

Website: <https://radow.kennesaw.edu/tcid/programs/tcomminor.php>

Phone: (470) 578-7202

Email: [tcid@kennesaw.edu](mailto:tcid@kennesaw.edu)

## **Program Course Requirements**

### **Requirements (3 Credit Hours)**

TCOM 2010:Technical Writing

### **Additional Courses for Minor (12 Credit Hours)**

Select four courses from the following; three of them must be at the 3000 or 4000 level:

TCID 2002:Productivity Tools and Technologies

TCID 3400:Front-End Development I

TCID 3800:Front-End Development II

TCOM 2030:Research in Technical Communication

TCOM 2050:Issues in Digital Accessibility

TCOM 3011:Technical Writing II

TCOM 3020:Grants and Proposals

TCOM 3030:Instructional Design

TCOM 3070:User Assistance

TCOM 3130:Technical Communication: Theory, Ethics, and Practice

TCOM 3145:Social Media Infrastructure

TCOM 3245:Search Engine Optimization and Analytics

TCOM 4000:Technical Editing

TCOM 4045:Multi-Media for Technical Communicators

TCOM 4050:Instructional Video

TCOM 4120:Usability

TCOM 3431:Information Design I

TCOM 4431:Information Design II

### **Program Total (15 Credit Hours)**

# **Alternative Teacher Preparation**

## **Contact Information**

Website: <https://chss.kennesaw.edu/foreignlanguages/>

Phone: (470) 578-6366

Email: [deptfl@kennesaw.edu](mailto:deptfl@kennesaw.edu)

## **Program Description**

The Alternative Teacher Preparation (ATP) Program in Foreign Languages is a non-degree undergraduate program leading to P-12 teacher certification in Chinese, French, German, Italian, Japanese, Korean, Latin, Portuguese, or Spanish. It is open to foreign language teachers who are not fully certified but are employed and wish to obtain a State of Georgia Induction Certificate. Upon admission, candidates receive an individualized certification plan. *Please refer to the ATP Policies and Procedures for complete program details.*

## **Admissions Requirements**

Full-time employment as a foreign language teacher in a public or private SACS-accredited school in Georgia.

Sufficient time to complete the program of study before the temporary certificate expires. (This may require an extension of the certificate)

Letter by the principal of the candidate's school to verify employment and to request that KSU work with the teacher/candidate to complete the requirements towards the Induction Certificate.

Admission to KSU as an undergraduate non-degree student for Fall semester in the year you wish to be accepted.

Completed "Program Entry" Georgia Educator Ethics Exam.

Completed ATP application.

Official transcripts of all university courses.

Official professional development transcripts of all courses taken.

Copies of test score reports (GACE Content), if taken.

A copy of the ACTFL Oral Proficiency Interview (OPI) certificate, if taken. For Chinese and Japanese, the ACTFL Writing Proficiency Exam (WPT) is also required for a recommendation for certification. It does not apply to Latin.

Admission interview.

Hand-written essay in the non-native language completed during on-campus interview.

Articulation through Sequenced Coursework:

Successful completion of FLED 4408, FLED 4410, FLED 4412, and FLED 4414 are prerequisites to enrollment in FLED 4670 and FLED 4671.

Successful completion of FLED 4670 and FLED 4671 are prerequisites to enrollment in FLED 4680 and FLED 4681 .

Program Retention:

The prerequisites for program continuation comprise a good academic standing with a GPA of 2.75 or higher and no more than one "D" or "F" grade earned in required lower and upper division courses in the teacher education program.

Program Completion:

To earn a State of Georgia Induction Certificate:

Earn an official ACTFL OPI rating of Advanced Low or higher in Type I languages and Intermediate High or higher in Type II languages (Latin is not included).

Pass the GACE Content Assessment for French, German, Latin, or Spanish; or ACTFL WPT for other languages.

Pass the Georgia Educator Ethics Assessment.

programs in the

**Southern Polytechnic College  
of Engineering and  
Engineering Technology**

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# **Civil Engineering, BSCVE**

## **Program Description**

Civil engineering is the oldest of the engineering disciplines and involves the planning, design, and construction of facilities essential to modern life.

Graduates can look forward to employment by construction companies; city and county engineering departments; state and federal transportation organizations (such as the Georgia Department of Transportation); and civil engineering consulting and design firms. Graduates have the qualifications to enter careers in areas such as, but not limited to, transportation engineering, structural engineering, environmental engineering, geotechnical engineering, water resource engineering, and construction engineering. Typical job titles for graduates may include construction engineer, project engineer, planner, project supervisor, consulting engineer, and design engineer.

Civil Engineering requires rigorous training in basic engineering principles along with the development of skills in the areas of planning and management of construction projects and the associated systems and resources. Graduates in the area of Civil Engineering will be required to master technical elements and to demonstrate particular competence in the areas of communication, fiscal management, and project control. The broad-based background is tailored to develop professionals who will be able to move between the technical and managerial aspects of civil engineering projects and to serve in key leadership positions within the engineering profession.

The first two years of each undergraduate engineering program's curriculum are considered to be lower division while the remaining two years are considered the upper division. For the most part, upper division engineering courses are those with course numbers in the 3000's and 4000's. In addition to the stated prerequisites and unless otherwise noted in the catalog, students must apply for and be granted Engineering Standing in order to enroll in any upper division engineering course taught in the School of Engineering. (Note: Courses requiring Engineering Standing will include in their list of prerequisites "Test ENGR with a minimum score of Y" or "Engineering Standing" or words to that affect.)

All students enrolled prior to Fall 2014 semester who are majoring in Engineering or Engineering Technology are automatically granted Engineering Standing.

### Engineering Standing Requirements

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

### Accreditation

The Bachelor of Science in Civil Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Engineering Majors must take MATH 1190 in Area A2 and MATH 2202 in Area D1 Area D2: (PHYS 2211 and PHYS 2211L ) and (PHYS 2212 and PHYS 2212L )

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

ENGR 1000:Introduction to Engineering

ENGR 2214:Engineering Mechanics - Statics

SURV 2221:Surveying I

SURV 2221L:Surveying I Lab

CHEM 1211:Principles of Chemistry I

CHEM 1211L:Principles of Chemistry Laboratory I

CHEM 1212:Principles of Chemistry II

One Credit Hour from Area A Two Credit Hours from Area D

### **Major Requirements (55 Credit Hours)**

ENVS 2202:Environmental Science

or

BIOL 1107:Principles of Biology I

MATH 2306:Ordinary Differential Equations

EDG 2160:Civil Graphics and Computer Aided Drafting  
ENGR 3131:Strength of Materials  
ENGR 3132:Strength of Materials Lab  
ENGR 3305:Data Collection and Analysis in Engineering  
ENGR 3324:Project Cost Analysis  
ENGR 3343:Fluid Mechanics  
ENGR 3345:Fluid Mechanics Laboratory  
CE 1001L:Introduction to Civil and Environmental Engineering Lab  
CE 2003:Engineering Problem Solving  
CE 3201:Structural Analysis  
CE 3202:Design of Concrete Structures  
CE 3501:Materials for Civil & Construction Engineering  
CE 3502:Materials for Civil & Construction Engineering Lab  
CE 3701:Geotechnical Engineering  
CE 3708:Geotechnical Engineering Lab  
CE 3702:Introduction to Environmental Engineering  
CE 3704:Introduction to Environmental Engineering Laboratory  
CE 4177:Transportation Engineering  
CE 4179:Transportation Engineering Lab  
CE 4703:Engineering Hydrology  
CE 4800:Senior Project

### **Upper Division Elective Courses (15 Credit Hours)**

Select one course from each of the Civil Engineering Discipline Groups (CEDG) 1 and 2. The remaining three courses may be selected from ANY CEDG 1 to 3.

#### ***CEDG 1- Environmental Engineering***

CE 3703:Environmental Engineering Design  
CE 4343:Solid Waste Engineering  
CE 4353:Air Pollution Control  
CE 4708:Hazardous Waste Engineering

#### ***CEDG 2- Geotechnical/Transportation Engineering***

CE 4105:Foundation Design  
CE 4705:Advanced Soil Mechanics  
CE 4178:Highway Design and Construction  
CE 4706:Pavement Engineering

***CEDG 3 - Other Engineering***

CE 3398: Internship in Civil Engineering

CE 4400: Directed Study in Civil and Environmental Engineering

CE 4490: Special Topics in CE/CnE

CE 4103: Design of Steel Structures

CE 4704: Engineering Hydraulic Analysis and Design

CE 4707: Design of Wood Structures

Any SURV/GIS 3xxx/4xxx

CM 3040: Building Information Modeling I

***Program Total (130 Credit Hours)***

# **Computer Engineering, B.S.**

## **Program Description**

Computer Engineering (CpE) is a dynamic professional field that blends the fields of hardware engineering with software development. Computer engineers are proficient in electrical and electronic engineering, software design, and hardware–software integration. The goal of a computer engineer is to promote the advancement of digital technology, computer networking, and embedded computer systems. Special focus will be placed in this program upon embedded systems design with the integration of sensors, actuators, and communication technologies.

### Engineering Standing Requirements

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

#### ***General Education Core Curriculum Requirements Specific to This Major***

Engineering Majors must take MATH 1190 in Area A2 and MATH 2202 in Area D1

Area D2: (CHEM 1211 and CHEM 1211L) and (PHYS 2211 and PHYS 2211L)

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

MATH 2306:Ordinary Differential Equations  
STAT 2332:Probability and Data Analysis  
PHYS 2212:Principles of Physics II  
PHYS 2212L:Principles of Physics Laboratory II  
ENGR 1000:Introduction to Engineering  
CPE 1001L:Introduction to Computer Engineering Lab  
CPE 2200:Hardware Programming  
One credit hour from Area A  
Two credit hours from Area D

### **Lower-Level Required Courses (15 Credit Hours)**

EE 2301:Circuit Analysis I  
EE 2501:Digital Logic Design  
MATH 2345:Discrete Mathematics  
CSE 1321:Programming and Problem Solving I  
CSE 1321L:Programming and Problem Solving I Laboratory

### **Required Courses (43 Credit Hours)**

Engineering Standing is required before taking these courses.

CPE 3000:Computer Organization and Interfacing  
CPE 3020:VHDL Design with FPGAs  
CPE 3030:Advanced Embedded Design  
CPE 4010:Sensors, Actuators and Integration  
CPE 4020:Device Networks  
CPE 4040:Data Collection and Analysis  
CPE 4800:Senior Project Proposal  
CPE 4850:Senior Project Design  
EE 3401:Engineering Electronics  
EE 4201:Control Systems  
ENGR 3325:Engineering Economic Analysis  
CPE 3500:Embedded Digital Signal Processing

### **Engineering Electives (9 Credit Hours)**

Student may choose from any 3xxx/4xxx course in CPE, EE, MTRE, SWE, CS, or ME. Engineering standing is required before taking any of these courses.

### **Program Total (127 Credit Hours)**

# **Electrical Engineering Technology, B.S.**

## **Program Description**

Engineering Technology is a branch of engineering education that emphasizes the practical aspects of engineering rather than abstract concepts or theories. It is a blend of the application of science, engineering knowledge, and technical skills used in support of engineering activities. The Electrical Engineering Technology (EET) program prepares graduates to enter the technical workforce in a variety of fields. Communications, instrumentation, automation, control systems, power, robotics, computers, and medical electronics are but a few of these fields. Within these fields, Electrical Engineering Technology graduates are typically involved in areas such as: development, design, quality assurance, technical documentation, production, maintenance, test, field service, or technical sales.

Laboratory experiences are important components of the EET curriculum. Most EET lecture courses have an associated laboratory course that must be taken concurrently. Also, EET students are required to take ECET 4900 Senior Capstone Design Project as part of their 13 hours of EET electives. Any non-required upper division (3XXX/4XXX) ECET course, with the exception of ECET 3000, may be used for the remainder of their EET electives. Students may also choose one course from outside the major to count as an EET elective. Contact the EET Department to obtain a list of acceptable courses from outside the major that count as an EET elective.

The Electrical Engineering Technology degree is designed to allow flexibility in the choice of EET electives. As an option, students may wish to choose two or more of their electives from a particular focus area.

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

### Accreditation

The Bachelor of Science with a major in Electrical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

## Graduation Requirement

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Area D2: (PHYS 1111 and PHYS 1111L) and (PHYS 1112 and PHYS 1112L) (PHYS 2211 and PHYS 2211L)  
and (PHYS 2212 and PHYS 2212L) may be substituted for PHYS 1111 /PHYS 1111L and PHYS 1112/PHYS  
1112L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

EDG 1210:Survey of Engineering Graphics  
ECET 1101:Circuits I  
MATH 2202:Calculus II  
ENGT 2000:Applied Engineering Math  
CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
Two Credit Hours from Area D

### **Required Courses Specific to the Major (52 Credit Hours)**

ENGR 1000:Introduction to Engineering  
ECET 1001L:Introduction to Electrical Engineering Technology Lab  
ECET 1101L:Circuits I Lab  
ECET 1200:Digital I  
ECET 1200L:Digital I Lab  
ECET 2111:Circuits II  
ECET 2111L:Circuits II Lab  
ECET 2210:Digital II  
ECET 2210L:Digital II Lab  
ECET 2300:Electronics I  
ECET 2300L:Electronics I Lab  
ECET 2310:Electronics II

ECET 2310L:Electronics II Lab  
ECET 3400:Data Communications  
ECET 3410:High Frequency Systems  
ECET 3500:Survey of Electric Machines  
ECET 3500L:Survey of Electric Machines Lab  
ECET 3600:Test Engineering  
ECET 3600L:Test Engineering Lab  
ECET 3620:Signals and Systems Analysis  
ECET 3710:Hardware Programming and Interfacing  
ECET 3710L:Hardware Programming and Interfacing Lab  
ECET 4610:Control Systems  
ECET 4610L:Control Systems Lab  
ENGT 4901:Engineering Technology Senior Design I  
ENGT 4902:Engineering Technology Senior Design II

**Electrical Engineering Technology Electives (9 Credit Hours)**

Choose three courses from the following:

ECET 3701:Embedded Systems  
ECET 4420:Communications Circuit Applications  
ECET 4510:Power System Analysis  
ECET 4520:Industrial Distribution Systems, Illumination, and the NEC  
ECET 4530:Industrial Motor Control  
ECET 4630:Digital Signal Processing  
ECET 4730:VHDL and Field Programmable Gate Arrays  
ECET 4820:Communications Networks and the Internet

***Program Total (121 Credit Hours)***

# **Electrical Engineering, BSEE**

## **Program Description**

Nearly every industry utilizes electrical engineers. Graduates have the qualifications to enter careers in areas such as, but not limited to, telecommunications, computer engineering, manufacturing, aerospace industry, power generation and distribution, alternative energy, robotics, and automation. Typical job titles for graduates may include electrical engineer, electronics engineer, telecommunications engineer, project engineer, planner, project supervisor, consulting engineer, and design engineer.

Electrical Engineering requires rigorous training in basic engineering principles along with the development of skills in the areas of planning and management of design projects and the associated systems and resources. Graduates in the area of Electrical Engineering will be required to master technical elements and to demonstrate particular competence in the areas of communication, fiscal management, and project control. The broad-based background is tailored to develop professionals who will be able to move between the technical and managerial aspects of electrical engineering projects and to serve in key leadership positions within the engineering profession.

Program Educational Objectives: Program educational objectives are broad statements that describe career and professional accomplishments that the program prepares graduates to achieve during the first few years following graduation. Graduates of electrical engineering will:

Demonstrate career advancement with increasing responsibility in the electrical engineering industry as owners, managers, lead engineers, or other key positions of leadership.

Meet the educational requirements to pursue registration as a professional engineer in the State of Georgia and all other states in the nation.

To produce graduates who possess effective research and development skills and who are successfully enrolled in graduate education within Electrical Engineering and related fields.

## **Engineering Standing Requirements**

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

## **Accreditation**

The Bachelor of Science in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

*General Education Core Curriculum Requirements Specific to This Major:*

Engineering Majors must take MATH 1190 in Area A2 and MATH 2202 in Area D1 Area D2: (PHYS 2211 and PHYS 2211L) and (PHYS 2212 and PHYS 2212L)

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

MATH 2203:Calculus III  
CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
EE 2301:Circuit Analysis I  
CPE 2200:Hardware Programming  
One Credit Hour from Area A  
  
Two Credit Hours from Area D

### **Other Requirements Specific to the Major: (22 Credit Hours)**

ENGR 1000:Introduction to Engineering  
EE 1001L:Introduction to Electrical Engineering Lab  
CSE 1321:Programming and Problem Solving I  
CSE 1321L:Programming and Problem Solving I Laboratory  
EE 2302:Circuit Analysis II  
EE 2401:Semiconductor Devices  
EE 2501:Digital Logic Design  
MATH 2306:Ordinary Differential Equations  
STAT 2332:Probability and Data Analysis

**Major Requirements (33 Credit Hours)**

ENGR 4402:Engineering Ethics  
EE 3401:Engineering Electronics  
EE 3501:Embedded Systems  
EE 3601:Electric Machines  
EE 3605:Electromagnetics  
EE 3701:Signals and Systems  
EE 3702:Communication Systems  
EE 4201:Control Systems  
EE 4701:Professional Practice  
EE 4800:Senior Project

**Upper Level Electives (15 Credit Hours)**

EE 3/4XXX Technical Electives (9 Credit Hours);  
Engineering Science Elective (3 Credit Hours);  
a Math course above MATH 2335 (3 Credit Hours)

***Program Total (130 Credit Hours)***

# **Environmental Engineering, B.S.**

## **Program Description**

Environmental engineering is a diverse field of Civil Engineering that covers both traditional water/waste-water treatment and emerging issues of public health. Much of the world still suffers from a lack of sanitation and clean water and environmental engineers are trained to solve these and many other problems. Environment engineers apply the principles of science and mathematics to protect public health and minimize human impacts on the environment.

Challenges in energy, water resources, solid/hazardous waste, air quality, globalization, climate change, and environmental degradation must be addressed in a comprehensive effort to promote a sustainable and resilient society. Graduates of Kennesaw State University (KSU) Environmental Engineering program are prepared for careers devoted to finding solutions to these and other problems. The KSU Environmental Engineering program provides a comprehensive education with special emphasis on the demands of water pollution, air pollution, water and waste-water treatment, solid and hazardous waste management and treatment, and other emerging environmental issues, including sustainable air, water, and land resources, human health, and environmental restoration. The program prepares students for entry-level environmental engineering jobs in these fields, for admission to graduate programs, and for professional licensure anywhere in the USA and around the world.

Graduates are qualified to work for consultants, federal, state, and local governments. There are professional opportunities as an environmental design engineer, permitting engineer, compliance engineer, environmental specialist, water and waste-water engineer, environmental scientist, and more. The curriculum is tailored to develop professionals who are able to move between the technical and managerial aspects of environmental engineering projects and to serve in key leadership positions within the engineering profession.

### Engineering Standing Requirements

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of this Catalog.

## Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0  
PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **General Education Core Curriculum Requirements Specific to This Major**

Engineering Majors must take MATH 1190 in Area A2 and MATH 2202 in Area D1 Area D2: (PHYS 2211 and PHYS 2211L ) and (BIOL 1107 and BIOL 1107L )

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

ENGR 1000:Introduction to Engineering  
ENGR 2214:Engineering Mechanics - Statics  
SURV 2221:Surveying I  
SURV 2221L:Surveying I Lab  
CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
CHEM 1212:Principles of Chemistry II

One Credit Hour from Area A

Two Credit Hours from Area D

### **Major Requirements (60 Credit Hours)**

ENVS 2202:Environmental Science  
MATH 2306:Ordinary Differential Equations  
EDG 2160:Civil Graphics and Computer Aided Drafting  
ENGR 3131:Strength of Materials  
ENGR 3305:Data Collection and Analysis in Engineering  
ENGR 3324:Project Cost Analysis  
ENGR 3343:Fluid Mechanics  
ENGR 3345:Fluid Mechanics Laboratory  
CE 1001L:Introduction to Civil and Environmental Engineering Lab  
CE 2003:Engineering Problem Solving  
CE 3501:Materials for Civil & Construction Engineering

CE 3502:Materials for Civil & Construction Engineering Lab  
CE 3701:Geotechnical Engineering  
CE 3708:Geotechnical Engineering Lab  
CE 3702:Introduction to Environmental Engineering  
CE 3703:Environmental Engineering Design  
CE 3704:Introduction to Environmental Engineering Laboratory  
CE 4353:Air Pollution Control  
CE 4343:Solid Waste Engineering  
CE 4371:Environmental Engineering Laboratory  
CE 4373:Environmental Engineering Microbiology  
CE 4703:Engineering Hydrology  
CE 4708:Hazardous Waste Engineering  
CE 4800:Senior Project

**Upper Division Elective Courses (9 Credit Hours)**

Select three courses:

CE 3398:Internship in Civil Engineering  
CE 4363:Environmental Engineering Chemistry  
CE 4383:Sustainability for Engineers  
CE 4400:Directed Study in Civil and Environmental Engineering  
CE 4490:Special Topics in CE/CnE  
CE 4704:Engineering Hydraulic Analysis and Design  
GEOG 3315:Introduction to Geographic Information Systems

***Program Total (129 Credit Hours)***

# **Industrial and Systems Engineering B.S.**

## **Program Description**

The Industrial and Systems Engineering program is a combination of Industrial Engineering and Systems Engineering. Industrial engineering is concerned with design, improvement and implementation of integrated processes of people, processes, information, materials, management and equipment. IE's draw upon specialized knowledge and skill in the mathematical, physical, and social sciences combined with the principles and methods of engineering analysis and design, to specify, predict, and evaluate processes and systems.

Systems engineering is an interdisciplinary and structured approach to designing and deploying successful systems to blends engineering, systems thinking, and management topics. Systems engineering deals with work-processes, optimization methods, and risk management tools while ensures that all likely aspects of a project or system are considered, and integrated into a whole.

Students in this major have the opportunity to concentrate in either Industrial or Systems. Due to the relevance of the two disciplines, 75% of the curriculum is shared providing graduates with an expanded job market opportunities while the remaining 25% is directed towards the specifics of each area of engineering.

Upon graduation, students will be able to demonstrate:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- an ability to function on multidisciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- a broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- a recognition of the need for, and an ability to engage in life-long learning;
- a knowledge of contemporary issues;

an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

### Engineering Standing Requirements

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

### Accreditation

The Bachelor of Science in Industrial and Systems Engineering is accredited by the Engineering Accreditation Commission (EAC) of ABET, <http://www.abet.org>.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have separate admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific for This Major***

Engineering Majors must take MATH 1190 in Area A2 and MATH 2202 in Area D1. Area D2: (PHYS 2211 and PHYS PHYS 2211L) and (CHEM 1211 and CHEM 1211L)

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

ENGR 1100:Survey of Engineering Applications from Mathematics

ENGR 1000:Introduction to Engineering

BIOL 1107:Principles of Biology I

BIOL 1107L:Principles of Biology I Laboratory

or

CHEM 1212:Principles of Chemistry II

CHEM 1212L:Principles of Chemistry Laboratory II  
or

PHYS 2212:Principles of Physics II  
PHYS 2212L:Principles of Physics Laboratory II  
CSE 1321:Programming and Problem Solving I  
CSE 1321L:Programming and Problem Solving I Laboratory  
EDG 1210:Survey of Engineering Graphics  
One hour from Area A. Two hours from Area D.

### **Industrial & Systems Engineering Major Requirements (39 Credit Hours)**

TCOM 2010:Technical Writing  
MATH 3260:Linear Algebra I  
ENGR 2214:Engineering Mechanics - Statics  
ENGR 3325:Engineering Economic Analysis  
ENGR 3250:Project Management for Engineers  
ENGR 4402:Engineering Ethics  
ISYE 1001L:Introduction to Industrial and Systems Engineering  
ISYE 2600:Probability and Statistics I  
ISYE 3400:Deterministic Operations Research  
ISYE 3600:Probability and Statistics II  
ISYE 3150:Design & Improvement of Quality Processes  
ISYE 4200:Engineering Optimization: Stochastic Decision Models  
ISYE 4500:System Modeling & Simulation  
ISYE 4901:Senior Design Project I  
ISYE 4902:Senior Design Project II

### **Concentrations (28 Credit Hours)**

Select one of the following concentrations and appropriate Technical Electives:

#### ***Industrial Engineering Concentration***

ACCT 2101:Principles of Accounting I  
ISYE 3125:Statistical Quality Control  
ISYE 3350:Logistics & Supply Chain Systems  
ISYE 3450:Work Measurement Study  
ISYE 4250:Manufacturing & Service Systems  
ISYE 4425:Facilities Planning & Material Handling  
Select 10 Credit Hours from the list of Technical Electives

### ***Systems Engineering Concentration***

EE 2305:Electronic Circuits and Machines  
ENGR 3122:Engineering Mechanics - Dynamics  
or

ME 3410:Thermodynamics  
ISYE 3100:Systems Reliability & Maintainability  
ISYE 3200:Human Machine Systems  
ISYE 3300:System Dynamics and System Thinking

Select 12 Credit hours from the list of Technical Electives

### ***Technical Electives***

Any 3xxx or 4xxx level courses in ISYE, CE, CPE, EE, ENGR, IS, ISA, ME, MTRE, SWE, or STAT, except ENGR 3305, IS 3220, IS 3720, MATH 3272, STAT 3120, STAT 3125, or STAT 3130. Other technical courses will be considered with permission of the department chair. At most 4 hours can be applied to the degree from internship/cooperative study courses and at most 4 hours can be applied to the degree from directed study courses.

### ***Program Total (127 Credit Hours)***

# **Industrial Engineering Technology, B.S.**

## **Program Description**

If you like to be at the center of the action, designing creative solutions that make business and industry work safer, faster, and leaner, making organizations more efficient, productive, and cost-effective then the career for you is Industrial Engineering Technology.

This Bachelor of Science degree offers the graduate a challenging career in business, industry, or government. Graduates deal primarily with the process management of money, materials, and labor in a business and industrial environment.

Career opportunities involve problem solving in the fields of:

- Quality Control
- Production/Materials Management
- Information Systems
- Process Improvement
- Logistics and Supply Chain Management
- Systems Simulation
- Salary and Compensation Plans
- Workplace Design
- Personnel Management
- Occupational Safety, Health and Ethics
- Project Management
- Economic Analysis/Cost Control

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

## **Accreditation**

The Bachelor of Science with a major in Industrial Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

## **Admission, Enrollment, and Graduation Policies**

### **Admissions Requirements**

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the section of the Catalog.

## Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### ***Program Course Requirements***

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Science and Engineering Majors must take two four-hour laboratory sciences in Area D2. Students must choose from CHEM 1211/L, CHEM 1212/L, PHYS 1111/L\*, PHYS 1112/L, PHYS 2211/L\*, PHYS 2212/L, BIOL 1107/L, or BIOL 1108/L.

\*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

ENGR 1000:Introduction to Engineering  
IET 2000:Introduction to Industrial Engineering Design  
TCOM 2010:Technical Writing  
IT 1113:Introduction to Programming  
EDG 1210:Survey of Engineering Graphics  
PHYS 1111:Introductory Physics I  
PHYS 1111L:Introductory Physics Laboratory I  
Or

PHYS 1112:Introductory Physics II  
PHYS 1112L:Introductory Physics Laboratory II  
Or

PHYS 2211:Principles of Physics I  
PHYS 2211L:Principles of Physics Laboratory I  
Or

PHYS 2212:Principles of Physics II  
PHYS 2212L:Principles of Physics Laboratory II  
Or

CHEM 1152:Survey of Chemistry II  
CHEM 1152L:Survey of Chemistry Laboratory II  
Or

CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
Or

CHEM 1212:Principles of Chemistry II  
CHEM 1212L:Principles of Chemistry Laboratory II  
Or

BIOL 1107:Principles of Biology I  
BIOL 1107L:Principles of Biology I Laboratory  
Or

BIOL 1108:Principles of Biology II  
BIOL 1108L:Principles of Biology II Laboratory  
Or

SCI 1101:Science, Society, and the Environment I  
Two Credit Hours from Area D

### **Required Courses Specific to the Major (51 Credit Hours)**

IET 1001L:Industrial Engineering Technology Lab  
ACCT 2101:Principles of Accounting I  
or

IET 2432:Introduction to Managerial Costing (not equivalent to ACCT 2100)  
IET 2227:Probability and Statistics I  
IET 2449:Logistics and Supply Chain Management  
IET 3322:Work Measurement and Ergonomics  
IET 3339:Statistical Quality Control  
IET 3356:Quality Concepts and Systems Design  
IET 3403:Probability and Statistics II  
IET 3424:Engineering Economy  
IET 3433:Product and Process Costing  
IET 4115:Human Resources Management for Engineers  
IET 4135:IET Project Management  
IET 4151:Operations Management for Engineers  
IET 4405:Operations Research - Concepts, Models and Methods  
IET 4422:Facilities Design, Plant Layout, and Materials Handling  
IET 4451:Systems Simulation  
IET 4475:Senior Project

### **Upper-Level Electives (9 Credit Hours)**

Choose 9 credits from any upper-division IET courses or ENGR 3407. Students may consider pursuing a Quality Principles or Logistics Concentration and/or a Six Sigma Green Belt certification.

#### ***Quality Principles Concentration Electives***

The primary objective of the Quality Principles Concentration is to provide training and education to students interested in quality system principles, methodology, elements and standards. In addition to required courses IET 3339, IET 3356, and IET 3403, students who successfully complete ENGR 3407 with a grade of "C" or better may receive a Six Sigma Green Belt certificate.

ENGR 3407:Lean Six Sigma

IET 3410:Principles of Team Dynamics

#### ***Logistics Concentration Electives***

The primary objective of the Logistics Concentration is to provide training and education to students interested in entering the Supply Chain industry.

IET 3320:Advanced Logistics

IET 3511:Sustainability Engineering

or

IET 3620:Warehousing Systems

### ***Program Total (120 Credit Hours)***

# **Mechanical Engineering Technology, B.S.**

## **Program Description**

Graduates are capable of applying engineering principles to today's industrial problems. In the four-year Bachelor's degree programs, emphasis is placed on necessary theoretical concepts as well as practical laboratory experience in manufacturing processes and techniques, instrumentation and controls, and equipment and machinery design, and performance testing and evaluation. Particular emphasis is placed on studies meeting the needs of those industries which are prevalent in the Southeast.

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

### Accreditation

The Bachelor of Science with a major in Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Science Majors must take MATH 1113 or higher in Area A2 and MATH 1179 or higher in Area D1.

Area D2: (PHYS 1111 and PHYS 1111L) and (PHYS 1112 and PHYS 1112L)

(PHYS 2211 and PHYS 2211L) and (PHYS 2212 and PHYS 2212L) may be substituted for PHYS 1111/PHYS 1111L and PHYS 1112/PHYS 1112L.

**Lower Division Major Requirements (Area F) (18 Credit Hours)**

MATH 2202:Calculus II  
ENGT 2000:Applied Engineering Math  
MET 1400:Welding & Fabrication for Engineers  
MET 1311:Manufacturing Processes  
CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
Two Credits from Area D

**Required Courses (56 Credit Hours)**

ENGR 1000:Introduction to Engineering  
MET 1001L:Introduction to Mechanical Engineering Technology Lab  
EDG 1211:Engineering Graphics I  
EDG 1212:Engineering Graphics II  
MET 1800:CNC and Machining  
MET 2800:CNC Programming  
MET 2124:Statics with Applications  
MET 2501:Engineering Computation using Matlab  
MET 3101:Fluid Mechanics Principles and Applications  
MET 3124:Strength of Materials with Applications  
MET 3124L:Strength of Materials Lab  
MET 3126:Engineering Dynamics with Applications  
MET 3132:Engineering Materials  
MET 3132L:Engineering Materials Lab  
MET 3401:Thermodynamics I  
MET 4112:Computer Aided Engineering & Analysis  
MET 4501:Machine Design  
ECET 3000:Electrical Principles  
ECET 4530:Industrial Motor Control  
ENGT 4901:Engineering Technology Senior Design I  
ENGT 4902:Engineering Technology Senior Design II

**Choose One of the Concentrations Below (9 Credit Hours)**

***General Concentration***

Select nine credit hours from the following:

Any 3000/4000 MET courses except: MET 3126, MET 3124L, MET 2501, MET 3401, MET 4112 and MET 4501

Any 3000/4000 EDG courses

IET 3339:Statistical Quality Control

IET 3356:Quality Concepts and Systems Design

IET 3424:Engineering Economy

IET 4115:Human Resources Management for Engineers

IET 4135:IET Project Management

Maximum of two EDG courses and two IET courses allowed for General Concentration.

Students taking the General Concentration are not allowed to select minors in Engineering Design Graphics, Manufacturing Engineering Technology, or Energy/HVAC.

### ***Engineering Design Graphics Concentration***

Choose nine credits from the following:

EDG 3112:Advanced Engineering Graphics

EDG 4111:Surface Modeling

EDG 4224:Engineering Design Graphics for Custom Manufacturing

EDG 4222:CAD Customization and Standards

MET 3332:Rapid Design and Manufacture

### ***Manufacturing Concentration***

MET 3331:Tool Design

*Choose two courses for a total of six credits from the following:*

EDG 4224:Engineering Design Graphics for Custom Manufacturing

MET 3332:Rapid Design and Manufacture

IET 3339:Statistical Quality Control

IET 3424:Engineering Economy

IET 3356:Quality Concepts and Systems Design

IET 4135:IET Project Management

### ***Program Total (125 Credit Hours)***

# **Mechanical Engineering, BSME**

## **Program Description**

Mechanical engineering is one of the largest disciplines of engineering because it is one of the broadest. It focuses on the application of the principles of mechanics and materials to design machines and devices. In this energy conscious world, a thorough understanding of energy and its uses is essential to the success of a mechanical engineer.

Mechanical engineers help to design energy efficient devices such as wind-turbines as well as artificial knee joints that help society.

Graduates have the qualifications to enter graduate school, become a licensed professional engineer in any state after sufficient work experience, or directly enter careers in areas such as, but not limited to, manufacturing, aerospace industry, power generation and distribution, automotive design, machine design, alternative energy, robotics, and automation. Typical job titles for graduates may include design engineer, project engineer, process engineer, test engineer, development engineer, program manager, consulting engineer, and field engineer.

Mechanical Engineering requires rigorous training in basic science and engineering principles along with the development of skills in the areas of computer-aided design, instrumentation, and planning and management of design projects. Graduates in the area of Mechanical Engineering will be required to master technical elements and to demonstrate particular competence in the areas of communication, fiscal management, and project control. The broad-based background is tailored to develop professionals who will be able to move between the technical and managerial aspects of mechanical engineering projects and to serve in key leadership positions within the engineering profession. As with all engineering degrees, a mechanical engineer becomes very good at solving difficult problems which makes it a good degree for non-engineering careers as well.

## **Engineering Standing Requirements**

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

## **Accreditation**

The Bachelor of Science in Mechanical Engineering program was approved by the Board of Regents in August 2009. The Bachelor of Science in Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Engineering Majors must take MATH 1190 in Area A2 and MATH 2202 in Area D1 Area D2: (PHYS 2211 and PHYS 221L) and (PHYS 2212 and PHYS 2212L)

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

ENGR 1000:Introduction to Engineering  
ME 1001L:Introduction to Mechanical Engineering Lab  
ME 1311:MATLAB for Engineers with Applications  
CHEM 1211:Principles of Chemistry I  
CHEM 1211L:Principles of Chemistry Laboratory I  
STAT 2332:Probability and Data Analysis  
EDG 1211:Engineering Graphics I  
One Credit Hour from Area A  
Two Credit Hours from Area D

### **Math or Science Elective (3 Credit Hours)**

Select one of the following courses:

CHEM 1212:Principles of Chemistry II  
BIOL 1107:Principles of Biology I  
BIOL 2251:Anatomy & Physiology I  
MATH 2335:Numerical Methods for Engineers  
MATH 3260:Linear Algebra I

MATH 3261:Numerical Methods I

Some MATH OR PHYS classes may be approved for math or science electives by the department chair.

### **Major Requirements (61 Credit Hours)**

MATH 2306:Ordinary Differential Equations

MATH 2203:Calculus III

EE 2305:Electronic Circuits and Machines

ENGR 2214:Engineering Mechanics - Statics

ENGR 3122:Engineering Mechanics - Dynamics

ENGR 3125:Machine Dynamics and Vibrations

ENGR 3131:Strength of Materials

ENGR 3132:Strength of Materials Lab

ENGR 3325:Engineering Economic Analysis

ENGR 3343:Fluid Mechanics

ENGR 3345:Fluid Mechanics Laboratory

ENGR 4402:Engineering Ethics

ME 3101:Materials Science and Engineering

ME 3201:Product Realization

ME 3410:Thermodynamics

ME 3440:Heat Transfer

ME 3501:Dynamic Systems & Control Theory

ME 3701:Manufacturing Engineering

ME 4141:Machine Design I

ME 4201:Senior Design I

ME 4202:Senior Design II

ME 4250:Computer Aided Engineering

ME 4403:Heat Transfer and Thermodynamics Lab

ME 4501:Vibrations & Controls Lab

### **Upper Division Technical Electives (6 Credit Hours)**

Select two courses:

ME 3133:Composite Mechanics

ME 3705:Internal Combustion Engines

ME 4304:Applied Fracture Mechanics

ME 4520:Acoustics & Noise Control

ME 3398:Internship

ME 4400:Directed Study

ME 4490:Special Topics in Mechanical Engineering

ENGR 3501:Fundamentals of Nuclear Engineering

ENGR 3502:Radiation Detection & Measurement  
ENGR 4501:Nuclear Power Generation  
ENGR 4502:Radiation Protection & Health Physics  
ENGR 4503:Nuclear Fuel Cycle  
ENGR 4504:Nuclear Reactor Simulation  
ENGR 3801:Aerodynamics  
ENGR 3802:Aircraft Design & Performance  
ENGR 3803:Fundamentals of Avionics  
ENGR 4801:Aircraft Propulsion  
ENGR 4802:Helicopter Theory  
ENGR 4803:Aeronautics Senior Design Project

***Program Total (130 Credit Hours)***

# **Mechatronics Engineering B.S.**

## **Program Description**

IEEE/ASME Transactions on Mechatronics was the first refereed journal published in the United States focused on Mechatronics. In the first issue (March 1996), mechatronics was defined as: "The synergistic integration of mechanical engineering with electronics and intelligent computer control in the design and manufacturing of industrial products and processes." Ten specific topics were identified under the general category of mechatronics:

- Modeling and Design
- Motion Control
- System Integration
- Vibration and Noise Control
- Actuators and Sensors
- Micro Devices & Optoelectronic Systems
- Intelligent Control
- Automotive Systems
- Robotics
- Manufacturing

Mechatronic systems can be a complete product or a sub-component of a product. Examples of mechatronic systems include aircraft flight control and navigation systems; automotive electronic fuel injection and anti-lock brake systems; automated manufacturing systems including robots, numerical control machining centers, packaging systems and plastic injection-molding systems; artificial organs; health monitoring and surgical systems; copy machines; and many more. Some common element of all these systems is the integration of analog and digital circuits, microprocessors and computers, mechanical devices, sensors, actuators, and controls.

Mechatronics Engineering graduates can select from a wide spectrum of industries for career choices and can also contribute in a variety of roles including design engineer, software engineer, project planner, product designer, and project manager. Mechatronics Engineering program graduates are able to select from jobs as Mechatronics specialists in a variety of industries. Opportunities are also available to graduates in smaller companies that need generalists who can perform both mechanical and electrical engineering functions.

## **Engineering Standing Requirements**

This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

## Accreditation

The Bachelor of Science with a major in Mechatronics Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Engineering Majors must take MATH 1190 in Area A2 and MATH 2202 in Area D1 Area D2: (PHYS 2211 and PHYS 2211L) and (PHYS 2212 and PHYS 2212L)

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

MATH 2203:Calculus III

CHEM 1211:Principles of Chemistry I

CHEM 1211L:Principles of Chemistry Laboratory I

EDG 1211:Engineering Graphics I

CSE 1321:Programming and Problem Solving I

CSE 1321L:Programming and Problem Solving I Laboratory

One Credit Hour from Area A

Two Credit Hours From Area D

### **Mechatronics Engineering Required Courses (62 Credit Hours)**

EE 2501:Digital Logic Design

ENGR 1000:Introduction to Engineering

ENGR 2214:Engineering Mechanics - Statics

ENGR 3122:Engineering Mechanics - Dynamics  
ENGR 3131:Strength of Materials  
MATH 2306:Ordinary Differential Equations  
MATH 3260:Linear Algebra I  
MTRE 1001L:Introduction to Mechatronics Engineering Laboratory  
MTRE 2110:Electric Circuits and Machines  
MTRE 2110L:Electric Circuits and Machines Laboratory  
MTRE 2710:Intermediate Programming for Mechatronics  
MTRE 2710L:Intermediate Programming for Mechatronics Laboratory  
MTRE 3110:Fluid Power  
MTRE 3110L:Fluid Power Laboratory  
MTRE 3610:Modeling and Feedback Control of Dynamic Systems  
MTRE 3610L:Modeling and Feedback Control of Dynamic Systems Laboratory  
MTRE 3720:Introduction to PLCs and Microcontrollers  
MTRE 3720L:Introduction to PLCs and Microcontrollers Laboratory  
MTRE 3810:Device Control and Simulation of Mobile Robots  
MTRE 3810L:Device Control and Simulation of Mobile Robots Laboratory  
MTRE 4610:Advanced Controls  
MTRE 4610L:Advanced Controls Laboratory  
MTRE 4710:Instruments and Controls  
MTRE 4710L:Instruments and Controls Laboratory  
MTRE 4810:Robotics Analysis and Synthesis  
MTRE 4810L:Robotics Analysis and Synthesis Laboratory  
MTRE 4820:Machine Learning for Robot Perception  
MTRE 4820L:Machine Learning for Robot Perception Laboratory  
MTRE 4911:Design and Integration of Mechatronic Systems  
MTRE 4912:Mechatronic Prototype Development

**Electives (7 Credit Hours)**

Technical Elective (7 Credit Hours) - MTRE 3xxx/4xxx

**Program Total (129 Credit Hours)**

# **Logistics Certificate**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/systems-industrial/degrees/cert-logistics.php>

Phone: (470) 578-7243

Email: [isye@kennesaw.edu](mailto:isye@kennesaw.edu)

## **Program Description**

The primary objective of the Certificate in Logistics is to provide training and education to members of the Supply Chain industry that need to improve skills and knowledge in the latest technology available in their field. Students can complete the requirements in 4-6 semesters. The courses may also be applied toward completing a B.S. degree with a major in Industrial Engineering Technology. The program will be offered on campus and through distance learning.

Student outcomes:

Demonstrate a conceptual knowledge of logistics

Communicate effectively in written and presentation skills

Utilize support and research systems for logistics

Demonstrate an ability to plan, execute and critique sound logistics concepts and ideas

## **Program Course Requirements**

IET 2227:Probability and Statistics I

IET 2449:Logistics and Supply Chain Management

IET 3320:Advanced Logistics

IET 3620:Warehousing Systems

IET 4115:Human Resources Management for Engineers

IET 4151:Operations Management for Engineers

IET 4405:Operations Research - Concepts, Models and Methods

***Program Total (21 Credit Hours)***

# **Six Sigma Green Belt Certificate**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/systems-industrial/degrees/certificates.php>

Phone: 470-578-7243

Email: [isye@kennesaw.edu](mailto:isye@kennesaw.edu)

## **Program Description**

Industrial engineers and other professionals are often asked to champion organizational efforts to improve performance in some area. These activities are referred to as Process Improvement or Continuous Improvement initiatives and are the focus of Six Sigma methodology. It is not unusual for management in any organization to want to improve performance even if Six Sigma is not a formal program within the company. A Green Belt is a professional level of recognition for individuals trained in Six Sigma. This certificate is based on the American Society for Quality (ASQ) Six Sigma Green Belt body of knowledge. The courses in the certificate provide education in quality system principles, methodology and standards.

Student outcomes:

Demonstrate a knowledge of statistics for quality control

Effectively demonstrate quality concepts and ideas

Work successfully in team environments

Identify and manage quality projects

## **Program Course Requirements**

### **Statistics Requirement (3 Credit Hours)**

Select one course from the following:

ENGR 3305:Data Collection and Analysis in Engineering

ISYE 3600:Probability and Statistics II

IET 3403:Probability and Statistics II

STAT 2332:Probability and Data Analysis

STAT 3120:Statistical Methods I

### **Statistical Quality Control Requirement (3 Credit Hours)**

Select one of the following:

IET 3339:Statistical Quality Control

ISYE 3125:Statistical Quality Control

**Strategic Quality Concepts Requirement (3 Credit Hours)**

Select one of the following:

IET 3356:Quality Concepts and Systems Design

ISYE 3150:Design & Improvement of Quality Processes

**Problem Solving and Lean Principles Requirement (3 Credit Hours)**

ENGR 3407:Lean Six Sigma

***Program Total (12 Credit Hours)***

# **Aerospace Engineering Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/systems-industrial/degrees/minor-aerospace.php>

Phone: (470) 578-7243

## **Program Description**

The Aerospace Engineering (AE) minor is designed to provide students with sufficient knowledge and skills to allow them to operate as a competent practitioner within the field of aerospace engineering. Students will develop not only technical know-how but also a practical and analytical approach to problem-solving that will allow them to address a range of aerospace engineering challenges.

All engineering and engineering technology degree seeking students are eligible to apply for a minor in Aerospace Engineering. To earn a minor, a student needs to complete a minimum of five courses as listed in the curriculum below. The pre-requisite to start the program is MATH 2202 Calculus II.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

ENGR 3801:Aerodynamics

ENGR 4803:Aeronautics Senior Design Project

### **Electives (9 Credit Hours)**

Choose three courses from the following:

ENGR 3802:Aircraft Design & Performance

ENGR 3803:Fundamentals of Avionics

ENGR 4801:Aircraft Propulsion

ENGR 4802:Helicopter Theory

ENGR 3804:Introduction to Aerospace Structural Analysis

### **Program Total (15 Credit Hours)**

# **Biomedical Engineering Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/robotics-mechatronics/>

Phone: (470) 578-7234

Email: [mechatronics@kennesaw.edu](mailto:mechatronics@kennesaw.edu)

## **Program Description**

A minor in Biomedical Engineering is suitable for students wishing to apply their knowledge of engineering principles to medical and biological problems. This minor is a collaboration between the Southern Polytechnic College of Engineering and Engineering Technology and the Wellstar College of Health and Human Services. Students need to complete 15 credit hours in this minor program. The student must earn a 'C' or better in all courses for the minor.

All upper-level engineering courses require Engineering Standing.

Non-engineering students who desire to enroll in upper-level engineering courses to complete a minor or a dual major must have the applicable course prerequisites and a 2.7 GPA in the following courses:

ENGL 1101 English Composition I

ENGL 1102 English Composition II

PHYS 2211 Principles of Physics I & PHYS 2211L Principles of Physics Laboratory I

CHEM 1211 Principles of Chemistry I & CHEM 1211L Principles of Chemistry Laboratory I

OR

PHYS 2212 Principles of Physics II & PHYS 2212L Principles of Physics Laboratory II

MATH 1190 Calculus I

MATH 2202 Calculus II

12 additional credits from courses in the Southern Polytechnic College of Engineering and Engineering Technology or with prefixes CHEM, CS, CSE, IT, MATH, PHYS, or STAT.

## **Required Courses (12 Credit Hours)**

ENGR 3410: Fundamentals of Biomedical Engineering

ENGR 3411: Biomechanics for Engineers

ENGR 3412: Biomedical Circuit Applications

HPAL 2250: Anatomy and Physiology for Health and Physical Activity Leadership

## **Electives (3 Credit Hours)**

Students must complete three credit hours in one or a combination of the following:

ES 2100:Physical Activity in Health and Disease  
ES 2300:Medical Terminology  
EE 4400:Directed Study in Electrical Engineering \*  
ES 4400:Directed Study \*  
ISYE 4400:Directed Study \*  
ME 4400:Directed Study \*  
MTRE 4400:Directed Research - Mechatronics \*

\* Research projects must have biomedical emphasis and requires the approval of the Robotics and Mechatronics Engineering Department Chair

***Program Total (15 Credit Hours)***

# **Energy/HVAC Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/engineering-technology/degrees/minor-energy-hvac.php>

Phone: (470) 578-7274

Email: [eet@kennesaw.edu](mailto:eet@kennesaw.edu)

## **Program Description**

The Energy/HVAC (heating, ventilating, air conditioning) minor concentrates on the design and operation of heat and mass transfer systems, which produce the needed environments for manufacturing operations, industrial processes, and human comfort. Systems utilizing mechanical equipment are focused on such as pumps, blowers, fans, air compressors, heat exchangers, internal combustion engines, steam turbines, and boilers.

The profession includes fields as diverse as air conditioning, low temperature metallurgy, food preservation, chemical processing, and industrial manufacturing. Energy/HVAC occupations include:

HVAC systems engineers - for consulting firms and mechanical contractors

Manufacturers' sales representatives

Process plant engineers - in the petrochemical and pulp and paper industry

Engineers - for power generation plants

Maintenance supervisors

Sales representatives - for manufacturers

## **Program Course Requirements**

Students must take the following two courses:

ME 3410:Thermodynamics \*

or

MET 3401:Thermodynamics I \*\*

MET 3402:Thermodynamics II

*\*ME students must take ME 3410*

*\*\*MET students must take MET 3401*

## **Electives**

Select three courses from the following:

ME 3440:Heat Transfer \*

or

MET 4401:Heat Transfer \*

MET 4411:Refrigeration

ENGR 4412:Air Conditioning

MET 4431:Plant and Power Applications

## **Required Basic and Engineering Science and Mathematics Prerequisite Courses**

Most of the engineering disciplines require these courses.

Non-engineering students may have to take these courses before they can take the minor courses.

ENGR 2214:Engineering Mechanics - Statics

ENGR 3343:Fluid Mechanics

MET 3101:Fluid Mechanics Principles and Applications

PHYS 1111:Introductory Physics I

PHYS 2211:Principles of Physics I

Note: ME students must take PHYS 2211 and ENGR 3343. MET student may take either PHYS 1111 or PHYS 2211 and MET 3101 or ENGR 3343

***Program Total (15 Credit Hours)***

# **Engineering Design Graphics Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/engineering-technology/>

Phone: (470) 578-7274

Email: [met@kennesaw.edu](mailto:met@kennesaw.edu)

## **Program Description**

Note: Not available to MET students with a concentration in Engineering Design Graphics.

## **Program Course Requirements**

EDG 1212:Engineering Graphics II

Select four additional courses from the following:

EDG 3112:Advanced Engineering Graphics

MET 3332:Rapid Design and Manufacture

EDG 4111:Surface Modeling

EDG 4222:CAD Customization and Standards

EDG 4224:Engineering Design Graphics for Custom Manufacturing

MET 4112:Computer Aided Engineering & Analysis

or

ME 4250:Computer Aided Engineering

***Program Total (16 Credit Hours)***

# **Environmental Engineering Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/civil-construction/degrees/minor-environmental.php>

Phone: (470) 578-5076

Email: [cce@kennesaw.edu](mailto:cce@kennesaw.edu)

## **Program Description**

The minor in Environmental Engineering is designed to provide students in engineering, science, and other majors with a comprehensive study of environmental issues and the skills necessary to solve problems associated with environmental pollution. Today, environmental concerns strongly influence many aspects of engineering practice.

The curriculum is designed to provide students with:

- (a) a foundation to pursue a career in environmental engineering and
- (b) an understanding of the environmental consequences of their designs.

## **Engineering Standing Requirements**

Required Basic and Engineering Science and Mathematics Prerequisite Courses (23 Credit Hours)

Most of the engineering disciplines require these courses. Non-engineering students may have to take these courses before they can take the Environmental Engineering Breadth and Depth Courses.

CHEM 1211:Principles of Chemistry I

CHEM 1211L:Principles of Chemistry Laboratory I

CHEM 1212:Principles of Chemistry II

CHEM 1212L:Principles of Chemistry Laboratory II

PHYS 2211:Principles of Physics I

PHYS 2211L:Principles of Physics Laboratory I

ENGR 2214:Engineering Mechanics - Statics

ENGR 3343:Fluid Mechanics

ENGR 3345:Fluid Mechanics Laboratory

MATH 1190:Calculus I

## **Program Course Requirements**

### **Required Environmental Engineering Breadth Courses (8 Credit Hours)**

CE 3702:Introduction to Environmental Engineering  
CE 3703:Environmental Engineering Design  
CE 3704:Introduction to Environmental Engineering Laboratory  
CE 4371:Environmental Engineering Laboratory

### **Required Environmental Engineering Depth Courses (9 Credit Hours)**

Select any three (3) courses from the following:

CE 4343:Solid Waste Engineering  
CE 4353:Air Pollution Control  
CE 4363:Environmental Engineering Chemistry  
CE 4373:Environmental Engineering Microbiology  
CE 4383:Sustainability for Engineers  
CE 4708:Hazardous Waste Engineering

### ***Required Program Total (17 Credit Hours)***

# **Manufacturing Engineering Technology Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/engineering-technology/degrees/minor-manufacturing-tech.php>

Phone: (470) 578-7274

Email: [eet@kennesaw.edu](mailto:eet@kennesaw.edu)

## **Program Description**

There are approximately 9,500 manufacturing companies in the state of Georgia alone. A minor in Manufacturing Engineering Technology gives students the skill set to become successful Manufacturing Engineers, a profession with excellent starting pay and highly sought after by companies. Not only do students learn and apply different manufacturing processes, they gain valuable knowledge in project management and Six Sigma & Lean Manufacturing.

Note: Not available to MET students with a concentration in Manufacturing

## **Program Course Requirements**

Students must take the following three courses:

MET 1311:Manufacturing Processes

MET 1800:CNC and Machining

EDG 1212:Engineering Graphics II

## **Electives**

Select three additional courses from the following:

EDG 4224:Engineering Design Graphics for Custom Manufacturing

ENGR 3407:Lean Six Sigma

IET 4135:IET Project Management

MET 3331:Tool Design

MET 3332:Rapid Design and Manufacture

MET 4342:Numerical Control of Machines

## **Program Total (18 Credit Hours)**

Note: Not available to MET students with a concentration in Manufacturing

# **Mechatronics Engineering Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/mechatronics/degrees/minor-mechatronics.php>

Phone: (470) 578-7234

Email: [mechatronics@kennesaw.edu](mailto:mechatronics@kennesaw.edu)

## **Program Description**

This program provides an opportunity for students outside the Department of Mechatronics Engineering to learn robotics and mechatronics courses which add value to their education by obtaining skills that are directly and immediately relevant to employers. The proposed minor program provides an opportunity for Kennesaw State University students to systematically take robotics and mechatronics courses and enhance their background and abilities to find a job in the engineering field.

## **Program Course Requirements**

### **Required Courses (7 Credit Hours)**

CSE 132I:Programming and Problem Solving I

CSE 132IL:Programming and Problem Solving I Laboratory

MTRE 2710:Intermediate Programming for Mechatronics

MTRE 2710L:Intermediate Programming for Mechatronics Laboratory

### **Control Systems Requirement (4 Credit Hours)**

Choose from one of the following 4 credit selections:

MTRE 3610:Modeling and Feedback Control of Dynamic Systems

MTRE 3610L:Modeling and Feedback Control of Dynamic Systems Laboratory

or

EE 420I:Control Systems

or

ME 350I:Dynamic Systems & Control Theory

ME 450I:Vibrations & Controls Lab

### **Elective Courses (4 Credit Hours)**

Any four additional credits from 3000- or 4000-level MTRE courses

### **Program Total: (15 Credit Hours)**

# **Naval Science Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/nrotc/>

Phone: (404) 385-6307

Email: [nrotc@kennesaw.edu](mailto:nrotc@kennesaw.edu)

## **Program Description**

The Naval Science minor will familiarize the student with basic and advanced concepts of Naval Science with emphasis on naval history, technology, and leadership. All NROTC students who successfully complete all required credit hours of Naval Science classes will be eligible for the minor. Fifteen credit hours of the NROTC required credit hours will count towards the minor with the correct number of upper and lower division credit completed. All courses are offered exclusively on the Georgia Tech campus.

This minor is only available to students in the NROTC program. Students pursuing this minor may transfer in 100% of their coursework. This program is exempt from the KSU Residency Requirements.

## **Program Course Requirements**

### **Required Courses (15 Credit Hours)**

The minor requires 15 credit hours of course work. A minimum of 9 credit hours must be of upper-division coursework, courses numbered 3000 or above. Courses may be taken in any order, but students are highly encouraged to complete NS 1321 before enrolling in any other courses. Students may not repeat any course for double credit.

- NS 1321:Introduction to Naval Science
- NS 1323:Naval Maritime History
- NS 2321:Naval Leadership and Management
- NS 2323:Navigation
- NS 3323:Evolution of Warfare
- NS 3325:Naval Weapon Systems
- NS 3326:Naval Systems Engineering
- NS 4320:Naval Operations
- NS 4322:Naval Leadership and Ethics
- NS 4333:Fundamentals of Maneuver Warfare

### **Program Total (15 Credit Hours)**

# **Nuclear Engineering Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/nuclear-studies/minor.php>

Phone: (470) 578-7540

Email: [engineering@kennesaw.edu](mailto:engineering@kennesaw.edu)

## **Program Description**

The minor in Nuclear Engineering is designed to respond to the critical needs of the nuclear industry for a technical workforce. The Nuclear Engineering minor educates participating students in the Fundamentals of Nuclear Engineering, Nuclear Energy Conversion, Reactor Operation, and Radiation Detection and Protection. Graduates can seek career opportunities in the nuclear industry or pursue a graduate degree in Nuclear Engineering. The minor also provides a competitive edge for those who pursue opportunities outside the nuclear industry, because employers typically recognize the mission critical nature of the nuclear industry and value the discipline that accompanies this particular branch of engineering.

## **Program Course Requirements**

### **Required Course (3 Credit Hours)**

ENGR 3501: Fundamentals of Nuclear Engineering

### **Electives (12 Credit Hours)**

Select four courses out of the following for 12 credit hours:

ENGR 3502: Radiation Detection & Measurement

ENGR 4501: Nuclear Power Generation

ENGR 4502: Radiation Protection & Health Physics

ENGR 4503: Nuclear Fuel Cycle

ENGR 4504: Nuclear Reactor Simulation

### **Program Total (15 Credit Hours)**

# **Operations Research Minor**

## **Program Description**

Operations Research uses advanced analytical methods for complex decision-making. Applied math, computing, statistical analysis, and optimization are part of the Operations Research toolkit that can be used to solve complex problems that arise in many situations, such as engineering, scheduling, manufacturing, transportation, or healthcare. KSU's Operations Research Minor is an excellent option for students who would like to learn and apply new quantitative methods for improved decision-making and efficiency.

Note: MATH 2202 - Calculus II is a prerequisite to courses in this minor and this minor is not open to students pursuing majors in the Industrial and Systems Engineering department.

## **Program Course Requirements**

### **Required Courses ( 18 Credit Hours)**

MATH 3260:Linear Algebra I

ISYE 4200:Engineering Optimization: Stochastic Decision Models

ISYE 3600:Probability and Statistics II

Choose One:

MATH 3272:Introduction to Linear Programming

ISYE 3400:Deterministic Operations Research

Choose One:

ISYE 2600:Probability and Statistics I

STAT 2332:Probability and Data Analysis

MATH 3332:Probability Theory

Choose One:

ISYE 4500:System Modeling & Simulation

CS 4306:Algorithm Analysis

### **Program Total (18 Credit Hours)**

# **Renewable Energy Engineering Minor**

## **Contact Information**

Website: <https://engineering.kennesaw.edu/robotics-mechatronics/>

## **Program Description**

A minor in Renewable Energy Engineering is suitable for students who intend to apply their knowledge of engineering principles to renewable and alternative energy generation and efficient utilization. This minor will provide students an opportunity to examine different renewable energy sources including solar, hydrokinetic, wind, geothermal and learn energy efficiency aspects of sustainable energy systems. This program is multidisciplinary in nature and is developed in collaboration between the Electrical Engineering and Mechanical Engineering departments at the Southern Polytechnic College of Engineering and Engineering Technology. Students need to complete 15 credit hours in this minor program (6 credit hours of core courses and 9 credit hours of renewable energy elective courses). A student must earn a 'C' or better in all courses for the minor. At least 6 hours of this minor must be non-duplicative with the course requirements of the student's major.

All upper-level engineering courses require Engineering Standing. Non-engineering students who desire to enroll in upper-level engineering courses to complete a minor or a dual major must have the applicable course prerequisites and at least 2.7 GPA in the following courses:

ENGL 1101

ENGL 1102

PHYS 2211 and PHYS 2211L

CHEM 1211 and CHEM 1211L OR PHYS 2212 and PHYS 2212L

MATH 1190

MATH 2202

12 additional credits from courses in the Southern Polytechnic College of Engineering and Engineering Technology or with prefixes CHEM, CS, CSE, IT, MATH, PHYS, or STAT.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

ENGR 3601: Fundamentals of Renewable Energy

ENGR 3602:Energy Efficiency

**Electives (9 Credit Hours)**

Select three of the following for a total of nine credit hours:

ENGR 3603:Hydrokinetic Energy

ENGR 4601:Fundamentals of Solar Power

ENGR 4602:Wind Power

ENGR 4603:Geothermal and Bioenergy Systems

ENGR 4604:Distributed Generation & Smart Grids

EE/ME/MTRE/CPE/ISYE/CE 4400-Directed Study\*

\*Research project must have Renewable Energy emphasis and requires the approval of the Renewable Energy Engineering Minor Program Coordinator.

***Program Total (15 Credit Hours)***

programs in the

**Wellstar College of Health and  
Human Services**

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# **Exercise Science, B.S.**

## **Program Description**

The Exercise Science program is a scientifically based program designed to prepare competent entry-level Exercise Science professionals in the cognitive (knowledge), psychomotor (skills), and affective (abilities) learning domains. The Exercise Science program offers a diversified program that includes both introductory and advanced coursework, laboratory experiences and the opportunity for practical application of knowledge through community and research based experiences. The program can also be used as pre-professional preparation for post graduate study in exercise science or other health related disciplines including physical therapy, occupational therapy and medical programs. The Exercise Science program is designed to prepare students for appropriate professional organization certifications. For information regarding program admission, please contact the Wellstar College of Health and Human Services Advising Center at <http://wellstarcollege.kennesaw.edu/advising>.

This program is a part of the Wellstar College of Health and Human Services.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Exercise Science program is separate from Admissions to Kennesaw State University. Students must meet the program requirements to pursue this degree program, outlined below. In order to declare the Exercise Science major, students must meet the following requirements:

- Must have met Kennesaw State University admission requirements.
- Applicants must have a 3.0 cumulative grade point average with a minimum grade of "C" in each required course for admission including BIOL 2251, BIOL 2251L, BIOL 2252, BIOL 2252L, ENGL 1101, ENGL 1102 and ES 2100. No more than two attempts per course will be allowed to earn the degree.
- Admitted students must earn a grade of "C" or better in each required course within the Exercise Science curriculum of which only two attempts per course will be allowed to earn the degree.
- Information regarding the application process can be obtained from the Wellstar College of Health and Human Services Advising Center.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 Program Requirements & Graduation .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **General Education Core Curriculum Requirements Specific to This Major**

Students must take a two-semester laboratory sequence for Area D2. Students can choose from CHEM 1151/L & 1152/L, CHEM 1211/L & 1212/L, PHYS 1111/L & PHYS 1112/L, or BIOL 1107/L & 1108/L. See the individual degree program requirement section for majors with these requirements.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- BIOL 2251: Anatomy & Physiology I
- BIOL 2251L: Anatomy & Physiology I Laboratory
- BIOL 2252: Anatomy & Physiology II
- BIOL 2252L: Anatomy & Physiology II Laboratory
- ES 2100: Physical Activity in Health and Disease
- ES 2200: Safety Training for Exercise Science
- ES 2300: Medical Terminology
- ES 2500: Principles of Nutrition

### **Major Requirements**

#### **Exercise Science Core (35 Credit Hours)**

- ES 3600: Health Fitness Management
- ES 3700: Strength and Conditioning
- ES 3750: Strength and Conditioning Laboratory
- ES 3800: Biomechanics
- ES 3900: Physiology of Exercise
- ES 4200: Nutrition and Performance
- ES 4300: Physiology of Exercise and Aging
- ES 4500: Physiology of Exercise II
- ES 4550: Exercise Science Laboratory Techniques
- ES 4600: Exercise Prescription
- ES 4650: Exercise Testing
- ES 4700: Clinical Exercise Physiology

One Carry-Over Hour from Area D2 **Credits / Units:** 1

***Capstone Experience (3 Credit Hour)***

- ES 4900: Senior Seminar in Exercise Science

***Major Field Electives (21 Credit Hours)***

Select 21 credit hours of BIOL, CHEM, ES, HPE, PHYS, PSYC, SM, IHS. 6 credit hours must be at the 3000-4000 level. At least 1 credit hour must be an internship experience which can be completed through ES 3398 or ES 4950. No more than 12 credit hours can be taken of a combination of ES 3398, ES 4000 and ES 4950.

***Free Electives (1 Credit Hours)***

Any course in the university curriculum.

***Program Total (120 Credit Hours)***

# **Health and Physical Activity Leadership, BS**

## **Program Description**

The Bachelor of Science with a major in Health & Physical Activity Leadership (HPAL) is designed to prepare candidates for employment in a variety of fields related to health and physical activity. This will include teaching health and physical education in both public and private schools, coaching in school and community settings, and leadership positions in community-based health and physical activity programs.

This program is a part of the Wellstar College of Health and Human Services.

## **Accreditation**

The Bachelor of Science in Health and Physical Education (HPE) is fully accredited by the National Council for Accreditation of Teacher Education (NCATE), fully approved by Georgia's Professional Standards Commission (PSC) for P-12 teacher certification, and nationally recognized by the National Association for Sport and Physical Education (NASPE). Kennesaw State University is the only program in Georgia nationally recognized by NASPE.

## **Admission, Enrollment, and Graduation Policies**

### **Admissions Requirements**

There are no additional Admissions requirements for the Coaching Concentration or the Youth Activity Leadership Concentration.

The Health and Physical Education Teacher Certification Concentration requires majors to apply for program admission in order to begin coursework in the professional education sequence.

In order to be admitted to the Health and Physical Education (P-12) program, majors must apply to both the Bagwell College Teacher Preparation Program and to the Department of Health Promotion and Physical Education. It is recommended that majors arrange to meet with a HPE Faculty Advisor each semester to assure that are on track to apply for program admission.

### ***Teacher Education Admission, Retention and Graduation Requirements***

Admission to teacher education is separate from admission to Kennesaw State University. Students must meet the admission requirements outlined in the Teacher Education Admission, Enrollment, and Graduation Requirements catalog page to pursue this degree program.

### ***Health and Physical Education (P-12) Eligibility Requirements***

In addition to the criteria for Admission to Teacher Education, the Health and Physical Education (P-12) program requires that the following criteria also be met:

1. Completed with a "C" or better: WELL 2000, HPAL 2100, HPE 2050, and HPAL 2250
2. Received a minimum letter grade of "C" in any required HPAL major courses
3. Submitted two acceptable faculty recommendations and an advisor recommendation
4. Submitted current completed Course Checksheet. This will be provided by your ESS advisor.
5. Exhibited responsible professional behavior in classes, field experiences, and interactions with peers and faculty
6. Demonstrated interest in the field through participation in and contribution to majors' clubs and/or other professional activities
7. Expressed a desire to enter teacher certification through a well-written personal narrative emphasizing experiences relevant to teaching

### *Application*

After formal review of all program application materials, students will be notified of their admission status. Questions regarding Health and Physical Education Teacher Certification Concentration admission may be directed to the coordinator

#### APPLICATION INSTRUCTIONS – PLEASE COMPLETE THE FOLLOWING:

- HPE Faculty Letters of Recommendation
- HPE Planned Program of Study-completed by you and your academic advisor
- HPE Application

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 Program Requirements & Graduation .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts
  
- HPAL 2250: Anatomy and Physiology for Health and Physical Activity Leadership  
or

- BIOL 2251: Anatomy & Physiology I
- WELL 2000: Foundations of Health and Wellness
- HPAL 2100: Introduction to Health and Physical Activity Leadership
- Six credits of lower-division electives. Students should select courses that align with their desired concentration. Students in the Teacher Preparation Concentration must take EDUC 2110 and EDUC 2130; it is recommended to meet with an advisor to discuss options. 1000-level HPAL courses cannot count in this area.

### **Major Requirements (24 Credit Hours)**

- HPAL 3010: Technology in Health and Physical Activity Leadership
- HPAL 3020: Teaching Games and Sports
- HPAL 3100: Behavioral and Psychological Aspects of Physical Activity and Coaching
- HPAL 3200: Motor Learning and Development
- HPAL 3252: Measurement and Evaluation for Health and Physical Activity Leadership
- HPAL 3300: Contemporary Health Issues
- HPAL 3600: Child and Adolescent Health Issues
- HPAL 3340: Applied Anatomy and Physiology for Health and Physical Activity Leadership  
or
- BIOL 2252: Anatomy & Physiology II

### **Concentration (36 Credit Hours)**

#### ***Health and Physical Education Teacher Certification Concentration***

- HPAL 2020: Adventure Education and Facilitation
- HPE 2200: Skills-Based Approach to Health Education
- HPE 2050: Fundamentals of Teaching Health and Physical Education
- HPAL 3250: Family Health and Sexuality
- HPE 3450: Curriculum, Instruction and Management for Early Childhood Physical Education
- HPE 3550: Curriculum, Instruction and Management for Middle Grade and Secondary Physical Education
- HPE 3650: Curriculum, Methods and Materials in Health Education
- HPAL 3750: Adapted Physical Education
- HPE 4420: Practicum in Middle and Secondary School Health Education
- HPE 4430: Practicum in Middle and Secondary School Physical Education
- EDUC 4610: Introduction to the Yearlong Clinical Experience

- INED 4437: Education for Linguistically Diverse Students
- HPE 4850: Student Teaching in Health and Physical Education (P-12)

### **Coaching Concentration**

Required Courses (21 Credit Hours)

- HPAL 3050: Coaching Principles
- HPAL 3090: Advanced Coaching Methods for Strength and Conditioning
- HPAL 3330: Sport First Aid and Injury Prevention
- HPAL 3395: Coaching Practicum (taken twice for a total of six credit hours)
- HPAL 4900: Capstone in Coaching
- Select three credit hours of HPAL 1000 level courses

Advanced Coaching Methods (9 Credit Hours)

Select nine credit hours from the following:

- HPAL 3055: Advanced Coaching Methods for Basketball
- HPAL 3061: Advanced Coaching Methods for Football
- HPAL 3065: Advanced Coaching Methods for Soccer
- HPAL 3071: Advanced Coaching Methods for Archery
- HPAL 3075: Advanced Coaching Methods for Softball
- HPAL 3085: Advanced Coaching Methods for Tennis
- HPAL 3095: Advanced Coaching Methods for Volleyball

Upper-Division Electives (6 Credit Hours)

Select six credit hours of 3000 or 4000-level coursework.

### **Youth Activity Leadership Concentration**

Required Courses (21 Credit Hours)

- HPAL 3050: Coaching Principles
- HPAL 3140: Youth Fitness Development and Assessment
- HPAL 3250: Family Health and Sexuality
- HPAL 3330: Sport First Aid and Injury Prevention
- HPAL 3393: Practicum in Youth Activity Leadership
- HPAL 4950: Capstone in Youth Activity Leadership

Concentration Related Studies (15 Credit Hours)

Select 15 credits at the 3000 or 4000-level from the following prefixes: COMM, HS, LDRS, PHE, PSYC, SOCI, ISD, ORGC, IPE, INED, HIS

***Program Total (120 Credit Hours)***

# **Human Services, B.S.**

## **Program Description**

The Department of Social Work and Human Services is committed to educating culturally competent professionals to develop and deliver high-quality human services locally, regionally and globally, to improve the quality of life of those they serve. This mission evolves from its core values that are derived from the values of the University, the National Association of Social Workers (NASW), the National Organization for Human Services (NOHS), and the Council for Standards in Human Service Education (CSHSE).

The Human Services (HS) major prepares professionals to engage, advocate, and innovate locally, regionally, and globally to improve the lives of peoples and communities. Majors must complete two required field experiences i.e., internships. The foundation internship requires students to demonstrate knowledge, attitudes, and skills acquired in lower-level major courses by completing assignments and experiences in both micro and macro level practice. Students then complete an advanced internship with a focus on the competencies of their chosen concentration.

HS Majors must choose a concentration in Social Engagement and Advocacy (SEA) or Nonprofit Management and Social Innovation (NMSI). Students in the Social Engagement and Advocacy concentration focus on the ability to integrate knowledge and skills related to direct practice with individuals, families, children, and groups. In addition, they are prepared to work in crisis intervention settings. While students who select the Nonprofit Management and Social Innovation concentration develop management, leadership, and administrative competencies to work in nonprofit organizations.

All human services majors graduate with competencies in communication, assessment, advocacy, documentation, community networking, cultural competence, social policy, civic engagement, and professional/career development. These competencies are established by the Council for Standards in Human Service Education (CSHSE). Graduates from the HS program may qualify to take the Human Service Board Certified Practitioner (HS-BCP) exam for becoming a Human Service Board Certified Practitioner (HS-BCP). For additional information regarding the HS-BCP, please contact the Human Services Program Director.

The Department of Social Work and Human Services also supports two certificates: The Nonprofit Management and Social Innovation Certificate in partnership with The Nonprofit Leadership Alliance (NLA) and the Child Advocacy Studies (CAST) Embedded Certificate in partnership with the Zero Abuse Project.

The Certificate in Nonprofit Management and Social Innovation (stand alone and embedded) prepares students for employment, volunteer and leadership experiences in the nonprofit sector. The program requires students to demonstrate ten core management and leadership competency areas. Students also attend a national conference. Students

interested in this certificate may enroll by contacting the NLA Campus Executive Director and completing the online application available at <https://wellstarcollege.kennesaw.edu/swhs/nla/>. Completion of the certificate's requirements result in students receiving national certification and credentialing i.e., Certified Nonprofit Practitioner (CNP) by the Nonprofit Leadership Alliance.

The Child Advocacy Studies Embedded Certificate focuses on developing students' understanding of the various factors that lead to child maltreatment, and of various existing responses to incidents of child maltreatment to enable them to work more effectively within various systems and institutions that respond to these incidents. Students completing the courses in this certificate will be competent to work within children-focused agencies and systems (health care, criminal justice, social services) while advocating for children who have survived neglect and abuse. Students interested in this program can find more information and enroll by completing the online application available at <https://wellstarcollege.kennesaw.edu/swhs/cast/index.php>

This program is a part of the Wellstar College of Health and Human Services.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

Admission to the Human Services program is separate from Admissions to Kennesaw State University. Students must meet the program requirements outlined below to pursue this degree program:

- Have and be able to maintain an institutional GPA of 2.0 or better
- Completed the following courses with a "C" or greater:
  1. ENGL 1101 or ENGL 1102
  2. Any Area DI Math course (i.e., STAT 1401, MATH 1160, MATH 1179, MATH 1190, or MATH 2202)
  3. ECON 1000
  4. PSYC 1101 OR ECON 2106
  5. SOCI 1101
  6. HS 2100
  7. HS 2200
  8. HS 2300
  9. HS 2400

Human Services majors must have and maintain a minimum Institutional GPA. of 2.0. Majors must successfully complete all Human Service major courses with a grade of "C" or higher.

*After completing the above criteria for acceptance:*

- Apply to the Human Services Program using the online application.
- Applications are reviewed using the deadlines listed below.

- Applicants will receive an e-mail response to their KSU email of acceptance or denial upon review.
- Upon notification of acceptance to the major (by email), students must complete the application requirements by notifying the Program Director of his/her acceptance and attending the required major orientation.
- If denied acceptance to the major, students are encouraged to meet with the Program Director, if desired, to review the reason for denial and develop a plan in order to be eligible to reapply to the major.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum. This program recommends the Statistics Pathway.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

#### ***Module 1 for HS Social Engagement & Advocacy and HS Nonprofit Management & Social Innovation Concentrations***

- HS 2100: Overview of Human Services
- HS 2200: Fundamentals of Nonprofits
- HS 2300: Cultural Competence in the Human Services
- HS 2400: Interviewing Skills for the Helping Professions
- SOCI 1101: Introduction to Sociology
  
- PSYC 1101: Introduction to General Psychology  
or
- ECON 2106: Principles of Microeconomics

### **Major Requirements (48 Credit Hours)**

#### **Social Engagement and Advocacy Concentration:**

Module 2

- HS 2900: Working with Support Groups

- HS 3000: Foundation Internship
- HS 3100: Poverty and Culture
- HS 3200: Policy & Advocacy

#### Module 3

- HS 3300: Human Socialization
- HS 3400: Community Intervention
- HS 3500: Research Methods for the Human Services  
Major Concentration Elective (choose from list below)

#### Module 4

- HS 4500: Working with Families
- HS 4600: Working with Children and Youth
- HS 4700: Crisis Intervention  
Major Concentration Elective (choose from list below)

#### Module 5

- HS 4800: Ethics in the Helping Profession
- HS 4900: Capstone Seminar in Human Services
- HS 4950: Advanced Internship for Human Services Professionals

### **Nonprofit Management and Social Innovation Concentration:**

#### Module 2

- HS 3000: Foundation Internship
- HS 3100: Poverty and Culture
- HS 3200: Policy & Advocacy
- HS 3650: Governance, Advocacy, and Leadership in Nonprofits

#### Module 3

- HS 3300: Human Socialization
- HS 3400: Community Intervention
- HS 3500: Research Methods for the Human Services
- HS 3600: Program Development and Evaluation

#### Module 4

- HS 4100: Grant Writing and Fundraising
- HS 4200: Human Resources for Nonprofit Organizations  
Major Concentration Elective (choose from list below) Major Concentration Elective  
(choose from list below)

## Module 5

- HS 4800: Ethics in the Helping Profession
- HS 4900: Capstone Seminar in Human Services
- HS 4950: Advanced Internship for Human Services Professionals

### **Concentration Electives**

Choose two from the following courses that are not included in the student's concentration required courses:

- HS 3600: Program Development and Evaluation
- HS 3650: Governance, Advocacy, and Leadership in Nonprofits
- HS 3700: Aging and the Family
- HS 3750: Death, Dying and Bereavement
- HS 3800: Social Entrepreneurship and Enterprise
- HS 3850: Introduction to Nongovernmental Organizations and Development
- HS 3900: Dynamics of Family Violence
- HS 3950: Perspectives on Child Maltreatment and Child Advocacy
- HS 3960: Professional and System Responses to Maltreatment
- HS 3970: Global Child Advocacy
- HS 4100: Grant Writing and Fundraising
- HS 4200: Human Resources for Nonprofit Organizations
- HS 4300: Education Abroad in Human Services
- HS 4490: Special Topics in Human Services
- HS 4500: Working with Families
- HS 4600: Working with Children and Youth
- MGT 3100: Management and Behavioral Sciences
- POLS 3343: Principles of Public Administration
- SOCI 3304: Social Organization

### **Free Electives (12 Credit Hours)**

Any courses in the university curriculum (in consultation with the academic advisor). Total credits must equal to 12 credits.

### **Program Total (120 Credit Hours)**

*Embedded Certificate: Upon completion of the degree requirements and selection of specific courses in either sub-fields, Upper-Division Major Electives, or Related Studies students may earn the following certificates. Students, consult with your academic advisor regarding declaration of a certificate.*

- Child Advocacy Studies Certificate - Embedded

# **Integrated Health Science, B.S.**

## **Program Description**

The Bachelor of Science with a Major in Integrated Health Science will provide a broad-based interdisciplinary degree designed for students interested in pursuing a career in healthcare. To do so, the IHS major will consist of a core group of classes grounded in the basic natural, social and health sciences with a thread of interprofessional education (IPE) and healthcare innovation woven throughout. The IHS major prepares students to become informed and engaged health professionals, able to think critically about health-related issues and work as part of a healthcare team to develop innovative solutions to current and future healthcare issues. Coursework focuses on the core functions of the healthcare system while emphasizing strategies to promote population health. In addition, the curriculum provides a venue for career exploration. The IHS program of study is flexible enough to allow students career options in the healthcare industry or preparation for graduate education in allied health fields.

This program is a part of the Wellstar College of Health and Human Services.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- IHS 2100: Introduction to Health Sciences and Professions
- WELL 2000: Foundations of Health and Wellness
- HS 2300: Cultural Competence in the Human Services

- Select any 1000 or 2000 level courses from BIOL, COMM, HPE\*, ES, FL, HS, PHE, PSYC, SPAN, TCOM, or SOCI for a total of 9 Credit Hours.  
\*Note: HPE 1000 level courses cannot satisfy Area F requirements.

### **Major Requirements (30 Credit Hours)**

- COMM 3320: Health Communication
- ECON 3478: Economics of Healthcare
- HPAL 3300: Contemporary Health Issues
- IHS 3240: Fundamentals of Behavioral Health Care
- IHS 4445: Healthcare Innovation
- IPE 4413: Interprofessional Care and Collaboration
- IT 3503: Foundations of Health Information Technology
- SOCI 3380: Society, Community, & Health
  
- NURS 3330: Health Systems and Health Policy  
or
- PHE 3330: Health Systems & Health Policy
  
- IHS 4760: Integrated Health Science Capstone

### **Upper Division Major Electives (18 Credit Hours)**

Any 3000–4000 level courses with the following prefix: COMM, ES, HPE, HS, IHS, LDRS, NURS, PHE, SOCI, PSYC, SM, or TCOM.

For a list of recommended courses, consult an advisor.

### **Free Electives (12 Credit Hours)**

Any course in the university curriculum.

Note: IHS Majors are encouraged to consider a minor or certificate program to fulfill elective requirements.

### **Program Total (120 Credit Hours)**

# **Nursing, B.S.N.**

## **Program Description**

The Wellstar School of Nursing (WSON) offers both traditional and accelerated BSN programs for students who want to become a registered nurse. The curriculum includes courses in the humanities and the biological and social sciences as well as the theoretical and clinical practice background necessary for the practice of professional nursing.

Once accepted into the BSN program, students will follow a specific curriculum plan. The traditional program is five semesters (with no required classes first summer semester of program). The accelerated program is an abbreviated four-semester program for students who hold a baccalaureate degree in another discipline (from an accredited U.S. institution, or equivalent international degree). All program admission requirements are the same for traditional and accelerated applicants, except for the requirement to hold a baccalaureate degree in another field of study for the accelerated program. Students in both the traditional and accelerated programs will sequentially take a series of 13 courses (57 credit hours) as outlined in the BSN Curriculum Plan. The exact schedule and sequence of courses varies depending on the semester in which students begin the program, as well as whether they are traditional or accelerated. Refer to the WSON website for additional details about both programs.

In addition, all KSU students must complete KSU's General Education Requirements and University-Wide Degree Requirements to graduate with any Bachelor's degree. These courses can be taken before, during, or after acceptance and completion of the BSN program, but all courses must be completed before students can graduate with a BSN degree. Transfer students and students who already hold a degree in another field may already meet some or all of these general core requirements.

The purpose of the Bachelor of Science in Nursing is to prepare graduates for generalist nursing practice. Graduates will be prepared to practice with patients including individuals, families, groups, and populations across the lifespan and across the continuum of healthcare environments. Upon completion of this program graduates will:

1. Synthesize knowledge from a liberal education including social science, natural science, nursing science, and the art and ethics of caring as a foundation for providing holistic nursing care.
2. Implement competent, patient-centered care of individuals, families, groups, communities, and populations along the health-illness continuum and throughout the lifespan within multicultural environments.
3. Utilize leadership skills to critically examine and continuously improve healthcare delivery systems, with emphasis on safety, quality, and fiscal responsibility.
4. Analyze current research and apply conceptual/theoretical models for translating evidence into clinical practice.

5. Apply knowledge and skills in information management and patient care technology in the delivery of quality patient care.
6. Identify the significance of local, state, national, and global healthcare policies including financial and regulatory environments.
7. Demonstrate effective communication skills with an interdisciplinary healthcare team including collaboration, negotiation, and conflict management.
8. Employ principles of health promotion, and disease/injury prevention in providing care to individuals and populations.
9. Assume responsibility and accountability for professionalism, including lifelong learning, and the inherent values of altruism, autonomy, human dignity, integrity and social justice in the practice of nursing.

This program is a part of the Wellstar College of Health and Human Services.

### Accreditation

The baccalaureate degree and master's degree in nursing at Kennesaw State University are accredited by the Commission on Collegiate Nursing Education, 655 K Street, NW, Suite 750, Washington, DC 20001, 202-887-6791.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

Admission to the Nursing program is separate from Admissions to Kennesaw State University. Students must meet the following program requirements to pursue this degree program.

Requirements for students include:

- Annual health history and physical exam
- Immunizations and proof of immunity to specified communicable diseases as required by clinical agencies
- Annual tuberculosis screening (more frequently for some clinical agencies)
- Mandatory health insurance coverage
- Certification in health care provider cardiopulmonary resuscitation by the American Heart Association
- Uniforms (must be purchased from designated School of Nursing vendor), stethoscope, a suitable watch, and other supplies.
- An initial fee of approximately \$500.00 to cover the cost of achievement exams taken during the program, \$15 for professional liability insurance, \$90 per semester for lab supplies, and credentialing software activation fees (\$50 annually + other fees applicable). Note: Costs are estimates and may vary. Additional expenses may be incurred throughout the nursing program where applicable.
- Attend mandatory nursing orientation session prior to entry into the nursing program

- Criminal background check and drug screen (cost incurred by student) must be conducted by vendor designated by the School of Nursing. Dismissal from the program may result if student is not capable of meeting clinical agency requirements for criminal background check and/or is found to have a positive drug screen.
- Students' health records will be released to clinical agencies when requested for clinical credentialing. Students enrolled in clinical nursing courses who have not met the above requirements may be administratively withdrawn from courses.
- Students must be able to attend their assigned clinical days and provide their own transportation. In addition, they must adhere to clinical agency credentialing requirements to attend clinical. This includes all vaccination requirements of the agency. Successfully completing clinical is a requirement for progression in the nursing program.

#### Baccalaureate Program Admission Criteria

- Must be admitted to Kennesaw State University and have a KSU ID and email address.
- Students must complete all of the following (with a C or higher in each course) prior to beginning the Nursing program: General Education Areas A1, A2, D2 (two-semester laboratory sequence: CHEM 1151, CHEM 1151L, CHEM 1152, & CHEM 1152L; PHYS 1111, PHYS 1111L, PHYS 1112, & PHYS 1112L; or BIOL 1107, BIOL 1107L, BIOL 1108, & BIOL 1108L), E4, and Area F (PSYC 1101, STAT 1401, BIOL 2251, BIOL 2251L, BIOL 2252, BIOL 2252L, BIOL 2260, and BIOL 2260L).
- Applicants must successfully complete 7 of the 11 prerequisite requirements before the nursing application deadline (for the semester in which applicant is applying for), to be considered for admission. In addition, 5 of the 7 math and natural science courses must be successfully completed by the nursing application deadline to be considered. Note: courses with a lab component will be considered one prerequisite. Note: If an applicant is invited for admission but does not successfully complete all 11 prerequisite courses before starting the nursing program, their admission will be canceled.
- Applicants must have a 3.0 cumulative grade point average (GPA) at the time of the applicable nursing application deadline. For students who have completed less than 18 credit hours at KSU by the nursing application deadline, their transfer GPA will be reviewed. For students who have completed 18 or more credit hours at KSU by the nursing application deadline, their KSU cumulative GPA will be reviewed.
- In order for transfer courses to be considered for nursing admission, they must be transferred and verified by the KSU Registrar's Office by the nursing application deadline.
- A minimum grade of "C" is required for each prerequisite course. The Wellstar School of Nursing will only accept the first two graded attempts of each math and science prerequisite; however, a third attempt may be taken after five years. Science courses older than ten years at time of application will not be accepted.

Admission is a competitive process and will be based on a combination of several factors such as number of required prerequisite courses completed at the time of nursing

application deadline, grades received in these courses, and the score received on the ATI TEAS (Test of Essential Academic Skill) exam. Applicants must achieve a minimum of 78 on the ATI TEAS exam. Applicants must take the ATI TEAS exam within 5 years prior to the nursing application deadline; a score of 78 or higher is recommended but lower scores may be considered. Cost is incurred by the student.

Applications for entry into the baccalaureate nursing sequence must be completed by published deadlines.

Decisions regarding admission into the nursing sequence and progression in the program will be made by a nursing Admissions, Progression and Retention committee.

Students who were previously enrolled in a nursing program and were dismissed from the program for any reason will not be eligible for admission to the KSU Nursing Program.

#### Transfer Credit for Nursing Courses

Transfer credit for nursing courses are rarely awarded toward a BSN degree in the KSU Nursing Program. In order for any course to be considered for transfer credit, the nursing course must be from an accredited nursing program and evaluated and approved by the Director or designee. The course must also have been completed within the past two years and a grade of "B" or better, received in the course. Transfers will be considered only if there is an open available space in the Nursing Program.

#### Enrollment Requirements

Criteria for progression to the junior and senior year and graduation from the baccalaureate degree program are as follows:

- A student must receive at least a "C" in all nursing prerequisite courses prior to beginning the Nursing program.
- A student must receive at least a "C" in all nursing courses to progress.
- A student may repeat only one nursing course.
- A grade less than "C" in any two nursing courses will result in being dismissed from the program.
- Students who are dismissed are not eligible to reapply to the Nursing program; however, they may make a formal appeal of the dismissal decision as described below.

If a student leaves the program temporarily, whether by choice or because of failure, readmission to the nursing sequence is not guaranteed. Eligible students who drop out of the nursing sequence for any reason will be readmitted to the sequence on a space-available basis. Students will be accommodated in rank order according to their GPA. Students interested in reentry must notify the Director in writing of their interest. If a student has been

on a leave from the nursing program for more than 24 months, the student will need to reapply for admission to the program and repeat the entire sequence of required nursing courses.

#### *Admission, Progression, and Retention Decision Appeals*

A formal appeal of a decision to deny admission, to delay progression, or to dismiss a student from the Wellstar School of Nursing may be made to the Admissions, Progression and Retention Committee within 30 days of notification. Prior to an appeal, students are encouraged to meet with the Associate Director of the WSON for Undergraduate Programs or designee. The committee will review the student appeal, WSON academic and clinical history, and any exceptional or extenuating circumstances. The committee will notify the student of the decision in writing. If a student wishes to appeal the decision of the Admissions, Progression and Retention Committee, a formal appeal must be submitted in writing to the Director of the Wellstar School of Nursing or designee within 30 days of receipt of notification of the Committee's decision. The decision of the Director is final.

For students readmitted to the Nursing Program through the appeals process, should they fail one or more courses in the nursing curriculum, they will be dismissed from the program again but may make a formal appeal of the dismissal decision as previously described.

#### *Core Performance Standards*

The Wellstar College of Health and Human Services has adopted core performance standards for admission and progression within the nursing major. These standards identify the abilities and skills necessary to perform in an independent manner. If a student admitted to the program believes that they cannot meet one or more of the standards without accommodations or modifications, then the student should notify the Director of the School of Nursing (or designee) in writing. The nursing program will determine, on an individual basis, whether or not necessary accommodations or modifications can reasonably be made. Core performance standards for admission and progression are contained in the WSON Student Handbook for the Undergraduate Nursing Program (which is available online at the Wellstar School of Nursing website), and on the acceptance contract for admission to the nursing program.

#### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

#### *Licensing Exam*

The program of study in nursing offers the opportunity to obtain a BSN degree. After completion of the degree, graduates will be eligible to apply to take the National Council Licensure Examination for Registered Nurses (NCLEX) to practice as a registered nurse (R.N.). All applicants must be aware that the state examining board has the right to refuse to grant

a registered nurse license to any individual regardless of educational credentials under circumstances of (1) falsification of application for licensure (2) conviction of a felony or crime of moral turpitude; other moral and legal violations specified in the Georgia law.

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **General Education Core Curriculum Requirements Specific to This Major**

Students must take a two-semester laboratory sequence for Area D2. Students can choose from CHEM 1151/L & 1152/L, CHEM 1211/L & 1212/L, PHYS 1111/L & PHYS 1112/L, or BIOL 1107/L & 1108/L. See the individual degree program requirement section for majors with these requirements.

### **Lower division major requirements (Area F) (18 Credit Hours)**

- BIOL 2251: Anatomy & Physiology I
- BIOL 2251L: Anatomy & Physiology I Laboratory
- BIOL 2252: Anatomy & Physiology II
- BIOL 2252L: Anatomy & Physiology II Laboratory
- BIOL 2260: Foundations of Microbiology
- BIOL 2260L: Foundations of Microbiology Laboratory
- PSYC 1101: Introduction to General Psychology
- STAT 1401: Elementary Statistics

### **Major Requirements (55 Credit Hours)**

- NURS 3209: Theoretical Basis for Holistic Nursing & Health
  - NURS 3302: Professionalism and Ethics in Nursing
  - NURS 3303: Clinical Pharmacology for Nurses
  - NURS 3304: Clinical Pathophysiology for Nurses
  - NURS 3309: Health Assessment
  - NURS 3313: Adult Health Nursing
  - NURS 3314: Mental Health Nursing
  - NURS 3318: Parent-Child Nursing
  - NURS 4402: Nursing Research for Evidence-based Practice
  - NURS 4412: Community Health Nursing
  - NURS 4414: Complex Health Nursing
  - NURS 4419: Nursing Leadership Practicum: Transition to Practice
- One (1) Carry-Over Hour from Core Curriculum Area D **Credits / Units: 1**

**Nursing Electives (3 Credit Hours)**

- IPE 4413: Interprofessional Care and Collaboration  
Or Any NURS 3000 or NURS 4000 course, not a part of the nursing program major requirements

**Free Electives (2 Credit Hours)**

Any course in the university curriculum.

***Program Total (120 Credit Hours)***

# **Public Health Education, B.S.**

## **Program Description**

The Bachelor of Science in Public Health Education program is offered through the Department of Health Promotion and Physical Education and is based on the Seven Areas of Responsibility for an entry-level health educator delineated by the National Commission for Health Education Credentialing, which represents a comprehensive set of competencies defining the knowledge and skills required of a health education specialist in a variety of job settings (NCHEC, 2006). The program is designed to:

- Prepare students with the knowledge and skills to assess community needs and design, implement, and evaluate public health education programs.
- Focus on improving quality of life and overall well-being of individuals, worksites, and communities through behavioral, environmental, and policy-based initiatives.
- Prepare students for entry to mid-level positions in public health departments, community-based health organizations, outreach education programs, health care settings, private health organizations, and corporate wellness settings as well as advanced studies in Public Health.
- Prepare students to work collaboratively in interdisciplinary teams, patient care coordination, quality improvement for strategic planning and systems redesign, community engagement, community needs assessment, and health coaching.
- Prepare students for the Certified Health Education Specialist (CHES) exam.

This program is a part of the Wellstar College of Health and Human Services.

## **Admission, Enrollment, and Graduation Policies**

### **Admission Requirements**

Admission to the Public Health Education program is separate from 5.0 Program Requirements & Graduation to Kennesaw State University. Students must meet the program requirements outlined below to pursue this degree. As a gated program, formal admission into the Bachelor of Science in Public Health Education program is based on the following criteria:

1. Completion of 30 overall course credits including a "C" or better in the following courses: WELL 2000, PHE 2000, and PHE 2100.
2. An Institutional GPA of 2.5 or higher (please note that maintaining a 2.5 GPA is required for continued program admission and entry into PHE 4750).

3. Completion of the online Public Health Education application form, which includes the following:
  - Personal essay that reflects career goals and documentation of up to three hours of public health-related volunteer, extra-curricular, and/or research experience (within the past year - vKSU is a great resource for this).
  - HPE Department Referral
  - Completion of a current Public Health Education course check sheet (which must be signed by your advisor and includes planned courses of study).
  - Appropriate academic and professional behavior exhibited in classes, academic and field-related experiences, and in interactions with peers, faculty, staff, and community members as documented in PHE Student Dispositions, instructors' feedback, and additional documentation when applicable.

The required Bachelor of Science in Public Health Education program application materials should be completed in consultation with the student's assigned academic advisor to review and verify academic records and to plan courses of study.

### Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### ***General Education Core Curriculum Requirements Specific to This Major***

Students must take a two-semester laboratory sequence in Area D2. Students can choose from CHEM 1151/L & 1152/L, CHEM 1211/L & 1212/L, PHYS 1111/L & PHYS 1112/L, or BIOL 1107/L & 1108/L.

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- PHE 2000: Writing and Analysis for Public Health Education
  - PHE 2100: Introduction to Public Health Education
  - PHE 2400: Behavior Theory and Applications
  - WELL 2000: Foundations of Health and Wellness
  - HPAL 2250: Anatomy and Physiology for Health and Physical Activity Leadership
  - HS 2300: Cultural Competence in the Human Services
- One additional hour from General Education Area D2

### **Program Requirements (42 Credit Hours)**

***Public Health Education Core (30 Credit Hours)***

- PHE 3150: Applied Analytic Techniques in Public Health Education
  - PHE 3400: Disease Prevention and Management
  - PHE 3850: Fundamentals of Program Planning
  - PHE 4200: Introduction to Community and Worksite Health
  - PHE 4300: Environmental Health Issues
  - PHE 4350: Methods of Public Health Education Research
  - PHE 4500: Epidemiology
  - PHE 4600: Program Implementation and Evaluation
  - PHE 4650: Health Coaching and Patient Education
  - PHE 4710: Introduction to Public Health Education Internship
  - PHE 3330: Health Systems & Health Policy
- OR
- NURS 3330: Health Systems and Health Policy

***Public Health Education Capstone (12 Credit Hours)***

- PHE 4750: Public Health Education Seminar and Internship

***Major Related Electives (9 Credit Hours)***

Any 2000 - 4000 level courses with the following prefix: PHE, HPE, IHS, IPE, HS, ES, NURS, SOCI, PSYC, COM, ORGC, TCOM

***Free Electives (9 Credit Hours)***

Any course offered by the university regardless of prefix.

***Program Total (120 Credit Hours)***

# **Sport Management, B.S.**

## **Program Description**

The Sport Management major program is designed for students seeking an interdisciplinary approach to sport and recreation management. The major prepares students for entry into a wide array of career paths within the sport marketplace. Career opportunities include, but are not limited to, marketing of goods and services within professional and amateur sport, management of public and commercial recreation programs and facilities, electronic and print communication positions within sport organizations or sport media outlets and, sales and marketing in the fitness and health club industries. For admission to the program and further information, please contact the ESSM Advising Center office (HS 1003) at [ESSMAdvising@kennesaw.edu](mailto:ESSMAdvising@kennesaw.edu).

This program is a part of the Wellstar College of Health and Human Services.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

To declare the Sport Management major in addition to the general Admissions requirements to Kennesaw State University, students must meet the following requirements:

Applicants must have a 2.5 cumulative grade point average with a minimum grade of "C" in each required course for admission including:

- POLS 1101
- ENGL 1102
- ACCT 2101
- ECON 2106
- SM 2100
- SM 2200

No more than two attempts per course will be permitted. Transfer courses considered equivalent by the transfer review process will be allowed.

### Enrollment Requirements

Students admitted to the program must earn a grade of "C" or better in each required course within the Sport Management curriculum of which only two attempts per course will be allowed to earn the degree. Students falling below a 2.0 will not be eligible for Sport Management courses.

## Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 Program Requirements & Graduation .

## **Program Course Requirements**

### **General Education Core Curriculum (Areas A-E) (42 Credit Hours)**

General Education Core Curriculum

### **Lower Division Major Requirements (Area F) (18 Credit Hours)**

- SM 2100: Introduction to Sport Management
- SM 2200: History and Contemporary Aspects of Sport
- SM 2400: Sports Information and Media
- ACCT 2101: Principles of Accounting I
- ECON 2106: Principles of Microeconomics
- COMM 1110: Public Speaking

### **Major Requirements (33 Credit Hours)**

#### **Sport Management Core (27 Credit Hours)**

- SM 3000: Practicum in Sport Management
- SM 3050: Legal Aspects of Sports
- SM 3100: Sport Sociology
- SM 3200: Leadership and Management of Sport Organizations
- SM 3500: Sponsorship and Fundraising in Sport
- SM 4700: Sports Economics
- SM 4800: Sports Finance
- SM 4850: Sport Event Management
- SM 4875: Sport Facility Design and Management
- SM 4925: Senior Seminar

#### **Sport Management Senior Experience (6 Credit Hours)**

- SM 4950: Senior Internship in Sport Management

#### **Sport Management Electives (21 Credit Hours)**

Select 21 credit hours from the following courses:

- SM 3398: Internship \*
- SM 3600: Sports Broadcasting

- SM 3700: Sport Governance
- SM 3900: Foundations of Recreation and Leisure
- SM 4200: Recreation Programming
- SM 4300: Commercial Recreation and Tourism
- SM 4400: Directed Study \*
- SM 4490: Special Topics in Sport Management \*
- SM 4600: Research Methods in Sport Management
- SM 4650: Sports Analytics
- \* repeatable up to 6 credit hours
  
- SM 3650: Sport and Film
- SM 3750: Inclusive Recreation Opportunities and Development
- SM 3800: Youth Sport
- SM 3850: Technology and Innovation in Sport
- SM 3950: Sport Ethics
- SM 4100: International Sport Management
- SM 4150: Diversity, Equity, and Inclusion in Sport Management
- SM 4950: Senior Internship in Sport Management
- ENTR 3001: Entrepreneurial Thinking
- HPAL 3050: Coaching Principles
- HPAL 3100: Behavioral and Psychological Aspects of Physical Activity and Coaching
- HPAL 3395: Coaching Practicum
- MKTG 3100: Principles of Marketing
- MKTG 4870: Sports Marketing

### **Advanced Coaching Method Courses**

Student may only take up to six credit hours of the following courses:

- HPAL 3055: Advanced Coaching Methods for Basketball
- HPAL 3061: Advanced Coaching Methods for Football
- HPAL 3065: Advanced Coaching Methods for Soccer
- HPAL 3075: Advanced Coaching Methods for Softball
- HPAL 3085: Advanced Coaching Methods for Tennis
- HPAL 3090: Advanced Coaching Methods for Strength and Conditioning
- HPAL 3095: Advanced Coaching Methods for Volleyball

### **Free Electives (6 Credit Hours)**

Select any courses from KSU Curriculum

### **Program Total (120 Credit Hours)**

# **Child Advocacy Studies Certificate - Embedded**

## **Contact Information**

WellStar College of Health and Human Services – Social Work and Human Services  
Department  
(470) 578-6630  
<https://wellstarcollege.kennesaw.edu/swhs/>

## **Program Description**

The Child Advocacy Studies curriculum focuses on experiential, interdisciplinary, ethical, and culturally sensitive content that provides professionals working with children a common knowledge base for responding to child maltreatment. This program concentrates on developing students' understanding of the numerous factors that lead to child maltreatment and existing responses to child maltreatment. The goal is to prepare students to work effectively within systems and institutions that respond to these incidents. Students will learn about the various disciplinary responses to child maltreatment and develop a multidisciplinary understanding of the most effective responses. Students completing the courses in this program will be better equipped to carry out the work of agencies and systems (health care, criminal justice, and social services) as they advocate on behalf of the needs of children as victims and survivors of child abuse.

Admission requirements for this undergraduate certificate include:

- A minimum institutional cumulative GPA of 2.5;
- A statement regarding your interest in the certificate and your proposed career goals; and
- A completed criminal background check (Note: The associated fee is assumed by the student and can be completed at the student's local sheriff or police department).

*Note 1: HS 3300 Human Socialization or ECE 2250 Child Development and Early Learning or PSYC 2103 Introduction to Human Development or SOCI 3364: Sociology of the Family serves as a prerequisite course for HS 3950 and HS 3960. Students should complete one of these courses prior to applying for admission into the CAST Program. Students must make a "C" or better in all courses related to the certificate program for credit.*

*Note 2: Students interested in the CAST Certificate should apply for the program at the beginning of their studies, but no later than after the completion of the required CAST courses of HS 3950 or HS 3960.*

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

- HS 3950: Perspectives on Child Maltreatment and Child Advocacy
- HS 3960: Professional and System Responses to Maltreatment
- HS 4950: Advanced Internship for Human Services Professionals

### **Elective (3 Credit Hours)**

Undergraduate students may select one from the following recommended concentration electives:

- HS 3900: Dynamics of Family Violence
- HS 3970: Global Child Advocacy
- HS 4600: Working with Children and Youth
- CRJU 4430: Victimology
- PSYC 3340: The Psychology of Family Interaction: A Developmental Perspective

### **Program Total (15 Credit Hours)**

# **Coaching Education Certificate**

## **Program Description**

The Certificate in Coaching Education is designed to respond to the critical need for quality coaches. Coaches can positively impact young lives by showing athletes the value of teamwork, the benefits of hard work, and how a good strategy can lead to results on and off the field. The program of study prepares prospective coaches on how to work with athletes at various age and ability levels, from physical preparation to understanding the emotional, social, and cognitive needs of athletes. Graduates will have the knowledge, skills and professional attitudes and behaviors necessary for an entry level coaching professional in schools, sports clubs, community programs, colleges, or other athletic organizations.

The Certificate in Coaching Education curriculum is based on the National Standards for Sport Coaching issued by SHAPE America and involves aspects of physical education pedagogy, health promotion, injury prevention, and kinesthetic principles of preparing athletes for performance. The curriculum includes advanced sport-specific coaching methodology courses and a required coaching practicum in a sport setting. All students will complete a 12-credit hour core and choose two sport specific advanced coaching methods courses for a total of 18 credit hours.

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

- HPE 2300: First Aid/CPR Instructor Training
- HPAL 3050: Coaching Principles
- HPAL 3395: Coaching Practicum
- HPAL 3100: Behavioral and Psychological Aspects of Physical Activity and Coaching

### **Electives (6 Credit Hours)**

Select two of the following:

- HPAL 3055: Advanced Coaching Methods for Basketball
- HPAL 3061: Advanced Coaching Methods for Football
- HPAL 3065: Advanced Coaching Methods for Soccer
- HPAL 3075: Advanced Coaching Methods for Softball
- HPAL 3085: Advanced Coaching Methods for Tennis
- HPAL 3090: Advanced Coaching Methods for Strength and Conditioning
- HPAL 3095: Advanced Coaching Methods for Volleyball

### **Program Total (18 Credit Hours)**

# **Nonprofit Management and Social Innovation Certificate**

## **Contact Information**

**Website:** <https://wellstarcollege.kennesaw.edu/swhs/>

**Phone:** (470) 578-6630

**Email:** [swhs@kennesaw.edu](mailto:swhs@kennesaw.edu)

## **Program Description**

Through a partnership with the Nonprofit Leadership Alliance, a national collaborative of nonprofit, academic, and private partners, the Department of Social Work and Human Services offers an academic experience-based approach to preparing students for administrative and leadership roles in the growing nonprofit sector. Students must meet criteria for acceptance into the Nonprofit Leadership Alliance Certificate program (see Campus Executive Director). Completion of this Certificate's requirements can also result in students receiving national credentialing (Certified Nonprofit Practitioner). Certificate program participants acquire an academic and on-the-job education in 10 core competencies: Communication, Marketing, & Public Relations; Cultural Competency & Diversity; Financial Resource Development and Management; Foundations and Management of the Nonprofit Sector; Governance, Leadership & Advocacy, Legal & Ethical Decision Making; Personal & Professional Development; Program Development; Volunteer & Human Resource Management; and the Future of the Nonprofit Sector.

## **Admission, Enrollment, and Graduation Policies**

### Admissions Requirements

#### *Certificate Requirements*

Students must demonstrate completion of:

- Nonprofit Competencies: identified and validated by the nonprofit sector, the competencies outline the knowledge, skills, and abilities; needed to lead and manage a nonprofit organization;
- Internship Experience: 300-hour internship or professional employment with a nonprofit organization;
- Leadership and Service Activities: demonstrated community leadership skills in diverse situations; and
- Baccalaureate Degree or enrollment in a KSU major leading to a Baccalaureate Degree.

## Qualifications

Interested students may enroll in this program by contacting the Campus Executive Director of the KSU Nonprofit Leadership Alliance who is housed in the Department of Social Work and Human Services and completing the online application available at [wellstarcollege.kennesaw.edu/swhs/](http://wellstarcollege.kennesaw.edu/swhs/). To qualify for the program, students must:

- Earn and be able to maintain an Institutional GPA of 2.5 or higher (or have earned a Bachelor's Degree from an accredited institution);
- Complete the online application, which includes a 150-word personal statement describing his/her interest in the certificate program and how the certificate program will benefit his/her future career trajectory.

For the purposes of credentialing and national certification through The National Nonprofit Leadership Alliance, NLA requires a direct payment of \$100.00 be made for affiliation, certification and credentialing and attendance at an Alliance approved conference, such as Elevate or AFP (with the approval of the Campus Executive Director).

Note: Students who do not affiliate with the National Nonprofit Leadership Alliance Organization can still receive their KSU Certificate in Nonprofit Management and Leadership, but will not receive national credentialing through the Nonprofit Leadership Alliance.

## Program Course Requirements

### Required Courses (18 Credit Hours)

- HS 2200: Fundamentals of Nonprofits
- HS 3650: Governance, Advocacy, and Leadership in Nonprofits
- HS 4100: Grant Writing and Fundraising
- HS 4200: Human Resources for Nonprofit Organizations
- HS 4950: Advanced Internship for Human Services Professionals

*Note: \* HS 4950 Advanced Internship for Human Services Professionals may be substituted for non-degree seeking students with significant work experience or for non Human Service majors enrolled in an equivalent course through the student's major degree program upon approval by the Campus Executive Director of the KSU Nonprofit Leadership Alliance Certificate Program. \* Students enrolling in HS 4950 should register for the nonprofit administration section*

### Elective Courses (6 Credit Hours)

Select two from the following (or two other courses with approval of the Campus Executive Director)

- HS 3600: Program Development and Evaluation
- HS 3800: Social Entrepreneurship and Enterprise
- HS 3850: Introduction to Nongovernmental Organizations and Development
- HS 4300: Education Abroad in Human Services
- HS 4490: Special Topics in Human Services
- MGT 3100: Management and Behavioral Sciences
- POLS 3343: Principles of Public Administration
- SOCI 3304: Social Organization
- MKTG 3100: Principles of Marketing

***Program Total (24 Credit Hours)***

# **Recreational Sport Management Certificate- Embedded**

Contact: Dr. Joshua Pitts , SM Program Coordinator  
Bachelor of Science Degree  
WellStar College of Health and Human Services  
Department of Exercise Science and Sport Management  
(470) 578-7600

## **Program Description**

The field of recreation management has changed over the years. Recreation professionals have moved from a field of resource management toward a field of program development and entrepreneurship. This certificate will help prepare students for the current demands of the recreation professions. Admission into the program will be a current Kennesaw State Student with a 2.75 AGPA, completion of Introduction to Sport Management (SM 2100), and a completed application.

Student must participate in a 60 hour recreation or leisure volunteer experience (The ESSM Internship coordinator will monitor and approve these volunteer activities. These experiences will be non-course credit hours. You must provide proof of participation and/go through VKSU.)

## **Program Course Requirements**

### **Required Courses**

- SM 3200: Leadership and Management of Sport Organizations
- SM 3900: Foundations of Recreation and Leisure
- SM 4200: Recreation Programming
- SM 4300: Commercial Recreation and Tourism
- SM 3500: Sponsorship and Fundraising in Sport

***Certificate Total (18 Credit Hours)***

# **Sports Analytics Certificate-Embedded**

## **Contact Information**

Website: <https://wellstarcollege.kennesaw.edu/essm/>

Phone: (470) 578-7600

## **Program Description**

This certificate will equip students with the necessary knowledge and skills to utilize data to explain current trends in the sports marketplace. Students will acquire the ability to collect and interpret data using applications and theories from sport management, economics, and statistics.

## **Program Course Requirements**

### **Required courses (15 Credit Hours)**

- ECON 2106: Principles of Microeconomics
- SM 2100: Introduction to Sport Management
- SM 4600: Research Methods in Sport Management
- SM 4650: Sports Analytics
- SM 4700: Sports Economics

# **Child Advocacy Studies, Minor**

## **Contact Information**

Website: [wellstarcollege.kennesaw.edu/swhs/cast/index.php](http://wellstarcollege.kennesaw.edu/swhs/cast/index.php)

Phone: (470) 578-6630

## **Program Description**

The Child Advocacy Studies (CAST) minor focuses on experiential, interdisciplinary, ethical, and culturally sensitive content that provides professionals working with children a common knowledge base for responding to child maltreatment. The minor concentrates on developing students' understanding of the numerous factors that lead to child maltreatment and existing responses to child maltreatment. The goal is to prepare students to work effectively within systems and institutions that respond to these incidents. Students will learn about the various disciplinary responses to child maltreatment and develop a multidisciplinary understanding of the most effective responses. Students completing the courses in this program will be better equipped to carry out the work of agencies and systems (health care, criminal justice, and social services) as they advocate on behalf of the needs of children as victims and survivors of child abuse. Students must complete a field placement experience of a minimum of hours.

## **Admission, Enrollment, and Graduation Policies**

### Admission Requirements

- Institutional GPA of 2.5 or higher
- Updated Resume
- Program Application
- Local Criminal Background Check (Students may contact the local sheriff or police department)

## **Program Notes:**

1. HS 3300 or ECE 2250 or PSYC 2103 or SOCI 3364 serve as the prerequisite course for HS 3950 and HS 3960. Students should complete one of these courses before declaring the minor.
2. Students must earn a "C" or better in all courses related to the minor for credit.
3. Students interested in the CAST minor should declare at the beginning of their studies, but no later than after the completion of HS 3950 or HS 3960. Students declaring the minor must also complete the program application

4. Students selecting an elective course not on the approved list must get approval to use the course in their program of study from the CAST Coordinator or the HS Program Director prior to enrolling in the course.
5. A completed criminal background check may be required by the student's proposed internship site. The results of the background check may prohibit placement and lead to the student not being able to complete the minor.

## **Program Course Requirements**

### **Required Courses (12 Credit Hours)**

- HS 3950: Perspectives on Child Maltreatment and Child Advocacy
- HS 3960: Professional and System Responses to Maltreatment
- HS 4950: Advanced Internship for Human Services Professionals or a practicum/internship course in the student's major with preapproval from the CAST Program Coordinator/HS Program Director\*

\*Students in the CAST program must complete a field placement experience (i.e., internship or externship or coop) of 120 hours. Minors may use a practicum/internship course in their major provided they meet this standard and have the approval of the CAST Program Coordinator/Human Services Program Director prior to beginning the course. Prior approval is needed in order to ensure CAST learning outcomes are met along with the minimum number of hours. If the course is less than six (6) credit hours, then the student can make-up the additional credit hours needed for the minor by completing a second CAST elective(s).

### **CAST Electives (3 Credit Hours)**

Select one of the following:

- HS 3900: Dynamics of Family Violence
- HS 3970: Global Child Advocacy
- HS 4600: Working with Children and Youth
- IPE 4413: Interprofessional Care and Collaboration
- CRJU 4430: Victimology
- PSYC 3340: The Psychology of Family Interaction: A Developmental Perspective
- PSYC 4460: Child Psychopathology

### **Program Total (15 Credit Hours)**

# **Coaching Minor**

## **Contact Information**

Website: <http://wellstarcollege.kennesaw.edu/hpe/>

Phone: (470) 578-6216

## **Program Description**

The Coaching Minor is offered through the Department of Health Promotion and Physical Education. It is designed to prepare future coaches for leadership in a variety of sport settings. The minor includes three (3) foundational classes, along with a minimum of two additional advanced level sport-specific classes in coaching methodology, plus one practicum experience.

Students must have a 2.5 GPA in Coaching Minor coursework to be eligible for the coaching practicum.

## **Program Course Requirements**

### **Required Courses (9 Credit Hours)**

- HPAL 3050: Coaching Principles
- HPAL 3100: Behavioral and Psychological Aspects of Physical Activity and Coaching
- HPE 2300: First Aid/CPR Instructor Training

### **Advanced Coaching Courses (6 Credit Hours)**

Choose two of the following:

- HPAL 3055: Advanced Coaching Methods for Basketball
- HPAL 3061: Advanced Coaching Methods for Football
- HPAL 3065: Advanced Coaching Methods for Soccer
- HPAL 3075: Advanced Coaching Methods for Softball
- HPAL 3085: Advanced Coaching Methods for Tennis
- HPAL 3090: Advanced Coaching Methods for Strength and Conditioning
- HPAL 3095: Advanced Coaching Methods for Volleyball

### **Practicum Requirement (3 Credit Hours)**

This is a capstone experience and should be taken as the final requirement for the Coaching Minor.

- HPAL 3395: Coaching Practicum

**Program Total (18 Credit Hours)**

*Minor must be declared prior to registering for HPE 3395. HPE 3395 is graded as S (Satisfactory) or U (Unsatisfactory). A 2.5 GPA in Coaching Minor coursework is required to be eligible for the Coaching Practicum*

# **Nonprofit Management and Social Innovation Minor**

## **Program Description**

Nonprofit organizations comprise one of the fastest-growing employment sectors, creating a high demand for graduates with skills to work for these diverse types of organizations. The Minor in Nonprofit Management and Social Innovation offers a unique program of study to students interested in a career, leadership, and/or volunteer experience within the nonprofit sector. Through the minor, students enhance their undergraduate education in nine (9) core competencies including Communication, Marketing, & Public Relations; Cultural Competency & Diversity; Financial Resource Development and Management; Foundations and Management of the Nonprofit Sector; Governance, Leadership & Advocacy, Legal & Ethical Decision Making; Program Development; Volunteer & Human Resource Management; and the Future of the Nonprofit Sector. Students also have the opportunity to engage in career development in the introductory course and the Human Resource Management course. Coursework and co-curricular experiences prepare students for occupations, volunteer experiences, and/or graduate study in nonprofit management, leadership, and social innovation.

Students seeking the B.S. in Human Services with a concentration in Nonprofit Management and Social Innovation are not eligible to complete this minor.

## **Program Course Requirements**

### **Required Courses (9 credits)**

Students must complete the required courses for the minor.

- HS 2200: Fundamentals of Nonprofits (Minors should begin with this course)
- HS 3650: Governance, Advocacy, and Leadership in Nonprofits
- HS 4200: Human Resources for Nonprofit Organizations

### **Elective Courses (6 credits)**

Students select 6 credits of electives coursework. Note: Students seeking an elective course not appearing on the list may request a substitution from the Program Director prior to registration of the requested course.

- HS 3600: Program Development and Evaluation
- HS 3800: Social Entrepreneurship and Enterprise
- HS 4100: Grant Writing and Fundraising
- HS 4300: Education Abroad in Human Services
- HS 4400: Directed Study in Human Services
- HS 4490: Special Topics in Human Services

- ACCT 2101: Principles of Accounting I
- ACCT 4600: Governmental and Not-for Profit Accounting
- MKTG 3100: Principles of Marketing
- SOCI 3304: Social Organization
- TCOM 3020: Grants and Proposals
- HS 3850: Introduction to Nongovernmental Organizations and Development  
Or
- POLS 3850: Introduction to Nongovernmental Organizations and Development

***Program Total (15 Credit Hours)***

# **Nutritional Science Minor**

## **Contact Information**

Website: <https://wellstarcollege.kennesaw.edu/essm/>

Phone: (470) 578-7600

## **Program Description**

The online undergraduate minor in Nutritional Science aims to offer students an introduction to the area of human nutrition. In particular, students will gain a foundation of knowledge in nutrient chemistry, food systems, public health policies, nutrition education and the relationships between nutrition, health, disease and the life-cycle. A minor in Nutritional Science will benefit students who intend to pursue a career in food, health, fitness, medicine, hospitality and other health-related professions. Students need to complete 15 credit hours in this minor program, which includes two (2) foundational classes, along with a minimum of three (3) additional advanced level nutrition courses. Students must earn a 'C' or better in all courses for the minor. All prerequisites must be completed in order to enroll in the respective course. Additionally, at least 9 hours of this minor must be non-duplicative with the course requirements of the student's major.

## **Program Course Requirements**

### **Required Courses (6 Credit hours)**

- ES 2500: Principles of Nutrition
- ES 3105: Lifecycle Nutrition

### **Elective Courses (9 Credit Hours):**

Select nine credit hours from the following:

- ES 3300: Food Science
- ES 3420: Food and Culture
- ES 3500: Nutritional Assessment
- ES 4050: Community Nutrition
- ES 4120: Weight Management
- ES 4200: Nutrition and Performance
- ES 4250: Advanced Human Nutrition

### **Program Total (15 Credit Hours)**

# **Public Health Minor**

## **Contact Information**

Website: <https://wellstarcollege.kennesaw.edu/hpe/phe-minor/index.php>

Phone: (470) 578-6216

## **Program Description**

The Public Health (PH) Minor is offered through the Department of Health Promotion and Physical Education and is designed to expose students to the broad field of public health with a focus on understanding the determinants of health, improving quality of life and overall well-being through evidence-based initiatives, and expanding the credentials of students entering health related professions.

The PH Minor includes 15 credit hours of study, 6 credits in the Public Health Minor Core and 9 credits in Public Health Minor Electives.

## **Program Course Requirements**

### **Required Courses (6 Credit Hours)**

- PHE 2100: Introduction to Public Health Education
- WELL 2000: Foundations of Health and Wellness

### **Minor Electives (9 Credit Hours)**

#### *Upper Division PHE Electives (6 Credit Hours)*

Select two of the following:

- PHE 3150: Applied Analytic Techniques in Public Health Education
  - PHE 4300: Environmental Health Issues
  - IPE 4413: Interprofessional Care and Collaboration
  - PHE 4500: Epidemiology
  - NURS 3330: Health Systems and Health Policy
- OR
- PHE 3330: Health Systems & Health Policy

#### *Upper Division Electives (3 Credit Hours)*

Any one 3000 - 4000 level course with the following prefix: PHE, HPE, IHS, IPE

### **Program Total (15 Credit Hours)**

# **Academic, Social, and Career Enrichment**

## **Contact Information**

Website: <https://wellstarcollege.kennesaw.edu/academy/certifications/details-asce.php>

Phone: (470) 578-2283

Email: [academyadmissions@kennesaw.edu](mailto:academyadmissions@kennesaw.edu)

## **Program Description**

The Academy for Inclusive Learning and Social Growth offers a fully inclusive post-secondary college education and experience to students with different intellectual or developmental abilities who do not meet higher-education requirements for admission as a degree-seeking student. The Academic, Social, and Career Enrichment (ASCE) foundational program offers a fully inclusive college experience including audit enrollment in typical university courses alongside degree-seeking peers as well as specific ASCE courses designed to combine social integration and provide opportunities for career exploration and training.

## **Admission, Enrollment, and Graduation Policies**

### Admission

Please see this website for complete admission information: <https://wellstarcollege.kennesaw.edu/academy/admission/criteria-process.php>

## **Program Course Requirements**

### **Required Courses (36 Credit Hours)**

- AIAE 0101: Introduction to ASCE I
- AIAE 0102: Introduction to ASCE II
- AIAE 0103: Professional Communication I
- AIAE 0104: Professional Communication II
- AIAE 0105: Career Preparation and Internship I
- AIAE 0106: Career Preparation and Internship II
- AIAE 0201: Managing Personal Resources I
- AIAE 0202: Managing Personal Resources II
- AIAE 0203: Intermediate Professional Communications I
- AIAE 0204: Intermediate Professional Communications II
- AIAE 0205: Career Preparation and Internship III
- AIAE 0206: Career Preparation and Internship IV

**Elective Courses (12 Credit Hours)**

Students will select four courses to audit. Please see program coordinator for elective choices.

***Program Total (48 Credit Hours)***

# **Advanced Leadership and Career Development**

## **Contact Information:**

Website: <https://wellstarcollege.kennesaw.edu/academy/certifications/details-alcd.php>

Phone: (470) 578-2283

Email: [academyadmissions@kennesaw.edu](mailto:academyadmissions@kennesaw.edu)

## **Program Description**

The Academy for Inclusive Learning and Social Growth offers a fully inclusive post-secondary college education and experience to students with different intellectual or developmental abilities who do not meet higher-education requirements for admission as a degree-seeking student. The Advanced Leadership and Career Development Certificate (ALCD) is designed for students who have been successful in completing an introductory inclusive post-secondary program. ALCD focuses on four key areas: Academic, Social, Career, and Leadership. The ALCD program enhances career skills of students enrolled. It also allows students to grow socially, experience leadership opportunities, and receive inclusive access to KSU academic courses with student mentor support. Themed on-campus housing is available for interested participants.

## **Admission, Enrollment, and Graduation Policies**

### Admission

Please see this website for complete admission information: <https://wellstarcollege.kennesaw.edu/academy/admission/criteria-process.php>

## **Program Course Requirements**

### **Required Courses (36 Credit Hours)**

- AIAE 0301: Advanced Professional Communications I
- AIAE 0302: Advanced Professional Communications II
- AIAE 0303: Leadership Seminar I
- AIAE 0304: Leadership Seminar II
- AIAE 0305: Career Preparation and Internship V
- AIAE 0306: Career Preparation and Internship VI
- AIAE 0401: Advanced Professional Communications III
- AIAE 0402: Advanced Professional Communications IV
- AIAE 0403: Leadership Seminar III
- AIAE 0404: Leadership Seminar IV
- AIAE 0405: Career Preparation and Internship VII
- AIAE 0406: Career Preparation and Internship VIII

**Elective Courses (12 Credit Hours)**

Students will select four courses to audit. Please see program coordinator for elective choices.

***Program Total (48 Credit Hours)***

# **Undergraduate Courses**

## **ACCT 2101: Principles of Accounting I**

### **3 Credit Hours**

*Prerequisite: Business Majors: ENGL 1101 and MATH 1111 or higher; Non-business Majors: ENGL 1101 and MATH 1101 or higher.*

A study of the underlying theory and application of financial accounting concepts.

## **ACCT 2102: Principles of Accounting II**

### **3 Credit Hours**

*Prerequisite: ACCT 2101*

A study of the underlying theory and application of managerial accounting concepts.

## **ACCT 3100: Intermediate Financial Accounting I**

### **3 Credit Hours**

*Prerequisite: Grade of "B" or higher in ACCT 2101 and ACCT 2102, and minimum GPA of 2.0*

This course focuses on the collection, analysis, and reporting of financial accounting information. The course includes theory and application of financial accounting concepts within the framework of accounting as an information system. The course also covers several technical accounting topics from a preparer's perspective.

## **ACCT 3200: Concepts in Federal Taxation**

### **3 Credit Hours**

*Prerequisite: Grade of "B" or higher in ACCT 2101 and ACCT 2102, and a minimum GPA of 2.0*

Focuses on the fundamental principles and concepts applicable to tax liability determination and tax planning, including an introduction to tax research methodology.

## **ACCT 3300: Accounting Information Systems**

### **3 Credit Hours**

*Prerequisite: ACCT 3100 with minimum GPA of 2.0 and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A continuation of accounting transaction processing concepts; internal controls and systems analysis and design.

## **ACCT 3397: Internship and Experiential Learning in Accountancy**

### **0-12 Credit Hours**

*Prerequisite: Admission to the Coles College Undergraduate Professional Program, a grade of "C" or better in ACCT 3100, approval of the Career and Internship Advisor (KSU Career Planning and Development), and a minimum GPA of 3.0.*

This is a supervised work experience of one academic semester with a previously approved business firm, private agency or government agency. This course is designed to provide hands-on experiences and challenges to help students develop and improve their skills and problem-solving abilities. Prior to enrolling in this course, students are responsible for working with their Career & Internship Advisor to secure an approved internship position. Current and prior work experience does not qualify for credit. Graded assignments are required to receive credit. *Notes: This course will be graded on an S/U basis. This course may only be used in the Business Electives area of a BBA.*

## **ACCT 4050: Intermediate Financial Accounting II**

### **3 Credit Hours**

*Prerequisite: ACCT 3100, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A continuation of intermediate financial accounting theory and applications, with a focus on detailed technical topics and specialized problems.

## **ACCT 4100: Advanced Financial Accounting**

### **3 Credit Hours**

*Prerequisite: ACCT 3100 and ACCT 4050, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Study of specialized topics in financial accounting, including business combinations, consolidations, and partnerships.

## **ACCT 4150: Auditing and Assurance**

### **3 Credit Hours**

*Prerequisite: ACCT 3100 and ACCT 3300, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course teaches audit theory, attestation, and assurance services. It focuses on the concepts of risk, control, evidence, and ethics for financial reporting and internal control purposes.

## **ACCT 4152: Internal Auditing**

### **3 Credit Hours**

*Prerequisite: ACCT 3100 and ACCT 3300, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course covers internal auditing from a broad perspective to gain a further understanding of the internal audit profession as well as governance, risk assessment, controls, and audit concepts that the internal auditors need to know and understand.

## **ACCT 4200: Advanced Managerial Accounting**

### **3 Credit Hours**

*Prerequisite: ACCT 3100, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Focuses on specialized topics in managerial accounting theory and application.

## **ACCT 4250: Advanced Taxation**

### **3 Credit Hours**

*Prerequisite: ACCT 3100 and ACCT 3200, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A continuation of income tax concepts, types of taxpayers, decision making strategies, tax research and planning, professional standards and ethics, and the relationship and differences between financial and tax accounting.

## **ACCT 4300: International Accounting**

### **3 Credit Hours**

*Prerequisite: ACCT 3100 and ACCT 4050, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Introduction to accounting-related skills, tools, and knowledge sets useful in the context of investment in and management of international enterprises. Covers translation of foreign currency financial statements, accounting for foreign-currency transactions and hedges, comparative accounting and disclosure, ethics and other relevant topics.

## **ACCT 4350: Accounting Systems Audit and Control**

### **3 Credit Hours**

*Prerequisite: ACCT 3100 and ACCT 3300, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The study of the control and security of accounting information systems with an auditing perspective. Topics covered include: the quality of information, information technology (IT) audit process, types of IT audits, ethics, fraud, forensic auditing, computer assisted audit tools and techniques, and IT governance.

## **ACCT 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: ACCT 3100, 60 credit hours with a minimum GPA of 3.0, admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course, and approval of instructor and the Director of the School of Accountancy prior to registration. Special topics of an advanced nature not in the regular course offerings.*

## **ACCT 4490: Special Topics in Accounting**

### **3 Credit Hours**

*Prerequisite: ACCT 3100, 60 credit hours with a minimum GPA of 2.0, admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course, and approval of instructor and the Director of the School of Accountancy prior to registration. Selected special topics of interest to faculty and students.*

## **ACCT 4550: Accounting Data Analytics**

### **3 Credit Hours**

*Prerequisite: ACCT 3100, ACCT 3300 and ACCT 4050, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course. Concurrent: ACCT 4150*

Knowledge of and competencies in data analytics has been identified as one of the growing needs for future accountants in all practice fields. This course will introduce students to this topic and have students use hands on analytic tools such as Microsoft Access and other data analysis software.

## **ACCT 4600: Governmental and Not-for Profit Accounting**

### **3 Credit Hours**

*Prerequisite: ACCT 3100, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Study of accounting and reporting practices for state/local governments and not-for-profit organizations. Course includes consideration of current events and other topical issues related to governments and not-for-profit organizations.

## **ACCT 4700: Valuation of Closely Held Businesses**

### **3 Credit Hours**

*Prerequisite: ACCT 3100 and ACCT 3200, FIN 3100, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The study of fundamental concepts and valuation methods used to value a closely held business when there is no established market price. When determining the future benefit stream of a business entity and the associated risk, concepts from finance, economics, accounting and taxation will be incorporated.

## **ACCT 4800: Fraud and Forensic Accounting**

### **3 Credit Hours**

*Prerequisite: ACCT 3100, 60 credit hours with a minimum GPA of 2.0, and admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course will introduce students to a variety of fraud topics, including occupational fraud and fraudulent financial reporting. In addition, the students will explore the foundations of forensic accounting, including fraud examination techniques. The course uses a mix of articles, cases, and classroom discussion.

## **BLCK 1101: Introduction to Black Studies**

### **3 Credit Hours**

This course provides a developmental introduction to the interdisciplinary origins and methods of Black Studies (also known as African & African Diaspora, Africana, African American, and Pan-African Studies). Students compare and contrast historical, cultural, economic, and social phenomena in Africa to African-descended people in the Americas, Europe, Oceania and Asia. Students learn about Black Studies as a field of intellectual inquiry and key contributions of pioneers from a variety of disciplinary backgrounds.

## **BLCK 1102: Issues in Black Studies**

### **3 Credit Hours**

This course provides an overview of key concepts, problems, themes, strategies, and methods of Black Studies (also known as African Diaspora, Africana, African American, and Pan-African Studies). Students explore recent political, economic, and social problems facing the African Diaspora, especially issues of race, class, gender, religion, and ethnicity. Students learn how Black Studies alumni have used their expertise in addressing these issues and how the discipline is relevant to their own career path.

## **BLCK 2100: Career Success with Black Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces students to occupations and job opportunities in the public, private, and non-profit sectors relevant to the field of Black Studies. Students engage in exercises designed to assist in successfully progressing and completing the Black Studies major. Topics include an overview of the Black Studies undergraduate major, career options relevant to Black Studies, preparation for employment with a bachelor's degree, and preparing for and succeeding in graduate school.

## **BLCK 2200: Black Thought Matters**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course offers an introduction to Black Political Thought. It analyzes traditions and trajectories of Black intellectual discourse during the 20th Century. Emphasis is placed on foundational texts in the field of Black Studies, yet students will engage with a range of works representing the diversity of Black thought in the 20th Century. This course examines the goals, viewpoints, and strategies of various intellectuals, social movements, and other political voices from the African Diaspora.

## **BLCK 3100: Black Religion & Spirituality**

### **3 Credit Hours**

This course explores historical, cultural, and societal perspectives of religion and spirituality in the African Diaspora. A salient feature of this endeavor is to explore the Black Church in the United States and its relationship to the spiritual and religious expression of the African Diaspora.

## **BLCK 3200: Race and Technology**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course examines technology as a factor in historical change, emphasizing the role of tools, machines, and systems in revolutions, culture, politics, and economics in Africa and the African diaspora. Students engage historiographical debates and readings on the relationship between race and technology in the recent and distant past. More broadly, students develop a critical understanding of the role of race inquiry in technological knowledge through biographies, case studies, and primary source documents.

### **BLCK 3300: Black Popular Culture**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a critical analysis of popular culture in the US, the Caribbean, African, and/or other region in the African diaspora. A particular offering of the course could focus on a specific area of popular culture in film and/or media (e.g., books, music, sports, language, food, mass consumption or advertising) or a survey several of those topics.

### **BLCK 3310: Introduction to Hip Hop Studies**

#### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

This course is an introduction to Hip Hop Studies. Students will learn the pillars of Hip Hop, map its development from an urban youth culture in New York to a global phenomenon, and use Hip Hop to interrogate shifting ideas of race, gender, and identity in the 20th and 21st centuries. Through an interdisciplinary framework consisting of readings (both critical and creative), music, film, and television, students investigate the implications of the commodification and consumption of Hip Hop Culture.

### **BLCK 3380: Study Abroad**

#### **3 Credit Hours**

*Prerequisite: Junior or Senior status and permission of the instructor.*

This course fulfills the study abroad requirement of the Black Studies BA. The content of the course varies depending on available course offerings, but focuses on locations in Africa or locations significantly influenced by the African Diaspora.

### **BLCK 3390: Black & Minority Entrepreneurship**

#### **3 Credit Hours**

This course explores the history and contemporary challenges of minority-owned businesses in the United States. Students in this course will become familiar with critical issues in entrepreneurship through multicultural and multidisciplinary perspectives of African Americans, Latino/Hispanic-Americans, Asian Americans, Native Americans, and women through critical readings and community-engaged projects.

### **BLCK 3398: Internship**

#### **3-6 Credit Hours**

*Prerequisite: Junior or Senior status and permission of the instructor.*

This course is an out-of-the-classroom structured experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of faculty and the internship supervisor. Internship sites must be secured in advance of the semester of the placement and must be approved by the instructor and internship coordinator.

## **BLCK 3400: Black Activism in Brazil**

### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

This course examines Black Activism in Brazil. The course reviews the history of resistance of Black Brazilians to racism, from slavery to contemporary Brazil. The course also examines the intersections of Black Social Movements with other social movements based on race, gender, and social class. The course analyzes the connections between Black Social movements and Civil Rights and other anti-racist movements in various parts of the African Diaspora, especially the United States.

## **BLCK 3440: Black Biography**

### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

This course introduces the personal narrative as an interdisciplinary approach to researching the global black experience. We examine a range of types and categories in biographical writing including autobiographies and memoirs, political and historical biographies, fugitive and captivity narratives, and fictional biographies.

## **BLCK 3500: The Black Woman**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces students to the experiences, theoretical contributions, and representations of Black women in the United States from feminist, literary, historical, and psychological perspectives. Students learn: (a) the impact of racial and gender oppression in the lived experiences of Black women historically and contemporarily; (b) the various ways Black women have coped with and resisted their oppression; and (c) the intersectional effects of class and sexual identity on Black women's lives.

## **BLCK 3510: Black Women Writers**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a comparative study of literature by Black women writers from the U.S., the Caribbean, Africa, and/or any region in the African diaspora. Readings for the course may include poetry, short fictions, novels, drama, biography, and autobiography. Topics include narrative strategies, modes of representation, and textual depictions of the intersections of race, gender, sexuality, ethnicity, class, nationality, and/or generation. Note: This course may be crosslisted with ENGL 3510

## **BLCK 3520: Black Masculinities**

### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

This course introduces students to the experiences, theoretical contributions, and representations of Black men and masculinities in the U.S. from social science, literary, and historical perspectives. The course pays particular attention to: (a) the intersection of race, gender, sexuality and class for Black men historically and contemporaneously; (b) the various ways that Black men cope with and resist their oppression c) the various ways that Black men create new masculinities.

### **BLCK 3550: Black Women's Health**

#### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

Black women have poorer health outcomes on a variety of psychological and physical measures compared to other groups such as Black men, White men, and White women. This course focuses on why this is by examining the interlocking systemic, interpersonal, and individual stressors shown to negatively impact Black women's health (e.g., gendered-racism). Students also explore and engage in evidence-based techniques that protect and enhance wellbeing in a variety of populations, including Black women.

### **BLCK 3780: Contemporary Topics & Trends in Black Studies**

#### **3 Credit Hours**

*Prerequisite: ENGL 1101*

This course provides an in-depth analysis of a selected contemporary topic, trend, issue, or problem in the field of Black Studies (also known as African and African Diaspora Studies, Africana, African American, and Pan-African Studies). Particular attention is paid to how socio-demographic variables, such as race, gender, class, religion, and/or ethnicity impact the issues facing the African Diaspora.

### **BLCK 4031: Black Panthers**

#### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

Black Panthers is an in-depth interdisciplinary examination of figures and issues of the black radical imagination using the Black Panther Party and the Marvel Comics superhero Black Panther. Through the discussion of film, music, comics, and other texts, students learn how historical, political, cultural, and community-based models of the Black Panther party and superhero are applied to a variety of fields of study, careers, and projects for social change.

### **BLCK 4040: Major Issues and Figures**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course offers an in-depth examination of a major issue or figure relevant to the field of Black Studies. *Notes: The course may be repeated with a change of content.*

### **BLCK 4100: Directed Applied Research**

#### **1-6 Credit Hours**

*Prerequisite: ISD 3100 or approval of the instructor and department chair*

This course offers students the opportunity to investigate Black Studies-oriented concepts and issues by participating in faculty-supervised research or scholarship. Course content and instructional methodologies are determined by the faculty member in discussion with the student.

### **BLCK 4400: Directed Study in Black Studies**

#### **1-3 Credit Hours**

*Prerequisite: ISD 3100 or approval of the instructor and department chair.*

This course is offered to students interested in investigating special topics and seminars external to regular course offerings. *Notes: Note: A maximum of 3 hours of BLCK 4400 may be used toward satisfying the upper-division major requirements in the Black Studies program.*

### **BLCK 4490: Special Topics in Black Studies**

#### **3 Credit Hours**

*Prerequisite: ENGL 1101*

A study of selected topics of interest to faculty and students relevant to the field of Black Studies (also known as African and African-Diaspora, Black, Africana, African American, and Pan-African Studies). *Notes: The course may be repeated with a change of content.*

### **BLCK 4499: Senior Seminar**

#### **3 Credit Hours**

*Prerequisite: ISD 3100 plus 21 hours of upper level courses or permission of instructor*

A capstone course in which students connect and integrate learning from Black Studies and other courses that they have taken in their concentration, explore the deeper issues in the discipline, research and write a senior thesis, and make a technology-assisted presentation of their findings to a committee of Black Studies Faculty.

### **BLCK 4500: Social Policy & Grassroots Organizing**

### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

This course explores how to transform grassroots social movements into sustainable institutions with organizational, political, and policy objectives. The aim of the course is to bring marginalized perspectives to the challenges facing activists and policymakers. In this course, students foster more awareness on how interdisciplinary strategies and grassroots collaborations can bring about sustainable social change.

### **BLCK 4550: Black Genocide**

#### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

This course provides students with a scholarly examination of violence imposed on the African Diaspora with a focus on the Black populations in both the United States and Brazil. Students investigate how Black lives can matter. Students examine cases of police violence, the dynamics of incarceration, racial segregation, and dehumanization to sustain class discussions. The course challenges students to make connections between local, national and global trends in the African Diaspora.

### **AMST 1102: American Identities**

#### **3 Credit Hours**

This course explores what it means to be "American." Examining "American Identities" from local and global perspectives, and through a variety of disciplinary frameworks, this course focuses on the diverse forms of "American Identity," as well as the social and cultural histories that have shaped these identities. Students examine their own and others' identities. Students gain knowledge and skills related to intercultural relations through various methods that include research, reading, writing, performance, and class activities.

### **AMST 3700: American Studies: Principles and Methods**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

What is American Studies? And what does it mean to study America? To answer these questions, this reading, writing and discussion based course introduces students to the field of American Studies: the interdisciplinary study of American cultures. The course critically examines the meaning and culture of America locally and globally, using a wide variety of readings and activities from multiple academic disciplines and popular culture.

### **AMST 3710: U.S. in the World**

**3 Credit Hours**

*Prerequisite: ENGL 1102*

Examines "America" as a cultural signifier that circulates around the world. These representations not only travel to other countries, but also return to us in cultural products from other countries. In addition to cultural theory, we will look at film, television, literature, and music. A primary concern is to interrogate what ideological assumptions underlie our notion of what "America" means.

**AMST 3720: America and Empire****3 Credit Hours**

*Prerequisite: ENGL 1102*

This course critically examines imperialism and colonialism in the Americas. Possible course topics include: U.S. imperial projects, global assertions of U.S. power, European colonization of the Americas, or Indigenous Peoples' resistance to empire. We will read across disciplines, pulling from an array of methods and materials, to understand "America" in relation to colonial and imperial ideologies and movements.

**AMST 3730: Introduction to Native American Studies****3 Credit Hours**

*Prerequisite: ENGL 1102*

This course serves as a broad overview of Native American cultures, history, and contemporary issues, with an emphasis on multidisciplinary approaches to the field. Students learn about Native America through a variety of perspectives and topics, including the relationship between Native nations and the U.S. government, questions of tribal identity and belonging, and Indigenous cultural productions, ranging from traditional stories to contemporary texts. Given KSU's location, special attention is paid to southeastern tribes.

**AMST 3740: American Popular Culture****3 Credit Hours**

*Prerequisite: ENGL 1102*

Critical analysis of popular culture in American society. A particular offering of the course could focus on a specific area of popular culture (e.g., books, music, sports, food, mass consumption or advertising) or survey several of those topics. Historical and theoretical readings will support students' analysis of primary texts, including examples highlighting the globalization of American popular culture, mass markets and niche markets, the social formation of taste, and shifts in society's preferences for mass consumption in different time periods. *Notes: Course may be repeated for credit provided the content differs entirely from the previous offering.*

**AMST 3750: Place in American Culture**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course offers a thematic study of the cultural, social, and economic patterns of American places using texts and methods from a variety of disciplines such as history, literature, and sociology. Employing the techniques of critical reading and historical analysis, students interrogate texts ranging from contemporary prize-winning novels, film and media representations, to primary historical documents to gain a fuller understanding of both the place studied and the significance of "place" in culture. *Notes: Course may be repeated for credit provided the content differs entirely from the previous offering.*

### **AMST 3760: Advanced Studies in American Identities**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Examines the construction of individual identities and identity groups in American culture. Students survey and critique a range of texts expressing and representing the formation of identity constructions around such categories as race, gender, ethnicity, national origin, class, and sexuality. Students consider the various historical, cultural and social forces that shape (and sometimes resist) diverse views of American identity both within and outside the U.S. *Notes: Course may be repeated with a change in content.*

### **AMST 3770: American Cultural Productions**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Examines the production, interpretation, performance, circulation, and contestation of cultural practices and activities that produce ideas and beliefs about "America." The course may focus on a particular cultural product (e.g., the suburbs) or cultural productions related to a particular historical period (e.g., the Great Depression) or to another discrete category (e.g., racial productions). *Notes: Course may be repeated with a change in content.*

### **AMST 3780: American Cultural Movements**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Examines the history of and relationships between selected cultural movements in the United States through an interdisciplinary lens. Drawing primarily on historical resources and cultural texts, the course analyzes the evolution and conduct of movements or of a particular major movement, as well as the evolution of academic inquiry and understanding of these movements. *Notes: Course may be repeated with a change in content.*

### **AMST 4490: Special Topics in American Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

A study of selected special topics of interest to faculty and students. *Notes: Course may be repeated for credit provided the content differs entirely from the previous offering.*

### **ANTH 1102: Introduction to Anthropology**

#### **3 Credit Hours**

This course is an introduction to anthropology's four major subfields: biological anthropology, archeology, cultural anthropology, and linguistics.

### **ANTH 1105: Introduction to Physical Anthropology**

#### **3 Credit Hours**

This course examines humans from biological and evolutionary perspectives. Topics of survey and analysis include systems of genetic inheritance and evolution, primate behavior and ecology, the human fossil record, modern human biological variation and adaptation, forensic anthropology, bioarchaeology, and interactions between human biology and culture.

### **ANTH 2210: Archaeological Discoveries and Debates**

#### **3 Credit Hours**

This course presents key discoveries and contemporary debates in archaeology and provides an overview of archaeological societies in the New and Old World. Students examine representative sites, artifacts, and important moments in the human past and learn how archaeologists piece together evidence to tell the story of humanity.

### **ANTH 2220: The Anthropology of Death**

#### **3 Credit Hours**

*Prerequisite: ENGL 1101*

In this course, students examine how anthropologists have looked at the topic of death from a multitude of perspectives. Students explore the importance of death to the field of anthropology and also use it as a lens to examine American attitudes toward and rituals surrounding death.

### **ANTH 2223: The Human Skeleton**

#### **3 Credit Hours**

This course explores human osteology, or the study of the human skeletal system. We cover bone biology, anatomical terminology, bony landmarks, and bone variation to examine topics such as the anthropological use of the skeleton in forensic, genetic, and bioarchaeological contexts.

### **ANTH 2230: Contemporary Issues in Anthropology**

**3 Credit Hours**

Anthropology is the study of human beings in all times and in all places, both culturally and biologically. In this course, students get a brief introduction to the three sub-fields of anthropology: cultural anthropology, biological anthropology, and archaeology. The course examines current social issues in each of these areas.

**ANTH 2777: Anthropology of Tourism****3 Credit Hours**

This course introduces students to anthropological explorations of tourists and tourism. It enables students to understand the deep cultural impact of contact through reading historical and contemporary ethnographic works of tourism and tourists, and their respective impacts on cultures and identities.

**ANTH 3300: Anthropological Theory****3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course surveys the historical development of anthropological theory. It emphasizes the major theories and theoreticians in the discipline of anthropology and their importance for understanding contemporary anthropological research.

**ANTH 3301: Human Origins****3 Credit Hours**

This course is an introduction to the evolutionary origins of humans. Major topics include evolutionary theory, primate behavior and taxonomy, the fossil record of human and non-human primate evolution, and the interaction of culture and biology as it relates to human evolution.

**ANTH 3303: Introduction to Linguistic Anthropology****3 Credit Hours**

*Prerequisite: ANTH 1102*

Languages constitute the social life and cultural practices that anthropologists study. This course introduces the student to anthropological approaches to the study of language use, which is distinct from a linguist's approach to language. Students learn how languages shape and reflect our thoughts and identities. Students examine the complex world of meaning-making, which form the fundamental component of our social, political, economic, and cultural life.

**ANTH 3305: Principles of Archaeology**

**3 Credit Hours**

Archeology is the subfield of anthropology that has as its goal the understanding of the human past by studying the material remains that people leave. This course covers the history, goals, methods, and theoretical base of current technology. Cultural resource management is introduced as well.

**ANTH 3307: Cultural Anthropology****3 Credit Hours**

This course presents the comparative study of human cultures and societies through the use of cross-cultural analysis of human behavior and case studies. Major foci are comparisons between universal and culturally relative aspects of human behavior, comparative social organization, cultural change and adaptation, and contemporary global cultural problems.

**ANTH 3310: Cultural Diversity in the U.S.****3 Credit Hours**

The interrelated issues of culture, race, ethnicity, identity, gender, and social stratification in American society are examined through a holistic and comparative perspective with an emphasis on the examination of case studies.

**ANTH 3315: Indigenous Peoples of the Southeast United States****3 Credit Hours**

An examination of the culture of the prehistoric, historic and contemporary Native Americans of the Southeastern U.S. including the Mound Builders, Cherokees, Creeks, Choctaws, and Seminoles.

**ANTH 3320: Methods in Biological Anthropology****3 Credit Hours**

*Prerequisite: ANTH 1105*

This course explores the discipline of physical (biological) anthropology through intensive reading and lab-based research. We cover current topics of study in some of the major subfields such as human biology, primate evolution, osteology, paleoanthropology, and bioarchaeology.

**ANTH 3321: Indigenous Peoples of North America****3 Credit Hours**

This course presents the study of contemporary issues affecting Native American peoples through a survey of traditional cultures and culture change.

**ANTH 3335: Archaeology Field Techniques**

**3-6 Credit Hours**

*Prerequisite: ANTH 3305*

This course is an archaeological field course designed to teach students the skills and techniques of modern archaeological survey, excavation, and laboratory analysis. The site of the local field school varies from year to year, but the international opportunity is an archaeological site in Belize, Central America. Contact the professor prior to registration for the determination of credit hours.

**ANTH 3340: Religion, Magic, and Culture****3 Credit Hours**

*Prerequisite: ANTH 3307*

This course examines the anthropological approach to religion and magic, which privileges local religious experiences and practices and places them in socio-cultural context. This course encourages students to consider the roles that religions play within broader adaptive systems, and how religions alternately promote both cultural stability and cultural change. Cosmologies, religious systems, and magical systems of thought are explored from an anthropological perspective.

**ANTH 3345: Food and Culture****3 Credit Hours**

*Prerequisite: ANTH 3307*

This class takes a global look at the social, symbolic, and political-economic roles of food, including how people in different cultures and environments throughout history define themselves through their foodways. The course explores a cross-cultural range of identities and socialities built through food production, preparation, and consumption, and how these change over time.

**ANTH 3350: Cultures and Societies of the World****3 Credit Hours**

*Prerequisite: ANTH 3307*

A comparative survey of culture and social organization in various regions of the world with a focus on contemporary social problems, cultural change and adaptation.

**ANTH 3355: Capitalisms and Cultures in Asia**

### **3 Credit Hours**

*Prerequisite: ANTH 1102*

This course compares and contrasts various forms of capitalisms and cultures in Asia to understand the dynamics of society and political life. This course enables students to develop a global perspective on critical issues that concern policymakers, business-strategists, development-workers, and academics from an anthropological perspective. Students compare and contrast various forms of capitalism in Asia from an anthropological vantage point for understanding dynamics of society and political life in Asia.

### **ANTH 3360: Anthropology and Africa**

#### **3 Credit Hours**

This course introduces students to methods, theories, and topics in African historical and contemporary anthropology. Particular emphasis is placed on how people from the West have encountered and come to understand African peoples' societies and cultures and vice versa. This course examines how the colonial encounter helped structure methodological and conceptual formulations in anthropology and subsequent critiques and revisions. It also examines many contemporary African issues through the lens of anthropology.

### **ANTH 3365: Afro-Brazilian Culture and Politics**

#### **3 Credit Hours**

This course explores the Afro-Brazilian experience in multi-racial Brazil, where the majority of the population is of African descent. This course focuses on how Afro-Brazilian culture, politics, music, samba, capoeira (martial arts), carnival and religion have impacted and often defined Brazilian society and culture. The course also focuses on Brazilian racial identity, social movements and racism. Brazil is constantly situated within the African Diaspora.

### **ANTH 3375: Engaged Archaeology**

#### **3 Credit Hours**

*Prerequisite: ANTH 1102*

Although archeology is a scholarly subject, it is not divorced from contemporary issues. In this class, students learn the role that archeology plays in various publics and communities. Students identify and engage stakeholders related to an archaeological site and undertake a hands-on project such as developing a heritage management plan or a collaborative excavation plan. Students also evaluate competing interpretations of the past and develop a narrative that incorporates multiple understandings of material culture.

### **ANTH 3380: Maya Archaeology**

### **3 Credit Hours**

*Prerequisite: ANTH 3305*

This course is designed to introduce students to the ancient Maya, whose civilization flourished in the lowlands of Central America between 1000 B.C. and A.D. 1500. It also examines reasons for the rise and fall of classic Maya civilization, including topics such as the development of complexity, settlement, subsistence, art and architecture, ritual and religion, and intellectual achievements.

### **ANTH 3390: Lab in Archaeology**

#### **3 Credit Hours**

*Prerequisite: ANTH 3305*

This course introduces laboratory methods through a project-oriented, hands-on format. A major focus of the course is on the inferential processes through which archaeologists recover and understand the past. This course also introduces many of the important principles and concepts that archaeologists use to analyze, manage, curate, and publish artifacts and the data associated with them. In addition, it allows the opportunity to have some hands-on experience with artifacts. Hands-on experiments in class help reinforce the theoretical concepts. Finally, the main goal is for the student to get basic "literacy" with respect to archaeological analysis and develop good lab habits rather than master any particular kind of analysis.

### **ANTH 3397: Anthropology Practicum**

#### **3 Credit Hours**

*Prerequisite: ANTH 3300, ANTH 4450, 90 credit hours completed, and permission of the instructor.*

This course is a structured field-based or on-campus research experience in a supervised setting related to anthropology. Practical experience is combined with scholarly research in the topical area of the practicum under the guidance of a faculty committee. Projects are selected in advance of the semester of the practicum. Students learn to apply research skills in a practical setting.

### **ANTH 3398: Internship in Anthropology**

#### **variable 1-12 Credit Hours**

*Prerequisite: ANTH 3300, ANTH 4450, 90 credit hours completed, and permission of the instructor.*

A structured off-campus experience in a supervised setting that is related to the student's major. Practical experience is combined with scholarly research in the topical area of the internship, under the guidance of an interdisciplinary faculty committee. Sites must be selected in advance of the semester of the internship. *Notes: A departmental internship orientation session is scheduled once a semester.*

### **ANTH 3521: Ethnography of Media: Global Perspectives**

**3 Credit Hours**

*Prerequisite: ANTH 1102, or permission of the instructor.*

This course examines how media images and usage shape the identities of individuals and groups around the world. Drawing on ethnographic studies done by anthropologists, this course prepares students to see how representations of peoples, places, practices, and events in the media shape our ideas about others and ourselves. Individuals' and groups' relationship with the media is the key element in understanding how people relate to each other within and across cultures and political boundaries.

**ANTH 3777: Global Ethnographies of Labor****3 Credit Hours**

*Prerequisite: ANTH 1102*

This course establishes the centrality of labor in understanding social identities and social change around the world. It emphasizes the cross-cultural meaning of "labor." Through ethnographies, it locates the effects of larger global processes like development, war, tourism, and their changing impact on meaning of labor for people's individual and collective identities.

**ANTH 3999: Anthropology of Gender****3 Credit Hours**

*Prerequisite: ANTH 1102*

This course introduces students to anthropological approaches to studying gender relationships in various cultural contexts. It familiarizes students with the relationship between feminism and anthropology. It examines how the research of feminist anthropologists shaped the central theoretical, methodological, and ethical concerns within anthropology. It also emphasizes why ethnographic methods are essential for understanding the complex gender relationships in a globalizing world.

**ANTH 4100: Directed Applied Research****1-6 Credit Hours**

*Prerequisite: Any upper-division anthropology course and approval of the instructor and department chair.*

This course offers students an opportunity to investigate anthropologically-oriented concepts and issues by assisting in faculty-led research or scholarship. Course content and instructional methodologies are identified by the faculty's needs and expectations.

**ANTH 4150: Greek Osteology Field School**

**3-6 Credit Hours**

*Prerequisite: Permission of the Instructor*

This course is an intensive introduction to osteological field work. The students work directly with the professor in learning how to clean, conserve, and inventory human skeletal remains from archaeological sites. The work is hands-on with substantial reading required in order to complete the analyses in the field.

**ANTH 4400: Directed Study in Anthropology****1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Covers special topics and seminars external to regular course offerings. May include original research projects and practicum experiences.

**ANTH 4405: Human Variation****3 Credit Hours**

*Prerequisite: ANTH 1105*

This course provides an understanding of the nature and extent of human biological variation, as well as an understanding of how it is studied. The course focuses on two separate yet inter-connected topics: the biological variation that exists within our species, *Homo sapiens*; and the concept of race.

**ANTH 4411: Bioarchaeology of Greece****3 Credit Hours**

*Prerequisite: ANTH 1105*

This course introduces students to the practice of bioarchaeology in Greece from the early 1900's through today. Students trace the development of bioarchaeology from its early roots in typology through the paradigm shift of the New Physical Anthropology to modern scientific analyses of human skeletal remains. Case studies and classic anthropological texts are read and discussed.

**ANTH 4420: Methods in Forensic Anthropology****6 Credit Hours**

*Prerequisite: ANTH 2223*

This course is designed to expose undergraduate students to the techniques, theory, and methodology used in anthropological research and the practice of forensic anthropology. Forensic anthropology is an applied field of biological anthropology that seeks to recover, identify, and evaluate human skeletal remains within a medico-legal context. This process includes the determination of an unidentified individual's biological sex, age-at-death, populational affinity, stature, and in many cases, the circumstances surrounding death.

**ANTH 4421: North American Archaeology**

**3 Credit Hours**

This course provides an introduction to archaeological goals, methods, and interpretation of the prehistory of North America.

**ANTH 4422: Archaeology of Asia****3 Credit Hours**

*Prerequisite: ANTH 1102 or ASIA 3001*

This course examines cultural and historical developments in Asia from approximately 10,000 BCE through 1600 CE. Students learn about the rise of complex societies, cities, and states; early economies; empires; and the role of archaeology in modern Asia. Along the way, students engage in major debates that have arisen from competing interpretations of the archaeological record.

**ANTH 4423: Bone Biomechanics****3 Credit Hours**

*Prerequisite: ANTH 3320*

This course examines the mechanical properties of our skeletal organ system. The study of skeletal biology and biomechanics allow anthropologists to understand the function of the skeleton and how it can be used to interpret the lifeways of past peoples. Research from this field is key to the study of paleopathology, prehistoric subsistence strategies, locomotion, and bone trauma.

**ANTH 4424: Paleopathology: Health and Disease in Ancient Populations****3 Credit Hours**

*Prerequisite: ANTH 2223 or BIOL 2251*

This course introduces students to the identification and interpretation of skeletal evidence for disease, the literary evidence for ancient medicine, and current clinical literature on disease from an anthropological perspective.

**ANTH 4425: Historical Archaeology****3 Credit Hours**

*Prerequisite: ANTH 3305*

The course introduces students to methods and issues in American historical archeology. Particular emphasis is placed upon archaeological methods and documentary research, changing gender roles, ethnicity, and technological innovations. Case studies will focus on the South but other regional contexts may also be included.

**ANTH 4430: Environmental Anthropology Field Methods**

**3 Credit Hours**

This course exposes students to the field of environmental anthropology as they experience fieldwork in the natural environments of Georgia. The intensive field methods and research approaches in this course allow students to learn how to work as part of an anthropological research team as they examine and evaluate global research issues in environmental anthropology at the local and regional level. The course includes topical lectures, field methods, lab analysis, and interactive team projects.

**ANTH 4440: Paleoanthropology: The Human Fossil Record****3 Credit Hours**

*Prerequisite: ANTH 1105*

This course reviews fossil, environmental, and archaeological evidence that informs our understanding of the morphological and behavioral evolution of hominin species. Paleoanthropological studies help us understand the range of evolutionary trajectories of all hominins, the environmental contexts that shaped these evolutionary patterns, and the methodology used to uncover the secrets of our evolutionary past. Along with an overview of the hominin fossil record, particular attention is given to reviewing significant research sites, research methodologies, and active debates within paleoanthropological research.

**ANTH 4450: Research Methods in Anthropology****3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

Major theoretical ideas and methods used in anthropological research are examined with a focus on applying them in research and practice.

**ANTH 4490: Special Topics in Anthropology****3 Credit Hours**

*Prerequisite: Prerequisites will vary with each course. The prerequisites will be listed in the schedule of classes.*

Selected topics of interest to faculty and students.

**ATT 1000: Orientation****1 Credit Hours**

Provides ATT students an overall introduction to the apparel industry, career opportunities in the field and the ATT curriculum.

**ATT 1150: The History of Fashion****3 Credit Hours**

This course explores the history of fashion, designers and businesses from past to present and how understanding the fashion past influences future trends. Historical roles of dress in western civilization along with the cultural, social, and physical evolution are explored.

**ATT 1200: Apparel Design Graphics**

**2 Credit Hours**

This course covers the fundamentals of vector drawing using Adobe Illustrator and Adobe Photoshop. Students will learn software tools and techniques including drawing tools, path editing, shape manipulation, blending, shading, object layering, technical flats, illustrations, and design and reproduction considerations. Application and principles of computer graphics will be taught and used to create successful projects.

**ATT 1300: International Sourcing****3 Credit Hours**

Survey of international sourcing strategies including the decision making process, transportation, domestic production, Asia/Europe/Americas operations, foreign investment, foreign purchase, turn time, competitive advantage, communications, full package production capabilities, cultural priorities, political influence, international regulations and alliances, costs, quality, and technology.

**ATT 1400: Principles of Merchandising****3 Credit Hours**

Merchandising functions are discussed that include developing strategies to have the right merchandise, at the right price, at the right time, in the right amount and at the right locations to meet target customer needs. This course will explore apparel and consumer product strategies and methods used in planning inventory. Issues in wholesaling, retailing, advertising, and promotion will be included.

**ATT 2301: Apparel Computer-Aided Technical Design I****4 Credit Hours**

The use of industry standard computer systems to determine the product information for apparel and consumer textile products including source materials, processing and assembly options, pattern development, sizing theory, garment fit and product development. Students will develop a complete set of flat patterns and alternate designs utilizing manual and computer software methods through applied project work. Principles of material utilization, pattern engineering, quality, and final design will be emphasized.

**ATT 3100: Fashion Merchandising****3 Credit Hours**

*Prerequisite: ATT 1400*

Application of merchandising principles as they relate to buying, problem-solving, retail math and visual presentation using standard industry practices and software. Students will learn how style, color and presentation are major ingredients to successful merchandising producing customer excitement and demand.

**ATT 3150: Visual Merchandising**

**3 Credit Hours**

*Prerequisite: ATT 1400*

This course examines the history, visual tools, application, and theory of display techniques used in developing successful visual apparel merchandising. Students learn how to use visual merchandising to entice customers to buy and thereby increase sales.

**ATT 3250: Math Applications in Merchandising****3 Credit Hours**

*Prerequisite: STAT 1401 or IET 2227*

Students learn the appropriate math applications for planning, controlling and interpreting the merchandising functions. An understanding of sales planning, merchandising factors, assortments, gross margin and their impact on the financial success of an organization are explored.

**ATT 3398: ATT Internship****1-12 Credit Hours**

*Prerequisite: Department Chair Approval*

This course is a structured experience in a supervised setting with an industry partner that is related to the apparel, fashion or textile industry. The goal is for students to attain more practical experience while using their acquired academic skills.

**ATT 3505: Fabric Formation and Design****3 Credit Hours**

This course provides the student with the understanding of how fabrics are constructed and the fundamentals of fabric design through application software used in industry today.

**ATT 3510: Surface Design I****3 Credit Hours**

*Prerequisite: ART 2150*

This course explores the use of different applications, through various mediums, with woven textiles. Various designs will be taught in this course including printing, dyeing and embroidery.

**ATT 3600: Apparel Analysis and Product Development****3 Credit Hours**

*Prerequisite: ATT 1400*

This course discusses the steps involved in apparel product development from concept through delivery will be covered from the perspective of the manufacturer and the retailer. Product creation, design, marketing, merchandising, sourcing and distribution are discussed along with a study of stitch formation and seam application.

**ATT 3602: Apparel Computer-Aided Technical Design II**

#### **4 Credit Hours**

*Prerequisite: ATT 2301 and ATT 3505*

Manual and computerized pattern grading theory are demonstrated and practiced by students utilizing industry standard digitizing, grading, and marker making systems. Principles and methods used in the preparation, planning, and cutting of fabrics and materials in apparel/textile products are presented including preparatory processes related to fabric cutting. Also presented are basic principles and computer methods of calculating, designing, and making pattern markers for apparel/textile products including yardage, cost estimation, and garment and fabric specifications through applied project work. Laboratory work includes developing cost and quality factors and the operation of equipment for inspecting, marking, shading, fabric defects, spreading, cutting and ply numbering. A systematic appraisal of the factors governing economical fabric use, including: in-depth study of the relationship of pattern make-up to fabric consumption; the impact of width variation to total consumption; and the relationship of all fabric defects to total utilization is presented.

#### **ATT 3800: Fashion Forecasting, Data Analysis & Consumer Trends**

##### **3 Credit Hours**

Explore the techniques used in industry today including computer software programs to assist with consumer-driven fashion forecasting. Students will examine how to identify, track, and analyze trends in apparel and consumer products consumption. Both long-range and short-range forecasting strategies will be used for market analysis. Consumer trend research activities involve collection of information from multiple sources on a continual basis for the consumer style selection, color selection, and the fabric and trim market.

#### **ATT 3810: Textiles, Fashion and Career Options**

##### **3 Credit Hours**

*Prerequisite: ATT 3800*

This course is an introduction to the history of textiles and the fashion industry. Students will familiarize themselves with employment opportunities within textile and fashion industries while creating a professional portfolio.

#### **ATT 4444: Quality Assurance for Textiles and Apparel**

##### **3 Credit Hours**

*Prerequisite: ATT 3505*

This course is designed to introduce the student to the quality aspects fabric and apparel. Quality assurance areas are examined such as materials testing, sampling, sewability and preparing product specifications.

#### **ATT 4490: Special Topics in ATT**

**1-9 Credit Hours**

*Prerequisite: Department Chair Approval*

This course covers special topics related to apparel, fashion or the textiles such as design, product development, textiles, sourcing, marketing and merchandising. Students may take this course more than once for credit with approval of the department chair.

**ATT 4670: Apparel/Textile Business Practices****3 Credit Hours**

*Prerequisite: ATT 1300 and ATT 2301 and ATT 3602*

Evaluation of the comprehensive factors that determine sound business practices for an apparel enterprise. The course explores the target markets, a business plan, garment costing, product lifecycle, quality assurance and marketing.

**ATT 4750: Advanced Design and Product Development****3 Credit Hours**

*Prerequisite: ART 2550*

Students will examine the fashion industry design techniques through the use of technology in both 2D and 3D applications. The course surveys product development software and presentation methods used in industry today.

**ATT 4840: Textile/Apparel Senior Project****3 Credit Hours**

*Prerequisite: ATT 4750*

This course is designed to provide the student with integrated knowledge from previous courses. Students are required to use their skills in forecasting, design, merchandising, sourcing and marketing along with the financial aspects of establishing a fictitious company. A formal written report and oral presentation will be evaluated by faculty and industry representatives.

**ACST 2301: Problem-Solving and Digital Game Design****4 Credit Hours**

This course is an introduction to programming and problem solving, emphasizing the analysis of problems and design of solutions using a game design engine. Content will also include an introduction to computer game design, with example games and game projects. Concepts covered will include programming logic structures, object-oriented design, prototyping, game design approach, Agile Development, real-time constraints, threaded objects, inter-object communication, object inheritance, alarms, event management, elementary graphics, beta-testing, play-balance, and user-interface design.

**ACST 2312: Programming with .NET Framework**

#### **4 Credit Hours**

*Prerequisite: ACST 2301*

This course covers the fundamentals of programming with C# by using Visual Studio and the .NET framework. Topics discussed in this course include programming with the Visual Studio environment, basic syntax of the C# language, classes and objects, Inheritance, Interfaces and abstract classes, program flow and events, generics, collections, graphic applications.

#### **ACST 3330: Data Structures and Database Applications**

##### **3 Credit Hours**

*Prerequisite: (CSE 1322 and CSE 1322L) or ACST 2312*

This course covers the fundamental and advanced data structures and database programming techniques. Topics discussed in this course include: Programming with List, Queue, Stack, Hash Table, BST; ADO.NET; Language-Integrated Query (LINQ); Modern ORM tool; and ASP.NET Web Services.

#### **ACST 3340: Modern Languages: Theory, Scripting, R, HPC, Fortran**

##### **3 Credit Hours**

*Prerequisite: ACST 3330*

Coverage of various scripting languages, the R language, and parallel programming languages will be included. This course introduces the fundamental concepts of programming languages and how languages are translated for execution. Topics will also include variable storage, control structures, linking and binding, and exceptions. Students will study Python, R, ECL, Thor, and Roxie languages.

#### **ACST 3510: Computer Architecture from Foundations to Cloud**

##### **3 Credit Hours**

*Prerequisite: (CSE 1322 and CSE 1322L) or ACST 2312*

Coverage will include computer architecture fundamentals, processor architecture, high performance and clustered architectures, and cloud computing. Students will learn the foundations of computer organization and architecture, processor design, instruction sets, system design, cache design, multiprocessor architectures, parallel computing theory, high performance clustered architectures and cloud computing.

#### **ACST 3530: Linux Operating Systems and Networking**

**3 Credit Hours**

*Prerequisite: ACST 3510*

This course provides a practical coverage of operating systems and networking by using Linux, a widely used open source operating system. Topics discussed in this course include basic concepts of operating systems, Linux kernel, system management basics, task scheduling, disks and devices, file systems, memory, system boots, basic concepts of networking, networking configurations, networking services, and shell scripts.

**ACST 3540: Social Media & Global Computing****3 Credit Hours**

*Prerequisite: (CSE 1322 and CSE 1322L) or ACST 2312*

Coverage will include the fundamentals of building systems with new social media technologies and will explore how these technologies affect social, economic and political organization on a local and global scale. Topics will range from social networking, SMS, peer-to-peer networks, content aggregation technologies like portals and mashups, and media sharing functionalities like YouTube and Flickr. Activities will include the development of student designed wikis, mashups, peer-to-peer applications and web services.

**ACST 3710: Digital Game Design and Team Project****3 Credit Hours**

*Prerequisite: (CSE 1322 and CSE 1322L) or ACST 2312 or ACST 2312*

This course provides an introduction to digital game design, game engines, multi-player games, and the game development process. Students will develop games individually and in groups. Students will make formal presentations, formally evaluate game designs and provide beta-testing feedback, and will incorporate beta-testing feedback into their designs.

**ACST 4320: Data Warehousing and Mining****3 Credit Hours**

*Prerequisite: CS 3410*

This course covers concepts, techniques, and applications of data warehousing and data mining. Topics discussed in this course include: dimensional modeling, extraction-transformation-loading (ETL), Online Analytical Processing (OLAP), Data Mining Extension to SQL (DMX), Naïve Bayes, Decision Tree, Association Mining, and Clustering.

**ACST 4490: Special Topics in Applied Computer Science****3 Credit Hours**

*Prerequisite: Prerequisites vary depending on topic.*

Special topics of interest to faculty and students.

**ACST 4570: Cloud Computing and HPC Systems Platform**

**3 Credit Hours**

*Prerequisite: CS 3410 or CSE 3153*

Cloud Computing uses Internet as the platform for the development and delivery of computing technologies. Topics discussed in this course include: cloud computing concepts, cloud computing architecture, Infrastructure as a Service (IaaS), Platform-as-a-Service (PaaS), Software as a Service (SaaS), cloud computing access and implementation, and cloud computing with HPC Systems.

**ACST 4620: Computing Security****3 Credit Hours**

*Prerequisite: ACST 3530 or CS 3502*

This course covers basic concepts and practices in computer and network security. This includes topics such as cryptography, authentication, authorization, secure protocols and principles for developing secure software. Applications will include using security frameworks to develop software and configuring security support systems.

**ACST 4850: Interdisciplinary Project and Portfolio Preparation****4 Credit Hours**

*Prerequisite: ACST 3340*

Students will complete an applied computer science project that encompasses the computer science domain and the chosen domain of the selected concentration area. Students will also prepare and complete an online portfolio of their work, research, and projects appropriate for presentation to prospective employers.

**ACST 4851: Applied Computer Science Research Thesis****4 Credit Hours**

*Concurrent: ACST 3340*

Students will complete an applied computer science undergraduate research thesis that encompasses the computer science domain and the chosen domain of the selected concentration and minor area in the sciences. A student will work under a thesis committee with a thesis committee chair. Students are encouraged to include a committee member from the minor area.

**ARCH 1000: Introduction to Architecture**

**2 Credit Hours**

*Prerequisite: ARCH Majors and Minors Only*

This course will explore theoretical and practical frameworks that inform architecture. Relevant theoretical and practical issues will be presented and discussed, allowing students to understand how fundamental parameters in design, including formal, spatial, and phenomenal factors, influence decision-making and inform critical thinking. Students shall be introduced to social and ethical stewardship that center on sustainability and socially-engaging designs.

**ARCH 1001: Architecture Studio I****4 Credit Hours**

*Prerequisite: ARCH Majors and Minors Only*

This course is the first design studio. Through exercises and projects, it introduces a variety of skills and fundamental principles in design for the beginning student in architecture including but not limited to the following: graphic observations, analysis, and representations, design process, architectural drawing and drafting, model building, and verbal communication.

**ARCH 1002: Architecture Studio II****4 Credit Hours**

*Prerequisite: ARCH 1001*

This course builds and elaborates upon the skills and subjects introduced in Architecture Studio I by engaging design problems at scales larger than in the previous studio and by investigating more complex problems, including building language and elements. It culminates with a capstone design project that summarizes and measures the learning of the first year, and prepares students for the second year.

**ARCH 1011: Accelerated Studio I****5 Credit Hours**

*Prerequisite: Acceptance into the Accelerated Program*

*Corequisite: ARCH 1000*

This course introduces skills and fundamental principles in architectural design, including: graphic observations, analysis, and representations; two-dimensional and three-dimensional designs, including ordering space and forms; design process; precedent analysis; architectural drawing and drafting; model building, and verbal communication. The framework of the studio is observation, documentation, and analyses through specific filters and conventions. The second component is the notion of thinking through making, in which the engagement with tools, media, materials and techniques would inform design intents and design iterations. The studio will build up the scale and complexity of the projects, culminating in a simple, small-scale structure.

**ARCH 1012: Accelerated Studio II**

**5 Credit Hours**

*Prerequisite: ARCH 1011*

This course builds upon the design thinking skills developed during the first studio with a focus on design concept development. Building programming, analysis of site conditions, basic building codes and standards are introduced and emphasis is placed on the introduction of materials systems.

**ARCH 1241: Design Communication I****2 Credit Hours**

This course offers lecture and practicum providing fundamentals of design communication through principles of drawing conventions and related techniques including orthographic projections, paraline drawings, and perspective construction systems to represent design ideas and built forms. This involves use of manual media, 2D image manipulation and 3D modeling using digital media. The intention of the course is to develop visual literacy through visual thinking and to develop skills to represent objects and simple buildings in both two and three-dimensions.

**ARCH 2003: Architecture Studio III****4 Credit Hours**

*Prerequisite: ARCH 1002*

This course builds on the design thinking skills developed during first year studios. This course initiates the application of research from site, context and case studies in the design process and emphasizes design concept development. Projects initiate the design of interior and exterior conditions, site design and the architectural design of structural systems.

**ARCH 2004: Architecture Studio IV****4 Credit Hours**

*Prerequisite: ARCH 2003*

This course continues the development and use of generative design concepts begun in Architecture Studio III with projects of increased size and scope. Building programming and basic building codes are introduced and emphasis is placed on the introductory design of materials and material systems.

**ARCH 2013: Accelerated Studio III**

### **6 Credit Hours**

*Prerequisite: ARCH 1012*

This course concentrates on shaping, organizing, and designing architectural spaces using spatial and compositional strategies derived from site, climate, program, precedent, and architectural case studies. The focus is on the identification and manipulation of the elements of design, understanding spatial relationships between the human body and various spatial systems, immediate site and environmental context in design. Projects may vary from exploration of architectural design vocabularies in built forms to single and multi-function spaces with site constraints.

### **ARCH 2030: Global Sustainability Strategies**

#### **3 Credit Hours**

This is a study of International aspects of buildings related to social orientation by looking at design and construction around the world in the context of sustainability and the carbon footprint of how we live. Form factors are discussed and the issues of planning, design and construction explored. The Architect/Engineer/Construction Manager's perspectives will be completed by specific building examples. International differences in the role of buildings/structures within our physical fabric will be explored, yet common threads will be found which can be useful in a shrinking world and a more universal construction industry. This course is open to all majors and undeclared students.

### **ARCH 2111: Architecture Culture I: Early Civilizations & Medieval**

#### **3 Credit Hours**

The Architecture Culture sequence is designed as a historical survey of Architectural history and theory. Its aim is to develop an understanding of how architecture manifests the socio-cultural conditions of an era by examining the relationship between architecture and other cultural discourses such as philosophy, aesthetics, science, religion, politics and technology. It also examines how architecture, as a cultural artifact, transforms through time in response to alterations in its surrounding cultural context. This course introduces early architectural traditions and the formulation of European traditions through the Gothic.

### **ARCH 2211: Architecture Structures I - Introduction to Structures**

#### **3 Credit Hours**

*Prerequisite: (PHYS 1111 and PHYS 1111L) or (PHYS 2211 and PHYS 2211L)*

This course is an introduction to architectural structures with an emphasis on statics and strength of materials concepts. Focus is on force systems, shear and moment diagrams and determination of section properties.

### **ARCH 2242: Design Communication II**

**2 Credit Hours**

*Prerequisite: ARCH 1241 or permission of the instructor.*

This course offers lecture and practicum and is seen as a continuation of Design Communication I. It introduces techniques and conventions of graphic communication as an aid for architectural design. This course advances levels of visualization and representation of architectural building and related design ideas. Techniques include hand drawings, digital rendering, and 3D computer modeling. The goal is to link traditional techniques and digital modeling to various studio works both at process level and final presentation level. A variety of representation techniques are introduced to highlight design vocabulary through a series of projects ranging from page layout to building. Both small-scale objects and moderate-scale structures/buildings can be used as base information to represent concepts of design and techniques of representation.

**ARCH 231I: Environmental Tech I –Systems Selection and Materials****3 Credit Hours**

This course offers lecture and practicum. It introduces selection criteria of materials and their properties relative to structural and enclosure systems. Emphasis is placed on wood, steel, masonry, and concrete structural systems. Enclosure Systems are explored in relation to various applications of existing and new materials and finishes that building systems entail within the context of sustainability.

**ARCH 301I: Architecture Studio V****4 Credit Hours**

*Prerequisite: (ARCH 2004 or ARCH 2013) and acceptance into the upper division upon portfolio review*

This studio emphasizes the importance of conceptual architectural thinking, materiality, and natural daylighting and introduces integration of building technologies within the architectural design process. The majority of the semester focuses on a medium sized, mixed-use project located on a suburban/exurban site.

**ARCH 3012: Architecture Studio VI****4 Credit Hours**

*Prerequisite: ARCH 3011*

This course is a continuation of ARCH 3011 and the integration of building technologies. Students design a medium to large-scale project within a dense urban setting with a focus on the contemporary workplace. Emphasis is placed on site context and systems and materials research in support of design intent. The first half of the semester is devoted to project design and the latter half is spent examining construction tectonics through large-scale physical models.

**ARCH 3112: Architecture Culture II – The Renaissance through 1850**

### **3 Credit Hours**

This course examines the rise of renaissance architecture and architectural theory and traces the spread of their influence across Europe into the enlightenment. The architectural impact of colonial expansion is studied as European architecture interacts with or displaces the local traditions of colonized areas in Asia, Africa, and the Americas.

### **ARCH 3113: Architecture Culture III: Historicism and the Emergence of New Traditions**

#### **3 Credit Hours**

This course explores the innate relationship between the making of architecture and architectural theory as the events of the nineteenth and twentieth centuries unfold. Nineteenth century historicism in Europe and the United States is introduced and followed by an examination of the changing relationship to history that precedes the turn of the twentieth century. This course then begins an investigation of the diverse regional and conceptual approaches to modernity, covered up to the International Style Exhibition.

### **ARCH 3211: Architecture Structures II: Steel and Wood**

#### **4 Credit Hours**

*Prerequisite: ARCH 2211*

This course builds on ARCH 2211 with a focus on design and analyses of statically determinate wood and steel structure systems, mainly frames. Upon completion students would be able to apply design techniques in defining a frame system and selecting or sizing wood or steel members, particularly beams and columns, trusses, diaphragms, and connections. Knowledge and skills are applied in a final team project that highlights a structural form employing wood and steel.

### **ARCH 3212: Architecture Structures III: Concrete and Lateral Loads**

#### **3 Credit Hours**

*Prerequisite: ARCH 3211*

This course builds on ARCH 3211 with a focus on design and analyses of statically determinate and indeterminate concrete structure systems, mainly frames. Upon completion students would be able to apply design techniques in defining a frame system and selecting or sizing concrete members, particularly beams and columns, walls, foundations, and slabs. Knowledge and skills are applied in a final team project that highlights a structural form employing concrete.

### **ARCH 3313: Environmental Technology II: Human Comfort and Building Systems**

### **3 Credit Hours**

*Prerequisite: ARCH 2311*

This course offers lecture instruction that is focused on the fundamental connection between human comfort and active / passive design mechanisms. Topics include building context / orientation and form, envelope characteristics and materials, and human comfort within interior environments. Additionally, energy conservation and major mechanical systems are examined in relation to building typology and sustainability.

### **ARCH 3314: Environmental Technology III: Lighting, Electrical and Acoustics**

#### **3 Credit Hours**

*Prerequisite: ARCH 3313*

This course is the culmination of the environmental technology sequence. Lectures elaborate upon prior coursework and place focus upon natural and artificial lighting, electrical systems, and building acoustical design. Students will continue to explore the connection between building form and environmental design strategies to develop and enhance interior atmospheres.

### **ARCH 3398: Internship**

#### **Variable 1-12 Credit Hours**

*Prerequisite: Department Approval*

This course is an internship course designed to provide real world experience options supported by the department.

### **ARCH 4013: Architecture Studio VII: Integrative Design**

#### **4 Credit Hours**

*Prerequisite: ARCH 3012, ARCH 3314 and ARCH 3212*

This course focuses on building structural systems and systems integration in relation to an architectural concept. Students will work on a program allowing them to study the impact of site and programmatic forces in relation to integrative principles as described by NAAB. The course builds upon and emphasizes synthesizing knowledge and skills acquired in concurrent and prior coursework.

### **ARCH 4014: Architecture Studio VIII: Urban Lab**

#### **4 Credit Hours**

*Prerequisite: ARCH 4013 and ARCH 4116*

This course focuses on designing urban environments and aims to expand students' design skills to a larger scale than single buildings or single sites. Integrating experiential data to conventional analysis, the studio aims to teach creating humane, just, aesthetically pleasing and livable urban environments.

### **ARCH 4114: Architecture Cultures IV: The Development of Architecture into the Twenty-First Century**

**3 Credit Hours**

*Prerequisite: ARCH 3113*

This course continues the investigation of architecture culture by examining the development of the diverse regional and conceptual approaches to modern Architecture from the international style to the present, including the development of contemporary theoretical positions in architecture.

**ARCH 4116: Urban Planning and Design Theory****3 Credit Hours**

This course examines historic and current trends of urban design, development and growth. Diverse socio-economic-political and spatial issues that shape and continuously transform the physical fabric of cities, metropolitan centers, and regions are the focus of this course. The course requires critical and applied assignments, through which the students explore and understand theoretical and applied underpinnings of wide-ranging and diverse urban forms and practices.

**ARCH 4117: Thesis Prep****2 Credit Hours**

The course prepares students to develop topics for their Thesis Proposal. Students must develop a clear design premise supported with research and a clear methodology to develop a robust thesis proposal for their thesis Project.

**ARCH 4224: Professional Practice I: Codes and Technical Documents****3 Credit Hours**

This course offers lecture and practicum. It introduces Standard Building Code, N.F.P.A. 101 and A.D.A and / or International Building Code. Emphasis is placed on theory of building safety, code document organization and the application of codes to actual buildings. The learning of codes is further extended by applying the code knowledge to producing an actual set of technical [contract] documentation of an assigned architectural project.

**ARCH 4225: Professional Practice II - Cost Control**

### **2 Credit Hours**

This course introduces methods commonly used concepts of building economics to create budgets for the construction cost of commercial building projects from conceptual discussions with the Owner and the early stage of development of the drawings and specifications. These methods are typically used by architects and general contractors for feasibility and value engineering and building economic studies. The focus of this course is to enable architectural students to effectively create realistic estimates of probable economic cost for their clients and thereby work as a team member with the Owner and General Contractor to establish and maintain a project budget throughout the process of project design and construction.

### **ARCH 4226: Professional Practice III: Practice and Ethics**

#### **3 Credit Hours**

This course introduces the study of professional ethics, laws governing the practice of architecture and contractual relationships. It seeks to develop a working knowledge of how the American Institute of Architects (AIA) Document Series influences the method and legality of architectural practice. It emphasizes office management, professional liability and insurance, the owner-architect agreement, the architect-consultant agreement, owner-contractor agreement, bidding procedures and conditions of the contract management.

### **ARCH 4400: Directed Study**

#### **Variable 1-3 Credit Hours**

*Prerequisite: Departmental Approval*

This course is designed to provide an independent study option for students to satisfy curriculum requirements.

### **ARCH 4490: Special Topics**

#### **Variable 1-4 Credit Hours**

*Prerequisite: Departmental Approval*

Special Topics in Architecture determined by the Department topics vary in credit hour and in focus

### **ARCH 4891: Furniture Design**

#### **3 Credit Hours**

The furniture design seminar | Workshop introduces students to the art + architecture and craft of studio furniture design. It is an introductory and interdisciplinary forum for critical discussion and design exploration outside of the architecture curriculum studio setting. The course will focus on the principles of art | architecture of studio furniture design and fabrication utilizing material wood and other contemporary materials as means and methods for fabrication.

### **ARCH 4892: Tactical Urbanism**

### **3 Credit Hours**

The students in this elective will explore the strategic approaches necessary to CREATIVELY DISRUPT public spaces i.e. parks, streets, squares to offer new means of using it. Issues pertaining to programming, accessibility, innovation, materiality, tectonics, and more will be interrogated. Through a multi-prong approach the class will collectively develop a discourse on how design contributes to the material production of space: its limits and access within the contemporary neo-liberal market-driven city. Using the concept of 'PLAY' as a theme the students will create individual playful interventions which when put together will create a playscape for all. This intervention will be light and modular in design to be installed in multiple venues across the city.

### **ARCH 4893: Space Lab**

#### **3 Credit Hours**

The course is aimed at entangling the complex relationship between society and built environment. It addresses several fundamental questions that concern the understanding, synthesis and design of architectural and urban space: How do social norms influence the structure of the built environment? The course introduces students to the spatial analysis of various scales of the built environment, representations and analytical techniques of space syntax, depthmap software tutorials, and correlations between behavior observations and spatial measures.

### **ARCH 4894: Architecture Advocacy**

#### **3 Credit Hours**

The course focuses on the revitalized and critical role of architecture and architects in environmental, and social change within a rapidly changing world. Pedagogically, the focus is placed on advancing the students' commitment to sustainability with a distinctive lens – in an era, which as raised in the current debates, "Design is Not Enough". Such commitment extends not only to designing and building, but also generating innovate ways to reach out to a broader community, and policy-makers, to form and inform sustainability in social and built environment; and to make a meaningful contribution to environmental literacy, and responsibility.

### **ARCH 4895: Computational Methods Advanced Generative-Analytical Technologies in Architecture**

#### **3 Credit Hours**

This course introduces students to computational thinking and the fundamental concepts of computation through explorations with generative scripting and parametric tools. The goal is to understand the potential of computation and the role it can play as part of one's design process, not as a collection of specific tools, but as a way of thinking about design. By the end of the semester, students will have the vocabulary and an understanding of computing that will inform their future explorations with more advanced tools and technologies.

### **ARCH 5015: Focus Studio**

#### **4 Credit Hours**

*Prerequisite: ARCH 4014*

The Fifth-Year Focus Studios are intended to introduce the student to design research and its application, while adhering to creativity, critical thinking, processes of making, and constructability. The annual Focus Studio is an intrinsic part of the professional core of the Architecture Program and is designed to foster a strong relationship between the program, our students, and the profession as a whole. All qualified fifth year students have the option to select a studio critic who will broaden their area of interest in a subject-based studio.

#### **ARCH 5016: Thesis Research**

##### **1 Credit Hours**

*Prerequisite: ARCH 4117*

Students pursue their thesis topic conceived in the Thesis-Prep course into a fully developed thesis proposal under the guidance of their thesis committee. Thesis Committee (two internal professors) must approve student Design Proposal. This course must be passed with a grade of an "S" (Satisfactory Progress) to move forward to Thesis Studio.

#### **ARCH 5017: Thesis Studio**

##### **4 Credit Hours**

*Prerequisite: ARCH 5015 and ARCH 5016*

Design solutions must demonstrate Ability to produce evidence to meet and exceed applicable NAAB criteria set by the Faculty. Thesis Coordinators uphold thesis procedures, standards and pedagogical mechanics keeping in view applicable NAAB student performance criteria [learning outcomes], values, principles and expectations of the Architecture Faculty in line with the vision and mission of the Arch Program and the University. Thesis Projects must follow the approved design proposal and be properly documented according to the approved thesis book layout, structure and table of contents. Thesis Project Book must be approved by student's Committee and Thesis Coordinator to be acceptable for publication. Thesis requirements will be considered incomplete without the submission of the Project Book according to the approved guidelines.

#### **ANIM 3600: Foundation Animation**

##### **3 Credit Hours**

*Prerequisite: ART 1150 and ART 2550*

This course is an introduction to contemporary animation. Course content focuses on frame-to-frame animation as well as 2-dimensional rigged animation techniques. Students will create unique animations using industry standard time-based media computer applications.

#### **ANIM 3620: Storyboarding & Composition**

**3 Credit Hours**

*Prerequisite: ART 1150*

This course is an introduction to the use and creation of storyboards for animation. Students will interpret narratives including their own material into functional sequential art. Students will explore both traditional and digital media in the course.

**ANIM 3630: Environments for Animation****3 Credit Hours**

*Prerequisite: ART 3160*

This course focuses on the basic design and creation of 2D environments for animation. Students will explore both traditional and digital media in the course.

**ANIM 3640: Character Development****3 Credit Hours**

*Prerequisite: ART 2550, and ART 3150*

Students will apply their drawing skills and knowledge of the figure to create original characters designed for applied 2D animation techniques.

**ANIM 3650: Digital Animation Production I****3 Credit Hours**

*Prerequisite: ANIM 3600*

This course focuses on using industry standard digital animation production software. Students will explore the pipeline nature of the software and the many roles involved with a professional animation production.

**ANIM 3660: Digital Animation Production II****3 Credit Hours**

*Prerequisite: ANIM 3650*

This course is an advanced approach on understanding and operating industry standard digital animation production software. Students will focus on particular roles and tasks including 2D animation and compositing. Students will work on an independent animated short film or choose to participate in a team environment to create an animated short film.

**ANIM 4631: 3D Animation Modeling I****3 Credit Hours**

*Prerequisite: ART 2550*

This course introduces the student to industry standard 3D computer graphic software. Practical application of the software will include creating environmental imagery, props, and characters.

**ANIM 4632: 3D Animation Modeling II**

**3 Credit Hours**

*Prerequisite: ANIM 4631*

This course continues the use of industry standard 3D computer graphic software. Practical application of the software will include creating environmental imagery, props, and characters. An intermediate level of application will focus on creating polished portfolio level work, achieved through the exploration of industry standard 3D elements in rendering and character animation.

**ANIM 4633: 3D Animation Modeling III****3 Credit Hours**

*Prerequisite: ANIM 4632*

This course furthers the student's use of industry standard 3D computer graphic software. Practical application of the software will include creating advanced final exiting portfolio work. Advanced practice in industry standard 3D elements in rendering and character animation will be the focus of study.

**ANIM 4651: Digital Animation Studio I****3 Credit Hours**

*Prerequisite: Permission of Instructor*

Students will pursue selected topics in animation of an advanced nature, which may include independent student research.

**ANIM 4652: Digital Animation Studio II****3 Credit Hours**

*Prerequisite: ANIM 4651 and Permission of Instructor*

Students will advance in selected topics in animation, which will include independent student research. The course will focus on pre-production and production of an animated short film to include character development, background and prop design, storyboarding, animatic creation, scriptwriting and storytelling.

**ANIM 4653: Digital Animation Studio III****3 Credit Hours**

*Prerequisite: ANIM 4652 and Permission of Instructor*

Students will continue to advance in selected topics in professional animation, which will include independent student research. A focus on production and post-production of an animated short film will be explored. Final output of a 2-5 minute animated short for portfolio and film festival entry may be achieved through individual and/or group collaborative work. Polishing individual works for portfolio creation will also be addressed. The course will be tailored to individual final exiting portfolio studies.

**ANIM 4660: Senior Animation Reel**

### **3 Credit Hours**

*Prerequisite: Permission of an advisor, and the instructor.*

This graduating senior capstone course focuses on the development of a student resume and professional animation reel showcasing work designed for the animation industry. There is also a research component to hone expertise in current job market demands and requirements, prepare for establishment as a freelance artist in the animation industry, and/or graduate school opportunities. The animation reel will demonstrate an individual style and a high level of conceptual ability and professionalism.

## **ART 1100: Two-Dimensional Design and Color Theory**

### **3 Credit Hours**

*Prerequisite: This course is for Art and Art related majors in interest only, including Interactive Design, BS.*

Elements of art and the principles of two-dimensional design, with emphasis on line, shape, texture, space, value elements of color theory executed through conventional methods.

## **ART 1107: Art in Society**

### **3 Credit Hours**

This interactive course is an introduction to the role of visual art in global societies, from antiquity through the present day. It examines various media within their social, historical, and intellectual contexts; explores a variety of art-historical, art-critical, and theoretical issues; and facilitates critical and analytical thinking. It also teaches students how to analyze the basic elements of art and design and how to visit a museum. (Visits to some venues may require paid admission.)

## **ART 1150: Drawing I**

### **3 Credit Hours**

*Prerequisite: This course is for Art and Art related majors and interest only, including Interactive Design, BS.*

Drawing, using a variety of media and techniques, including work from figure, still-life and landscape. Some drawing with digital media.

## **ART 1200: Three-Dimensional Design**

### **3 Credit Hours**

*Prerequisite: ART 1100 and ART 1150. This course is for Art and Art related majors and interest only.*

An introductory course in exploring, evaluating and resolving concepts related to basic three dimensional design problems. Exercises include three-dimensional drawing techniques and model building. Emphasis is placed on the application of elements and design and principles of organization as well as form and space relationships using a variety of media.

## **ART 2150: Drawing II**

### **3 Credit Hours**

*Prerequisite: ART 1100 and ART 1150. This course is for Art and Art related majors or interests only.*

Pictorial composition with studies in use of line, form, value and texture, including work from nature, the life model and setups.

### **ART 2290: Special Topics in Art**

#### **3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected special topics of interest to faculty and beginning students interested in art.

### **ART 2550: Computer Applications in Art**

#### **3 Credit Hours**

*Prerequisite: ART 1100, and ART 1150. This course is for Art and Art related majors and interests only.*

The study of computer technology employed by professional artists. Digital presentation and documentation techniques covered. Limited work with art production software.

### **ART 2990: Concept, Creativity, and Studio Practice**

#### **3 Credit Hours**

*Prerequisite: This course is for Art and Art related majors and interest only.*

This is a studio art foundation course and is a prerequisite for the BFA majors in all concentrations. It is designed as an introduction to the studio practices and conceptual processes of a creative artist.

### **ART 3011: Typography I**

#### **3 Credit Hours**

*Prerequisite: ART 2550*

The focus of this course is on the history of graphic design with emphasis on the exploration and study of typography as a visual communication tool. The course will include an understanding and working knowledge of the grid as a visual design tool for typographic page layout.

### **ART 3015: Electronic Illustration**

#### **3 Credit Hours**

*Prerequisite: ART 2550*

The focus of this course is the execution of quality illustrations. The blending of traditional and electronic images will be influenced and strengthened by the history of illustration. The illustrations will be adapted for print and web using advanced conceptual skills and digital techniques. The strong development of form and color and the elements and principles of design will be stressed.

### **ART 3020: Typography II**

### **3 Credit Hours**

*Prerequisite: ART 3011 and ART 2990 - may also be taken concurrently*

The focus of this course is on concept-based problem solving with emphasis on the appropriate use of type and form. Students will explore historical periods of typography to include well-known designers and design trends. Symbolism and corporate identity design will also be incorporated.

## **ART 3021: Publication Design**

### **3 Credit Hours**

*Prerequisite: ART 3011*

The focus of this course is typography and advanced page layout for print and electronic publications (magazines, newsletters, brochures, web pages, etc.), and will ensure that students have a thorough understanding of digital file formats for printing and their application to page layout. Students will demonstrate their understanding of visual structural systems (grids) to produce a cohesive group of layouts in a variety of document formats. And they will meet the principles of industry standard digital pre-press and offset printing.

## **ART 3120: Ceramics I**

### **3 Credit Hours**

*Prerequisite: ART 1200 and full admission into the art program.*

Basic processes in ceramics, including pinch pot, coil and slab method of building, wheel throwing and an introduction to ceramic decoration with engobes, glazes and textures.

## **ART 3150: Figure Drawing**

### **3 Credit Hours**

*Prerequisite: ART 2150*

Intensive study of the human figure; action, structure, volume, design and expressive potentialities from a variety of models, using a variety of media. Some portraiture.

## **ART 3160: Painting I**

### **3 Credit Hours**

*Prerequisite: ART 1100 and ART 1150*

Painting with various media emphasizing organizational structure, technical considerations and abstract relationships.

## **ART 3260: Painting II**

### **3 Credit Hours**

*Concurrent: ART 2150 and ART 3160*

This course focuses on painting with acrylics and/or oils emphasizing organizational structure, abstract relationships and technical considerations.

## **ART 3265: Aqueous Media**

**3 Credit Hours**

*Prerequisite: ART 2150 and ART 3160*

This course introduces painting in a variety of traditional and non-traditional water-based media such as watercolor, ink, and gouache. Both technical mastery and creative experimentation are emphasized.

**ART 3300: Sculpture I****3 Credit Hours**

*Prerequisite: ART 1200 and ART 2150*

An introduction to selected sculptural processes using a variety of media.

**ART 3310: Sculpture II: Welding****3 Credit Hours**

*Prerequisite: ART 1200*

This course provides students with a comprehensive introduction to welding and metal fabrication tools, processes, materials and techniques. There is an emphasis on welding method and practice, as well as the utilization of developed skills to fabricate work from concept to finished product.

**ART 3320: Jewelry and Small Metals I****3 Credit Hours**

*Prerequisite: ART 1200*

This course is an introduction to basic small metals and jewelry techniques including fabrications, forming, and finishing. It emphasizes advanced design skills and critical analysis, as well as exposure to historical and contemporary works.

**ART 3325: Jewelry and Small Metals II****3 Credit Hours**

*Prerequisite: ART 3320*

This course will explore various formats, techniques, and materials necessary to gain an understanding of utilitarian objects and holloware. Techniques will include tool making, repoussage, and forging, while reflecting the students' individual visual and conceptual interests.

**ART 3330: Sculpture III: Foundry****3 Credit Hours**

*Prerequisite: ART 3300*

This class is an introduction to the processes, materials and tools of casting non-ferrous metal. It gives a student room to explore areas of personal interest and develop greater skills in an area of specialization. Students will gain an understanding of foundry practices and will discuss matters concerning aesthetics, structure, presentation, craftsmanship and finish.

**ART 3341: Master Craftsman I**

### **3 Credit Hours**

The Master Craftsman Program is an immersive course offering students hands-on experience in creating sculpture and applied three-dimensional constructions with an emphasis on functioning as real-world professionals. Students will meet with clients whose real-life needs will set the specific parameters for which students will design, construct, and install projects.

### **ART 3342: Master Craftsman II**

#### **3 Credit Hours**

*Prerequisite: ART 1200 and ART 3341*

This immersive course offers students hands-on experience in creating sculpture and applied three-dimensional constructions with an emphasis on functioning as real-world professionals. This course expands upon skill sets learned in ART 3341. Students meet with clients whose needs will set the specific parameters for which students will design, construct, and install projects.

### **ART 3343: Master Craftsman III**

#### **3 Credit Hours**

*Prerequisite: ART 3342*

This immersive course offers students hands-on experience in creating sculpture and applied three-dimensional constructions with an emphasis on functioning as real-world professionals. The course expands upon skill sets acquired in ART 3341 and ART 3342. Students meet with clients whose needs will set the specific parameters for which students will design, construct, and install projects.

### **ART 3360: Wheel Throwing**

#### **3 Credit Hours**

*Prerequisite: ART 3120*

In this course students will gain a comprehensive understanding of pottery creation using the wheel throwing technique and the various pottery decoration techniques.

### **ART 3380: Mold Making and Slipcasting**

#### **3 Credit Hours**

*Prerequisite: ART 3120*

In this course students will develop an understanding of plaster mold making and the slip casting process for the creation of ceramic sculpture and pottery forms.

### **ART 3396: Cooperative Study**

**3 Credit Hours**

*Prerequisite:* Approval of coordinator of cooperative educational internships (Career Services).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

**ART 3398: Art Internship****1-12 Credit Hours**

*Prerequisite:* Permission of the Department Chair

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency.

**ART 3400: Digital Photography****3 Credit Hours**

*Prerequisite:* ART 2550

This course introduces digital photography and its basic practices for fine art applications. It explores various methods of photographic image-making in contemporary art and its interpretations. Assignments and class critiques will emphasize the development of a visual vocabulary and explore the possibilities of photography as a visual arts medium.

**ART 3410: Film Photography****3 Credit Hours**

*Prerequisite:* ART 1100 and acceptance into the art major.

This course introduces students to the basic manual functions of film cameras and darkroom processing and printing techniques. Students will use black-and-white film and darkroom paper to produce traditional photographic prints. The course teaches a refinement of photographic techniques and visual skills with an emphasis on aesthetics.

**ART 3430: Introduction to Video****3 Credit Hours**

*Prerequisite:* ART 2550

This course covers selected topics in video art, which include the use of video shooting and editing practices for the advancement of student personal artwork and style.

**ART 3441: Intermediate Photography I**

**3 Credit Hours**

*Prerequisite: ART 3400 or ART 3410 or ART 3430*

This course is an early exploration of thematic concepts. The research of relevant, contemporary artists is evident in student work. Technical ability begins to fuse with content. Selected topics in photography of an intermediate nature which includes independent student research, photographic technical proficiency, post-production processes, and printing methods. This course is intended for students who have a basic understanding of photography and/or video and have already taken at least one course within the concentration.

**ART 3442: Intermediate Photography II****3 Credit Hours**

*Prerequisite: ART 3441*

This course is an intermediate exploration of thematic concepts. The research of relevant, contemporary artists is evident in student work. Selected topics in photography of an intermediate nature which includes independent student research, photographic technical proficiency, post-production processes, and printing methods. Expectations of technical ability and expression of image content are meant to exceed those from ART 3441: Intermediate Photography I.

**ART 3443: Intermediate Photography III****3 Credit Hours**

*Prerequisite: ART 3441*

This course is a more advanced exploration of thematic concepts. The research of relevant, contemporary artists is evident in student work. Selected topics in photography of an intermediate nature which includes independent student research, photographic technical proficiency, post-production processes, and printing methods. Expectations of technical ability and expression of image content are meant to exceed those from ART 3441: Intermediate Photography I but does not necessarily require the skills learned in ART 3442: Intermediate Photography II.

**ART 3500: Printmaking I****3 Credit Hours**

*Prerequisite: ART 2150*

Students learn basic printmaking processes, techniques, and professional craftsmanship.

**ART 3510: Printmaking II****3 Credit Hours**

*Prerequisite: ART 3500; ART 2990 (may also be taken concurrently).*

Advanced exploration of conventional and experimental printmaking techniques including but not limited to the relief, intaglio and stencil processes.

**ART 3520: Planographic Techniques I**

### **3 Credit Hours**

*Prerequisite: ART 3510*

This course examines techniques and contemporary applications of planographic printmaking in silkscreen printing and lithography. The emphasis is on experimentation, design, drawing, and multicolor printing. Topics include hand-cut paper, and film and photographic stencils in silkscreen and hand-drawn aluminum and digital polyester lithographic techniques. Classes include discussion and critique of print content and concept together with the technical skills involved in each phase of the planographic processes.

### **ART 3550: Bookarts, Letterpress and Papermaking**

#### **3 Credit Hours**

*Prerequisite: ART 2150*

This course introduces the history, materials, and techniques associated with book arts, letterpress and paper making.

### **ART 3600: Illustration I**

#### **3 Credit Hours**

*Prerequisite: ART 1100, ART 1150, ART 1200, ART 2550, ART 2990, and ART 2150*

This course will focus on sketches, revisions, research and final image development. Subjects covered will be methods and sources for research and the sketch as a research and presentation tool.

### **ART 3610: Illustration II**

#### **3 Credit Hours**

*Prerequisite: ART 3600*

The course focuses on the Principles of Visual Communication: choice of subjects, procedures, and the practice of illustration. Visualizing the text will be the primary emphasis for this course, in addition to exploration of ideas, events, and personalities. This will involve creating illustrations for various publishing forms.

### **ART 3705: Sequential Art I**

#### **3 Credit Hours**

*Prerequisite: ART 1100, ART 1150, ART 1200, ART 2550, ART 2990, and ART 2150*

An introduction to the art of comics. The art of making effective, strong and original layouts is emphasized in this course. Students acquire a basic understanding of the history of the medium current trends, orthodox and experimental narrative techniques that are possible.

### **ART 3715: Sequential Art II**

#### **3 Credit Hours**

*Prerequisite: ART 3150 and ART 3705*

This class explores the formal underpinnings of comics and provides an overview of tools and techniques utilized in the creation of sequential art.

## **ART 3800: Sewing Construction Techniques I**

### **3 Credit Hours**

*Concurrent: ART 2990 and ART 3820*

This course is an introduction to various textile sewing and construction techniques. Topics include machine components, set-up, maintenance, basic sewing and finishing methods.

## **ART 3810: Sewing Construction Techniques II**

### **3 Credit Hours**

*Prerequisite: ART 3800, Concurrent: ART 3870*

Building on skills gained in Sewing Construction Techniques I, this course explores activating and altering the flat surface of textiles. With a focus on garment construction students will implement advance construction methods and sewing techniques.

## **ART 3820: Textile Foundations**

### **3 Credit Hours**

*Prerequisite: ART 1100 Concurrent: ART 1150*

Provides students with an overall introduction to the fundamentals of fabric design. Including fiber formation, surface design, basic construction techniques and insight into various textile industry careers and standards.

## **ART 3830: Color & Trend Forecasting**

### **3 Credit Hours**

*Concurrent: ART 3820*

Students will learn how to identify, track and analyze trends in both color and various consumer products. By analyzing social and political climates of the past and present; strategic methods will be taught to collect and research influential aspects of both the art and design (fashion and interior) industries.

## **ART 3840: Computer Aided Design for Textiles I**

### **3 Credit Hours**

*Prerequisite: ART 2550 Concurrent: ART 3820*

This course is an exploration of digital art and textile design processes. Using Adobe Photoshop and Illustrator students will become knowledgeable in various repeat design methods and applications. Stressing the use of textiles in both the fashion and interior industries students will create successful colorways and unified collections.

## **ART 3850: Printmaking & Surface Manipulation**

### **3 Credit Hours**

*Concurrent: ART 3800 and ART 3840*

Exploration of various methods and mediums with regards to surface design manipulation. Students will understand textile techniques that include repeat printing, painting, dyeing and hand embroidery.

## **ART 3860: Weaving I**

### **3 Credit Hours**

*Prerequisite:* ART 3820

An introduction to loom weaving. Utilizing frame, basic floor and AVL dobby looms - students will learn basic woven methods and their applications for industrial textiles.

## **ART 3870: Technical Development & Drafting I**

### **3 Credit Hours**

*Prerequisite:* ART 1200 and ART 3820

An introduction to textile development and patternmaking or drafting. Students will learn the methods including, basic pattern engineering, assembly options, historical garment fits and sizing theory. Principles of material utilization, quality assurance and cohesive collections will be emphasized by using both manual and digital software-based methods.

## **ART 3880: The Textile Industry**

### **3 Credit Hours**

*Concurrent:* ART 3840

Discussing the application of merchandising principles as they relate to standard industry practice, students will become knowledgeable in the visual tools needed to promote textiles and/or apparel products. This course will explore product development strategies used in various industry segments including international sourcing, wholesale, production, marketing, advertising and sales/promotion.

## **ART 3990: Art As a Public Profession**

### **3 Credit Hours**

*Prerequisite:* ART 2990

This course introduces the art student to a variety of artistic fields and endeavors which provide a range of income-generating possibilities for the professional artist. With a special focus on art in public places, the course will guide the student through the specifics of preparing, locating, and applying for public art commissions. The course will also look at the establishing artistic relationships with art galleries, museums, and art centers, as well as preparation for the realm of self-employment.

## **ART 4021: Advertising and Packaging**

### **3 Credit Hours**

*Prerequisite:* ART 3020

This course explores the role of advertising and packaging as part of the graphic design discipline. Emphasis will be on advertising campaign strategies and tactics from a historical perspective, package design solutions targeted to marketing objectives, and media realities and display aesthetics. The history and unique positioning of advertising and packaging will be stressed.

## **ART 4022: User Experience**

### **3 Credit Hours**

*Prerequisite: ART 2550*

This course provides students with a foundation for user experience design. Students can identify common job responsibilities of an entry-level UX designer. The emphasis will be on user-centered projects of professional quality. Effective visual design, user experience content organization, and the processes of user experience project development will also be covered.

## **ART 4023: Interactive Media Design**

### **3 Credit Hours**

*Prerequisite: ART 2550*

This course provides students with the foundations for interactive media design using current industry software applications. It emphasizes the creation and delivery of basic interactive content for current interactive environments, while exploring the features and capabilities of various software applications. Students are expected to demonstrate a high level of technical and creative mastery in their final projects, along with creating successful user experiences.

## **ART 4024: Motion Graphics**

### **3 Credit Hours**

*Prerequisite: ART 2550*

This course provides the student with foundations for motion graphics and digital video using current industry applications. The emphasis is on learning the history, theory, principles, and elements of motion graphic design and the process of motion graphic creation. A broad range of themes, concepts, digital animation, and current technologies are discussed.

## **ART 4030: Design Practicum**

### **3 Credit Hours**

*Prerequisite: ART 3020*

This course focuses on preparing student to have professional design skills and knowledge for clients' projects. Emphasis is on strategic accuracy, the compelling power of the concept, and the refinement of the art direction, along with the ability to create persuasive and effective design presentations. The course includes the clients' projects, site visits and guest speakers from the industry geared towards students' exposure to the professional workplace.

## **ART 4036: Concept Art I**

### **3 Credit Hours**

*Prerequisite: ART 3150 and ART 3160*

This course examines the unique considerations involved in the creation of concept art. Character and environment design will be explored. Traditional and digital mediums will be considered.

## **ART 4037: Concept Art II**

### **3 Credit Hours**

*Prerequisite:* ART 4036

This course continues the exploration of concept art begun in Concept Art I through painting and drawing, source image collection, or moquette construction. Students will have the option to use traditional painting and drawing mediums as well as contemporary digital painting and drawing software.

## **ART 4151: Advanced Drawing I**

### **3 Credit Hours**

*Prerequisite:* ART 3260

Selected topics in drawing of an advanced nature which may include independent student research.

## **ART 4152: Advanced Drawing II**

### **3 Credit Hours**

*Prerequisite:* ART 4151

In this course students will propose a concept and produce a series of thematically linked works. Visual research and citation is required. Evolution of concept and technique is expected. The course extends beyond dry media on paper. Other media is welcome as well as the hybridization of disciplines. The departure from two-dimensional is also possible. All media choices depend on the relevancy of technique to the conceptual statement.

## **ART 4153: Advanced Drawing III**

### **3 Credit Hours**

*Prerequisite:* ART 4152

Students will advance concepts and techniques building on ART 4152. The course extends beyond dry media on paper. Other media is welcome, as well as the hybridization of disciplines. The departure from two-dimensional is also possible. All media choices depend on the relevancy of technique to the conceptual statement.

## **ART 4154: Advanced Drawing IV**

### **3 Credit Hours**

*Prerequisite:* ART 4153

Building on ART 4153, students will further advance concepts and techniques. This course extends beyond dry media on paper. Other media is welcome, as well as the hybridization of disciplines. The departure from two-dimensional is also possible. All media choices depend on the relevancy of technique to the conceptual statement.

## **ART 4256: Advanced Figure I**

### **3 Credit Hours**

*Prerequisite:* ART 3150 and ART 3160

Detailed study of the human figure as a subject in art, including drawing and painting from the live model. Portraiture will be considered in addition to the structure and design potential of the figure.

## **ART 4257: Advanced Figure II**

### **3 Credit Hours**

*Prerequisite:* ART 4256

Detailed study of the human figure as a subject in art, including drawing and painting from the live model. Portraiture will be considered in addition to the structure and design potential of the figure. Expectations exceed levels of ART 4256 Advanced Figure I.

## **ART 4258: Advanced Figure III**

### **3 Credit Hours**

*Prerequisite:* ART 4257

In this course, expectations exceed levels of ART 4257 Advanced Figure II. The focus is detailed study of the human figure as a subject in art, including drawing and painting from the live model. Portraiture will be considered in addition to the structure and design potential of the figure. Various drawing mediums will be used including charcoal and pastel. Various painting mediums will include oil, acrylic and watercolor.

## **ART 4259: Advanced Figure IV**

### **3 Credit Hours**

*Prerequisite:* ART 4258

The purpose of this course is to further strengthen the student's ability to draw and paint the figure. Students will work from the live model and will be expected to work independently to create a cohesive, technically mature body of work equivalent to a professional whose focus is the figure.

## **ART 4266: Advanced Painting I**

### **3 Credit Hours**

*Prerequisite:* ART 3260

Selected topics in painting of an advanced nature which may include independent student research.

## **ART 4267: Advanced Painting II**

### **3 Credit Hours**

*Prerequisite: ART 4266*

In this course, students propose a concept and produce a series of thematically linked works. Visual research and citation is required. Evolution of concept and technique is expected. This course extends beyond oil-based paint applied to canvas or board. Other media is welcome as well as the hybridization of disciplines. The departure from two-dimensional is also possible. All media choices depend on the relevancy of technique to the conceptual statement.

## **ART 4268: Advanced Painting III**

### **3 Credit Hours**

*Prerequisite: ART 4267*

In this course, students will advance concepts and techniques, building on ART 4267. The course extends beyond oil based paint applied to canvas or board. Other media is welcome, as well as the hybridization of disciplines. The departure from two-dimensional is also possible. All media choices depend on the relevancy of technique to the conceptual statement.

## **ART 4269: Advanced Painting IV**

### **3 Credit Hours**

*Prerequisite: ART 4268*

Building on ART 4268, students will further advance concepts and techniques. This course extends beyond oil based paint applied to canvas or board. Other media is welcome, as well as the hybridization of disciplines. The departure from two-dimensional is also possible. All media choices depend on the relevancy of technique to the conceptual statement.

## **ART 4311: Advanced Sculpture I**

### **3 Credit Hours**

*Prerequisite: ART 3310 or ART 3330*

Selected topics in sculpture of an advanced nature, which may include independent student research.

## **ART 4312: Advanced Sculpture II**

### **3 Credit Hours**

*Prerequisite: ART 4311*

Selected topics in sculpture of an advanced nature, building on ART 4311, which may include independent student research.

### **ART 4313: Advanced Sculpture III**

#### **3 Credit Hours**

*Prerequisite:* ART 4312

Selected topics in sculpture of an advanced nature, building on ART 4312, which may include independent student research.

### **ART 4361: Advanced Ceramics I**

#### **3 Credit Hours**

*Prerequisite:* ART 3360 or ART 3380

Selected topics in ceramics of an advanced nature, which may include independent student research.

### **ART 4362: Advanced Ceramics II**

#### **3 Credit Hours**

*Prerequisite:* ART 4361

Selected topics in ceramics of an advanced nature, building on ART 4361, which may include independent student research. Students in Advanced Ceramics II will work with the instructor to push their technical and conceptual abilities with the goal of developing their individual path as a fine artist, designer or craftsman.

### **ART 4363: Advanced Ceramics III**

#### **3 Credit Hours**

*Prerequisite:* ART 4362

Selected topics in ceramics of an advanced nature, building on ART 4362, which may include independent student research. Advanced Ceramics students are expected to take a major role in running the studio. Students will take on ownership and leadership roles, thereby preparing themselves for running a ceramics studio of their own.

### **ART 4364: Advanced Ceramics IV**

#### **3 Credit Hours**

*Prerequisite:* ART 4363

Selected topics in ceramics of an advanced nature, building on ART 4363, which may include independent student research. Students in Advanced Ceramics will work with the instructor with the goal of developing their individual path as a fine artist, designer or craftsman. Students are expected to take a major role in running the studio in preparation for running their own ceramics studio.

## **ART 4365: Technical Ceramics**

### **3 Credit Hours**

*Prerequisite: ART 4362*

This class is an advanced level ceramics course with a focus on kiln design and building, clay formulation, and glaze chemistry. With the feel and structure of a science course delivered through lectures and lab time to run experiments, this mostly technical course is designed to give ceramics students a thorough understanding of all technical aspects of ceramics material.

## **ART 4400: Directed Study in Art**

### **3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected topics of an advanced nature, which may include original research projects. *Notes: Can be used in upper-level course requirements only twice with no more than 3 hours credit given each time*

## **ART 4411: Advanced Photography I**

### **3 Credit Hours**

*Prerequisite: ART 3441*

Selected topics in photography of an advanced nature, which may include independent student research.

## **ART 4412: Advanced Photography II**

### **3 Credit Hours**

*Prerequisite: ART 4411*

Selected topics in advancing studies of photography, which includes independent student research.

## **ART 4490: Special Topics and Art Seminar**

### **3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected special topics and seminars of interest to faculty and upper-level students interested in art.

## **ART 4511: Advanced Printmaking I**

### **3 Credit Hours**

*Prerequisite: ART 3510*

Advance printmaking is an in-depth study of printmaking processes and includes independent supervised research. Student and instructor enter into an agreement at the beginning of the semester to develop projects designed to meet the student's needs and interests in the study of printmaking.

## **ART 4512: Advanced Printmaking II**

### **3 Credit Hours**

*Prerequisite: ART 4511*

This course is a continuation of the study into advanced printmaking processes and will include independent supervised student research. Student and instructor enter into an agreement at the beginning of the semester to develop projects designed to meet the student's needs and interests in the study of printmaking.

## **ART 4513: Advanced Printmaking III**

### **3 Credit Hours**

*Prerequisite: ART 4512*

This course is a continuation of study into advanced printmaking processes and will include independent supervised research specifically designed to prepare for the senior exhibition. Student and instructor enter into an agreement at the beginning of the semester to develop projects designed to meet the student's needs and interests in the study of printmaking.

## **ART 4514: Advanced Printmaking IV**

### **3 Credit Hours**

*Prerequisite: ART 4513*

This course is a continuation of the study into advanced printmaking processes and will include independent supervised student research specifically designed to finalize preparation for the senior exhibition. Student and instructor enter into an agreement at the beginning of the semester to develop projects designed to meet the student's needs and interests for their senior capstone.

## **ART 4520: Planographic Techniques II**

### **3 Credit Hours**

*Prerequisite: ART 3520*

This course examines techniques and contemporary applications of planographic printmaking in silkscreen printing and lithography. The emphasis is on experimentation, design, drawing, and multicolor printing. Topics include hand-cut paper, and film and photographic stencils in silkscreen and hand-drawn aluminum and digital polyester lithographic techniques. Classes include discussion and critique of print content and concept together with the technical skills involved in each phase of the planographic processes.

## **ART 4551: Advanced Bookarts, Letterpress and Papermaking I**

### **3 Credit Hours**

*Prerequisite:* ART 2150 and ART 3550

This course covers advanced letterpress and letterpress–printed book techniques. Students will make handmade paper, expand on their exploration of book design, and learn advanced letterpress printing. Students will continue to explore a variety of printing, papermaking and bookarts techniques as they apply to letterpress printing. Image-making processes will include advanced multi-color linoleum prints, woodcut, collagraph, pressure printing, monoprinting, photopolymer, pulp painting, paper inclusions, and other techniques.

## **ART 4552: Advanced Bookarts, Letterpress and Papermaking II**

### **3 Credit Hours**

*Prerequisite:* ART 4551

This course is a continuation of advanced letterpress and letterpress–printed books techniques. Students will make advanced handmade paper portfolios, expand on advanced exploration of book design, and learn advanced letterpress printing. Students will continue to explore a variety of printing, papermaking and bookarts techniques as they apply to letterpress printing. Image-making processes will include advanced multi-color linoleum prints, woodcut, collagraph, pressure printing, monoprinting, photopolymer, pulp painting, paper inclusions, and other techniques.

## **ART 4600: Advanced Illustration**

### **3 Credit Hours**

*Prerequisite:* ART 3610

The ability to bring a creative project to a full and successful level of finish is often neglected in the academic environment, but is an essential professional skill. This course requires that students meet goals they set for themselves through individualized projects, but that they meet them fully with the highest degree of resolution and polish.

## **ART 4611: The Visual Essay I**

### **3 Credit Hours**

*Prerequisite:* ART 3610, ART 3150, ART 3160, and ART 4256

This course is an introduction to the artist as a visual journalist, documenting the world that surrounds us through on-the-spot drawings and paintings.

## **ART 4612: The Visual Essay II**

### **3 Credit Hours**

*Prerequisite:* ART 4611

This course advances the artist, building on ART 4611, as a visual journalist, documenting the world that surrounds us through on-the-spot drawings and paintings.

### **ART 4613: The Visual Essay III**

#### **3 Credit Hours**

*Prerequisite:* ART 4612

This course advances the artist, building on ART 4612, as a visual journalist, documenting the world that surrounds us through on-the-spot drawings and paintings.

### **ART 4621: Storytelling and Myth-Making I**

#### **3 Credit Hours**

*Prerequisite:* ART 3610, ART 3150, and ART 3160

This course is a discussion and related narrative projects course that will help the student discover the value of the artist's role in society as a story-teller and myth-maker.

### **ART 4622: Storytelling and Myth-making II**

#### **3 Credit Hours**

*Prerequisite:* ART 4621

This course continues the discussion and related narrative projects. This course will help the student discover the value of the artist's role in society as a story-teller and myth-maker.

### **ART 4623: Storytelling and Myth-making III**

#### **3 Credit Hours**

*Prerequisite:* ART 4622

This course continues the discussion and related narrative projects, building on ART 4622. This course that will help the student discover the value of the artist's role in society as a story-teller and myth-maker.

### **ART 4631: Sketchbook Narrative I**

#### **3 Credit Hours**

*Prerequisite:* ART 3600, ART 3150 and ART 3160

This course exercises all of the skills that lead to successful visual communication. The sketchbook is an environment where students can work on idea development that fulfills strict objectives, but allows for risk while helping students become confident in developing their process and to apply it to very specific commercial and editorial concerns.

### **ART 4632: Sketchbook Narrative II**

#### **3 Credit Hours**

*Prerequisite:* ART 4631

This course continues to build upon and exercise all of the skills that lead to successful visual communication in a setting where the student feels comfortable in a professional setting. The sketchbook is an environment where students can work on ideation that fulfills strict objectives and develops artistic identity and helps the student become confident in developing their process and apply it to very specific commercial and editorial concerns.

### **ART 4633: Sketchbook Narrative III**

#### **3 Credit Hours**

*Prerequisite: ART 4632*

This course continues to build upon ART 4632 and exercises all of the skills that lead to successful visual communication in a setting where the student feels comfortable in a professional setting. The sketchbook is an environment where students can work on ideation that fulfills strict objectives and develops artistic identity and confident in developing process and application to very specific commercial and editorial concerns.

### **ART 4700: Advanced Sequential Art**

#### **3 Credit Hours**

*Prerequisite: ART 3715*

Students are expected to demonstrate knowledge of all the basic facets of visual storytelling. This class explores advanced aspects of drawing one's own narratives in long-form sequential art.

### **ART 4711: Narrative Arts**

#### **3 Credit Hours**

*Prerequisite: ART 3150 and ART 3705*

This course will explore the form of visual literature known as "comics" or "comic art". Studying comics and their relationship to popular culture will be a focus within the realm of artistic and literary criticism.

### **ART 4712: Narrative Arts II**

#### **3 Credit Hours**

*Prerequisite: ART 4711*

This course will continue to explore the form of visual literature known as "comics" or "comic art". Studying comics and their relationship to popular culture will be a focus within the realm of artistic and literary criticism.

### **ART 4713: Narrative Arts III**

#### **3 Credit Hours**

*Prerequisite: ART 4712*

This course will continue to build upon ART 4712 and explore the form of visual literature known as "comics" or "comic art". Studying comics and their relationship to popular culture will be a focus within the realm of artistic and literary criticism.

## **ART 4721: Comic Storytelling I**

### **3 Credit Hours**

*Prerequisite: ART 3150*

This class focuses on helping students develop their comic storytelling techniques by illuminating the relationship between text and image on the comic page, ideas of plot versus theme, the use of composition and symbolism in the comic panel, and how all of these correlations work together to serve the goal of the artist in communicating their personal narrative vision in the comic form.

## **ART 4722: Comic Storytelling II**

### **3 Credit Hours**

*Prerequisite: ART 4721*

This class focuses on more advanced development of student comic storytelling techniques by illuminating the relationship between text and image on the comic page, ideas of plot versus theme, the use of composition and symbolism in the comic panel, and how all of these correlations work together to serve the goal of the artist in communicating their personal narrative vision in the comic form.

## **ART 4723: Comic Storytelling III**

### **3 Credit Hours**

*Prerequisite: ART 4722*

Building on ART 4722, this class furthers the development of student comic storytelling techniques by illuminating the relationship between text and image on the comic page, ideas of plot versus theme, the use of composition and symbolism in the comic panel, and how all of these correlations work together to serve the goal of the artist in communicating their personal narrative vision in the comic form.

## **ART 4736: Experimental Comics I**

### **3 Credit Hours**

*Prerequisite: ART 3150 and ART 3705*

This course rigorously combines theory and practice, exploring how different genres (e.g. poem, short story, novel, journalism, film) can be adapted into a sequential art format.

## **ART 4737: Experimental Comics II**

### **3 Credit Hours**

*Prerequisite: ART 4736*

This course has a more advanced approach to combining theory and practice, exploring how different genres (e.g. poem, short story, novel, journalism, film) can be adapted into a sequential art format.

### **ART 4738: Experimental Comics III**

#### **3 Credit Hours**

*Prerequisite: ART 4737*

This course builds upon ART 4737 and fosters professional theory and practice while exploring different genres (e.g. poem, short story, novel, journalism, film) and adapting them into a sequential art format.

### **ART 4800: Computer Aided Design for Textiles II**

#### **3 Credit Hours**

*Prerequisite: ART 3880*

Building on the skills gained in CAD I, this course will explore advance computer design methods and innovative product development. Students will learn how to create application sketches and various simulations that will provide pivotal portfolio development, industry insight and knowledge.

### **ART 4810: Weaving II**

#### **3 Credit Hours**

*Prerequisite: ART 3860*

Building on Weaving I, this course will stress methods of advance woven structures utilizing multi-harness and AVL dobby looms.

### **ART 4820: Technical Development & Drafting II**

#### **3 Credit Hours**

*Prerequisite: ART 3800 and ART 3870*

Building on Technical Development and Drafting I, this course will stress advance drafting methods and the development of unified fashion focused collections.

### **ART 4850: Textile Senior Exit**

#### **3 Credit Hours**

*Prerequisite: ART 3880*

Designed to provide students with integrated knowledge from previous textile courses, this course facilitates the development of a cohesive body of work. By emphasizing critical thinking and researching students will define their personal intentions as a textile artist and/or designer. To prepare for graduation, students will also work on concepts such as personal branding, portfolio development and professional industry skillsets. *Notes: This course is taken in the last or next-to-last semester in the Art, B.F.A. program.*

## **ART 4980: Senior Portfolio and Applied Project**

### **3 Credit Hours**

*Prerequisite:* Completion of 90 hours of coursework

This graduating senior capstone course focuses on the development of a student resume and professional portfolio showcasing work designed for varied platforms. There is also a research component through which to hone knowledge of current job market demands and requirements, as well as graduate school requirements. The work completed in this course should represent an individual style and high level of conceptual ability and professionalism.

*Notes:* This course is taken in the last or next-to-last semester in the Art, B.F.A. program.

## **ART 4990: Senior Art Seminar and Exhibition**

### **3 Credit Hours**

***Prerequisite:*** Completion of 90 hours of coursework

This graduating senior capstone course focuses on the development of a professional graduation exhibition, resume and professional portfolios. Career and graduate school research are course components. Selected topics dealing with professional artists and exhibition practices, culminating with the exhibition of participants' work. The exhibition pieces will demonstrate work that represents an individual style and a high level of conceptual abilities and professionalism. *Notes:* This course is taken in the last or next-to-last semester in the Art, B.F.A. program.

## **ARTS 1100: Art Appreciation**

### **3 Credit Hours**

This course is a 3 semester-credit-hour course focused on fostering an awareness, understanding, and appreciation for the visual arts. Through exposure to cross-cultural art images throughout history, students will build a global artistic vocabulary that allows for the constructive analysis of art objects. Students will also gain an understanding of the influence of art on other important aspects of culture including politics, history, religion, and science. This course is managed through the cooperative academic agreement known as eCore.

## **ARED 3302: Teaching, Learning and Development in Visual Arts**

### **2-3 Credit Hours**

*Prerequisite:* Admission to a program in the School of Art and Design

This course is designed to help students gain an understanding of the current teaching issues in the field of art education and to understand development and learning in the P-12 art room. Creative, artistic, and perceptual development will be presented through an examination of the characteristics of diverse learners and an emphasis on the physical, psychosocial-emotional, and cognitive development of P-12 learners. *Notes:* This course will include 40 field placement hours.

## **ARED 3304: Teaching Art History, Criticism and Aesthetics**

### **3 Credit Hours**

*Prerequisite: ARED 3302, admission to the educator preparation program, current teacher liability insurance, and a currently issued PSC Pre-Service Certificate*

This course is designed to prepare students to develop strategies for teaching art history, art criticism, and aesthetics in the P-12 art classroom. Students will develop materials appropriate for classroom instruction that stimulate and assess art learning. In addition, this course meets the required learning for Fine Arts Georgia Performance Standards and National Standards for Visual Arts.

## **ARED 3306: Materials, Methods and Management for Teaching Art (P-12)**

### **3 Credit Hours**

*Prerequisite: Admission to the educator preparation program (EPP), current teacher liability insurance, and a currently issued GaPSC Pre-Service Certificate*

This course is an intensive laboratory experience using the media and materials for teaching art. Intended for prospective art specialists teaching grades P through 12. Methods and strategies for teaching various art media and processes will be covered. Classroom management strategies are integrated into teaching methods. *Notes: This course will include 40-hours of required pre-recorded video observations.*

## **ARED 3308: Special Populations in Art Education**

### **3 Credit Hours**

*Prerequisite: Admission to the educator preparation program (EPP), current teacher liability insurance, and a currently issued GaPSC Pre-Service Certificate*

This course focuses on content knowledge and applications for art educators teaching students with exceptionalities. Content includes current legal, educational, and therapeutic issues as they relate to teaching art to special populations. Distinctions between art education and art therapy are discussed. *Notes: This course will include a combined 40-hours of required pre-recorded video observations and field experiences coordinated by the Center for Educational Placements and Partnerships (CEPP). Students in the EPP are required to earn a "B" or better to be eligible for certification. This course addresses the GaPSC Rule 505-3-.01 certification rule.*

## **ARED 3309: Visual Art for Early & Middle Grades**

### **2 Credit Hours**

*Prerequisite: Admission to Teacher Education.*

A course designed for preparing elementary school educators to integrate meaningful art experiences into the classroom. Prospective elementary classroom educators develop basic concepts, skills, methods of instruction, and teaching competencies in the specific area of the visual arts.

### **ARED 3398: Internship**

#### **1-12 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

A supervised, credit-earning work experience of one academic semester with an approved school, museum or educational organization involved in the visual arts.

### **ARED 4400: Directed Study**

#### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected topics of an advanced nature, which may include original research projects. The content of the directed study will be determined jointly by the instructor and the student.

### **ARED 4410: Intercultural Curriculum Model**

#### **3 Credit Hours**

*Prerequisite: Admission to the educational preparation program (EPP), current teacher liability insurance, and a currently issued GaPSC Pre-Service Certification*

This course is designed to prepare prospective art teachers to be able to plan and organize effective art programs and curricula, to explore innovative and exemplary art programs and materials, to assess art learning, and to develop a rationale and strategy for articulating and promoting a quality art program. In addition, this course involves an exposure to art education literature that focuses on diversity issues in historical and contemporary contexts (including ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual orientation, and geography). Theories and models of contemporary art education practice are explored. Students also participate in a clinical practice activity in a partner school, involving the cooperative creation, delivery and assessment of an original art curriculum unit. *Notes: This course will include a 40-hours of field experience coordinated by the Center for Educational Placements and Partnerships (CEPP).*

### **ARED 4490: Special Topics in Art Education**

#### **3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected special topics and seminars of interest to faculty and upper-level students interested in art education.

## **ARED 4650: Yearlong Clinical Experience I**

### **2 Credit Hours**

*Prerequisite: Admission to an educator preparation program (EPP), current teacher liability insurance, a currently issued GaPSC Pre-Service Certification, and ARED 4410 Concurrent.*

*EDUC 4610*

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in art education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars.

## **ARED 4660: Yearlong Clinical Experience II**

### **8 Credit Hours**

*Prerequisite: Admission to an educator preparation program (EPP), current teacher liability insurance, a currently issued GaPSC Pre-Service Certification, and ARED 4650 Concurrent.*

*EDUC 4610*

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in art education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of content pedagogy assessment.

## **ARED 4990: Senior Seminar and Portfolio**

### **3 Credit Hours**

*Prerequisite: Permission of instructor*

This graduating senior capstone course focuses on the development of a professional art educator portfolio and other supporting materials. Career and graduate school research are course components. Topics address current issues relative to the emerging art education professional. The portfolio will demonstrate work that represents an individual style and a high level of professionalism. *Notes: This course is taken in the last or next-to-last semester in the Art, BFA program.*

## **ARH 2750: Ancient through Medieval Art**

### **3 Credit Hours**

This lecture/discussion course surveys the art and architecture of the western world from prehistory through the middle ages. It includes an introduction to parallel developments in Asia, Africa, and the Americas.

## **ARH 2850: Renaissance through Modern Art**

### **3 Credit Hours**

This is a lecture/discussion course in which students study major developments and trends in world art from the fifteenth through the twentieth centuries CE. It includes an introduction to parallel developments in Asia, Africa, and the Americas.

## **ARH 3000: Asian Art and Architecture**

### **3 Credit Hours**

*Prerequisite: (ARH 2750 or ARH 2850) and ENGL 1102*

This lecture/discussion course surveys the art of India and Southeast Asia, China, Japan, and Korea from prehistory to the present. Students study the chronological developments of the major styles of painting, sculpture, architecture, and decorative arts from these regions. The course discusses artistic achievements and aesthetics, and it explores how cultural, political, religious, and social climates have shaped the visual arts in Asia from the beginnings of its civilization to the 21st century.

## **ARH 3100: African Art and Architecture**

### **3 Credit Hours**

*Prerequisite: ARH 2750 and ENGL 1102*

This course surveys select tradition-based African arts from the pre-colonial period up until the present day. Emphasis is placed on the study of key monuments and media within a regional and chronological framework, but also on the cultural principles and concepts reflected in canonical African art. The interrelation of art with ritual, religious belief, gender, politics, and history will be continuing themes. Primary media discussed include architecture, sculpture, masquerade, body adornments, and textiles.

## **ARH 3150: Islamic Art and Architecture**

### **3 Credit Hours**

*Prerequisite: ARH 2750 and ENGL 1102*

This course is a survey of visual culture from the Islamic world, beginning with its origins in the seventh century. It examines a range of media, including ceramics, metalwork, textiles, arts of the book, sculpture, and architecture. It considers artistic production and consumption in a variety of regions and social contexts in the Middle East, Europe, Africa, and Asia. And it explores issues such as the definition of Islamic art, its study in the West, and Orientalism.

## **ARH 3200: Ancient American Art and Architecture**

### **3 Credit Hours**

*Prerequisite: ARH 2750 and ENGL 1102*

This course surveys the arts of select Mesoamerica and Andean cultures up to the colonial period. Monuments are studied in a chronological framework with emphasis on the principles and concepts that underlie the art. Style, technique, and media are considered, as well as the varied contexts of art production and reception and the interrelation of art with religion, statecraft, gender, and nature. Sculpture, architecture, textiles, earthworks, metals, and ceramics are the principal art media under consideration.

## **ARH 3240: Native North American Art and Architecture**

### **3 Credit Hours**

*Prerequisite: ARH 2750 and ENGL 1102*

This course surveys key monuments and cultural principles in the arts of select native North American cultures from the pre-contact period until the present day. Architecture, earthworks, terracotta and stone sculpture, textiles, ceramics, and body arts are studied within a regional and chronological framework. The interrelations of art with ritual, religious belief, myth, nature, gender, politics, and history will be continuing themes.

## **ARH 3250: Latin American Art and Architecture**

### **3 Credit Hours**

*Prerequisite: ARH 2750 and ENGL 1102*

A study of Latin-American art from the colonial period to the present. Students in this course study art of the Spanish and Portuguese colonial period, art of the nineteenth century following independence, and major developments and trends in modern painting, sculpture, and architecture since 1900.

## **ARH 3300: Ancient Egyptian and Nubian Art and Architecture**

### **3 Credit Hours**

*Prerequisite: ARH 2750*

This course surveys the art and architecture of ancient Egypt and Nubia. Monuments are studied in a chronological framework with emphasis on the principles and concepts that underlie art. Style, technique and media are considered, as well as the varied contexts of art production and reception and the interrelation of art with religion, myth, social life, and history. Architecture, sculpture, and body modification and adornments are the principle media considered.

## **ARH 3320: Ancient Near Eastern Art and Architecture**

### **3 Credit Hours**

*Prerequisite:* ARH 2750 and ENGL 1102

This course is a survey of the art and archaeology of the ancient Near East (now the Middle East), from the 4<sup>th</sup> millennium BCE through the 7<sup>th</sup> century CE. It examines a range of media in their social, political, and intellectual contexts. It also explores issues such as cultural interaction; political art of ancient empires; gender, ethnicity, and identity; the definition of the "Near East"; Biblical archaeology; and heritage management (especially in times of conflict).

## **ARH 3350: Greek Art and Architecture**

### **3 Credit Hours**

*Prerequisite:* ARH 2750 and ENGL 1102

This course is a survey of ancient Greek visual culture through the Hellenistic period. It examines a range of media in their social, political, and intellectual contexts, exploring such issues as connoisseurship; portraiture; commemorative art; architecture and urban development; cross-cultural exchange; gender, ethnicity, and identity; and ancient art history and criticism. It incorporates new archaeological discoveries as much as possible, and it encourages students to visit museums.

## **ARH 3370: Roman Art and Architecture**

### **3 Credit Hours**

*Prerequisite:* ARH 2750

This course is a survey of the art and architecture of Republican and Imperial Rome, from the first century B.C.E. to the fourth century C.E. It examines a range of media (e.g., coins, pottery, mosaics, sculpture, painting, and architecture) within their social contexts, dealing with such issues as the viewer and viewing; portraiture; gender; ethnicity; social status; domestic space; and urban development. This course incorporates new archaeological discoveries as much as possible, and it encourages students to visit museums.

## **ARH 3398: Internship**

### **1-6 Credit Hours**

*Prerequisite:* A 2.5 GPA and permission of the department chair.

A supervised work experience of one academic semester with a previously approved gallery, museum, or arts organization. No more than 6 credits may be applied as upper-division art history in the major.

## **ARH 3400: Medieval Art and Architecture**

### **3 Credit Hours**

*Prerequisite:* ARH 2750

This course is a survey of medieval art and architecture in Europe and the eastern Mediterranean, from the fourth through fourteenth centuries. It examines a range of media within their social, political, and intellectual contexts, and it discusses such issues as the interaction among the visual cultures of Christianity, Judaism, and Islam; the art of the Crusades; the relationship between word and image; pilgrimage and monasticism; urban development; and gender, ethnicity, and social status.

## **ARH 3500: Italian Renaissance Art and Architecture**

### **3 Credit Hours**

*Prerequisite:* ARH 2850 and ENGL 1102

A survey of art and architecture in Italy from the early fourteenth century to the mid-sixteenth century. The veneration of classical antiquity and the development of naturalistic representation are examined. Issues of patronage, artists' training, and technology are also addressed.

## **ARH 3600: Baroque Art and Architecture**

### **3 Credit Hours**

*Prerequisite:* ARH 2850 and ENGL 1102

A survey of major movements, artists and themes in seventeenth- and eighteenth-century art and architecture in Europe and the Americas.

## **ARH 3700: Nineteenth-Century Art and Architecture**

### **3 Credit Hours**

*Prerequisite:* ARH 2850 and ENGL 1102

This course is a survey of major developments and trends in nineteenth-century painting, sculpture, and architecture. It reviews major aesthetic theories and non-western art forms that shaped nineteenth-century art.

## **ARH 3750: History of American Art and Architecture**

### **3 Credit Hours**

*Prerequisite:* ARH 2850 and ENGL 1102

This course is a survey of the styles and movements of art and architecture in the United States from colonial times to present.

## **ARH 3830: History of Comics, Cartoons and Animation**

### **3 Credit Hours**

*Prerequisite: ARH 2850*

This lecture course will examine the historical development of comics, cartoons, and animation in global culture, tracing their evolution against the background of social, cultural, and technological changes from the 17th to the 21st centuries. Topics may include the subsequent emergence of various related art forms such as animated cartoons and graphic novels.

## **ARH 3840: History of Illustration**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 and ARH 2850*

This is a lecture/discussion course in which students study major developments and trends in the art of illustration as a vehicle for telling of stories from the Paleolithic period to the present.

## **ARH 3850: Art Since 1900**

### **3 Credit Hours**

*Prerequisite: Art majors: ARH 2850 and ENGL 1102. Non art majors: ENGL 1102 and permission of the instructor.*

This is a lecture/discussion course in which students study major developments and trends in visual arts since 1900. Students become familiar with the dominant artistic practices and critical theories that defined "modernism," and with the social, political, and cultural changes that initiated the shift in visual art from modernism to post-modernism.

## **ARH 3990: Research Methods in Art History**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 and ARH 2750 and ARH 2850*

This is a lecture/discussion course in which students are introduced to the main methodologies of art historical research and learn to apply them to the analysis of artistic practice. Lectures and discussions focus on how works and styles of art are looked at and studied, rather than the meaning/significance of the works or styles of art themselves. Students become familiar with the contributions of the most important art historians who have shaped the discipline of art history. During the semester we examine traditional as well as postmodern methodologies including formalism, biography, iconology, Marxism and feminist deconstruction, psychoanalytic and semiotic approaches (including structuralism and post-structuralism).

## **ARH 4000: Historical Studio Practices**

### **3 Credit Hours**

*Prerequisite:* ARH 2850 and (ART 1100 or ART 1150)

This course examines one of four art historical periods by combining lecture/discussion with practical applications. The first week explores the character of the period as it developed according to historical, social, cultural and artistic trends, while the second week involves the practical application of painting techniques that were developed in the Italian Renaissance and applied by academics of art until the beginning of the twentieth century.

## **ARH 4150: African-American Art**

### **3 Credit Hours**

*Prerequisite:* ARH 2850

An introduction to African-American art designed to explore the diverse aesthetic expressions of African-American artists from colonial times to the present. Through an examination of aspects of the religious, social, cultural and creative history of Black Americans, students will develop an understanding of the wealth of contributions made by people of African descent to the development of American art and culture.

## **ARH 4300: Ancient Mythology in Art**

### **3 Credit Hours**

*Prerequisite:* ARH 2750 or HIST 1111 or ANTH 1102 or LATN 1001

The mythology of ancient world cultures are explored via artworks, archaeology, and artifacts. Students will learn how artworks tell stories, and how to read and interpret them.

## **ARH 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite:* Permission of the instructor and department chair.

Selected topics of an advanced nature, which may include original research projects. *Notes:* Can be used in upper-level course requirements only twice with no more than 3 hours credit given each time.

## **ARH 4490: Special Topics in Art History**

### **1-3 Credit Hours**

*Prerequisite:* ENGL 1102 and (ARH 2750 or ARH 2850)

Selected special topics and seminars of interest to faculty and upper-level students interested in art history.

## **ARH 4500: Women in Art**

### **3 Credit Hours**

*Prerequisite:* ARH 2850

This course introduces students to the history of women in the visual arts, particularly as artists, but also as subjects, focusing on western Europe and the Americas. It also considers the evolution of feminism and its applications in art history.

## **ARH 4700: Victorian Art and Culture**

### **3 Credit Hours**

*Prerequisite: ARH 2850 and ENGL 1102*

This course is in a seminar format. Unlike the straightforward lecture approach of survey courses, a seminar is a forum for open discussion of pertinent topics. The Victorian Period covers the reign of Queen Victoria of England, who sat on the throne from 1837 to 1901. An initial overview will touch on several different topics that define the Victorian era, and subsequent classes will consist of student presentations and in-depth class discussions based on assigned readings.

## **ARH 4750: American Landscape Painting**

### **3 Credit Hours**

*Prerequisite: ARH 2850 and ENGL 1102*

This course consists of an in-depth exploration of the phenomenon of American landscape painting. It traces the development of this discipline in the United States and explores the artistic, social, political and historical implications of the images within the context of American Romanticism, Impressionism and Realism from its beginnings in the early eighteenth century to the beginning of the twentieth century.

## **ARH 4820: History of Printmaking**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 and ARH 2850*

This course introduces students to the rich and varied art history of prints in relief, intaglio, serigraphy, lithography and other graphic media. From the early Renaissance in Europe, to Edo Japan, to the 21st century, a variety of major artists have engaged in this challenging art form. This course covers the evolution of print processes and meanings through the centuries.

## **ARH 4840: History of Graphic Design**

### **3 Credit Hours**

This is a lecture/discussion course in which students will study the major developments in graphic design from the Industrial Revolution to the present. This course will familiarize students with major trends in European and American design, with a particular focus on graphic design in the context of art history and the history of material culture. Organized as a survey course, the class will focus on key examples of styles and innovations in graphic design, as they developed in relationship to their times and places. Students will recognize similarities and differences between the work of significant designers, and contemporary developments in modernist visual art, and the theoretical underpinnings of major design movements.

## **ARH 4870: History of Photography**

### **3 Credit Hours**

*Prerequisite: ARH 2850*

A selective survey of nineteenth and twentieth century photography, primarily in Europe and America, emphasizing photography's development as an artistic medium. Focus is on major practitioners of the medium, and on photography's relationship to historical events, psychology, sociology and the development of art and architecture.

## **ARH 4880: History of Textiles and Fashion**

### **3 Credit Hours**

This course explores the history of textile and fashion to understand past to present usage of certain materials and how those materials influence past, current, and future fashion trends.

## **ARH 4900: Contemporary Art**

### **3 Credit Hours**

*Prerequisite: ARH 2850*

This course begins with a consideration of the general reaction to Western Modernism that began in visual art after the 1950s and has come to be known as the period of "Postmodernism," and proceeds to examine issues that define art and challenge artists today. Themes include but are not limited to originality, appropriation, deconstruction, identity politics, post-feminism, commodity critique, installation and performance, digital media, activism and globalism. Students become familiar with the key artists and critics whose ideas informed postmodernism and continue to inform artistic practice today, and the class examines art and critical theory associated with major themes that have emerged in recent art locally, nationally, and globally.

## **ARH 4990: Senior Capstone Project**

### **3 Credit Hours**

*Prerequisite: ARH 3990 and ENGL 1102; senior status.*

This senior capstone course completes the curriculum of the art history major by requiring students to write a substantial paper and to give a presentation. *Notes: This course is taken in the last or next-to-last semester in the Art, B.F.A. program.*

## **ASIA 1102: Introduction to Asian Cultures**

### **3 Credit Hours**

This course provides an overview of key concepts, themes, strategies, and methods in Asian Studies. This course focuses on traditional and contemporary cultures of East and South Asia, especially those of Greater China, Japan, Korea and India. The cultural investigation of Asia is infused with the historical, geographical, economical, political, and religious study of this region. This course also explores the identities of people in Asia and Asian Americans.

## **ASIA 3001: Understanding Asia**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This is the introductory course to KSU's Asian Studies Program. The course uses an interdisciplinary approach to understand Asia's ever-changing contexts. With emphasis on greater China, India, Japan, Korea, and Southeast Asia, the course provides the foundation for further studies of Asia including an overview of the region, connecting past influences to the present. Students examine the origins and development of Asian civilizations from the aspects of geography, people, society, history, philosophy, religion, politics, economy, literature and arts.

## **ASIA 3030: K-pop and the Korean Wave**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course offers an intensive survey of South Korean popular culture in the midst of Hallyu, the Korean Wave. It focuses on performances that have shaped phenomena such as K-pop, musical theatre, film, TV drama, reality shows, and food culture as analyzing sources. Through close reading, students investigate various forms of race, gender and sexuality, and Koreanness paying close attention to specific historical contexts in which performances were produced and circulated in relation to globalization.

## **ASIA 3306: Understanding China through Films**

### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

This course is an exploration of China's culture, history, and society through screening and analyzing prominent Chinese films. Placed in different historical contexts, the selected films address the fundamental question of the continuity between the cultural tradition and socio-economic organization of the past and the elements of change and "modernity" in the present. Course topics include China in tradition; social transformation; identity, gender, and love; intercultural communication; and opportunities in the era of globalization. Readings and discussions are in English.

## **ASIA 3309: Survey of Chinese Literature and Culture**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

ASIA 3309, cross-listed as FL 3309, is a survey of Chinese literature and culture, examining major works and literary and artistic movements as well as cultural issues. Readings and discussion in English; some readings in the original for Chinese language students.

### **ASIA 3333: Queer Asia**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course examines the changing meanings of "normal" and "queer" genders and sexualities in Asia and its diasporas. Working through the leading scholarship in Asian queer theories, students identify major issues about bodies, genders, and sexualities in Asian context, learn sex theories and norms, examine their representations in visual culture, and critically evaluate the knowledge production around queerness and sexuality in the encounters of Asia and the West.

### **ASIA 3340: Contemporary South Asian Literature**

#### **3 Credit Hours**

*Prerequisite: ENGL 2110*

This course explores South Asian experiences by examining diverse aesthetic and cultural perspectives from 20<sup>th</sup> and 21<sup>st</sup> century diasporic South Asian literature. In order to familiarize students with the diverse South Asian population, this course introduces students to a variety of South Asian experiences through literary works from diasporic writers in this demographic. Through critical reading and analysis, reflection, discussion, and research, students discover how similar the South Asian experience is to other familiar communities.

### **ASIA 3355: Cultures and Capitalisms in Asia**

#### **3 Credit Hours**

*Prerequisite: ANTH 1102 and ENGL 1102*

This course compares and contrasts various forms of capitalisms and cultures in Asia to understand the dynamics of society and political life. This course enables students to develop a global perspective on critical issues that concern policymakers, business-strategists, development-workers, and academics from an anthropological perspective. Students compare and contrast various forms of capitalism in Asia from an anthropological vantage point for understanding dynamics of society and political life in Asia.

### **ASIA 3398: Asian Studies Internship**

#### **6-12 Credit Hours**

*Prerequisite: Declared Asian Studies Major and at least 60 credit hours*

This internship course offers a structured professional experience in a supervised setting for students to work in Asian or American companies and organizations. Qualified students are placed at selected internship sites based on internship partners' needs and students' competencies in Asian languages (Chinese, Japanese, Korean) and cultures. Students meet regularly with the course instructor and company or organization supervisors to learn and practice critical career skills in a multicultural work environment.

## **ASIA 3500: Culture & Society of Postwar Japan**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Drawing on interdisciplinary texts (including ethnographic, historical, legal, and literary), this course provides students with an introductory overview of modern Japan, from the postwar to the present. Topics of the course include family, community, youth culture, minority cultures, gender, and sex.

## **ASIA 3670: Survey of Asian Art**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a lecture/discussion course to survey the art of India and Southeast Asia, China, Japan, and Korea from prehistory to the present. Students in this course study the chronological developments of the major styles of painting, sculpture, architecture, and decorative arts from these regions. This course highlights important examples of works of art to discuss the artistic achievements and the aesthetics of these regions, and to explore how cultural, political, religious, and social climates have shaped the visual arts in Asia from the beginnings of its civilization to the 21st century.

## **ASIA 3760: Asian American Cultural Identities**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This interdisciplinary course provides students opportunities to examine cultural identity issues of Asian Americans, the fastest growing ethnic minority group in the US. Through a variety of interdisciplinary learning materials and activities, students will gain understanding and appreciation of the complex concept "Asian Americans."

## **ASIA 3780: Trends in Asian Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course focuses on current issues and trends in the field of Asian Studies. Some topics include Popular Culture in Asia, Pan-Asian Cinema, Gender in Asia, and Environmental Issues in Asia. This course is interdisciplinary and includes Asian content in English. Course may be repeated with a change in content.

## **ASIA 3950: Technology Strategy in Asia**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This is a case study course that looks at organizational approaches to the integration of technology in multiple cultures. In this course, students will look at the international high-tech mindset, from business, social, financial markets, and personal life.

## **ASIA 4001: Teaching English in Asia**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course provides students with knowledge of the socio-cultural issues related to the classroom in Asia. The focus of the course spans both cultural and social issues associated with classroom management in an Asian setting.

## **ASIA 4400: Directed Study**

### **Variable 1-3 Credit Hours**

*Prerequisite: Approval of instructor and department chair prior to registration*

Directed Study is a course in which a student works with a supervising faculty member to investigate a selected advanced topic not served by the existing curriculum.

## **ASIA 4422: Archaeology of Asia**

### **3 Credit Hours**

*Prerequisite: ANTH 1102 or ASIA 3001 or permission of the instructor.*

This course examines cultural and historical developments in Asia from approximately 10,000 BCE through 1600 CE. Students learn about the rise of complex societies, cities, and states; early economies; empires; and the role of archaeology in modern Asia. Along the way, students engage in major debates that have arisen from competing interpretations of the archaeological record.

## **ASIA 4425: Asian Women and Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of women's role and its manifestations in literature in major countries of East and Southeast Asia: China, Japan, Korea, and Vietnam. Students examine women's imagery in masterpieces of literature and appraise important literary works by female authors to explore how women are portrayed in literature and how they view themselves and perceive the world in which they live.

## **ASIA 4435: Sociology of South Asia**

### **3 Credit Hours**

*Learning Support Prerequisites: none Prerequisite: ASIA 1102*

This course examines social change and development in the South Asian societies through a historically informed analysis of social institutions in the region. Some of the key themes explored include contested histories, identity politics and nationalism, democratization, growth, poverty, and inequality. The course includes case studies from Afghanistan, Bangladesh, Bhutan, Nepal, Pakistan, and Sri Lanka, but its main focus is on India.

### **ASIA 4457: South Asian Politics: A Comparative Perspective**

#### **3 Credit Hours**

*Prerequisite: ASIA 3001*

This course is an overview of the main issues that overlay politics in Sri Lanka, Bangladesh, India, and Pakistan. It covers the common historical background and the development of political institutions across the region. The course highlights the main cleavages along which politics are organized and related political, social, and economic outcomes, including the political party system, economic development, social movements, and ethnic conflict.

### **ASIA 4490: Special Topics for Asian Studies**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Selected special topics of interest to faculty and students working in Asian Studies.

### **ASIA 4517: Tea Cultures in Asia**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course explores the significance of tea to Asians, and demonstrates how and why tea becomes such an important social beverage in Asia. Students have the opportunity to gain a deeper understanding and appreciation of Asian cultures and customs.

### **ASTR 1000K: Introduction to the Universe**

#### **4 Credit Hours**

*Prerequisite: MATH 1111*

Students will learn the history of astronomy up to the Copernican Revolution including Galileo, Kepler, and Newton. They will also explore the workings of modern telescopes and study an overview of the solar system and the search for extra-solar planets. In lab students will use planetarium simulation software to explore the concepts and methods of observational astronomy.

### **ASTR 1010K: Introduction to the Universe II**

#### **4 Credit Hours**

*Prerequisite: MATH 1111*

Students will learn the structure and life cycle of stars and the classification of galaxies. They will also explore cosmology and the early development of the universe. In lab students will use planetarium simulation software to explore the concepts and methods of observational astronomy.

## **BIOL 1011K: Introductory Biology and Lab**

### **4 Credit Hours**

An introduction to fundamental unifying principles in biology. Topics covered in the course include: chemistry of life, cell structure and membranes, cellular functions (metabolism, respiration, photosynthesis, communication, and reproduction), genetics (inheritance patterns, DNA structure and function, gene expression, and biotechnology), and evolution. This course involves both lecture and lab components. Biology 1011K is designed for non-STEM students and is not allowed for STEM majors. This course is managed through the cooperative academic agreement known as eCore.

## **BIOL 1012K: Introductory Biology and Lab II**

### **4 Credit Hours**

This course covers the evolution and diversity of organisms, including microbes, protists, fungi, plants, and animals. Additional topics include body systems, the immune system, reproduction and development, and ecology. For non-biology majors only. Biology 1012K is designed for non-STEM students and is not allowed for STEM majors. This course is managed through the cooperative academic agreement known as eCore.

## **BIOL 1107: Principles of Biology I**

### **3 Credit Hours**

Lecture part of a sequence designed for science majors. The course is an introduction to cell and molecular biology as well as molecular and population genetics. Students who successfully complete the class should be able to describe the fundamental biology of the cell, including cellular anatomy and cellular metabolic processes in both plants and animals. Students will also use molecular genetics to describe the basis for heredity and how this is expressed in populations as well as how it informs evolutionary principles.

## **BIOL 1107L: Principles of Biology I Laboratory**

### **1 Credit Hours**

*Concurrent: BIOL 1107*

Laboratory exercises supplement the lecture material of BIOL 1107.

Students will learn how to use scientific equipment to explore the cell and molecular biology in plant and animals as well as the biochemistry of life. Students will learn about experimental design and how to generate and interpret scientific data.

## **BIOL 1108: Principles of Biology II**

### **3 Credit Hours**

Lecture part of a sequence designed for science majors. Students will explore the evolution and diversity of life in this course. Students will have additional focus on organismal anatomy and physiology as well as learning basic principles of ecology.

## **BIOL 1108L: Principles of Biology II Laboratory**

### **1 Credit Hours**

*Concurrent: BIOL 1108*

Laboratory exercises supplement the lecture material of BIOL 1108. Students will examine phylogenetics, organismal diversity, ecological principles, and physiology through a combination of lab observations and hypothesis-testing experiments. Students are also expected to perform a fetal pig dissection in order to explore vertebrate anatomy. Application of the methods of experimental design, data analysis, and data presentation will be a major component of this course.

## **BIOL 2099L: Biology Teaching Assistant**

### **1 Credit Hours**

*Prerequisite: Greater than 60 credits with at least a 3.0 GPA*

Students will have an opportunity to assist in the lab portion of a biology course. Students will learn peer-to-peer communication skills, develop a deeper mastery of biological concepts, and enhance their leadership potential as they guide other students through the learning process.

## **BIOL 225I: Anatomy & Physiology I**

### **3 Credit Hours**

*Prerequisite: (CHEM 1151 and CHEM 1151L) or (CHEM 1211 and CHEM 1211L) or (PHYS 1111 and PHYS 1111L) or (BIOL 1107 and BIOL 1107L)*

This lecture course is the first course in a two-semester sequence designed to explore the biological and chemical processes underlying the structure and function of the human body at the cellular, tissue, organ, and whole-body level. Topics to be covered include, but are not limited to, biological chemistry; cellular structure and function; tissues; and the integumentary, skeletal, muscular, and nervous systems. This course is designed primarily for non-biology majors, especially those pursuing majors in nursing and the allied health professions. Cannot be used for credit toward a degree in Biology.

## **BIOL 225IL: Anatomy & Physiology I Laboratory**

### **1 Credit Hours**

*Concurrent: BIOL 225I*

This course is the laboratory component of BIOL 225I. It is designed to provide hands-on experiences that will enhance and reinforce the content covered in BIOL 225I including basic anatomy and physiology of the skeletal, nervous, and muscular systems as well as basic histology. Structural and functional relationships will be emphasized.

## **BIOL 2252: Anatomy & Physiology II**

### **3 Credit Hours**

*Prerequisite: BIOL 2251*

This lecture course is the second course in a two-semester sequence designed to explore the biological and chemical processes underlying the structure and function of the human body at the cellular, tissue, organ, and whole-body level. Topics to be covered include, but are not limited to, the cardiovascular, endocrine, lymphatic and immune, respiratory, digestive, urinary, and reproductive systems. Metabolism and fluid, electrolyte, and acid-base balance will also be covered. This course is designed primarily for non-biology majors, especially those pursuing majors in nursing and the allied health professions. *Notes: Cannot be used for credit toward a degree in Biology*

## **BIOL 2252L: Anatomy & Physiology II Laboratory**

### **1 Credit Hours**

*Prerequisite: BIOL 2251L Concurrent: BIOL 2252*

This course is the laboratory component of BIOL 2252. It is designed to provide hands-on experiences that will enhance and reinforce the content covered in BIOL 2252, including basic anatomy and physiology of the cardiovascular, respiratory, digestive, urinary endocrine, and reproductive systems. Structural and functional relationships will be emphasized.

## **BIOL 2260: Foundations of Microbiology**

### **3 Credit Hours**

*Prerequisite: BIOL 2251 and BIOL 2251L*

This lecture course provides an introduction to microbiology. This course introduces the student to the diversity and classification of medically significant microorganisms, their modes of pathogenesis and transmission, and the infectious diseases they cause. Topics to be covered include, but are not limited to, microbial cell biology and genetics; major classes of disease-causing microorganisms; host immune response; microbial control; aseptic technique; disinfection; and isolation, culture, staining, and identification of microorganisms. This course is designed primarily for non-biology majors, especially those pursuing majors in nursing and the allied health professions. *Notes: Primarily for nursing majors; cannot be used for credit toward a degree in Biology.*

## **BIOL 2260L: Foundations of Microbiology Laboratory**

### **1 Credit Hours**

*Prerequisite: BIOL 2251 and BIOL 2251L Concurrent: BIOL 2260*

Select laboratory exercises will provide training in the basic laboratory techniques for culture and identification of microbes. *Notes: Primarily for nursing majors. Cannot be used for credit toward a degree in Biology.*

## **BIOL 3110L: Directed Methods**

### **1-3 Credit Hours**

*Prerequisite:* BIOL 1107 and BIOL 1107L and permission of the instructor.

This course will allow students to gain in-depth skills with a specific set of research methodologies through direct involvement in faculty-led research or scholarship. Course content and instructional methodologies will be identified by the faculty's needs and expectations.

## **BIOL 3250K: Ecosystem Ecology**

### **4 Credit Hours**

*Prerequisite:* (BIOL 1108 and BIOL 1108L) and (CHEM 1211 and CHEM 1211L)

Students in ecosystem ecology will study how energy and material flows and cycles through both the living (plants, animals, microbes) and non-living (soils, atmosphere) components of natural systems. Classes and lab exercises will be used to examine the influence of biological, geological and chemical processes. Students will consider factors that alter ecosystem function including human activities, from the molecular to the global scale.

## **BIOL 3300: Genetics**

### **3 Credit Hours**

*Prerequisite:* (BIOL 1107 and BIOL 1107L) and (CHEM 1211 and CHEM 1211L)

This course presents fundamental principles and applications in genetics. Students learn how traits are inherited and to use this information in predicting and analyzing genetic outcomes. Students study nucleic acid structure, learn how DNA replicates and how genes are expressed. Mutation at the gene and chromosomal levels will be surveyed, and their effect on gene structure and function examined. Finally, students will explore various genetic methods, including pedigrees, mapping, and molecular techniques.

## **BIOL 3300L: Genetics Laboratory**

### **1 Credit Hours**

*Concurrent:* BIOL 3300

This course is designed to reinforce principles and applications of transmission genetics, cytogenetics, and molecular genetics. Students will learn to use problem-solving, data analysis and quantitative methods to explore genetics. Exercises in molecular biology will expose students to methods of recombinant DNA technology.

## **BIOL 3301K: Introduction to Biotechnology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L) and (BIOL 3300 and BIOL 3300L)*

This course introduces students to the concepts, methods, and equipment currently associated with the field of biotechnology. Students learn the applications of microbes, plants, and animals in the context of food, medical, environmental, and forensic biotechnology. Students gain practical, hands-on experience with a variety of techniques commonly used in biotechnology.

## **BIOL 3310K: Invertebrate Zoology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L) and (CHEM 1212 and CHEM 1212L)*

This course is a survey of invertebrate animals. Students will explore the varied range of anatomical, physiological, and ecological relationships among these organisms in order to develop an understanding of evolutionary processes that brought about present day patterns in the biodiversity of animal phyla. In lab, students will collect, observe and identify common invertebrate taxa, and relate observed adaptations of form and function to habitat.

## **BIOL 3315K: Vertebrate Zoology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)*

Students will use phylogenetic methods to explain evolutionary origins, ecological relationships, and life history traits of vertebrate organisms. In laboratories, students will identify North American vertebrates and analyze the relationship between morphology and taxonomy.

## **BIOL 3317: Pathophysiology**

### **3 Credit Hours**

*Prerequisite: (BIOL 2252 and BIOL 2252L) or BIOL 4431*

Examines the biological basis of common, clinical disease states. Pathophysiology is treated as a disruption of normal homeostatic mechanisms that progresses beyond the normal compensatory capabilities of the human body.

## **BIOL 3320K: Plant Morphology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)*

In this course students will explore the evolutionary trends and relationships of the phyla of non-vascular and vascular plants, as well as a number of groups of algae. Students will examine vegetative and reproductive morphology across varied life cycles and through paleobotany. Laboratory work is closely tied to lecture material and includes examination of microscope slides as well as dissections and observations of morphological features of specimens. Students will make drawings of many of their specimens. A trip to the Atlanta Botanical Gardens is required.

## **BIOL 3327: Medical Genetics**

### **3 Credit Hours**

*Prerequisite: BIOL 3300 or consent of the instructor.*

An introduction to the principles of medical genetics and the application of these principles to human genetic disorders. Topics include inborn errors of metabolism, cytogenetic anomalies, neural tube defects, and application of molecular genetics to the diagnosis of specific disorders. Genetic counseling procedures, prenatal options and the ethical dilemmas generated as a result of these options will also be discussed.

## **BIOL 3330K: Biology of the Algae**

### **4 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)*

This course covers the physiology, ecology, systematics, and diversity of marine and freshwater algae. In particular, students will explore the role of algae in biogeochemical cycling, the evolution of photosynthesis, and ecosystem function in a changing biosphere. The course also focuses on the applied aspects of algal biology by examining their use as indicators of ecosystem health, food sources, and other social, cultural, and economic commodities. Field collections and experiments are an integral part of the course.

## **BIOL 3335: Natural History of Georgia**

### **4 Credit Hours**

*Prerequisite: BIOL 3370*

This course examines the flora, fauna, geology, and environments of selected Georgia ecoregions. Students will learn the historical and geological development of the state's major habitats and landforms, which are examined by way of two four-day, overnight field trips during the Maymester term.

## **BIOL 3338K: Histology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)*

This course is an investigation of structural and functional relationships in animal tissues. Students will learn to identify functional groups of tissues and relate them to organ functionality. In laboratory studies, students will practice the microscopic analysis of cells, tissues and organs to understand their structural organization from normal animal specimens.

## **BIOL 3340: Microbiology**

### **3 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L )*

This course is a study of prokaryotes, unicellular eukaryotes and viruses. Students will learn about the nature of microorganisms and the techniques used to study microbes. Students will explore the morphology, metabolism, growth, and genetics of various microbes.

## **BIOL 3340L: Microbiology Laboratory**

### **1 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L) Concurrent: BIOL 3340*

This course emphasizes basic microbiology methods. Students will learn to culture, identify and quantify microorganisms. Students will also explore applications of microbiology, including food and environmental microbiology

## **BIOL 3341K: Advanced Microbiology**

### **4 Credit Hours**

*Prerequisite: BIOL 3340.*

This course explores microbial evolution, ecology and diversity. Students will explore infectious diseases and epidemiology to learn the applied uses of microorganisms in industry, agriculture and medicine. The laboratory exercises will help students learn the natural occurrences and processes of microbes in the environment and gene transfer in bacteria along with techniques for the isolation and identification of pathogens, and the use of microbes in industry.

## **BIOL 3370: Ecology**

### **3 Credit Hours**

*Prerequisite: BIOL 1108 and (STAT 1401 or STAT 3125 or IET 2227 or PSYC 3000)*

Students will learn about the relationships among living organisms and their environments at the individual, population, community and ecosystem level. Students will learn how and why traits evolve over time and how to evaluate scientific information.

## **BIOL 3370L: Ecology Laboratory**

### **1 Credit Hours**

*Concurrent: BIOL 3370*

In laboratory and field activities students will utilize inquiry-based activities that emphasize environmental sampling procedures and statistical analysis of data to explore the role of variability and uncertainty in scientific decision-making as related to ecological processes.

## **BIOL 3371K: Freshwater Ecology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)*

Students will develop a comprehensive and integrated understanding of physical, chemical, and biological processes occurring in lakes, streams, and wetlands. Particular emphasis will be placed on the ecology of aquatic organisms and the structure and function of freshwater communities and ecosystems that they inhabit. Laboratory exercises will use the scientific method to investigate and contrast basic ecological processes operating in various systems.

## **BIOL 3372K: Aquatic Biodiversity**

### **4 Credit Hours**

*Prerequisite: BIOL 3370 and BIOL 3370L or permission of the instructor.*

This course is an introduction to the major plant and animal taxa found in aquatic ecosystems. Students will develop field and laboratory identification and collection skills while examining major ecological and biogeographical factors influencing distribution and abundance of aquatic organisms. Notes: A series of three weekend field trips are required.

## **BIOL 3373K: Methods in Aquatic Ecology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L) and STAT 3125*

This course provides students experience in design and execution of studies in aquatic ecology. Students will gain experience with field and lab techniques to conduct aquatic research in various aquatic assessments and wetlands delineation. Students will learn techniques for sampling fish, aquatic invertebrates and aquatic plants as well as techniques in aquatic toxicology. Field experiences are an integral part of the course.

## **BIOL 3375K: Behavioral Biology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L) or comparable research methods course.*

Students will explore the major concepts in behavioral biology. Students will relate neurophysiology to ethology and ecology, and will include a look at the behavior of social organisms. In the laboratory, students will use a quantitative approach to test hypotheses while observing the behavior of animals.

## **BIOL 3380: Evolutionary Biology**

### **3 Credit Hours**

*Prerequisite: BIOL 3300*

Students will study the fundamental questions of evolutionary biology, and focus on how processes such as natural selection, mutation, and drift form the genetic basis of evolutionary change. Students will investigate the role that adaptation, speciation, and genome evolution have played in the diversification of Life on Earth over time. Students will explore the application of evolutionary principles, such as phylogenetic inference, to human health, disease, and conservation efforts.

## **BIOL 3396: Cooperative Study**

### **Variable 1-3 Credit Hours**

*Prerequisite: Approval of Program Coordinator and Coordinator of Cooperative Education/ Internships (Career Services).*

A supervised work experience program for a minimum of two academic semesters at a previously approved site in business, industry or government or a private agency. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training. *Notes: Can be applied to free electives only.*

## **BIOL 3398: Practical Internship**

### **1-4 Credit Hours**

*Prerequisite: Approval of major area committee and Program Coordinator prior to registration.*

This course is a supervised, credit-earning, academic experience with a previously approved business firm, private agency or government agency. Students will learn to integrate biological skills and concepts with appropriate business or agency practice. *Notes: Credit is allowed only in elective areas.*

## **BIOL 3400: Drugs and Biologics: From Conception to Regulatory Approval**

### **3 Credit Hours**

*Prerequisite: BIOL 3300 and (CHEM 3361 and CHEM 3361L)*

This course examines the discovery and development of new pharmaceuticals and biologics. Students will learn the process of drug discovery and the role of the FDA and regulations in that process. Students will evaluate how drug entities are characterized through non-clinical testing and clinical trials.

## **BIOL 3410: Cell Biology**

### **3 Credit Hours**

*Prerequisite: BIOL 3300 and BIOL 3300L*

Modern cell biology is a unifying subject that describes the structure and function of cells in genetic, biochemical, biophysical, developmental and pathophysiological contexts. Students will learn a contemporary view of cell structure and function, including the relationship between membranes, organelles, transporters, and signaling components during the life of a cell, with an emphasis on eukaryotic systems.

## **BIOL 3650: Marine Biology**

### **3 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L)*

Students will explore the physical and biological aspects of the marine environment and describe the impact of humans on this ecosystem. Students will utilize an ecological approach to explore marine flora and fauna.

## **BIOL 3700K: Ichthyology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L)*

This course examines the diversity of fishes. Students will learn the anatomy, physiology, evolutionary history, and ecology of these organisms.

## **BIOL 3720: Sustainability at KSU**

### **3 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L) or GEOG 1113K*

The course includes an in-depth survey of Sustainability efforts in the areas of campus facilities and curriculum at Kennesaw State University and is especially relevant for students with interest in the area of Environmental Studies. The course has a service-learning component in which teams of students examine aspects of KSU's sustainability activities and develop proposals to improve or enhance ongoing efforts or introduce new ones. *Notes: This course is cross-listed with ENVS 3720.*

## **BIOL 4000: Service Learning in Biology**

### **1-3 Credit Hours**

*Prerequisite: 60 hours and permission of instructor and department chair/program director.*

A community activity that links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

## **BIOL 4100K: Molecular Genetics**

### **4 Credit Hours**

*Prerequisite: BIOL 3300*

This course covers molecular genetics theory and practice. Students will examine gene structure and function to learn about genetic engineering and bioinformatics. Students will explore DNA structure, replication, and manipulation to understand sequencing, gene expression, and gene cloning. In the laboratory, students will create recombinant DNA, isolate and purify DNA for mapping and sequence analysis and examine the applications of real-time polymerase chain reactions.

## **BIOL 4110K: Global Biotechnology–Study Abroad**

### **4 Credit Hours**

*Prerequisite: BIOL 3300*

This course combines the best of both worlds – takes students beyond the typical tourist experience and immerses them in another culture and academic setting for a period of time. Students get the opportunity to engage in activities that increase their knowledge of and appreciation for global issues, languages, history, arts, literature, geography, and diversity of another country. Students will learn about the role of biotechnology and its application in industry with a global perspective.

## **BIOL 4115: Parasitology**

### **3 Credit Hours**

*Prerequisite: BIOL 1108 and BIOL 1108L*

This course examines the biology of parasites of major medical/veterinary importance. Students will learn how parasites are transmitted to their host(s) and the pathologies that are generated from host–parasite interactions. Students will also examine the epidemiology of parasitic infection, as well as the methods for suppressing parasites in host populations.

## **BIOL 4115L: Parasitology Laboratory**

### **1 Credit Hours**

*Prerequisite: BIOL 4115*

Laboratory activities will supplement the lecture material of BIOL 4115. Students learn about the different methods to collect and isolate parasites in humans and domestic and wild animals. They will also learn how to identify some parasites of medical and veterinary concern.

## **BIOL 4200: Industrial Microbiology**

### **4 Credit Hours**

*Prerequisite:* BIOL 3340

This course is a detailed survey of advanced microbiological methods used in industry. Students will learn to identify bacterial and fungal microbes found in biosafety and environmental monitoring. In laboratory, students will learn to validate appropriate methods and prepare sterile media for culturing aerobic and anaerobic microbes. Students will also use quantitative methods to produce fermentation in batch and continuous cultures.

## **BIOL 4242K: Ecological Genetics**

### **4 Credit Hours**

*Prerequisite:* BIOL 3300 and BIOL 3300L

This course encompasses the fields of ecology and genetics as they apply to population genetics and conservation and management of natural resources. Students will explore the issues pertaining to the measurement and management of genetic diversity in wild and captive populations and will learn to apply evolutionary concepts to populations and population management.

## **BIOL 4300K: Chromosome Preparation and Analysis**

### **4 Credit Hours**

*Prerequisite:* BIOL 3300 *Corequisite:* BIOL 3327

This extensive preparatory course is designed to give students hands-on experience with the methods used in the preparation of human chromosomes. Collection techniques, culture procedures, harvesting protocol and slide preparation will be followed by analysis and interpretation of karyotypes. Fluorescent in situ hybridization (FISH) will be performed. Array comparative genomic hybridization (aCGH) theory and practice will be discussed. Proper use of various types of microscopes and image capture and analysis by computer will be performed.

## **BIOL 4310L: Cytogenetics Practicum**

### **5-7 Credit Hours**

*Prerequisite:* A grade of "B" or better in BIOL 4300K, a grade "C" or better in BIOL 3327, and approval by the director of the KSU Cytogenetic Technology Program

This course is a supervised, credit-earning work experience of two academic semesters in a clinical cytogenetics laboratory affiliated with either a university hospital or a company. The extensive clinical laboratory training includes routine cytogenetic techniques such as G-banding, as well as advanced techniques such as fluorescent in situ hybridization (FISH) and array CGH (Comparative Genomic Hybridization). Upon the completion of the internship, the student is eligible to sit for the ASCP BOR (American Society for Clinical Pathology Board of Registry) certification exam.

## **BIOL 4322: Plant Systematics**

### **4 Credit Hours**

*Prerequisite: BIOL 1108 and BIOL 1108L*

This course explores the evolutionary relationships of land plants and how those relationships relate to modern and historic classification systems. Students learn the major orders and families of flowering plants along with the skills to identify plants to genus and species in the field and from preserved specimens. The course has a major lab and field component, and students are expected to attend two weekend field trips.

## **BIOL 4333: WIKled Biology**

### **3 Credit Hours**

*Prerequisite: BIOL 1108 and BIOL 1108L*

In this course students use the internet as a dynamic, participatory and collaborative medium to create new, scientifically valid, web based syntheses of biological concepts that may be used to disseminate information on the World Wide Web. Through this process, students learn to judge web sites, acquire a deeper understanding of biological concepts, develop skills of self-monitoring and reflection, and become more proficient in current advances in technology and communication

## **BIOL 4350K: Comparative Vertebrate Anatomy**

### **4 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L) and (CHEM 1211 and CHEM 1211L)*

Students will explore a survey of representative vertebrates and related chordates emphasizing phylogeny and anatomical adaptations. Students will investigate evolutionary trends in the context of large-scale environmental changes that have occurred over geologic time. Using a comparative, systems-based approach, students will explore the relationships between structure and function. In the lab, students will learn to dissect selected vertebrate organisms and study anatomical adaptations among these representative models to recognize the relationships between form and function.

## **BIOL 4390K: Developmental Biology**

### **4 Credit Hours**

*Prerequisite: (BIOL 3300 and BIOL 3300L) and BIOL 3410*

Students will explore the fundamental questions of developmental biology, focusing on both classical experiments and modern molecular and genetic techniques. Students will investigate how differential gene expression and cell-cell communication generate new tissue types, specify the body axes, form the nervous system, and determine sex. Students will explore the role of development in human health and disease. In the laboratory, students will conduct experiments to test hypotheses about the mechanisms of cellular differentiation and morphogenesis.

### **BIOL 4399: Seminar**

#### **1 Credit Hours**

*Prerequisite: BIOL 3410 and 90 credit hours or permission of the instructor.*

Students will learn selected topics of current interest announced during registration.

### **BIOL 4400: Directed Study**

#### **1-4 Credit Hours**

*Prerequisite: Approval of instructor, major area committee and Biology/Physics Department Chair prior to registration.*

Students will learn selected topics of an advanced nature and may include original research projects. *Notes: Up to eight hours may be applied to the major area.*

### **BIOL 4402: Research Internship**

#### **1-4 Credit Hours**

*Prerequisite: (BIOL 3300 and BIOL 3300L) and two BIOL 3000/4000 level biology lab courses; approval of the internship coordinator and Biology and Physics department chair prior to registration*

This course is a supervised, credit-earning research-based experience of one academic semester with an approved business firm, private agency or government agency. The experience is academic in nature and students will learn to collect and/or manipulate scientific data to produce an academic presentation. The preparation of a research proposal prior to the experience is required.

### **BIOL 4411K: Stem Cell Technology**

#### **4 Credit Hours**

*Prerequisite: BIOL 3300 and BIOL 3300L*

Stem cells offer great promise for modern medicine. This course gives students hands-on experience in handling, differentiating, analyzing and purifying stem cells in culture. Students will also gain a broad understanding of in vivo stem cells, including the developmental aspects of cellular self-renewal and tissue regeneration. This is a lab intensive course and will feature in-lab lectures, a formal written component, and in-class presentations.

### **BIOL 4412K: Cell and Tissue Culture**

#### **4 Credit Hours**

*Prerequisite: BIOL 3410*

This course examines the basics of culturing eukaryotic cells, tissues, and organs in vitro. Students will learn the basic cell culture techniques and how they apply to cell lines and primary organ cultures. The application and potential of stem cells and tissue engineering will also be discussed. In laboratory, students will learn how to propagate adherent and non-adherent cell lines and have an opportunity to create primary cell and organ explants cultures. Students will also apply knowledge of aseptic techniques to plant tissue culture applications.

## **BIOL 4420K: Plant Physiology**

### **4 Credit Hours**

*Prerequisite:* (BIOL 1108 and BIOL 1108L), and CHEM 3361

Plant physiology is the study of plant function. Students will learn how plants obtain, transport and utilize water, mineral nutrients, and organic molecules. Students will be introduced to mechanisms used in defense against pathogens and herbivores and learn how environment and hormones control plant growth and development. Students will examine each process at the biochemical, cellular and organismal level. Laboratory studies will introduce students to contemporary approaches used in the study of plant physiology.

## **BIOL 4422K: Plant Ecology**

### **4 Credit Hours**

*Prerequisite:* BIOL 1108 and BIOL 1108L

Students will learn aspects of physiological responses of plants to their environment, methods to determine plant population growth and plant distribution patterns, as well as interactions among plants and other organisms. They will use science as a process and learn to argue scientific points of view persuasively. Students will also learn to use classical and modern technologies to address questions in plant ecology.

## **BIOL 4431: Human Physiology**

### **3 Credit Hours**

*Prerequisite:* (BIOL 1108 and BIOL 1108L) and (CHEM 1212 and CHEM 1212L)

This course is designed to introduce biology majors to the fundamentals of mammalian physiology, with the human as the model organism. This course emphasizes the normal functioning of the human body, homeostatic mechanisms, and the relationship between form and function; however, disease states will be described at various times to illustrate how normal functions become disrupted.

## **BIOL 4431L: Human Physiology Laboratory**

### **1 Credit Hours**

*Concurrent:* BIOL 4431

In this laboratory students will learn how to measure physiological variables across systems using human and non-human models. Students will explore the principles of homeostasis across systems complementing the lecture by gathering and communicating the analysis of appropriate data from a number of experimental systems.

## **BIOL 4432K: Human Anatomy**

### **4 Credit Hours**

*Prerequisite:* (CHEM 1211 and CHEM 1211L) and (BIOL 1108 and BIOL 1108L)

This course examines the anatomical structure of the human body, with emphasis on the relationship between form and function. Students will learn the anatomy of the human body by examining individual organ systems, both from a macroscopic and microscopic perspective.

## **BIOL 4440: Toxicology**

### **3 Credit Hours**

*Prerequisite:* (BIOL 1108 and BIOL 1108L) and CHEM 3361

This course is an introduction to the principles and mechanisms of toxicology as applied to toxicants encountered in the environment. Students will learn how toxins are absorbed, distributed, stored, and eliminated across a range of organisms. Students will also explore the transport of environmental contaminants and the characteristic of specific classes of toxicants as they relate to testing and regulation.

## **BIOL 4450: Team Research**

### **1-4 Credit Hours**

*Prerequisite:* BIOL 3300 and BIOL 3300L and permission of instructor.

This course is a group experience in biological research in which class members form a research team to design, perform, analyze and write up for publication a single project or group of related projects under the supervision and direction of a faculty member.

## **BIOL 4455: Case Studies in Forensic Science**

### **3 Credit Hours**

*Prerequisite:* BIOL 3300 and BIOL 3300L; Recommended - CRJU 3320

This course will discuss the role and application of forensic science in criminal investigations and legal proceedings. Students will learn forensic DNA analysis and other aspects of forensic science as utilized in the modern US legal system.

## **BIOL 4460K: Medical Microbiology**

### **4 Credit Hours**

*Prerequisite:* BIOL 3340

This course will explore the disease process of, the immune response to, and the prevention and treatment of the medically important Monera, Viruses, Fungi and some microscopic Protista with emphasis on emerging infections, including a laboratory experience that focuses on enhancing laboratory and investigative skills.

## **BIOL 4465: Immunology**

### **3 Credit Hours**

*Prerequisite: BIOL 3300 and BIOL 3300L; Recommended - BIOL 3340*

This course will explore current concepts of the immune system. Emphasis will be placed on the induction of the immune response, on the mechanism(s) of those responses, and on the mechanism(s) by which the immune system protects against disease. The development and the role of each of the components involved in the immune response as well as immunological applications will be discussed.

## **BIOL 4470: Methods in Forensic DNA Analysis**

### **3 Credit Hours**

*Prerequisite: BIOL 3300 and BIOL 3300L*

This laboratory-intensive course will introduce students to the techniques currently used in Forensic DNA profiling by crime labs across the country. In laboratory activities students will extract and purify DNA and utilize PCR-based profiling methods. Students will also learn to interpret data and generate reports. Discussions will include the historical development of DNA profiling, and the development of new profiling methods. Legal issues associated with quality control, frequency estimates, chain of custody, and admissibility will also be explored by students in the class.

## **BIOL 4475: Virology**

### **3 Credit Hours**

*Prerequisite: BIOL 3300; Recommended - BIOL 3340*

This course will explore current concepts associated with the field of virology. The structure and genetic composition of viruses as well as strategies for replication and expression of viral genetic material will be explored. Mechanisms of viral pathogenesis will be presented. In addition, current methods for viral diagnostics, prevention of viral infection and treatment of infected individuals will be presented within the context of viruses of historical significance as well as newly emergent viruses of current medical concern. Novel infectious agents such as satellites, viroids and prions will also be discussed.

## **BIOL 4476: Mycology**

### **3 Credit Hours**

*Prerequisite: BIOL 3300*

This course is the study of unicellular and multicellular fungi. Students will explore the nature, morphology, cell structure, growth and metabolism of fungi. Students will be able to understand the beneficial and the harmful role of fungi in an ecosystem and will learn methods of controlling harmful fungi. Students will learn gene manipulation techniques in the development of Biotechnology products using fungi as vectors.

## **BIOL 4480: Food Microbiology**

### **4 Credit Hours**

*Prerequisite: BIOL 3340*

This course covers various aspects of food microbiology. Students will learn the source of microbial contamination during food production, processing and storage and the factors influencing microbial growth in foods. Students will explore the role of microorganisms in food spoilage, illnesses, fermentation, and preservation. In the laboratory, students will learn the methods used to isolate, enumerate, identify, or control microorganisms in food. The laboratory is an integral part of the course, allowing students to apply microbiological concepts in laboratory exercises.

## **BIOL 4486: Bioethics**

### **3 Credit Hours**

*Prerequisite: BIOL 3300, plus a minimum of 9 additional hours of 3000–4000 level Biology or Biochemistry or consent of instructor.*

This course will enable the student to think more critically about some of the difficult moral problems which arise in the practice of science and from our contemporary understanding of living systems and biotechnology. Readings and discussion will focus on issues of personal decision making and public policy regarding both biomedical and environmental issues.

## **BIOL 4490: Special Topics in Biology**

### **1–4 Credit Hours**

*Prerequisite: Varies as to topic.*

Selected special or current topics of interest to faculty and students.

## **BIOL 4500K: Bioinformatics I**

### **4 Credit Hours**

*Prerequisite: A grade of "B" or better in BIOL 3300, and (MATH 1190 or MATH 1179) Concurrent: BIOL 3410*

Students use the fundamental concepts of biological sequence analysis, including information flow in biological systems and use of sequence and structure databases in research and drug discovery, which are the underpinnings of the genomic revolution. Students will: assemble sequencing reads into contigs; find and annotate protein coding genes; search biological databases; perform sequence alignments; analyse the phylogenetic relationships between sequences; assess the statistical significance of assembly, search and alignment results; and predict protein structure.

## **BIOL 4510K: Bioinformatics II**

### **4 Credit Hours**

*Prerequisite: BIOL 4500K*

This course emphasizes the principles of laboratory generation, bioinformatics and other computational analysis, and practical application of results from real-world data drawn from genomics-level research projects at KSU and elsewhere. Students will perform genome-wide association studies, assemble transcriptomes, quantitate and visualize differential expression, and analyze cellular interaction networks. Students will use data that spans and integrates many levels of biological organization, multiple 'kingdoms,' and diverse applications (e.g., human health, agriculture, industrial microbial processing).

## **BIOL 4550: Cancer Biology**

### **3 Credit Hours**

*Prerequisite: BIOL 3410*

This course will cover the underlying biochemical, molecular and cellular events involved in carcinogenesis, tumor growth, and metastasis. This will include signaling pathways, proteins and regulatory networks involved in cell growth, cell death and tissue organization. Students will also be introduced to modern biochemical and molecular techniques used to dissect the molecular mechanisms controlling cancer development as well as a knowledge of the latest breakthroughs in cancer therapeutics.

## **BIOL 4610: Advanced Topics in Anatomy & Physiology**

### **1-4 Credit Hours**

*Prerequisite: BIOL 3410*

This course covers advanced topics in physiology that may fit the needs and interests of highly select students. Students may learn advances in laboratory techniques or even microbial and cellular physiology.

## **BIOL 4620: Advanced Topics in Ecology & Evolution**

### **1-4 Credit Hours**

*Prerequisite: BIOL 3370 or BIOL 3380*

Advanced topics in ecology and evolution that may fit the needs and interests of students and faculty. Such topics might include advanced lab and field techniques, microbial ecology, evolution of specific taxa, biology of gender.

## **BIOL 4630: Advanced Topics in Cell & Molecular Biology**

### **1-4 Credit Hours**

*Prerequisite: BIOL 3410*

This course covers advanced topics in cell or molecular biology that may fit the needs and interests of highly select students. Student may learn such topics as advanced microbial genetics, or the biology of cancer.

## **BIOL 4635: Advanced Topics in Microbiology**

### **1-4 Credit Hours**

*Prerequisite: BIOL 3340*

This course covers advanced topics in microbiology that may fit the needs and interests of highly select students. Student may learn topics like microbial ecology, mycology, or even protozoology.

## **BIOL 4800K: Diagnostic Microbiology**

### **4 Credit Hours**

*Prerequisite: BIOL 3340 and BIOL 3301K or permission of the instructor.*

Students will learn the design and application of advanced microscopy, antibiotic sensitivity testing, antibody-based assays and nucleic acid techniques for the detection and identification of infectious agents.

## **ENVS 2202: Environmental Science**

### **3 Credit Hours**

Environmental Science, the study of interactions between humans and the environment, is an interdisciplinary science course that integrates principles from biology, chemistry, ecology, geology, and non-science disciplines. Issues of local, regional, and global concern will be used to help students explain scientific concepts and analyze practical solutions to complex environmental problems. Emphasis is placed on the study of ecosystems, human population growth, energy, pollution, and other environmental issues as well as important environmental regulations. Environmental Science 2202 is designed for non-STEM students and is not allowed for STEM majors. This course is managed through the cooperative academic agreement known as eCore.

## **BED 4490: Special Topics in Biology Education**

### **1-6 Credit Hours**

*Prerequisite: Permission of the instructor and department chair.*

Selected special topics of interest to faculty and students.

## **BUSA 1000: Introduction to Business**

### **3 Credit Hours**

*Prerequisite: Business Majors: Freshman or Sophomore standing; Non-business Majors: None.*

Broad-spectrum analysis of business enterprise, its nature, environment, organization, management, operation and control procedures.

## **BUSA 2150: Professionalism I: Clarifying My Major and Career**

### **0 Credit Hours**

This course is part of a program in Coles College, designed to introduce students to professionalism skills, knowledge, and attitudes necessary to succeed in the current business environment. In this course, students research their prospective major, discover appropriate resources, and engage in various career management activities.

## **BUSA 3150: Professionalism II: Relevant Work Experience**

### **0 Credit Hours**

*Prerequisite: BUSA 2150 and [(Grades of "B" or higher in ACCT 2101, ACCT 2102, ECON 2105, and ECON 2106) or Admission to Coles College Undergraduate Professional Program]*

This course is part of a program in Coles College, designed to introduce students to professionalism skills, knowledge, and attitudes necessary to succeed in the current business environment. In this course, students focus on their talents, skills and strengths and become more self-aware through personal assessment. Students explore opportunities to participate in relevant work experience and complete preparatory activities to attain employment or advance in a current career.

## **BUSA 3397: Internship and Experiential Learning in Business Administration**

### **0-3 Credit Hours**

*Prerequisite: Approval of the Career and Internship Advisor (KSU Career Planning and Development), and a minimum GPA of 2.0.*

This is a supervised work experience of one academic semester with a previously approved business firm, private agency or government agency. This course is designed to provide hands-on experiences and challenges to help students develop and improve their skills and problem-solving abilities. Prior to enrolling in this course, students are responsible for working with their Career & Internship Advisor to secure an approved internship position. Current and prior work experience does not qualify for credit. Graded assignments are required to receive credit. This course will be graded on an S/U basis. *Notes: This course may only be used in the Business Electives of the BBA.*

## **BUSA 3500: Culture & International Business**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program OR student in a Coles College Partner Program that includes this course.*

This course explores the cultural challenges of doing business in another country. It will focus on how to communicate, manage and lead individuals, conduct operations, and market products in countries with different languages, characteristics, customs, values and attitudes. Because this course is offered as a part of an education abroad program, special emphasis will also be placed on the culture of the designated country(ies).

## **BUSA 4150: Professionalism III: Post-Graduate Success**

### **0 Credit Hours**

*Prerequisite: BUSA 3150 and Admission to the Coles College Undergraduate Professional Program.*

This course is part of a program in Coles College, designed to introduce students to professionalism skills, knowledge, and attitudes necessary to succeed in the current business environment. In this course, students will fine-tune the skills required for post-graduation success.

## **BUSA 4490: Special Topics in Business Administration**

### **1-3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and the Associate Dean for Undergraduate Business Programs.*

Selected special topics of interest to faculty and students

## **BLAW 2200: Legal and Ethical Environment of Business**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

Covers torts, contracts, government regulation of business and the legal system. Also addresses ethical issues arising in business internal and external relationships.

## **BLAW 3400: Negotiation**

### **3 Credit Hours**

*Prerequisite: BLAW 2200 with minimum grade of "C", 60 credit hours with a minimum GPA of 2.0, and (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course).*

An examination of the theory and practice of negotiation. In addition to reviewing readings, students will participate in simulations and discuss negotiation cases to broaden their negotiating techniques.

## **BLAW 4100: Advanced Business Law**

### **3 Credit Hours**

*Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A study of legislation regulating business partner-ships, corporations, commercial paper, secured transactions, sales, consumer credit and bankruptcy.

## **BLAW 4200: Employment Law**

### **3 Credit Hours**

*Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A study of the influence of law on the personnel function, with special emphasis on discrimination laws and affirmative action issues. Provides an overview of various federal laws such as the National Labor Relations Act, The Fair Labor Standards Act and ERISA.

## **BLAW 4300: Real Estate Law**

### **3 Credit Hours**

*Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Designed to provide the business student with an understanding of the nature, sources and principles of real estate law, and its importance in the business environment. Topics include: real property; contracts involving real estate, deeds and titles; transfer of real estate, mortgages, liens, zoning and land use controls, condemnation, real estate agents and landlord-tenant law.

## **BLAW 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and the Director of the School of Accountancy prior to registration. Special topics of an advanced nature not in the regular course offerings.*

## **BLAW 4490: Special Topics In Business Law**

### **1-3 Credit Hours**

*Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and the Director of the School of Accountancy prior to registration. Selected topics of interest to faculty and students.*

## **BLAW 4500: Franchise Law**

### **3 Credit Hours**

*Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Designed to provide the business student with an understanding of the nature, sources and principles of franchise law and its importance in the business environment. Topics include: fundamentals of franchising, intellectual property, FTC Rules and disclosure, requirements of franchise registration and business opportunity law and earnings claims.

## **BLAW 4600: International Law: Business Applications**

### **3 Credit Hours**

*Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Examines the international legal system and alter-native means of international dispute resolution. Covers laws that determine when and under what conditions companies are allowed to do business abroad. Cases used to explore choosing the most appropriate business relationship and entering the most advantageous agreement.

## **BLAW 4960: Current Issues in Business Ethics and Law**

### **3 Credit Hours**

*Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An examination of contemporary issues in legal and ethical behavior in organizations. Stresses the application of ethical principles to business.

## **CHEM 1151: Survey of Chemistry I**

### **3 Credit Hours**

First course in a two-semester sequence covering elementary principles of general, organic and biochemistry designed for allied health professions majors. Topics to be covered include elements and compounds, chemical equations, nomenclature, and molecular geometry.

## **CHEM 1151L: Survey of Chemistry Laboratory I**

### **1 Credit Hours**

*Concurrent: CHEM 1151*

Laboratory exercises designed to supplement the lecture material of CHEM 1151.

## **CHEM 1152: Survey of Chemistry II**

### **3 Credit Hours**

*Prerequisite: CHEM 1151*

Second course in a two-semester sequence covering elementary principles of general, organic and biochemistry designed for allied health professions majors.

## **CHEM 1152L: Survey of Chemistry Laboratory II**

### **1 Credit Hours**

*Prerequisite: CHEM 1151L. Concurrent: CHEM 1152*

Laboratory exercises designed to supplement the lecture material of CHEM 1152.

## **CHEM 1211: Principles of Chemistry I**

### **3 Credit Hours**

*Concurrent: MATH 1113 or MATH 1190 or MATH 1179 or MATH 2202*

First course in a two-semester sequence covering the fundamental principles and applications of chemistry designed for science majors. Topics to be covered include composition of matter, stoichiometry, periodic relations, and nomenclature.

## **CHEM 1211K: Principles of Chemistry and Lab I**

### **4 Credit Hours**

*Concurrent: MATH 1113 or MATH 1190 or MATH 2202*

The first course in a two-semester sequence covering the fundamental principles and applications of chemistry designed for science majors. Topics to be covered include composition of matter, stoichiometry, periodic relations, and nomenclature. Laboratory exercises supplement the lecture material. This course is managed through the cooperative academic agreement known as eCore.

## **CHEM 1211L: Principles of Chemistry Laboratory I**

### **1 Credit Hours**

*Concurrent: CHEM 1211, and (MATH 1113 or MATH 1190 or MATH 1179 or MATH 2202)*

Laboratory exercises designed to supplement the lecture material of CHEM 1211.

## **CHEM 1212: Principles of Chemistry II**

### **3 Credit Hours**

*Prerequisite: CHEM 1211 and (MATH 1113 or MATH 1190 or MATH 1179 or MATH 2202)*

Second course in a two-semester sequence covering the fundamental principles and applications of chemistry designed for science majors.

## **CHEM 1212K: Principles of Chemistry and Lab II**

### **4 Credit Hours**

*Prerequisite: CHEM 1211 and (MATH 1113 or MATH 1190 or MATH 2202)*

Second course in a two-semester sequence covering the fundamental principles and applications of chemistry designed for science majors. Laboratory exercises supplement the lecture material. This course is managed through the cooperative academic agreement known as eCore.

## **CHEM 1212L: Principles of Chemistry Laboratory II**

### **1 Credit Hours**

*Prerequisite: CHEM 1211, and CHEM 1211L Concurrent: CHEM 1212*

Laboratory exercises designed to supplement the lecture material of CHEM 1212.

## **CHEM 2050: Introduction to Directed Research**

### **1-3 Credit Hours**

*Prerequisite:* CHEM 1211 and CHEM 1211L and permission of the instructor.

This course enables freshmen and sophomores to conduct an applied research project that is directed by a faculty member. Students may earn between one and three credits per semester and this course may be repeated for up to a total of five credit hours only.

## **CHEM 2800: Quantitative Analytical Chemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 1212 and (MATH 1190 or MATH 1179)

This course introduces students to statistics; the use of spreadsheets; principles of gravimetric and volumetric analysis; concepts of chemical equilibria as applied to acid-base, precipitation and complex ion reactions; electrochemistry and potentiometry; ultraviolet-visible spectroscopy; and an introduction to modern chromatographic separations.

## **CHEM 2800L: Quantitative Analytical Chemistry Laboratory**

### **1 Credit Hours**

*Prerequisite:* CHEM 1212L *Concurrent:* CHEM 2800

Laboratory experiments include: gravimetric analysis, precipitation, compleximetric, and reduction-oxidation titrations; potentiometric applications; calibration techniques using ultraviolet - visible spectroscopy. Tutorials on the application of spreadsheets.

## **CHEM 3000: Chemical Literature**

### **3 Credit Hours**

*Prerequisite:* CHEM 3361

An exploration of the process and practice of chemical research that leads to publication. An introduction to resources and methods for searching the chemical literature.

## **CHEM 3010: Medicinal Chemistry**

### **3 Credit Hours**

*Concurrent:* CHEM 3501 or CHEM 3500

This course covers fundamentals of pharmacology such as drug discovery/development and pharmacokinetics, with emphasis given to the role of chemistry and biochemistry in these areas. A main focus of the course will be how drugs function at the molecular level. Examples will be chosen from drugs that target enzymes, receptors, and DNA.

## **CHEM 3030: Pharmaceutical Analytical Chemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 2800 and CHEM 3000

This course describes the major techniques used in the analysis of pharmaceuticals following the United States Pharmacopoeia. The topics include quality control, physical and chemical properties of drug molecules and various chemical analysis including classical methods, spectroscopy, and chromatography.

## **CHEM 3030L: Pharmaceutical Analytical Chemistry Laboratory**

### **1 Credit Hours**

*Prerequisite:* CHEM 3362, CHEM 3362L, and MATH 1190 *Concurrent:* CHEM 3030

This course provides hands-on experience in the laboratory of the major techniques used in the analysis of pharmaceuticals following the United States Pharmacopoeia. The laboratory experiments involve the analysis of drug molecules by dissolution, titration, molecular spectroscopy, atomic spectroscopy, GC, and HPLC including methods of extraction and thermal methods of analysis.

## **CHEM 3050: Physical Chemistry**

### **3 Credit Hours**

*Prerequisite:* PHYS 2212 (or concurrent enrollment), MATH 2202 and CHEM 2800

This one semester course in physical chemistry provides a survey of thermodynamics, chemical equilibria, and kinetics. It also includes an introduction to the quantum mechanical principles important in understanding molecular spectroscopy and molecular modeling.

## **CHEM 3105: Inorganic Chemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 3050 or CHEM 3601 *Concurrent:* CHEM 3105L

In-depth study of concepts and theories of inorganic chemistry. Topics include atomic structure, bonding, coordination chemistry, reaction mechanisms, symmetry, and a general survey of descriptive inorganic chemistry.

## **CHEM 3105L: Inorganic Synthesis**

### **1 Credit Hours**

*Concurrent:* CHEM 3105

Laboratory course to introduce the concepts and practices of inorganic synthetic chemistry. Emphasis is on the synthesis, characterization, reactivity, structure, and other properties of the inorganic compounds and complexes. The course introduces standard methodology for the synthesis and characterization of compounds.

## **CHEM 3110: Bioinorganic Chemistry**

### **3 Credit Hours**

*Prerequisite: CHEM 3050 Concurrent: CHEM 3110L*

General aspects of bioinorganic chemistry will be discussed including physical methods, roles of metals in biological systems, classes of metalloproteins and metalloenzymes, and metals in medicine. The primary focus is on understanding how metals make a variety of biological functions possible through their unique properties.

## **CHEM 3110L: Bioinorganic Chemistry Laboratory**

### **1 Credit Hours**

*Concurrent: CHEM 3110*

The aim of this laboratory is to integrate concepts from biology and inorganic chemistry by performing experiments that lie at the interface of these two disciplines. Lecture topics will be reinforced through experiments covering synthesis and analysis of bioinorganic model compounds, enzyme activity as it relates to metal availability, and metal therapeutics.

## **CHEM 3120: Descriptive Inorganic Chemistry**

### **3 Credit Hours**

*Prerequisite: CHEM 3050 Corequisite: CHEM 3105L*

General aspects of inorganic chemistry including bond theory, periodicity, acid-base chemistry, energetics, reaction mechanisms, model systems, kinetics, redox chemistry, and descriptive chemistry of the elements with primary focus of taking students from the introductory principles of chemistry to a broader and deeper level of understanding of the chemistry across the periodic table.

## **CHEM 3200: Culture and Chemistry**

### **3 Credit Hours**

*Prerequisite: CHEM 3361*

This global learning course will expose students to the predominant chemistry conducted in the host country at the university level, as well as in industry. The culture, history, and lifestyle of the host country population will be experienced through visits to museums, landmarks, restaurants and/or historical sites. Other scientific locations of interest will also be visited to increase the interdisciplinary nature of the science to which students are exposed.

## **CHEM 3361: Modern Organic Chemistry I**

### **3 Credit Hours**

*Prerequisite: CHEM 1212*

This course is the first of a two-semester sequence in modern organic chemistry. The course includes a study of structure, properties, synthesis, and reactions of basic organic compounds using modern structural and mechanical theories.

## **CHEM 3361L: Modern Organic Chemistry Lab I**

### **1 Credit Hours**

*Prerequisite: CHEM 1212L Concurrent: CHEM 3361*

Laboratory experiments designed to introduce the students to modern experimental method used in organic chemistry for separation of mixture, purification of compounds, and reactions illustrating single functional group transformation.

## **CHEM 3362: Modern Organic Chemistry II**

### **3 Credit Hours**

*Prerequisite: CHEM 3361*

This course is the second of a two-semester sequence in modern organic chemistry. The course includes a study of structure, properties, synthesis, and reactions of basic organic compounds using modern structural and mechanical theories.

## **CHEM 3362L: Modern Organic Chemistry Lab II**

### **1 Credit Hours**

*Prerequisite: CHEM 3361L Concurrent: CHEM 3362*

Laboratory experiments designed to introduce the students to modern experimental methods used in organic chemistry synthesis, characterization of compounds, and multi step synthesis of useful target-compounds from readily available starting material.

## **CHEM 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of coordinator of cooperative education/internship.*

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency. *Notes: Credit is allowed only in elective areas.*

## **CHEM 3398: Internship**

### **Variable 1-12 Credit Hours**

*Prerequisite: Approval of internship coordinator and chair.*

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency. *Notes: Credit is allowed only in elective areas.*

## **CHEM 3400: The Teaching and Learning of Chemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 3361

An introduction to the methods of effective chemistry teaching in both the classroom and laboratory settings. Current chemical education research literature on topics such as theories of teaching, active learning strategies, misconceptions, multiculturalism, laboratory design, demonstrations, and assessment will be introduced and discussed. Class meetings will include hands-on activities where demonstrations and laboratory investigations are designed, enacted, and assessed as well as discussions about research-based best practices in the presentation of chemistry concepts to diverse student populations. Time will also be devoted to ensuring that essential chemistry content such as electro chemistry, thermodynamics, kinetics, and bonding are thoroughly understood so that they can be communicated effectively in the classroom.

## **CHEM 3450: Peer Leading in Chemistry**

### **2 Credit Hours**

*Prerequisite:* CHEM 3361 or instructor consent.

The purpose of this course is to support and prepare students for the role of peer leader. Peer leaders work with small groups of students that are enrolled in introductory chemistry courses on a weekly basis. The course involves training in pedagogical techniques and a review of relevant chemistry concepts. Emphasis is made on reflective practices within the peer led setting. Enrollment by permit only.

## **CHEM 3500: Biochemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 3362

This course is a one-semester, lecture-only biochemistry course. Concepts covered include the structure and function of biomolecules, membranes, enzyme kinetics, metabolism and bioenergetics, as well as biological information flow. Intended for chemistry, biology, or biotechnology majors. *Notes:* Biochemistry majors are required to take CHEM 3501/L and CHEM 3502.

## **CHEM 3500L: Biochemistry Laboratory**

### **1 Credit Hours**

*Prerequisite:* CHEM 3362L *Concurrent:* CHEM 3500

This laboratory serves as an introduction to biochemistry laboratory techniques and includes biochemical applications of spectroscopy, electrophoresis and chromatography. CHEM 3500L is a laboratory companion to CHEM 3500 and is taken by general chemistry, forensic, professional, and chemistry education track chemistry majors and others needing a one semester biochemistry course with laboratory. This laboratory is not intended for biochemistry majors.

## **CHEM 3501: Biochemistry I: Structure and Function of Biological Macromolecules**

### **3 Credit Hours**

*Prerequisite: CHEM 2800 and CHEM 3362 Concurrent: CHEM 3501L*

Chemistry and biochemistry of macromolecules: proteins, carbohydrates, lipids, and nucleic acids. Introduction to enzymes.

## **CHEM 3501L: Biochemistry I Laboratory**

### **1 Credit Hours**

*Prerequisite: CHEM 2800L and (CHEM 3362 and CHEM 3362L) Concurrent: CHEM 3501*

Introduction to biochemistry laboratory techniques including centrifugation, chromatography, electrophoresis, spectroscopy, and exploration of bimolecular structure using computer graphics.

## **CHEM 3502: Biochemistry II: Metabolism**

### **3 Credit Hours**

*Prerequisite: CHEM 3501*

A detailed study of enzyme mechanisms, thermodynamics, and major metabolic pathways, including carbohydrate, lipid, and amino acid metabolism.

## **CHEM 3512L: Biochemistry II laboratory**

### **1 Credit Hours**

*Prerequisite: CHEM 3501 and CHEM 3501L Corequisite: CHEM 3502*

A laboratory course designed to provide students training in essential tools of practical biochemistry, important for success in industry and graduate school. This laboratory combines the foundational concepts and techniques from Biochemistry I Lecture and Laboratory and applies them to a student-led research project.

## **CHEM 3540L: Advanced Biochemistry Laboratory**

### **2 Credit Hours**

*Prerequisite: CHEM 3501L*

Laboratory course intended for students who plan to work in an industrial setting or attend graduate school in one of the biosciences. This laboratory combines the techniques from Biochemistry I Laboratory (CHEM 3501L) in a realistic, applied way to solve multi-step problems.

## **CHEM 3601: Physical Chemistry: Quantum Chemistry and Spectroscopy**

### **3 Credit Hours**

*Prerequisite: MATH 2202 and CHEM 2800 Concurrent: PHYS 2212*

This course provides an introduction to quantum mechanics and its application to selected chemical systems, atomic structure, chemical bonding, atomic, rotational, vibrational, and electronic spectroscopy.

### **CHEM 3601L: Physical Chemistry Lab**

#### **2 Credit Hours**

*Prerequisite: MATH 2202, CHEM 2800, and CHEM 2800L*

*Concurrent: CHEM 3000, CHEM 3601, and PHYS 2212*

Laboratory methods in physical chemistry.

### **CHEM 3602: Physical Chemistry: Thermodynamics and Reaction Kinetics**

#### **3 Credit Hours**

*Prerequisite: MATH 2202 and CHEM 2800 Concurrent: PHYS 2212*

The primary emphasis of this course is on chemical thermodynamics, reaction kinetics and dynamics, and statistical thermodynamics. The course includes physical and chemical properties of real and ideal gases, the laws of thermodynamics and their application to physical and chemical systems, treatment of phase equilibria and chemical equilibria, and extends the application of quantum mechanics to thermodynamics in the development of statistical thermodynamics.

### **CHEM 3602L: Physical Chemistry Lab II**

#### **1 Credit Hours**

*Prerequisite: CHEM 3601L Concurrent: CHEM 3602*

Continuation of CHEM 3601L

### **CHEM 3700: Environmental Chemistry**

#### **3 Credit Hours**

*Prerequisite: CHEM 3361*

This course will cover the environmental chemistry involving the transport, distribution, reactions, and speciation of inorganic, organometallic and organic chemicals occurring in the air, soil and water environments at the local, national and global scale. Environmental transformations and degradation processes, toxicology, pollution and hazardous substances will be discussed.

### **CHEM 3701: Atmospheric Chemistry**

#### **3 Credit Hours**

*Prerequisite: CHEM 2800*

Atmospheric chemistry is the study of physical and chemical processes in the atmospheric layer. This course is aimed to improve our understanding of atmosphere layers, atmospheric transport, biogeochemical cycles of gaseous compounds, aerosol, acid rain, air pollutions, ozone depletion, greenhouse gases and global warming, chemical kinetics in mesosphere and thermosphere. Atmospheric chemistry is an elective for Environmental Science or Chemistry major students.

## **CHEM 3710L: Environmental Chemistry Lab**

### **1 Credit Hours**

*Prerequisite: CHEM 3361L*

This laboratory course is designed to teach sampling, environmental analysis, data handling, systems modeling, specialized instrumental techniques, and field techniques related to atmospheric, geologic, and freshwater environmental chemistry. Additionally, team research projects will be designed to address a specific question related to the topics mentioned above.

## **CHEM 3800: Forensic Analytical Chemistry**

### **3 Credit Hours**

*Prerequisite: CHEM 2800 and CHEM 3361*

This course covers fundamental topics of forensic analytical chemistry including statistics and data quality, sample preparation, drugs (pharmacology and toxicology), arson and the chemistry of combustion, and trace chemical evidence. Throughout the course, emphasis is placed on modern chemical instrumentation as applied to forensic casework.

## **CHEM 3800L: Forensic Analytical Chemistry Lab**

### **1 Credit Hours**

*Prerequisite: CHEM 2800L and CHEM 3362L Concurrent: CHEM 3800*

Students will use modern chemical instrumentation to analyze simulated crime scene samples. Activities related to drug identification, arson debris analysis, and trace chemical analysis will be performed. Laboratory experiments will be designed to introduce students to the types of samples and analytical methodology encountered in a working crime lab.

## **CHEM 4000: Service Learning in Chemistry**

### **1-3 Credit Hours**

*Prerequisite: 60 hours and permission of the instructor and department chair/program director.*

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

## **CHEM 4100: Directed Applied Research**

### **1-3 Credit Hours**

*Prerequisite: Junior level status; consent of the instructor and chair.*

Applied research project directed by a faculty member.

## **CHEM 4110: Advanced Topics in Inorganic Chemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 3100, CHEM 3602

Survey of modern inorganic chemistry and current theories concerning atomic structure, bonding, coordination chemistry, spectroscopy including a discussion of symmetry and group theory as they apply to the characterization of inorganic compounds, ligand field theory and other topics.

## **CHEM 4120L: Research Methods Laboratory**

### **2 Credit Hours**

*Prerequisite:* CHEM 2800 and CHEM 3362

This course will teach students advanced laboratory skills through work on a designed research project. Students will learn how to search the scientific literature, and will write a journal style report summarizing their research project.

## **CHEM 4300: Instrumental Analytical Chemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 2800 and CHEM 3050 or CHEM 3601

Introduction to chemometrics. Theoretical principles and uses of modern instrumental methods covering: spectroscopy, electroanalysis, and chromatographic separations.

## **CHEM 4300L: Instrumental Analytical Chemistry Laboratory**

### **1 Credit Hours**

*Prerequisite:* CHEM 2800L *Concurrent:* CHEM 4300

Laboratory experiments include: calibration techniques for analyzing single-component and multicomponent systems, application of spectroscopy (UV-VIS, AAS), electroanalysis (different forms of voltammetry), chromatographic separations (LC, GC) in quantitative and qualitative analysis.

## **CHEM 4310: Advanced Topics in Analytical Chemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 3601 or CHEM 3050

This course will discuss the advanced theories and methods in analytical chemistry emphasizing newer analytical methods in practice in modern laboratories.

## **CHEM 4310L: Advanced Analytical Chemistry Lab**

### **1 Credit Hours**

*Prerequisite:* CHEM 2800 and CHEM 2800L

Students will use modern chemical instrumentation to solve complex problems in analytical chemistry. Instrumentation will include FTIR, GC-FID, GC-MS, HPLC, CE, UV-Vis, LIBS and other techniques depending on faculty expertise.

### **CHEM 4400: Directed Study**

#### **1-3 Credit Hours**

*Prerequisite:* Approval of instructor, major area committee and department chair prior to registration. Up to five hours may be applied to the major area. Special topics of an advanced nature that are not in the regular course offerings.

### **CHEM 4420: Identification of Organic Compounds**

#### **3 Credit Hours**

*Prerequisite:* CHEM 3362

Advanced study of common spectrometric techniques for identifying organic compounds. Emphasis on interpretation of data obtained from Infrared Spectroscopy (IR), Mass Spectrometry and Nuclear Magnetic Resonance (NMR), including two-dimensional NMR.

### **CHEM 4430: Advanced Topics in Organic Chemistry**

#### **3 Credit Hours**

*Prerequisite:* CHEM 3362

Advanced topics in organic chemistry as may fit the needs and interest of the students and faculty. Such topics might include stereochemistry, physical organic chemistry, heterocycles.

### **CHEM 4430L: Advanced Topics in Organic Chemistry Lab**

#### **1 Credit Hours**

*Prerequisite:* CHEM 3362L *Corequisite:* CHEM 4430

Laboratory experiments designed to teach students the process of design, planning, and implementation of organic synthesis and the characterization of compounds using classic analytic methods and modern spectroscopic techniques.

### **CHEM 4440: Polymer Chemistry**

#### **3 Credit Hours**

*Prerequisite:* CHEM 3362

Topics in modern polymer chemistry including synthesis, kinetics, characterization, and uses.

### **CHEM 4490: Special Topics in Chemistry**

#### **1-3 Credit Hours**

*Prerequisite:* Varies depending on topic

Selected special or current topics of interest to faculty and students

## **CHEM 4500K: Methods in Nucleic Acid and Protein Biochemistry**

### **4 Credit Hours**

*Prerequisite:* (CHEM 3501 and CHEM 3501L), and (BIOL 3300 and BIOL 3300L)

This course covers the chemical aspects of biochemical techniques routinely performed in the study of DNA, RNA, and protein. This course will build upon and complement the information on proteins and enzymes covered in biochemistry courses and the basic understanding of DNA, RNA, replication, transcription, and translation that students learn in biochemistry, genetics and other biology courses. The laboratory component of this course provides an opportunity for multi-week projects that combine methods learned in previous courses with new methods, and as such it serves as a capstone experience in biochemical methodology.

## **CHEM 4510: Advanced Topics in Biochemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 3501 or CHEM 3500

Topics relating to the chemistry of metabolic processes in living organisms.

## **CHEM 4620: Advanced Topics in Physical Chemistry**

### **3 Credit Hours**

*Prerequisite:* CHEM 3602

Advanced topics in physical chemistry with emphasis in such areas as quantum mechanics, statistical mechanics, kinetics, and molecular spectroscopy.

## **CHED 342I: Classroom Interactions**

### **2 Credit Hours**

*Prerequisite:* EDSM 1102 and CHEM 3362 and Admission to the Teacher Education Program. *Corequisite:* SCED 3010, ITEC 3300, INED 3305, INED 4435

This course examines teachers, students, content, and interactions that lead students to develop conceptual understandings of chemistry. Science teacher candidates design and implement instructional activities informed by their understanding of science learning, then assess student learning. This course includes a 29 hour field experience as introduction to the adolescent learner, the equity imperative and science education reform. This course is restricted to participants in the UTeach program.

## **CHED 4422: Project-based Instruction**

### **3 Credit Hours**

*Prerequisite: SCED 2421, Preservice Certification and Admission to Year-long Clinical Experience.*

*Corequisite: INED 3305 and INED 4435*

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based chemistry lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course is restricted to participants in the UTeach program. This course includes a 45-hour high school teaching experience.

## **CHED 4423: Pedagogical Content Knowledge for Chemistry**

### **2 Credit Hours**

*Prerequisite: CHED 4422, INED 3306, and INED 4436*

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based chemistry lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course is restricted to participants in the UTeach program.

## **CHIN 1001: Elementary Chinese I**

### **3 Credit Hours**

This introduction to Chinese language and culture Part I stresses progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Chinese culture.

## **CHIN 1002: Elementary Chinese II**

### **3 Credit Hours**

*Prerequisite: CHIN 1001, or by placement, or the equivalent*

This course stresses progressive acquisition of effective communication skills in both the spoken and written language and an understanding of the practices and products of Chinese culture.

## **CHIN 2001: Intermediate Chinese I**

### **3 Credit Hours**

*Prerequisite: CHIN 1002 or by placement.*

Students continue to develop proficiency in listening, speaking, reading and writing in Chinese and learn to communicate in culturally appropriate ways.

## **CHIN 2002: Intermediate Chinese II**

### **3 Credit Hours**

*Prerequisite:* CHIN 2001 or by placement.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

## **CHIN 2003: Accelerated Intermediate Chinese Language and Culture**

### **6 Credit Hours**

*Prerequisite:* Two years of high school Chinese or CHIN 1002

This accelerated intermediate level course in Chinese language and culture covers in one semester the materials presented in CHIN 2001 and CHIN 2002. The course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Chinese culture.

## **CHIN 3200: Critical Reading and Applied Writing**

### **3 Credit Hours**

*Prerequisite:* CHIN 2002 or CHIN 2003 or the equivalent

This course is a study of selected readings of signs, news, and literary and cultural works to increase vocabulary, enhance grammar skills, and develop reading skills. It is designed to give students extensive experience in reading Chinese.

## **CHIN 3302: Practical Conversation**

### **3 Credit Hours**

*Prerequisite:* CHIN 2002 or CHIN 2003 or the equivalent

This course stresses expansion of effective listening comprehension and speaking skills through culturally and linguistically appropriate activities.

## **CHIN 3303: Grammar and Composition**

### **3 Credit Hours**

*Prerequisite:* CHIN 2002 or CHIN 2003 or the equivalent

This course is a general review of grammar and composition and other writing activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

## **CHIN 3304: Readings in Culture I**

### **3 Credit Hours**

*Prerequisite:* CHIN 3200

This course introduces students to selected readings in Chinese culture, through which they expand their vocabulary and learn new grammar. Students also learn about cultural issues within the Chinese context and develop their competence in critical analysis of the issues from a global perspective. Readings are in Chinese and discussions are in Chinese and English.

## **CHIN 3305: Readings in Culture II**

### **3 Credit Hours**

*Prerequisite: CHIN 3200*

This course continues to introduce students to selected readings in Chinese culture, through which they expand their vocabulary and learn new grammar. Students also learn more about cultural issues within the Chinese context and develop their competence in critical analysis from a global perspective. Readings are in Chinese and discussions are in Chinese and English.

## **CHIN 3390: Upper-division Study Abroad in Chinese**

### **3 Credit Hours**

*Prerequisite: Junior or Senior status and permission of the department chair.*

This course fulfills the study abroad elective for the minor in Chinese Studies. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the minor in Chinese Studies and/or for the degree in Modern Language & Culture.

## **CHIN 3398: Internship**

### **1-6 Credit Hours**

*Prerequisite: CHIN 3302 or permission of the instructor.*

This course is a supervised, credit-earning work experience of one semester requiring the use of Chinese in the work place. Prior approval by the program coordinator and internship supervisor is required. No more than three semester hours may be applied toward the major.

*Notes: Prior approval by the program coordinator and internship supervisor is required. No more than three semester hours may be applied toward the major.*

## **CHIN 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: CHIN 2002 or CHIN 2003 or permission of instructor*

This course covers special topics and seminars external to course offerings that allow a student to work individually with an instructor. It requires prior approval by the instructor and department chair.

## **CHIN 4402: Contemporary Culture**

### **3 Credit Hours**

*Prerequisite: CHIN 3304 or CHIN 3305 or the equivalent.*

This course is an examination of the historical, social and political contexts of the contemporary Chinese experience through the analysis of different cultural representations such as film, media, plastic arts, music and literature. Readings are in Chinese and discussions are in Chinese and English.

### **CHIN 4404: Commercial Chinese**

#### **3 Credit Hours**

*Prerequisite: CHIN 2002 or CHIN 2003 or permission of instructor*

This course is an in-depth study of business practices and the language of business that focuses on verbal and written communication as well as economic, social and political factors that are important to conducting business in the Chinese-speaking world. Readings and discussions are in Chinese and English.

### **CHIN 4434: Topics in Language, Literature, and Culture**

#### **3 Credit Hours**

*Prerequisite: CHIN 3304 or CHIN 3305 or the equivalent.*

This course explores a period, movement or genre in literature, a topic in culture, or language-related issues. Topics are chosen for their significance and impact on Chinese culture and society. Readings are in Chinese and discussions are in Chinese and English.

### **CHIN 4456: Advanced Grammar and Linguistics**

#### **3 Credit Hours**

*Prerequisite: CHIN 3303 or permission of the instructor.*

This course is an advanced study of grammar from a linguistic perspective. It provides an overview of phonetics, phonology, morphology, and syntax. The course exposes students to dialectical variations of the Chinese language and stresses development of oral proficiency. The course is taught in Chinese and English.

### **CHIN 4490: Special Topics**

#### **3 Credit Hours**

*Prerequisite: CHIN 3302 or permission of the instructor.*

This course covers special topics relevant to the study of Chinese-speaking societies.

### **CHIN 4499: Senior Seminar**

#### **3 Credit Hours**

*Prerequisite: CHIN 3304 and CHIN 3305 and senior status*

This is a capstone course designed to synthesize and connect the students' prior academic experiences in the major and related fields of study. Students prepare a reflective essay and a research paper to present to the faculty. Papers and presentations are in Chinese.

## **CE 1001L: Introduction to Civil and Environmental Engineering Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 1000*

This laboratory is a continuation of ENGR 1000 focused on civil and environmental engineering's place in society and fundamental engineering skills. The course provides expanded treatment of the practice of civil and environmental engineering through authentic, multidisciplinary projects. Project work reinforces the following topics: economics, computer-based tools, sustainability, entrepreneurial mindset, engineering design, teamwork, diversity, inclusion, and ethics.

## **CE 2003: Engineering Problem Solving**

### **3 Credit Hours**

*Prerequisite: ENGR 2214*

This course introduces spreadsheet applications for civil engineering analysis and problem solving, calculating building loads, and linear and nonlinear regression. The course also covers fundamentals of dynamics relevant to the FE exam and to subsequent courses in structures. Topics include vector methods, force and acceleration, linear and angular momentum, and energy methods.

## **CE 3201: Structural Analysis**

### **3 Credit Hours**

*Prerequisite: CE 2003, ENGR 3131, ENGR 3132 and Engineering Standing*

This course is the introductory course in identification and analysis of basic structural elements. Topics include the determination of beam deflections, methods for the computational analysis of statically indeterminate trusses, moment distribution, and the analysis of frames.

## **CE 3202: Design of Concrete Structures**

### **3 Credit Hours**

*Prerequisite: CE 3201*

ACI design procedures for reinforced concrete beams, columns, footings, slabs and other members, Introductory to masonry design.

## **CE 3398: Internship in Civil Engineering**

### **3 Credit Hours**

*Prerequisite: Dept Chair approval and Engineering Standing*

This course allows students to enhance their classroom knowledge through practical application of theories to real-world issues in a real-world work environment. Students explore specific interests within their academic discipline and refine their post-graduation goals.

## **CE 3501: Materials for Civil & Construction Engineering**

### **3 Credit Hours**

*Prerequisite: ENGR 3131 and Engineering Standing*

A study of different materials used for light and heavy construction projects, such as aggregates, woods, metals, concretes, masonry, and bituminous materials. An overview of materials science will be introduced as well.

## **CE 3502: Materials for Civil & Construction Engineering Lab**

### **1 Credit Hours**

*Concurrent: CE 3501*

A study of standard laboratory tests (ASTM and/or AASHTO) on the materials commonly used in Civil and Construction engineering field. The lab will reinforce the principles of CE 3501 through laboratory experiments. Developing experimental data into effective laboratory reports will be emphasized.

## **CE 3701: Geotechnical Engineering**

### **3 Credit Hours**

*Prerequisite: ENGR 3131 and ENGR 3343*

Introduction to fundamental knowledge of soil/foundation engineering for construction projects such as commercial building, highway, bridge, airport, and water/wastewater treatment plant. Course topics will include composition of soils, subsurface investigation, soil classification systems, groundwater flow, permeability, compaction, stress/strain analysis, shear strength, consolidation/settlement, shallow and deep foundations, earth retaining structures, slope stability, and ground modification methods.

## **CE 3702: Introduction to Environmental Engineering**

### **3 Credit Hours**

*Prerequisite: CHEM 1212, ENGR 3343, and Engineering Standing*

The course introduces environmental engineering issues such as: legal aspects, engineering solutions, and basic approaches to abatement system design including water supply, water treatment, water quality management, wastewater treatment, air pollution control, solid and hazardous waste management, and environmental impacts.

## **CE 3703: Environmental Engineering Design**

### **3 Credit Hours**

*Prerequisite: CE 3702, CE 3704, and Engineering Standing*

This course introduces students to environmental engineering design of unit processes and pollution abatement systems such as: water treatment plant design, wastewater treatment plant design, and sludge management system design.

## **CE 3704: Introduction to Environmental Engineering Laboratory**

### **1 Credit Hours**

*Prerequisite: CE 3702 or concurrent registration*

This course applies the basic chemistry and chemical calculations to measure physical, chemical, and bacteriological parameters of water and wastewater. Laboratory methods and interpretation of results with regard to environmental engineering applications such as design and operation of water and wastewater treatment processes, and to the control of the quality of natural waters are also covered.

## **CE 3708: Geotechnical Engineering Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 3131 Concurrent: CE 3701*

A study of standard laboratory tests (ASTM and/or AASHTO) on soils. The lab will reinforce the principles of Geotechnical Engineering studied in CE 3701, and developing experimental data into effective laboratory reports will be emphasized.

## **CE 4103: Design of Steel Structures**

### **3 Credit Hours**

*Prerequisite: CE 3201 and Engineering Standing*

Behavior and design of structural members and connections using Load and Resistance Factor Design (LRFD) methods; mechanical properties of structural steel; design of tension members, compression members, beams and beam-columns; typical shear and moment connections, welded and bolted; and steel joist design.

## **CE 4105: Foundation Design**

### **3 Credit Hours**

*Prerequisite: CE 3701, CE 3708, and Engineering Standing*

This course deals with design of foundations for buildings and other structures and also for such non-foundation problems as designs of retaining walls, bulkheads, and earth dams; as well as the design of natural slopes and stabilization of soils mechanically and chemically. This course is designed to provide students in civil engineering with methods of analysis and design for various geotechnical systems. Topics to be covered include: subsurface investigations; excavations; shallow foundation; deep foundation; design of sheeting and bracing systems; lateral earth pressures and earth retaining structures, slope stability.

## **CE 4177: Transportation Engineering**

### **3 Credit Hours**

*Prerequisite: ENGR 3305 and Engineering Standing*

This course provides an introduction to the highway engineering and traffic analysis. Principle topics covered in this course include: introduction to the significance of highway transportation to the social and economic underpinnings of society, road vehicle performance, geometric design of highways, pavement design, traffic flow and queuing theory, highway capacity and level of service analysis, traffic control and analysis at signalized intersections.

## **CE 4178: Highway Design and Construction**

### **3 Credit Hours**

*Prerequisite: CE 4177*

This course addresses many challenges facing engineers when designing and constructing highways. Areas of study include the design of horizontal and vertical alignments, roadside features, parking facilities, intersection design elements, traffic control devices, traffic signal operations and vehicle detection design, and the socioeconomic impacts of the roadway design.

## **CE 4179: Transportation Engineering Lab**

### **1 Credit Hours**

*Concurrent: CE 4177*

This laboratory exposes students to a variety of traffic studies commonly conducted in the field, including spot speed study, turning movement counts, vehicle delay study, parking study, saturation flow rate study, queue length study, headway study, traffic compliance study, and verification of Poisson distribution. In addition to the field studies, the students will learn how to conduct traffic analysis and simulation using traffic analysis software (HCS+ and Synchro/SimTraffic).

## **CE 4343: Solid Waste Engineering**

### **3 Credit Hours**

*Prerequisite: CE 3702 and Engineering Standing*

This course introduces the concepts of generation, storage, collection, transfer, treatment, and disposal of solid waste. Students also address related engineering and management issues.

### **CE 4353: Air Pollution Control**

#### **3 Credit Hours**

*Prerequisite: CE 3702 and Engineering Standing*

This course focuses on fundamental concepts of air pollution, emission sources, atmospheric dispersion, ambient concentrations, adverse effects, governmental regulations, emission standards, air-quality standards, processes and equipment for controlling emissions, and noise pollution.

### **CE 4363: Environmental Engineering Chemistry**

#### **3 Credit Hours**

*Prerequisite: CE 3702 and Engineering Standing*

Students learn the chemical principles and applications needed to develop advanced problem-solving techniques involved with many water/wastewater treatment processes, air pollution, ionization, and natural systems.

### **CE 4371: Environmental Engineering Laboratory**

#### **1 Credit Hours**

*Prerequisite: CE 3704*

Students study the application of basic chemistry and chemical calculations to measure chemical and bacteriological parameters of water, wastewater, and soil. Laboratory methods and interpretation of results with regard to environmental engineering applications such as design and operation of wastewater treatment processes, soil and sediment remediation, and environmental health are also explored.

### **CE 4373: Environmental Engineering Microbiology**

#### **3 Credit Hours**

*Prerequisite: CE 3702 and Engineering Standing*

This course is intended to provide fundamental knowledge about microorganisms in the natural and engineered environment and their role in the cycling of elements, both natural and anthropogenically introduced into the environment. The course focuses on understanding their role in the biodegradation of contaminant chemicals and the application of processes that take advantage of the microbiological biodegradation processes.

### **CE 4383: Sustainability for Engineers**

#### **3 Credit Hours**

*Prerequisite: Engineering Standing*

This course emphasizes the concept of sustainability as an extension of current practices and standards by addressing new concerns and constraints of engineering projects. It also emphasizes the new holistic approach of sustainability that requires some new ways of thinking and frameworks.

## **CE 4400: Directed Study in Civil and Environmental Engineering**

### **1-6 Credit Hours**

*Prerequisite: Approval of Instructor and Department Chair*

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. A Directed Study may include original research projects and/or practicum experiences.

## **CE 4490: Special Topics in CE/CnE**

### **1-9 Credit Hours**

*Prerequisite: Junior standing, Engineering Standing and consent of the Department Chair.*

Special topics offered by the program on a demand basis.

## **CE 4703: Engineering Hydrology**

### **3 Credit Hours**

*Prerequisite: ENGR 3343 and Engineering Standing*

The course presents the hydrological processes and their relationship to the design of structures for control and management of water resources, rainfall-runoff relationships, and probability and frequency analysis as they relate to surface and groundwater hydrology.

## **CE 4704: Engineering Hydraulic Analysis and Design**

### **3 Credit Hours**

*Prerequisite: ENGR 3343 and Engineering Standing*

The course applies principals of fluid mechanics to the design and analysis of hydraulic systems. The course emphasizes open channel flow and addresses topics of interest to the Civil Engineer. Topics include hydraulic grade line calculations, pump design, culvert analysis and design, based flood elevation studies using HEC-RAS, non-uniform flow, gutters and inlets, water distribution, open channel design.

## **CE 4705: Advanced Soil Mechanics**

### **3 Credit Hours**

*Prerequisite: CE 3701 and Engineering Standing*

The course is offered as a technical elective to junior and senior undergraduate students and represents a transition between the introductory and fundamental nature of the material covered in ENGR 3131 and applied soil materials. The course will cover modified Mohr-Coulomb diagrams, triaxial extension and triaxial compression tests, and drained and undrained failure at principle stress.

## **CE 4706: Pavement Engineering**

### **3 Credit Hours**

*Prerequisite: CE 3201 and Engineering Standing*

A study of the methods used to determine the thickness and composition of layers in both flexible and rigid pavements. Class work will also include various types of pavement, stress-strain behavior of pavement systems, characterization of paving materials, consideration of traffic in pavement design, performance prediction models and failure criteria, theoretical analysis and design of highway pavements with critical evaluation of current design practices. Hands on practice sessions with AASHTO and PCA, the Asphalt Institute methods will be provided.

## **CE 4707: Design of Wood Structures**

### **3 Credit Hours**

*Prerequisite: CE 3201 and Engineering Standing*

The course introduces the design of wood structure and properties of wood. The course will cover the topics such as determination of horizontal and vertical loads, horizontal and vertical load-resisting systems, design of horizontal diaphragms, and bolted and nailed connections.

## **CE 4708: Hazardous Waste Engineering**

### **3 Credit Hours**

*Prerequisite: CE 3702 and Engineering Standing*

Students examine the definition, characterization, classification, regulation, treatment, and disposal of hazardous waste. Evaluation of unit operations and processes of importance in the treatment and disposal of common organic and inorganic hazardous wastes are also covered.

## **CE 4709: Advanced Structural Analysis**

### **3 Credit Hours**

*Prerequisite: CE 3201 and Engineering Standing*

The course offers computer oriented methods for solving determinate and indeterminate structures including matrix analysis of two- and three-dimensional trusses, continuous beams, and frames. The class emphasizes on the displacement method and stiffness matrix development. Matrix analysis method will be applied to problems in structural engineering and mechanics using the Structural Analysis Program 2000.

## **CE 4800: Senior Project**

### **3 Credit Hours**

*Prerequisite: Senior Standing, Engineering Standing and consent of the Department Chair*  
Capstone design experience for graduating Construction Engineering majors.

## **CSCH 4010: Applied Leadership in Business**

### **3 Credit Hours**

*Prerequisite: Business Majors: Admission to Coles College of Business and admission to the Coles College Scholars program; Non-business Majors: Not available to non-business majors.*

This course focuses on leadership as an inward and personal journey of service to others and requires students to engage in an in-depth self-examination of skills, personality, and attitudes to increase self-awareness of leadership competencies. Students will be exposed to leadership cases as well as interact with business community leaders to develop insights and then apply this for their personalized leadership development. *Notes: This course is the first of the five required courses for the Coles Scholars Program.*

## **CSCH 4020: Critical Thinking and Decision Making**

### **3 Credit Hours**

*Prerequisite: Business Majors: Admission to Coles College of Business, admission to the Coles College Scholars program, and CSCH 4010; Non-business Majors: Not available to non-business majors.*

In this course, students are exposed to critical thinking and decision-making theory, methodology and tools. In addition to the theory of knowledge and the "ways of knowing," students will learn to identify key assumptions, evaluate, and develop and test appropriate hypotheses within the context of large and small problem-solving situations. There is an emphasis on a variety of problems, including those that deal with uncertainty, equivocality, and factors that are measurable and hard to quantify.

## **CSCH 4030: Immersion Experience**

### **3 Credit Hours**

*Prerequisite: Business Majors: Admission to Coles College of Business, admission to the Coles College Scholars program, and CSCH 4020; Non-business Majors: Not available to non-business majors.*

In this course, students enrolled in the Coles College Scholars Program will participate in an immersion experience designed to immerse students in a business or technology environment focused on student learning. Students will utilize leadership and teaming skills learned in CSCH 4010 and problem-solving and decision-making techniques practiced in CSCH 4020 to work together as a team to solve problems. Through this active participation in the immersion experience, scholars will gain an understanding of the multi-dimensional challenges and opportunities faced by businesses.

## **CSCH 4040: Consulting & Change Management**

### **3 Credit Hours**

*Prerequisite: Business Majors: Admission to Coles College of Business, admission to the Coles College Scholars program, and CSCH 4020; Non-business Majors: Not available to non-business majors.*

This course focuses on the processes and actions used by experts to help others improve their business practices. This course will introduce students to both the processes, such as contracting, data gathering, and delivery, as well as the human interactions that underlie effective consulting engagements. The course will draw on a variety of resources and guest speakers in the classroom, as well as applied experiences at local firms where teams of students will engage and work with "clients" on current challenges faced by the firm.

## **CSCH 4050: Business Intelligence**

### **3 Credit Hours**

*Prerequisite: Business Majors: Admission to Coles College of Business, admission to the Coles College Scholars program, and CSCH 4040; Non-business Majors: Not available to non-business majors.*

This course will walk students through the process of defining problems in business, developing "hypotheses," determining appropriate data for testing, collecting the data, and analyzing it. The course will leverage the concepts from CSCH 4020, as well as statistics background, and modern technology for dealing with datasets, large and small. There will be a focus on dealing with large data sources, planning business strategies for collecting data over time, and how best to share results.

## **COMM 1100: Human Communication**

### **3 Credit Hours**

A broad approach to oral communication skills including intrapersonal, interpersonal, small group, and public speaking.

## **COMM 1110: Public Speaking**

### **3 Credit Hours**

The organization of materials and the vocal and physical aspects of delivery in various speaking situations.

## **COMM 2020: CSI: Communication Sources and Investigations**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces the approaches and paradigms used in communication research. Emphasis is placed on locating, reviewing, and evaluating communication research studies found in academic publications; the basic structure and function of a literature review; and communication research ethics. This course provides practical experience using the American Psychological Association formatting style.

## **COMM 2033: Visual Communication**

### **3 Credit Hours**

*Prerequisite: ENGL 1101 and ENGL 1102*

COMM 2033 is an introduction to visual communication using perceptual, physiological, psychological, cultural, and semiotic concepts. The course focuses on visual awareness and processing as key elements in effective communication.

## **COMM 2135: Writing for Public Communication**

### **3 Credit Hours**

*Prerequisite: ENGL 1101 and ENGL 1102*

This course covers application and practice of writing form and style particular to communication industry careers, such as journalism, public relations and human resource areas. Includes weekly writing assignments.

## **COMM 2230: Introduction to Mass Communication**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a survey of the various genres of mass media such as books, magazines, newspapers, radio, television, film, Internet and others. Examines the development, roles, functions, problems and criticisms of specific media from a global context.

## **COMM 2240: Communication Law, Ethics and Diversity**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course provides an overview of law, ethics and diversity in mass media. It examines the basics of freedom of expression and press laws in the United States including freedom of information and access to government records. The course analyzes several approaches to ethics in media, journalism and public relations. It also examines diversity in the mass media, journalism and public relations industries.

## **COMM 2290: Special Topics**

### **3 Credit Hours**

Students will explore selected special topics relevant to the mission of the Department of Communication.

## **COMM 3315: Interviewing**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

Methods and practice in situational interviewing, including selection, sales, journalistic and media interviews. Examines roles and functions of both interviewee and interviewer.

## **COMM 3320: Health Communication**

### **3 Credit Hours**

*Prerequisite: Must be a declared major in the School of Communication and Media. Non-majors: 30+ credit hours and permission from the School of Communication and Media.*

This course introduces theoretical and applied aspects of health communication. Current health issues are examined in varied communication contexts, such as interpersonal, group, organizational, and mediated communication. This course analyzes provider-patient communication, intercultural communication and health beliefs, and health messages in the media. A variety of contemporary public health issues are presented. The course also examines the effectiveness of prevention messages using identified communication strategies.

## **COMM 3340: Digital Media Production**

### **3 Credit Hours**

*Prerequisite: COMM 2230, must be a declared major in the School of Communication and Media; Non-majors: permission of the School.*

This course focuses on the application and impact of digital media technology and how it has changed the production experience in a journalistic context. The course addresses the principles of shooting, sound characteristics, ergonomics, and basic techniques for field recording (time-code, miking, shot composition, and mixing). Audio and video formats are examined in the context of non-linear post-production.

## **COMM 3350: Editing for Today's Media**

### **3 Credit Hours**

*Prerequisite: Must be a declared major in the School of Communication and Media. Non-majors: 30+ credit hours and permission from the School of Communication and Media.*

This course explores the role of the copy editor in print, broadcast, and online media, with a focus on developing the skills required to be an effective editor in the age of convergence. Through lecture, guest speakers, and in-class and out-of-class assignments, students will gain effective experience in copy editing, and the use of graphics, type, headlines, and layout to produce effective news and feature stories, and public relations materials.

## **COMM 3398: Internship in Communication**

### **1-9 Credit Hours**

*Prerequisite: Approval of SOCM internship coordinator and eligibility based on the following criteria: junior standing (60 + credit hours) at least a 2.5 GPA, and at least one semester of communication coursework successfully completed at Kennesaw State University. Must be a declared major in the School of Communication & Media.*

An internship is a supervised, credit-earning work experience of approximately one semester with a previously approved business firm, private agency, or government agency. Up to nine communication internship hours may be earned for credit. To help students build their resume, a maximum of six credit hours may be earned at one internship site per semester. If a student chooses a second internship, he or she must take an internship with another organization.

## **COMM 3435: Communication Research Methods**

### **3 Credit Hours**

*Prerequisite: COMM 2135 and COMM 2020*

This is an advanced course on the nature of academic inquiry in communication, the structure and methodology of professional and academic research, and the resources available for access to published research.

## **COMM 4200: Directed Applied Research**

### **1-3 Credit Hours**

*Prerequisite: COMM 3435 and consent of the instructor and School Director; must be a declared major in the School of Communication & Media.*

This course offers students an opportunity to investigate communication-oriented concepts and issues by assisting in faculty-led research or scholarship. Course content and instructional methodologies are identified by the faculty's needs and expectations.

## **COMM 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: 60+ credit hours; must be a declared major in the School of Communication & Media.*

This course focuses on specific topics of an advanced nature not in the regular course offerings.

## **COMM 4480: Communication Theory**

### **3 Credit Hours**

*Prerequisite: COMM 3435 and 60+ credit hours; must be a declared Communication, Journalism or Public Relations major.*

This course is an in-depth and diversified examination of various theories analyzing and describing the human communication process from different perspectives, including interpersonal, organizational and mass communication.

## **COMM 4490: Special Topics in Communication**

### **3 Credit Hours**

*Prerequisite: 45+ credit hours; must be a declared major in the School of Communication & Media.*

This course consists of selected special topics of interest to faculty and students.

## **COMM 4499: Senior Thesis**

### **3 Credit Hours**

*Prerequisite: COMM 3435 or COMM 4480*

The senior thesis is designed to allow students to apply course work to professional issues. The course culminates in the student's preparation and presentation of an undergraduate thesis or creative project. *Notes: This course may serve as the capstone for any of the four concentrations.*

## **JOUR 3310: Concepts in New Media**

### **3 Credit Hours**

*Prerequisite: COMM 2230*

This course is an analysis of the content, process and distribution of new media, including Web-based, network-based, and CD-ROM based products. Students examine, evaluate and prepare material for informational, educational, and/or entertainment new media as well as explore the process of computer-assisted communication.

## **JOUR 3330: News Reporting and Writing**

### **3 Credit Hours**

*Prerequisite: COMM 2135 and COMM 2230*

This course is an introduction to the ways and means of developing, gathering, writing and editing factual and editorial copy. The course examines news personnel functions, reporting and interviewing techniques, ethical and legal considerations, along with news-writing practice surrounding the above.

## **JOUR 3360: Photojournalism**

### **3 Credit Hours**

*Prerequisite: COMM 3340 and must be a declared major in the School of Communication & Media.*

*Non-Majors: Permission of the School required.*

This course introduces the fundamentals of how still photography is used to document our world in a public sphere. Students will learn the skills, theory, aesthetics and ethics of newspaper, magazine and online photojournalism. Visual storytelling from a single picture to a multi-image photo essay is explored. A digital portfolio is produced and presented at the end of the term. *Notes: Personal digital camera required.*

## **JOUR 3395: Journalism Study Tour**

### **3 Credit Hours**

*Prerequisite: COMM 2230; and 30 credit hours; and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course offers students the opportunity to learn about news gathering, production, and presentation in one of the nation's largest media markets. Students gain first-hand exposure to news professionals, operations, and offices. Students meet for an intensive one-week preparation class to better understand the structure and function of the professional newsroom. They visit outlets for a hands-on look at the news gathering process. Students incur additional travel expenses including the instructor's travel expenses.

## **JOUR 3700: Fundamentals of Online Journalism**

### **3 Credit Hours**

*Prerequisite: JOUR 3330, must be a declared major in the School of Communication & Media. Non-majors: permission of the School required.*

In this course, students develop awareness and skills in producing digital news stories. This course explores digital media elements, how audiences discover news, and planning and pitching unique to digital reporting.

## **JOUR 3820: Video for the Web**

### **3 Credit Hours**

*Prerequisite: COMM 3340, must be a declared major in the School of Communication & Media. Non-majors: permission of the School required.*

This course is designed to teach advanced storytelling, shooting, and editing techniques for multimedia journalism in multi-platform environments. The course teaches students to recognize and understand the technical and aesthetic aspects of visual storytelling, and how to build successful visual narratives using a combination of still images, HD video, ambient audio, and natural voices. The course is constructed to prepare students for the journalism industry and apply the journalistic standards of truth, fairness and accuracy with the tools and techniques of multimedia journalism to tell compelling narratives in a professional environment.

## **JOUR 3900: Journalism History**

### **3 Credit Hours**

*Prerequisite: Must be a declared major in the School of Communication & Media. Non-majors: permission of the School required.*

This course focuses on the development of news media in America, emphasizing the historical relationship of the mass media to American social, economic, and cultural patterns. The course will review the origin, growth, shortcomings, and achievements of media, the impact of society on the media, and vice versa.

## **JOUR 4100: Data Journalism**

### **3 Credit Hours**

*Prerequisite: JOUR 3330 and must be a declared major in the School of Communication & Media. Non-majors: permission of the School required.*

This course offers theoretical and applied approaches to data journalism, including citizen media strategies and tactics needed for the profession. This course focuses on developing the skills and understanding needed to analyze and understand data and then use that data to tell engaging journalistic stories including data scraping and data visualization. Students develop an understanding of many of the methods used to collect data in journalism such as surveys and content analysis.

## **JOUR 4300: Topics in Journalism**

### **3 Credit Hours**

*Prerequisite: JOUR 3330 or permission of instruction and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course offers theoretical and applied approaches to journalism and citizen media strategies and tactics needed for the profession. Sample topics may include social media and journalism, sports reporting, international journalism, ethics in journalism, public affairs reporting, and innovation and entrepreneurship in journalism. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

## **JOUR 4410: Investigative Reporting**

### **3 Credit Hours**

*Prerequisite: JOUR 3330 and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course teaches students how to move beyond basic news reporting and how to develop strong story ideas, report them thoroughly and write them in compelling and impactful ways. The course examines how to uncover electronic and paper-based documents and use open records laws as part of investigative journalism.

## **JOUR 4412: Sports Reporting**

### **3 Credit Hours**

*Prerequisite: JOUR 3330, and COMM 3340; must be a declared major in the School of Communication & Media. Non-Majors: Permission of the School required.*

In this course students prepare for and practice writing short and long form stories about sports contests at the high school, college, and professional levels. Students produce stories in multi-platform formats including video, photography and social media use. This is an advanced reporting course aimed at students who are sports enthusiasts with the goal of becoming professional sports reporters.

## **JOUR 4420: Advanced Media Writing**

### **3 Credit Hours**

*Prerequisite: JOUR 3330 and must be a declared major in the School of Communication and Media.*

*Non-majors: Permission of the School required.*

The course includes methods and practices for writing print and Internet style long-form feature stories. The course focuses on in-depth interviewing skills and query letter writing, as well as understanding multimedia storytelling.

## **JOUR 4430: Advanced Investigative Reporting I**

### **4 Credit Hours**

*Prerequisite: 60+ credit hours; permission of the instructor.*

This course is for the Georgia News Lab, which is open to KSU students and students in universities in the Atlanta Regional Consortium for Higher Education. It provides students high-level training in the practice and principles of investigative journalism. Students gain experience in advanced reporting and data journalism techniques and use them to develop projects in conjunction with professional reporters from The Atlanta Journal-Constitution and WSB TV. Students must apply to be accepted.

## **JOUR 4435: Advanced Investigative Reporting II**

### **4 Credit Hours**

*Prerequisite: JOUR 4430*

This course is for the Georgia News Lab, which is open to KSU students and students in universities in the Atlanta Regional Consortium for Higher Education. It provides students continued high-level training in the practice and principles of investigative journalism. Students gain additional experience in advanced reporting and data journalism techniques and use them to develop projects in conjunction with professional reporters from The Atlanta Journal-Constitution and WSB TV. Students must apply to be accepted.

## **JOUR 4445: Advanced Digital Audio Production**

### **3 Credit Hours**

*Prerequisite: JOUR 3330 and COMM 3340, 90+ credit hours; must be a declared major in the School of Communication & Media. Non-Majors: Permission of the School required.*

This course focuses on producing, writing and storytelling for audio in a journalistic context. The course is designed to teach students how to write scripts and produce radio promotions, commercials and news stories. The course surveys trends in the radio industry including traditional broadcast, digital, and satellite radio as well as podcasting and audio streaming of content.

## **JOUR 4450: Video News Production**

### **3 Credit Hours**

*Prerequisite: JOUR 3330 and COMM 3340; must be a declared major in the School of Communication & Media. Non-Majors: Permission of the School required.*

This course is designed to teach students electronic field production, including single and multiple camera operations; advanced field camera operations; tape-to-tape editing; editing techniques; single/multiple camera continuity, and scripting in a journalistic context. The students must have a fundamental understanding of production operations before enrollment.

## **JOUR 4470: Media Law**

### **3 Credit Hours**

*Prerequisite: COMM 2230 and POLS 1101; must be a declared major in the School of Communication & Media. Non-Majors: Permission of the School required.*

This course is an in-depth examination of the existing legal structure within which the media operates and the antecedent statutory and case law through which this structure has evolved. The course also addresses ethical concepts and considerations surrounding the media.

## **JOUR 4488: Multi-Media Visions of Community (Capstone)**

### **3 Credit Hours**

*Prerequisite: JOUR 3700, JOUR 4100, and 90 or more credit hours, and must be a declared major in the School of Communication & Media. Non-majors: permission of the School required.*

This course is informed by social networking and civic, citizen and community journalism applications and theories. Student-driven teams produce multi-media journalistic reflections of community life and institutions. The students, ideally working with diverse sets of community members, choose the best methods, tools and platforms for telling their stories and justifying their choices. This is the capstone course showcasing what students have learned as a Journalism and Emerging Media major.

## **MENT 3100: Fundamentals of Media & Entertainment**

### **3 Credit Hours**

*Prerequisite: COMM 2230*

This course is an introduction to media and entertainment. "Media" topics include not only media institutions, but also the context, history, and economics of media; meaning and ideology; effects on audience behavior; public life; and globalization. "Entertainment" focuses on any communication function used for entertainment purposes, including television, film, music, video games, sports, travel/tourism, museums, and theme parks. This course addresses the history, challenges, trends, and career options in these areas.

## **MENT 3200: Writing for Entertainment Media**

### **3 Credit Hours**

*Prerequisite:* MENT 3100; Must be a declared major in the School of Communication and Media.

This course focuses on the art of entertainment content creation via developing and writing content for various screens. Students explore the process of translating and formatting creative concepts for film, television, and new media. Students develop their own original ideas and explore practical applications of the course objectives: Analyze short and long form content for film, television, and new media; critique screenwriting samples; identify story structure; understand the creative process for entertainment writers; utilize software to execute standard formatting for screenplays; recognize industry terminology; and develop content and characters from original concepts.

## **MENT 3300: Entertainment Podcasting**

### **3 Credit Hours**

*Prerequisite:* MENT 3100; Must be a declared major in The School of Communication and Media.

In this course, students learn about the recording hardware, software, and production skills needed to produce effective entertainment podcasts. Students are taught to strategically research and prepare captivating and memorable audio segments; develop audio programming strategy skills; hosting, presenting, and interview strategies; and perfect the editing skills needed to produce high-quality and professional-sounding audio.

## **MENT 3326: International Media**

### **3 Credit Hours**

*Prerequisite:* COMM 2230; Must be a declared major in the School of Communication and Media.

This course explores mass media and culture from an international perspective. Students analyze international communication theories, global communication infrastructure, the global media marketplace, and international communication and the internet. Students also examine specific communication systems, both democratic and authoritarian, and how media is disseminated in a global context. International media products such as film, music, radio, and TV programming, online content, and advertisements are also covered.

## **MENT 4424: Uses and Effects of Mass Media**

### **3 Credit Hours**

*Prerequisite:* COMM 2230; Must be a declared major in the School of Communication and Media.

This course examines research findings and commentary about mass media impact and use in the United States. Through the lens of media theory, students explore what mass media "do" to users and what users "do" with the mass media, and why these effects and uses are thought to occur. This course is useful for students interested in graduate work in mass media, professional media careers, media literacy, or more conscientious use of mass media and awareness of possible effects on themselves or others.

## **MENT 4425: Gender, Race and Media**

### **3 Credit Hours**

*Prerequisite: MENT 3100; Must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course is an examination of mass media portrayals of gender and race, from years past to present. Students analyze media artifacts, identify recurring themes, and explore research about the societal effects of stereotypical media portrayals.

## **MENT 4430: Media Management**

### **3 Credit Hours**

*Prerequisite: MENT 3100; Must be a declared Major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course is a comprehensive examination and analysis of the structure, personnel, planning, operations, economics and editorial broadcast, production, advertising, and public relations companies as well as new media.

## **MENT 4434: Topics in Media**

### **3 Credit Hours**

*Prerequisite: MENT 3100; must be a declared major in the School of Communication and Media. Non-majors: permission of the instructor.*

This course offers theoretical and applied approaches to media problems and issues. Sample topics may include media literacy, media and society, social and digital media, children and media, celebrity media culture, and courses based on various genres of electronic media. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

## **MENT 4436: Topics in Entertainment**

### **3 Credit Hours**

*Prerequisite: MENT 3100; must be a declared major in the School of Communication and Media.*

This course offers theoretical and applied approaches to entertainment topics, challenges, and trends. Sample topics may include entertainment industries and properties, fandom and fan studies, sports as entertainment, arts and leisure entertainment, interactive entertainment, travel and tourism as entertainment, global entertainment, and careers in entertainment. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

## **MENT 4444: Film and Video Structure and Process**

### **3 Credit Hours**

*Prerequisite: 60+ credit hours.*

An examination of the television and motion picture industries, covering such factors as development, pre-production, the production process, post-production and distribution. Emphasis will be placed on the managerial aspects of the process and will include the institutional/instructional video market.

## **MENT 4454: moMENTum productions**

### **3 Credit Hours**

*Prerequisite:* COMM 3340; Must be a major in the School of Communication & Media.

This course is the advanced video production course in the MENT major in which students work with campus and external clients on video projects. The instructors secure several clients for the semester and students are briefed by each client before we start our work. Class time is spent on best practices in video production, client relations, proper pre-production strategies, and professional development. Students are required to be available outside of scheduled class time to attend events, on-location shoots, and meetings for our clients. Students can add each project to their individual digital portfolios and professional reels.

## **MENT 4464: Documentary Filmmaking**

### **3 Credit Hours**

*Prerequisite:* COMM 3340; must be a declared major in the School of Communication & Media.

This course is designed to enable students to develop a critical, aesthetic, and ethical approach to visual representation. Through selected documentary viewings, discussions, lectures, and the development and completion of a final project, students learn the necessary processes for producing documentary films. The course culminates with a class production of a short documentary on a topic approved by the instructor. Historical, theoretical, and methodological elements of documentary production are highlighted.

## **MENT 4485: Media & Entertainment Capstone**

### **3 Credit Hours**

*Prerequisite:* COMM 3340 and MENT 4424; must be a MENT major.

This course is the capstone course for Media and Entertainment majors. Students complete a theoretical or applied project during the semester focusing on theoretical/methodological concerns in media and entertainment and their implications for our understanding of media in society. The course culminates in a paper/project that integrates, critiques, extends, and applies knowledge gained from prior media and entertainment courses. Students present their own projects and contribute to substantive discussions of presentations by other students.

## **MENT 4495: Media and Entertainment Study Tour**

### **3 Credit Hours**

*Prerequisite:* 60+ credit hours and MENT 3100; must be a declared MENT major

This course offers students the opportunity to learn about the fields of media and entertainment by visiting some well-known media/entertainment properties and corporations. Students gain firsthand exposure to the wide range of careers in these fields and the skill sets necessary to succeed in the industry. Students meet for an intensive one-week preparation class to better understand the structure and function of media and entertainment companies; the second week will be on-site at various locations.

## **ORGC 2030: Careers in Organizational Communication**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

As career preparation, this course examines occupational industries, job roles, and professional skills relevant to the organizational communication course discipline. The learning activities help students articulate goals and synthesize resources, strategies, and activities to chart a realistic career path. Additionally, students self-assess career readiness through seven competencies with a prospective professional association or mentor, and identify post graduate education or training options for career development.

## **ORGC 3025: Introduction to Organizational & Professional Communication**

### **3 Credit Hours**

*Prerequisite: Must be a declared major in the School of Communication and Media. Non-majors: 30+ credit hours and permission from the School of Communication and Media.*

This course is an introduction to organizational & professional communication as a discipline. It covers methods and applications of basic theories, interactive structures, and directions within various organizational environments.

## **ORGC 3325: Intercultural Communication**

### **3 Credit Hours**

*Prerequisite: 60+ credit hours.*

This course is a study of cultural and communication variables that impact the interaction process between peoples. Intercultural communication is examined during the time communication participants share ideas, information, persuasion and emotions.

## **ORGC 3345: Team Communication**

### **3 Credit Hours**

*Prerequisite: 60+ credit hours; must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course is a study of input, process and output variables in small group discussion. The emphasis is on participation, observation and evaluation of various discussion methods.

## **ORGC 3376: Interpersonal Communication**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

Theory and application of communication concepts involving interpersonal relationships and contexts.

## **ORGC 3459: Communication and Conflict**

### **3 Credit Hours**

*Prerequisite: Must be a declared major in the School of Communication and Media. Non-majors: 30+ credit hours and permission from the School of Communication and Media.*

This course introduces a model of effective conflict management in organizations and other contexts via appropriate communicative strategies. The model proposes that our perspective of dealing with conflict determines our approach to conflict situations. This course provides students with practical knowledge for understanding the benefits of conflict, recognizing its evolution, and applying various strategies for dealing with different people in a variety of contexts.

## **ORGC 4344: Training and Development**

### **3 Credit Hours**

*Prerequisite: ORGC 3025, and 60+ hours; must be a declared major in the School of Communication and Media. Non-majors: Permission of the School of Communication & Media.*

This course covers methods and practice in communication training and development for organizations including pre-assessment, writing objectives, training techniques, post-training evaluation, feedback, implementation. The emphasis is on communication processes and outcomes for the trainer and trainee plus communication skill development within training modules.

## **ORGC 4440: Leadership Communication**

### **3 Credit Hours**

*Prerequisite: Must be a declared major in the School of Communication and Media.*

Leadership Communication distinguishes leadership as an influential message-centered process. Based on this perspective, the course examines the variables of message exchange (communicator role, message content and meaning, media, context, and culture) as they impact organizational goal achievement. Eight major communication approaches are used to explain leadership. Special attention is given to understanding communication theory and extending social science research.

## **ORGC 4455: Organizational Communication Practicum (Capstone)**

### **3 Credit Hours**

*Prerequisite: ORGC 3025 and COMM 3435 and 90+ credit hours; must be a declared major in the School of Communication and Media.*

This course is the study and application of the organizational communication assessment process used by consultants, trainers and managers. In this capstone course, students conduct a communication audit for a local company and develop a written analysis of the organization's internal communication patterns.

## **ORGC 4470: Topics in Organizational & Professional Communication**

### **3 Credit Hours**

*Prerequisite:* Must be a declared major in the School of Communication and Media.

This course offers theoretical and applied approaches to the understanding of organizational & professional communication. Sample topics may include global leadership in organizations, nonprofit organizations, professional coaching, and organizational systems. Semester topics will vary. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

## **PR 3335: Public Relations Principles**

### **3 Credit Hours**

*Prerequisite:* COMM 2230

An introduction to the history, role, and functions of public relations, including public relations theory, ethics, and industry and career issues.

## **PR 3355: Public Relations Cases**

### **3 Credit Hours**

*Prerequisite:* PR 3335 and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.

This course examines basic roles and functions of messaging strategy in promoting organizational goals. A case study approach emphasizes theory and methods for effective communication with diverse organizational publics, including the mass media, employees, consumers, financial stakeholders and special interest groups.

## **PR 3375: Public Relations Writing**

### **3 Credit Hours**

*Prerequisite:* PR 3335 and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.

This course offers practice in writing public relations applications, including news releases, public service announcements, and newsletter articles. Students create a portfolio of writing samples.

## **PR 3380: PR Strategies and Tactics**

### **3 Credit Hours**

*Prerequisite:* PR 3335 and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.

This course examines the application of strategies and tactics used to achieve objectives of a public relations plan. Students learn and practice foundational skills and techniques used in the professional practice of public relations, such as developing effective communication strategies and tactics, media relations, media training, distribution of news and information, special events and the use of photos, graphics and video.

## **PR 3385: International Public Relations**

### **3 Credit Hours**

*Prerequisite: PR 3335 and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course introduces students to the global perspective of public relations while emphasizing corporate and agency public relations. Students learn and apply concepts of planning, research and international or cultural communication in the field of public relations.

## **PR 3429: Persuasion Methods and Strategies**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course provides a study of the theories, methods, applications and implications of persuasion from the days of Aristotle to today's political and commercial arenas. The course explores the practice of changing attitudes and opinions via non-coercive means.

## **PR 4210: Social Media for Strategic Communication**

### **3 Credit Hours**

*Prerequisite: PR 3335 and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

Students learn theory and practice of social media in a professional, strategic communication setting, with an emphasis on the connection between traditional best practices and emerging techniques.

## **PR 4405: Digital Publication Design**

### **3 Credit Hours**

*Prerequisite: COMM 2135 and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course explores digital publication design in the practice of public relations and strategic communication. In addition to principles of design, including the use of photography and graphics, students learn to prepare content and communicate strategic messages through coordination of text, images, and strategic design. Graphic design software and other online tools are used to develop an understanding of visual communication strategies and skills to create publications that raise awareness, affect attitudes, and influence behavior.

## **PR 4415: Topics in Public Relations**

### **3 Credit Hours**

*Prerequisite: PR 3335 and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course offers theoretical and applied approaches to public relations strategies and tactics needed by public relations professionals. Students will learn media relations, social media and public relations, special events coordination, entertainment public relations, and ethics and public relations. Semester topics will vary. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

## **PR 4425: Media Relations**

### **3 Credit Hours**

*Prerequisite: PR 3335, and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course examines the communication and relationship building skills required to be successful in media relations. Students will learn and practice techniques used in the professional practice of public relations, which may include writing on tight deadlines, monitoring trends, developing media opportunities, maintaining relationships with the media, crafting stories, and pitching news.

## **PR 4460: Crisis Communication**

### **3 Credit Hours**

*Prerequisite: COMM 3435 plus 60 credit hours and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

PR 4460 provides students insights regarding key concepts, theoretical perspectives, essential skills and abilities, and critical thinking and problem solving skills necessary for effective crisis management within organizations. Topics include issues management, risk management, relationship management, crisis planning and preparation, case studies, and developing crisis management plans.

## **PR 4465: Public Relations Campaigns (Capstone)**

### **3 Credit Hours**

*Prerequisite: PR 3375 and COMM 3435 and 90+ hours and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course is the study and application of the campaign planning process from inception to evaluation. The class functions as an agency, and student groups develop a strategic communication campaign plan for a campus or community organization.

## **PR 4495: Public Relations Study Tour**

### **3 Credit Hours**

*Prerequisite: PR 3335 and 60+ credit hours and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

This course offers students the opportunity to learn about integrated communications by visiting some of the nation's most well-known public relations agencies. Students will gain firsthand exposure to the wide range of services provided by the nation's top communication professionals. Students meet for an intensive one-week preparation class to better understand the structure and function of public relations; then the class will visit the agencies for a hands-on look at the communication process. Students will incur additional travel expenses, including the instructor's travel expenses.

## **PR 4605: Magazine Media**

### **3 Credit Hours**

*Prerequisite: PR 3375 or JOUR 3330 or PR 4405 and Approval of Application by Instructor; must be a declared major in the School of Communication & Media. Non-majors: Permission of the School required.*

This course provides students with a working knowledge of the processes involved in the development, preparation and distribution of a major multi-platform publication. Students are involved in all facets of the magazine publication, including research and information gathering, writing, editorial functions, photography, layout and design, and promotion and advertising.

## **PR 4670: Crisis Leadership Communication**

### **3 Credit Hours**

*Prerequisite: 60 credit hours, COMM 3435, and must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.*

Leaders need communication skills and requisite knowledge to guide organizations through the tumultuous crises of the future. This course addresses numerous content areas, including: factors involved in decision-making under pressure; training and organizational skills in crisis management communication as a core competency; and leading in local and transboundary crises through an integrated approach for organizations with different decision-making structures, different resource commitments to crisis preparation and response, and different communication and cultural strategies.

## **CPE 1001L: Introduction to Computer Engineering Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 1000*

Students will learn a variety of concepts via hands-on exercises and group activities. We will introduce Python as a programming language, along with the Raspberry Pi hardware platform, to create an integrated hardware/programming environment where students can learn Linux, programming, hardware sensors/actuators, the IoT, machine learning, and IP/TCP. There will also be group activities pertaining to interpersonal skills development. At the end of the semester, there will be a project.

## **CPE 2200: Hardware Programming**

### **3 Credit Hours**

*Prerequisite: ENGR 1000 and EE 2501*

This course introduces fundamental concepts of computing by studying instruction flow in a processor architecture. We will study how Assembly and C languages are to drive the architecture and explore fundamental hardware operations. Topics include computer architecture, problem-solving, and algorithm development. Programming assignments focus on techniques of good programming style including proper documentation. The student is taught to efficiently design, code, and debug problem solutions, relevant to embedded software design.

## **CPE 3000: Computer Organization and Interfacing**

### **4 Credit Hours**

*Prerequisite: MATH 1190, CPE 2200, CSE 1321, CSE 1321L, and Engineering Standing*

This course will introduce the students to the fundamental concepts of computer organization including basic register storage, ALUs, and state machines. In addition, we will study how assembly language is used to drive this architecture and explore fundamental hardware operations such as shifting, bit manipulation, and bit testing. Interfacing our architecture to external systems will also be discussed.

## **CPE 3020: VHDL Design with FPGAs**

### **4 Credit Hours**

*Prerequisite: EE 2501 and Engineering Standing*

This course will explore the design and development of synchronous and asynchronous machines using VHDL. VHDL is an industry standard design language used to create complex embedded digital systems in programmable devices such as FPGAs and CPLDs. This course will explore design simulation, synthesis, and timing analysis. Physical configurations for FPGAs and CPLDs will also be explored.

## **CPE 3030: Advanced Embedded Design**

### **4 Credit Hours**

*Prerequisite: Engineering Standing Concurrent: CPE 3000 or EE 3501*

This course will introduce the students to advanced embedded system design concepts. In addition to learning linux fundamentals, students will explore advanced embedded design concepts such as multithreading and thread synchronization, complex interfacing of digital and analog sensors, and the use of mutexes/semaphores for managing shared resources.

## **CPE 3398: Internship**

### **1-4 Credit Hours**

*Prerequisite: Engineering Standing, CPE 3000, and consent of the instructor*

This course is a structured out of the classroom experience that is related to Computer Engineering, in a supervised setting with an industry partner. The goal is for students to enhance their academic classroom skills with practical experiences in a real-world environment. Supervision of the Intern is shared by the working environment supervisor and a faculty advisor.

## **CPE 3500: Embedded Digital Signal Processing**

### **4 Credit Hours**

*Prerequisite: (CPE 3000 or EE 3501) and Engineering Standing*

This course introduces the theoretical and practical foundations of digital signal processing (DSP). Basic concepts of DSP systems including sampling and quantization of continuous time signals, analog to digital and digital to analog conversions are discussed. The course covers the topics of discrete time signals, Z-transform, Fast Fourier Transform (FFT), Discrete Fourier Transform (DFT) and digital filter design. Real-time design considerations of DSPs for embedded systems and hands-on development of real-time algorithms are discussed.

## **CPE 4010: Sensors, Actuators and Integration**

### **4 Credit Hours**

*Prerequisite: (CPE 3000 or EE 3501), and EE 3401, and PHYS 2212, and Engineering Standing*

This course provides an introduction to the theory and applications of modern sensors and actuators. The mathematical and physical principles that underlie the operation and uses of various types of sensors and actuators as well as the acquisition, processing, and driving of signals associated with these devices is explored. Sensory- and actuator-based devices interfaced with embedded systems are used to augment the theoretical concepts taught.

## **CPE 4020: Device Networks**

### **4 Credit Hours**

*Prerequisite: CPE 3000 and Engineering Standing*

This course provides an introduction to basic networking theory, protocols and technologies and their use in the internetworking of embedded systems. Various networking interface technologies (wireless and wireline) are studied from a conceptual, hardware, and programmatic perspective; the learning experience is augmented via the design and implementation of practical applications using modern Single Board Computers (SBC) and peripheral devices. The concept of the Internet of Things (IoT) is interwoven throughout the course in order to provide the student with a clear grasp of the evolution of such networked devices and how they can be controlled locally, remotely, and within the "cloud."

## **CPE 4040: Data Collection and Analysis**

### **3 Credit Hours**

*Prerequisite: CPE 3030, STAT 2332, and Engineering Standing*

This course will provide an introductory look at concept and techniques in the data collection and analysis. After covering the introduction the abstract data types and use of standard data structures, the techniques used to implement numerical algorithms, visualize and process the data, evaluate and validate prediction models and various implementation platforms (computer architectures) for efficient data analysis will be covered. By the end of the course participants should have acquired the skills to plan and execute data collection and analysis campaigns in technical application scenarios.

## **CPE 4202: Embedded Digital Control Systems**

### **3 Credit Hours**

*Prerequisite: CPE 3000 and EE 4201*

This course introduces the theoretical foundations and practical implementations of digital control systems. Difference equations and the Z-transform, and the time response and frequency response of discrete-time systems, are covered. Modeling of digital control systems and the components that comprise them, including analog-to-digital converters, digital to analog converters, zero-order hold, and computation/time delays are explored. Stability analysis of closed-loop systems, digital controller design based on root-locus and frequency response approaches will be introduced. Hardware applications of the analysis and design principles will be tested on embedded systems. *Notes: This course may be cross-levelled with CPE 6202.*

## **CPE 4400: Directed Study in Computer Engineering**

### **1-4 Credit Hours**

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. A Directed Study may include original research projects and/or practical experiences.

## **CPE 4490: Special Topics in Computer Engineering**

### **1-4 Credit Hours**

*Prerequisite: Varies by Topic*

This course covers advanced topics of special interest to faculty and students that are not in the regular course offerings. Offered on a demand basis. This course may be taken more than once.

## **CPE 4750: Introduction to Internet of Things (IoT)**

### **3 Credit Hours**

*Prerequisite: CPE 3000 or EE 3501*

This course provides an overview of the system architecture, covering fundamental knowledge for each core technology stack: the device layer, the communication network layer, and the application layer. Students will gain exposure to various smart IoT applications and explore the design trade-off in power consumption, real-time constraint, and size limitation. Students will learn hands-on labs and projects, the basics of data analytics by using off-the-shelf IoT HW and commercial IoT platform to solve real-world problems.

## **CPE 4800: Senior Project Proposal**

### **2 Credit Hours**

*Prerequisite: CPE 3030, Senior Status, and Engineering Standing*

This course involves an in-depth examination of the principles and methods associated with the engineering design process. Students will be grouped into design teams where the engineering design principles and methods are put into practice in the developing of a computer engineering project. The final product for each design team will be a project proposal that will be assessed via design review.

## **CPE 4850: Senior Project Design**

### **3 Credit Hours**

*Prerequisite: CPE 4800 and Engineering Standing*

This course will require a design team to complete the computer engineering project they proposed in the senior project proposal course. The steps to completing this project will include building a prototype of the system/device, programming this system/device, and testing this system/device. The design team will also be responsible for drafting the project report, demonstrating that the system/device functions according to specifications, and making an oral presentation of the project.

## **CPE 4903: Neural Networks and Machine Learning**

### **3 Credit Hours**

*Prerequisite: CSE 1321 and CSE 1321L and MATH 2202 and Engineering Standing*

This course introduces the student to the principles and theories associated with neural networks. Several neural networking-related architectures, algorithms, and training techniques associated with real-world applications (e.g. detection & tracking systems, traffic patterns, classification schemes) are discussed. Also, several in-class examples are given and a term project is assigned to aid the student in a practical understanding of the theory covered—Class examples and the project are conducted using OOP and the MATLAB Neural Network Toolbox. Additionally, a survey of various AI hardware implementations will be conducted to further enhance the student's knowledge.

## **CGDD 2012: Fundamentals of Game Design**

### **2 Credit Hours**

This course presents an overview of the history of computer games and the theory of gaming. Topics include game genres, content, patterns, playability, suspension of disbelief and immersion, storytelling, and game balance and fairness. Students are required to analyze historic and current games and must also develop an original game.

## **CGDD 2014: Fundamentals of Digital Game Development**

### **1 Credit Hours**

*Prerequisite: A grade of "B" or higher in CSE 1321 and CSE 1321L Concurrent: CGDD 2012*

Students will learn to develop computer-based video games using a modern game engine and a programming language. Students are required to develop a computer-based prototype of an original game.

## **CGDD 2290: Special Topics**

### **3 Credit Hours**

Special topics selected by the CGDD Department. The course covers special topics at the intermediate level that are not in the regular course offerings.

## **CGDD 3103: Application Extension and Scripting**

### **3 Credit Hours**

*Prerequisite: CGDD 2012 and a grade of "B" or better in both CSE 1322 and CSE 1322L*

This course provides an introduction to the use and extension of applications for content creation and management. Both the theoretical as well as applied aspects of extensible application architectures and plug-ins are covered. Existing and emerging scripting languages will also be discussed extensively, and programming in these scripting languages is covered. Students will explore and utilize current applications and must create extensions to these applications.

## **CGDD 4003: Digital Media and Interaction**

### **3 Credit Hours**

*Prerequisite:* CGDD 3103 or CS 3305 or IT 3883

This course explores how digital media is created and utilized within computer games and simulations. Topics include sound, video, text, images, character modeling, animation, game world and level generation (2D and 3D), and current and emerging interaction techniques. Students are required to work in teams to produce a multimedia term project.

## **CGDD 4113: 3D Modeling and Animation**

### **3 Credit Hours**

*Prerequisite:* CS 3305

This course explores the theory and application of 3D geometric model generation and animation. Topics include mesh and Non-uniform Rational B-Spline (NURB) modeling, textures, subdivision and levels of model detail, rigid/constrained body dynamics, and non-rigid/fluid dynamics. Students will be required to develop and animate a complex model, and a significant project is required

## **CGDD 4203: Introduction to Mobile and Immersive Gaming**

### **3 Credit Hours**

*Prerequisite:* CGDD 4003

This course explores the segments of mobile (handheld, tablet, and mobile phone) and immersive gaming. The technical and hardware requirements and constraints of mobile and immersive game development are investigated. Students will learn to design and develop within these constraints. Patterns and methodologies for designing and developing these games are covered. Several projects are required (both mobile and immersive).

## **CGDD 4242: Agent-Based Artificial Intelligence**

### **3 Credit Hours**

*Prerequisite:* CS 3305

This course introduces students to the key concepts of Artificial Intelligence in single-agent, adversarial, and multi-agent systems. This includes topics such as agency, knowledge representation, searching, planning, algorithms, and machine learning in both single and multiple agent scenarios. The students will also apply this knowledge to games, serious games, and simulations and implement their solutions within serious game and simulation environments such as Unity or Unreal.

## **CGDD 4303: Educational and Serious Game Design**

### **3 Credit Hours**

*Prerequisite: CGDD 4003*

This course presents the history, theory, and current best practices of serious gaming and the use of serious games to educate and train. This course focuses on how to engage and entertain while presenting informative interfaces to the user. Topics include motivation, designing engaging learning interfaces, knowledge transfer from the game environment to the real world, assessment of learning, and instructional value. A design/prototype project is required.

## **CGDD 4313: Designing Online Learning Content and Environments**

### **3 Credit Hours**

This course explores the use of online environments to present educational content for users. Topics include: interaction patterns in online learning environments, providing accessible and intuitive materials, multi-modal presentations of content, and the benefits and limitations of online learning environments. This course requires a critique of existing online environments and the development of a new learning environment, and human-computer interaction issues are an important consideration for this course.

## **CGDD 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: By Instructor's or Department's permission.*

This course enables the study of special topics of an advanced nature that are not in the regular course offerings. Students will complete a research project on a topic in the subject area of computer game design and development or related areas supervised by a faculty member. Credit hours vary from one to three depending on the nature and content of the project student involved. Up to three credits may be applied to the major area.

## **CGDD 4490: Advanced Topics**

### **3 Credit Hours**

*Prerequisite: Permission of the CGDD Department*

This course offers advanced topics selected by the CGDD Department. The course covers special topics at the senior level that are not in the regular course offerings.

## **CGDD 4603: Production Pipeline and Asset Management**

### **3 Credit Hours**

*Prerequisite:* CS 4722

This course provides an in-depth exploration of the production of media content. This course covers elements of the production pipeline from concept to content generation to post production and quality assurance. Topics include asset creation and management, cost-quality tradeoffs, and phases of production. Current and emerging models of the production pipeline such as user-generated content and participation will also be discussed. A significant, team-based project is required.

## **CGDD 4703: Data Modeling and Simulation**

### **3 Credit Hours**

*Prerequisite:* STAT 2332

This course provides an introduction to modeling and simulation. Both the theoretical as well as applied aspects of simulation are covered. Topics include discrete-event simulation, states, transitions, model definition, model quality, input and output analysis, input distributions, experimental design, optimizing models, levels of model detail, cost-quality tradeoffs, verification, and validation. Students will be required to simulate a complex system which necessitates the creation of models. Students will explore and utilize a simulation API.

## **CGDD 4803: Studio**

### **3 Credit Hours**

*Prerequisite:* CGDD 4003

This course begins the studio experience and explores the application of game design and development in a structured environment; teams build applications utilizing best practices in software engineering including asset, project, configuration, and requirements management. Students in this Studio course will assume an apprentice position within their teams and learn from more senior students taking the Capstone course. This course involves weekly status, design, and development meetings.

## **CGDD 4814: Studio 2**

### **4 Credit Hours**

*Prerequisite:* CGDD 4803

This course continues the studio experience from and further explores the application of game design and development in a structured environment; teams build applications utilizing best practices in software engineering including asset, project, configuration, and requirements management. Students taking this Capstone course will assume a senior position within their teams and provide mentoring to students taking the Studio course. This course involves weekly status, design, and development meetings.

## **CS 2290: Special Topics**

### **3 Credit Hours**

*Prerequisite:* Approval of the instructor, major area committee, and department chair.

The course covers special topics at the intermediate level that are not in the regular course offerings.

## **CS 3305: Data Structures**

### **3 Credit Hours**

*Prerequisite:* (MATH 2345 or CSE 2300) and [(CSE 1322 and CSE 1322L each with a "B" or better), or MTRE 2610 with a "B" or better, or CPE 3000 with a "B" or better]

This course introduces data structures, specification, application, and implementation. The case studies will illustrate how data structures are used in computing applications. The emphasis of the course is on linear and some nonlinear data structures and object oriented principles. Topics include: abstract data types, stacks, queues, lists, binary search trees, priority queues, recursion, algorithm efficiency, trees, heaps, hash tables, and analysis of search and sort algorithms and their performance for implementation and manipulation. The programming language to be used in this course is any standard high-level object-oriented programming language such as C++, Java, and Ada.

## **CS 3410: Introduction to Database Systems**

### **3 Credit Hours**

*Prerequisite:* A grade of "B" or higher in both CSE 1322 and CSE 1322L

Introduction to database management systems, database processing, data modeling, database design, development, and implementation. Particular emphasis is placed on the relational approach to database management and processing, which focuses more on the logical nature of a database than its physical characteristics. Relational database programming assignments are drawn from the fields of business. Includes implementation of current DBMS tools and SQL. Ethical and security topics related to databases will be introduced.

## **CS 3502: Operating Systems**

### **3 Credit Hours**

*Prerequisite:* CS 3305 and CS 3503

The course covers the basic concepts, design and implementation of operating systems. Topics include an overview of basic computing hardware components, operating system structures, process management, memory management, file systems, input/output systems, protection and security. The Windows and/or UNIX/Linux operating systems will be reviewed as example systems.

## **CS 3503: Computer Organization and Architecture**

### **3 Credit Hours**

*Prerequisite:* A grade of "B" or higher in both CSE 1322 and CSE 1322L

The course covers computer architecture. Topics include data representation and encoding, binary arithmetic, fixed- and floating-point representation, numbering systems, error-control, instruction set architecture, assembly language and programming, microcode, memory organization and addressing, I/O, interrupts, internal architecture, instruction pipelining, multi-core architectures and CPU/ALU basics. The course also covers computer organization. Topics include Boolean Algebra, logic gates, flip-flops, counters, registers, combinational and sequential circuits, K-maps, circuit design, and various digital components.

## **CS 3622: Fundamentals of Data Communications**

### **3 Credit Hours**

*Prerequisite:* A grade of "B" or better in both CSE 1322 and CSE 1322L.

An introduction on the fundamentals and underlying theory of data communication networks, their architecture, principles of operations and performance analyses. Topics include OSI reference model and standards, communication codes, network protocol concepts, synchronous and asynchronous transmission methods, line coding, signaling, effects of bandwidth and noise, digital and analog modulation, interfacing, error/flow/media-access control, switching and routing methods, and network topologies. Other areas studied are Local area networks (LANs), Wide area networks (WANs), Wireless networks, Fiber optic networks, internetworking technologies, and an introduction to the Internet, TCP/IP, cryptography and network security.

## **CS 3626: Cryptography**

### **3 Credit Hours**

*Prerequisite:* MATH 2345 or CSE 2300 *Concurrent:* CS 3305

The course covers both mathematical and practical foundations of cryptography. Topics include basic number theory for cryptography, conversion of text, and implementation using a programming language. The course includes historical cryptography, symmetric cryptography, asymmetric cryptography, hash functions, and well-known attack strategies with countermeasures. Exercises cover programming of simple cryptography in a programming language.

## **CS 3642: Artificial Intelligence**

### **3 Credit Hours**

*Prerequisite:* CS 3305

The primary objective of this course is to provide an introduction to the basic principles and applications of Artificial Intelligence. It covers the basic areas of artificial intelligence including problem solving, knowledge representation, reasoning, decision making, planning, perception and action, and learning -- and their applications. Students will design and implement key components of intelligent agents of modern complexity and evaluate their performance. Students are expected to develop familiarity with current research problems, research methods, and the research literature in AI.

## **CS 4265: Big Data Analytics**

### **3 Credit Hours**

*Prerequisite:* CS 3305 and (CS 3410 or CSE 3153)

This course covers algorithms and tools that are needed to build MapReduce applications with Hadoop or Spark for processing gigabyte, terabyte, or petabyte-sized datasets on clusters of commodity hardware. A wide range of data algorithms will be discussed in this course.

## **CS 4267: Machine Learning**

### **3 Credit Hours**

*Prerequisite:* CS 3642

This course provides a broad introduction to machine learning and statistical pattern recognition including supervised, unsupervised, and ensemble learning. Topics include K-NN, Naïve Bayes Classifier, parametric and non-parametric methods, support vector machines, kernel machines, neural networks, clustering, dimensionality reduction, and model evaluation. The learning theory including bias/variance tradeoffs and large margins will be introduced. This course will also discuss recent applications of machine learning such as data mining, autonomous navigation, speech recognition, and text and web data processing.

## **CS 4270: Intelligent Systems in Bioinformatics**

### **3 Credit Hours**

*Prerequisite:* CS 3305 and (CS 3410 or CSE 3153)

Biological sciences are undergoing a revolution in how they are practiced. In the last decade, a vast amount of biological data has become available, and computational methods are playing a fundamental role in transforming this data into scientific understanding. Bioinformatics involves developing and applying computational methods for managing and analyzing information about the sequence, structure and function of biological molecules and systems. This course covers a wide range of machine learning, data mining, and computational algorithms to solve various bioinformatics research problems.

## **CS 4277: Deep Learning**

### **3 Credit Hours**

*Prerequisite:* CS 3642 *Concurrent:* CS 4267

This course covers the foundations of Deep Learning; how to build neural networks and how to design successful deep learning projects. The course topics include convolutional networks, sequence modeling such as recurrent and recursive neural networks (RNNs), long short-term memory (LSTM), Adam, Dropout, BatchNorm, Xavier/He initialization, state-of-the-art technologies, and research topics leveraging Deep Learning. The course includes programming assignments in Python and in TensorFlow.

## **CS 4305: Software Engineering**

### **3 Credit Hours**

*Prerequisite:* CS 3410, CSE 3801, COMM 1100

This course provides an overview of the software engineering discipline with emphasis on the development life cycle and UML modeling. It introduces students to the fundamental principles and processes of software engineering, including Unified, Personal, and Team process models. This course highlights the need for an engineering approach to software with understanding of the activities performed at each stage in the development cycle. Topics include software process models, requirements analysis and modeling; design concepts and design modeling; architectural design and styles; implementation; and testing strategies and techniques. The course presents software development processes at the various degrees of granularity.

## **CS 4306: Algorithm Analysis**

### **3 Credit Hours**

*Prerequisite:* CS 3305

Algorithm analysis using formal and mathematical techniques and fundamental algorithm design strategies are studied. Topics include asymptotic analyses of complexity bounds using big-O, little-o, omega, and theta notations. The algorithmic strategies (brute-force, greedy, divide-and-conquer, recursive backtracking, dynamic programming, branch-and-bound, heuristics, and reduction) are covered. Also included are standard graph and tree algorithms. Additional topics include standard complexity classes, time-and-space tradeoffs in algorithms, and analyzing both recursive algorithms and non-recursive (iterative) algorithms.

## **CS 4308: Concepts of Programming Languages**

### **3 Credit Hours**

*Prerequisite:* CS 3305 and CS 3503

This course covers the fundamental concepts on which programming languages are based and the execution models supporting them. Topics include values, variables, bindings, type systems, control structures, exceptions, concurrency, and modularity. Languages representing different paradigms are introduced.

## **CS 4322: Mobile Software Development**

### **3 Credit Hours**

*Prerequisite:* CS 3305 and (CS 3410 or CSE 3153) and SWE 3313

This course primarily focuses on mobile sensor application development and security of smartphones and mobile telecommunication systems. The goals of the course is to provide students with real world relevant mobile sensor app development and improve their knowledge and skills on mobile application development and mobile security.

## **CS 4400: Directed Studies**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the instructor, major area committee, and department chair.

This course covers special topics of an advanced nature that are not in the regular course offerings. Up to three hours may be applied to the major area.

## **CS 4412: Data Mining**

### **3 Credit Hours**

*Prerequisite:* CS 3305 and (CS 3410 or CSE 3153)

This course covers fundamental data mining concepts and techniques for discovering interesting patterns from data in various applications. Topics include data preprocessing, data warehousing and OLAP, mining frequent patterns, classification, clustering, and trend analysis.

## **CS 4422: Information Retrieval**

### **3 Credit Hours**

*Prerequisite:* CS 3305 and (CS 3410 or CSE 3153)

This course covers the fundamentals of Internet search engines, including Web crawlers, inverted indices, hyperlink analysis, and relevance ranking. Also covered are advanced topics including information extraction for knowledge base construction, question answering, search marketing and ad targeting, and activity mining for relevance optimization and personalization.

## **CS 4491: Advanced Topics in Computer Science**

### **3 Credit Hours**

*Prerequisite:* A grade of "C" or better in any prerequisite course. Prerequisite course(s) vary depending upon the topic.

This course provides the current and relevant topics in an advanced Computer Science area of interest to faculty. *Notes:* It may substitute for a CS major elective.

## **CS 4492: Undergraduate Research**

### **3 Credit Hours**

*Prerequisite: Department Permission and (CS 4265 or CS 4267 or CS 4270 or CS 4322 or CS 4412 or CS 4504 or CS 4512 or CS 4514 or CS 4522 or CS 4523 or CS 4524 or CS 4612 or CS 4622 or CS 4632 or CS 4712 or CS 4720 or CS 4722 or CS 4732).*

This course promotes undergraduate research in Computer Science. Students develop research ideas and conduct research work to investigate topics aligned with the department's research plan and with the guidance of Computer Science faculty members. Students document their findings in final reports, present their findings, and prepare research papers for publication in appropriate venues.

## **CS 4493: Research Seminar**

### **1 Credit Hours**

*Prerequisite: Department Permission and GPA of 3.0 or higher.*

Discussion of the latest developments and research areas in Computer Science. Students will share among each other research ideas related to current research areas with interactions with faculty or invited speakers. Students will compile, discuss, present, and report their research ideas.

## **CS 4504: Parallel and Distributed Computing**

### **3 Credit Hours**

*Prerequisite: CS 3305 and CS 3503 Concurrent: CS 3502*

This course introduces students to the fundamental principles common to the design and implementation of programs that run on two or more interconnected computer systems - in parallel or distributed configurations. Topics to be covered include: essentials of operating systems, network protocols for process communication, and synchronization using message queues; understanding of client-server paradigms, web-based group or collaborative communication systems; advanced distributed computing paradigms for parallel computing and handling concurrency issues; and sockets. Programming will focus on using API's for parallel or distributed applications (e.g., MPI and RMI).

## **CS 4512: Systems Programming**

### **3 Credit Hours**

*Prerequisite: CS 3305 and CS 3502*

This course presents an introduction to systems programming in Linux/Unix. Topics include file I/O, process control and communication, threading, and network-aware systems programs.

## **CS 4514: Real-Time Systems**

### **3 Credit Hours**

*Prerequisite:* CS 3502

This course covers the software-development life cycle as it applies to real-time systems. Alternatives: • Including labs that involve the use of a real-time operating system and an associated development environment, or • Modeling with UML, and object oriented simulation. Introduction to formal specification of real-time systems. A course project is required to be completed by the end of the semester.

## **CS 4522: HPC & Parallel Programming**

### **3 Credit Hours**

*Prerequisite:* CS 4504

This course will introduce parallel programming techniques for shared memory and distributed memory systems. Topics include threading, OpenMP, and MPI.

## **CS 4523: Programming Massively Parallel Processors**

### **3 Credit Hours**

*Prerequisite:* CS 3305 and CS 3502

A study of practical parallel algorithms with an emphasis on implementation and performance issues on massively parallel processors. Design and implement high performance computing applications using CUDA running on Graphics Processing Unit (GPU). Topics include heterogeneous parallel programming, hardware threading models, synchronization, parallel blocking algorithms, register allocations, memory performance, and inter-thread communication.

## **CS 4524: Cloud Computing**

### **3 Credit Hours**

*Prerequisite:* CS 4504

This course discusses the fundamental concepts and techniques of cloud computing. Students will develop an understanding of cloud computing architecture, Infrastructure as a Service (IaaS), Platform-as-a-Service (PaaS), Software as a Service (SaaS), Virtualization, and Application Development on Cloud.

## **CS 4612: Software Security**

### **3 Credit Hours**

*Prerequisite:* CS 3502 and CS 3626

The course introduces the fundamental concepts and principles of software security. Topics covered include buffer overflows, defense mechanisms, return oriented programming, reverse engineering, vulnerabilities analysis. Additional topics: mobile security, hardware platform security, embedded system security.

## **CS 4622: Computer Networks**

### **3 Credit Hours**

*Prerequisite: CS 3503 and CS 3622*

This course covers computer networking and includes software application-related, protocol-related and security-related issues involved in the Internet. Topics include basic network structures, mechanisms for application-to-application communications, protocol layering, Internet addressing, unicast and multicast routing, connection establishment and termination, data flow and congestion control, and error handling. A specific protocol suite will be examined in detail. More advanced topics that build on the student's understanding of network protocols are also introduced, such as network security, mobile networks and the future Internet.

## **CS 4626: Computer and Network Security**

### **3 Credit Hours**

*Prerequisite: CS 3626 and CS 4622*

This course is a comprehensive study of the security principles and practices for computer systems and networks. Topics to be covered include basic security concepts, common network attack techniques and impacts, common security policies, Internet protocol vulnerabilities, basic cryptographic tools and secure protocols. Defense techniques such as authentication, access control, encryption, and network intrusion detection will be discussed. This course will also survey new and emerging network security topics, applications and technologies. Exercises for this course will include network programming in some language and using various tools in understanding and analyzing packet traces and network traffic.

## **CS 4632: Modeling and Simulation**

### **3 Credit Hours**

*Prerequisite: CS 3305*

This course covers the modeling and simulation of the structure and behavior of real-world systems using object-oriented discrete-event simulation techniques. The course emphasizes the modeling and computer programming perspective of simulation; design and implementation of simulation models. The fundamental concepts of object-oriented simulation are introduced. Model implementation will require programming in an object-oriented simulation language such as OOSimL, or in a general purpose programming language (Java or C++). Students will also be exposed to a commercial integrated simulation software tool: Arena.

## **CS 4712: User Interface Engineering**

### **3 Credit Hours**

*Prerequisite: CSE 1322 and CSE 1322L*

A comprehensive study of techniques in design and implementation of user interfaces engineering. Topics include the foundation of human-computer interaction and interface related to software lifecycle, building a graphic user interface engineering, interaction devices and technologies, human-computer dialogue, cognitive models, usability, the design and development process, user interface management systems (UIMS), interface style and techniques, user learning, and diversity in interaction styles. Major research and the building of a working graphic user interface are included.

## **CS 4720: Internet Programming**

### **3 Credit Hours**

*Prerequisite: CS 3305 and (CS 3410 or CSE 3153)*

This course introduces current technologies for modeling, designing, implementing, and developing Web applications. Topics include developing for the server and the client, programming frameworks, server administration and integration with databases. Practice will involve platforms and language such as Linux, Python, PHP, Ruby and JavaScript.

## **CS 4722: Computer Graphics and Multimedia**

### **3 Credit Hours**

*Prerequisite: CS 3305*

The basic principles and practices of interactive computer graphics and multimedia systems are covered in this introductory course. The design and implementation of state-of-the-art computer graphic rendering and visual multimedia systems are the main part of the course. The sub-topics of the course deal with specific input/output hardware devices and their technology, software and hardware standards, programming methods for implementing 3-dimensional graphical applications and interactive multimedia applications, and a study and evaluation of the effectiveness of graphic/multimedia communications. A large component of the class is the building of a large-scale application.

## **CS 4732: Machine Vision**

### **3 Credit Hours**

*Prerequisite: CS 3642*

This course introduces concepts and techniques in machine vision. Students successfully completing this course will be able to apply a variety of image processing techniques for the design and analysis of efficient algorithms for real-world applications, such as optical character recognition, face detection and recognition, motion estimation, human tracking, and gesture recognition. Topics include basic image enhancement, corner and edge detection, image morphology, linear and non-linear filters, image transformations, camera models, two-dimensional and three-dimensional image geometry, clustering and segmentation (and classification), object recognition and Bag-of-Words models, image texture, shape analysis, and tracking.

## **CS 4742: Natural Language Processing**

### **3 Credit Hours**

*Prerequisite: CS 3642*

This course provides an introduction to the field of natural language processing (NLP). The topics include creating systems that can understand and produce language for applications such as information extraction, machine translation, automatic summarization, question-answering, and interactive dialogue systems. This course covers linguistic (knowledge-based) and statistical approaches to language processing in the areas of syntax (language structures), semantics (language meaning), and pragmatics/discourse (the interpretation of language in context). Students will design and develop programs for analyzing and extracting information from large online corpora.

## **CS 4850: Computer Science Senior Project**

### **3 Credit Hours**

*Prerequisite: CS 3502 and SWE 3313*

This course provides a capstone experience for CS majors to promote a successful transition into the work place or further academic study. Students will have the opportunity to practice essential project management skills and work with current software tools and technologies. Student teams will develop a project scope, project plan, document functional specifications, develop a design document, implement specified functions, provide weekly progress reports, give project presentations to the class, conduct final project presentation to the instructor and/or project sponsor, and provide a complete final report that includes documentation of all class activities. Each team will designate a team leader who is responsible for coordinating work tasks, team meetings, communications with the instructor and/or project sponsor, and team effort.

## **CSCI 130I: Computer Science I**

### **4 Credit Hours**

This course is an introduction to computer science with coverage of algorithmic foundations, hardware concepts, and introductory programming in Java. Specific topics include data storage, data manipulation, and data abstractions. Programming concepts covered are algorithm design, primitive data types, and expressions, loops, modular programming, conditional execution, program logic, and arrays. This course is managed through the cooperative academic agreement known as eCore.

## **CSE 1300: Introduction to Computing Principles**

### **3 Credit Hours**

This course is an introductory computing principles course. Instruction centers on an overview of the history, scope, and impact of computing as well as critical, algorithmic and computational thinking on problem decomposition and fundamental programming concepts.

## **CSE 132I: Programming and Problem Solving I**

### **3 Credit Hours**

*Concurrent: CSE 132IL*

This course provides an introduction to computing with a focus on programming. Instruction centers on an overview of programming, problem-solving, and algorithm development. Particular topics include object-oriented design/programming, primitive data types, arithmetic and logical operators, selection and repetition structures, interactive user input, exception handling, using and designing basic classes, single-dimensional data structures with searching and sorting, and arrays. Programming assignments focus on techniques of good programming style including proper documentation. The student is taught to efficiently design, code, and debug problem solutions and the relationship between correct code and security.

## **CSE 132IL: Programming and Problem Solving I Laboratory**

### **1 Credit Hours**

*Concurrent: CSE 132I*

Lab activities with programming and game design to accompany CSE 132I.

## **CSE 1322: Programming and Problem Solving II**

### **3 Credit Hours**

*Prerequisite:* A grade of "B" or higher in CSE 1321 and CSE 1321L. *Concurrent:* CSE 1322L and (MATH 1113 or MATH 1190 or MATH 1179 or MATH 2202)

The second course in computing provides coverage of more advanced topics of object-oriented programming. This includes the use of static variables and classes, non-linear data structures, inheritance and polymorphism, file input/output, exception handling, recursion, and parameterized types. Elementary data structures (linked lists, stacks, and queues) are introduced to solve application problems. Graphical user interfaces, parallel programming, database programming, and event-driven programming are also introduced. Students will use good programming style including proper documentation.

## **CSE 1322L: Programming and Problem Solving II Laboratory**

### **1 Credit Hours**

*Prerequisite:* CSE 1321 and CSE 1321L with a grade of 'B' or better in both. *Concurrent:* CSE 1322

This course is the required and supervised lab course to accompany CSE 1322.

## **CSE 2300: Discrete Structures for Computing**

### **3 Credit Hours**

*Prerequisite:* ((CSE 1321 and CSE 1321L with a grade of "B" or higher) and (MATH 1113 or MATH 1190 or MATH 1179))

Coverage of discrete structures is crucial to any program in computing. This course covers propositional and predicate logic, proofs, set theory, relations and functions, algorithms and complexity theory, matrices, graphs and trees, and combinatorics. Throughout, the emphasis will be on applications of these concepts in computing.

## **CSE 3153: Database Systems**

### **3 Credit Hours**

*Prerequisite:* (CSE 1322 and CSE 1322L) or IT 1113 or (IT 1114 and IT 1114L)

The topics in this course span from a review of the traditional file processing systems to database management systems. Topics include files systems and file processing logic, planning, and major phases of database development: analysis, design and implementation. Labs use an SQL based database product such as Oracle.

## **CSE 3203: Overview of Mobile Systems**

### **3 Credit Hours**

*Prerequisite:* CSE 1322 and CSE 1322L

This course explores the use and issues of mobile applications in business including information security issues, connecting to cloud computing services, and mobile interface and programming. A significant design or development project will be created in the course.

## **CSE 3801: Professional Practices and Ethics**

### **2 Credit Hours**

*Prerequisite: (CSE 1322 and CSE 1322L) or IT 3123 (may take concurrently)*

This course covers the historical, social and economic consideration of the discipline. It includes studies of professional conduct, risks, and liabilities, and intellectual property relative to the software engineering and computing professions. Software engineering/computing case studies will be used.

## **CSE 4973: Technology Innovation and Entrepreneurship**

### **3 Credit Hours**

*Prerequisite: ENTR 3001*

In this course, students will learn how to apply entrepreneurial thinking to technology innovation and commercialization. Topics of this course include practicing customer-centric innovation in IT and computing, matching customer needs with innovation seeds, evaluating readiness and market fit, building an IT startup team, creating a winning business model, and developing an investor pitch for the innovative solution.

## **CSE 4983: CSE Computing Internship**

### **3 Credit Hours**

*Prerequisite: Senior standing or at least 20 major hours in a CCSE degree program.*

This course helps students gain practical experience through real-world projects and professional work. Students will demonstrate an ability to apply computing principles and technologies relevant to their major in a specific real-world project jointly supervised by an industry mentor and a faculty advisor. Students will work in a project team in an enterprise environment demonstrating ethical behavior as a computing professional, an understanding of social, professional and ethical issues related to computing, and an ability to integrate the knowledge acquired in preceding courses. Communication skills and leadership are also evaluated as well as professional computing skills and knowledge. 150+ hours per semester required at an internship site. The course can not be repeated for credit.

## **CM 1000: Orientation to Construction and Development**

### **2 Credit Hours**

An introduction to construction industry careers; an overview of construction industry sectors and the industry's impact on the economy; and discussion of the basics of the construction process. Also includes a preview of the construction degree curriculum and an overview of Kennesaw State University policies, procedures, and resources.

## **CM 2000: Construction Graphics**

### **3 Credit Hours**

*Prerequisite:* CM 1000

A study of the fundamentals of graphic language used by construction professionals, with an emphasis on developing skills in expressing concepts in visual form and in reading architectural and engineering construction documents.

## **CM 2210: Introduction to Structures**

### **3 Credit Hours**

*Prerequisite:* (PHYS 1111 and PHYS 1111L) or (PHYS 2211 and PHYS 2211L)

The study of basic structural design and analysis. Primary aim of this course is to develop and present structural concepts, introduce structural theory, provide a sound understanding of statics and strength of materials to establish a basis for understanding structural principles as it relates to building components.

## **CM 3000: Computer Applications in Construction**

### **3 Credit Hours**

*Prerequisite:* CM 2000

An introduction to microcomputers and commercial software. Students learn DOS and Windows manipulations, spreadsheets, word processing, visualization, and presentation software by actively using tutorials and help screens in a structured laboratory setting. Scheduling and estimating software are introduced.

## **CM 3040: Building Information Modeling I**

### **3 Credit Hours**

*Prerequisite:* (CM 2000 and CM 3000) or (EDG 2160 and CE 2003)

A course on study of building information modeling for pre-construction applications. The course will enable the students to develop and modify building information models. It includes integration of estimates and schedules with building information models. It also prepares the students to identify conflicts caused by architectural, structural, mechanical, plumbing, and electrical systems during pre-construction stages.

## **CM 3110: Residential and Light Construction Methods**

### **3 Credit Hours**

*Prerequisite:* CM 2000 or EDG 2160 or EDG 1211

A study of materials, techniques, and methods used in residential and light construction. Foundations, wood frame and masonry structural systems, interior and exterior finishes, residential electrical, plumbing, and mechanical systems are included. Also included are residential building code requirements.

## **CM 3160: Construction Equipment**

### **3 Credit Hours**

Study of the basic principles, practices, and techniques used in the construction industry for selecting and managing construction equipment. Focuses on understanding the time value of money, estimating equipment ownership and operating costs, selecting the proper equipment for specific construction tasks, and estimating equipment production.

## **CM 3170: Heavy Construction Practices**

### **3 Credit Hours**

*Prerequisite: CM 3110*

Introduction to the various heavy construction systems such as roads, bridges, sewer/water treatment facilities, and other transportation systems. Topics include: contract analysis, work breakdown, equipment selection, site logistics planning, and project scheduling, cost productivity and performance management, quality control, and risk management.

## **CM 3180: Mechanical and Electrical Building Systems**

### **3 Credit Hours**

*Prerequisite: CM 3110*

A study of mechanical and electrical system types, how they are built, and how they affect the construction project. Topics will include air conditioning, heating, plumbing, fire protection, electrical power, electrical lighting, and building control materials and systems. The analysis of current construction drawings will be integrated into each topic.

## **CM 3190: Sustainable Construction**

### **3 Credit Hours**

*Prerequisite: CM 3180*

This course will emphasize the techniques and methods of sustainable construction. Importance of a collaborative team effort from owners, architects, engineers, constructors, and consultants will be integrated into the course. Influences on the cost and schedule due to a sustainable construction project will be analyzed. Topics will include performance certification techniques for sustainable sites, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, innovation and design. MEP systems such as ventilation, air conditioning, heating, electrical lighting and building control systems will be covered from a sustainable perspective.

## **CM 3210: Applied Structures**

### **4 Credit Hours**

*Prerequisite: CET 2200*

A study of structural design analysis and design concepts used in steel and concrete construction. Topics include selection of structural systems and the design of columns, beams, and other structural components.

## **CM 3230: Heavy Materials & Temporary Structures**

### **4 Credit Hours**

*Prerequisite:* CET 2200

Materials commonly used and the various methods employed with an emphasis on heavy, civil and highway construction. An introduction to the materials, methods, and techniques associated with the design of temporary structures used to support construction operations such as shoring systems, cofferdams, underpinning, slurry walls, and construction dewatering systems. Lab exercises of heavy construction operations with emphasis on productivity enhancement focusing on an integrated approach to planning, modeling, analysis, and design of construction operations, and the use of simulation models and other analytical tools.

## **CM 3260: Temporary Structures**

### **3 Credit Hours**

*Prerequisite:* CM 2210

A study of structural design and analysis concepts of temporary structures used in the construction process. Topics include formwork design, scaffolding, and material handling equipment and staging.

## **CM 3270: Facility Management Strategies**

### **3 Credit Hours**

Students in this course will learn about the history, practice and profession of Facility Management (FM). Core competencies of the FM profession as detailed by key FM organizations such as IFMA, BIFM, and FMAA will be introduced and analyzed for similarities and differences. Students will also learn about the organizational, ethical, and leadership strategies for the delivery of facility management services.

## **CM 3280: Building Mechanical and Electrical Codes and Loads**

### **3 Credit Hours**

*Prerequisite:* CM 3180

Study of building mechanical and electrical system loads and applicable codes. Emphasis on how they affect the construction project. Topics will include air conditioning, heating, plumbing, fire protection, electrical power, electrical lighting and building control systems. The analysis of current construction drawings will be integrated into each topic.

## **CM 3290: Finance for Facility Managers**

### **3 Credit Hours**

Students in this course will study the methods and techniques for managing facilities. The core consists of knowledge on process and techniques for strategic planning, estimating and budgeting, life cycle costing, and integrated decision making. Students also learn about the role and responsibilities of facility manager in different business forms and organization models. FM technology and its future is discussed and explored.

### **CM 3310: Real Estate Development Practices**

#### **3 Credit Hours**

*Prerequisite:* ACCT 2101, CM 3110

The course provides an overview of the land development process and provides a foundation for the advanced land development courses. The course focuses on the steps in planning and carrying out the land development project and on the legal issues encountered in the land development profession. The course includes lectures, readings from the texts and closed library reserves, class discussion, problems, exercises and student presentations.

### **CM 3398: Construction Management Internship**

#### **3 Credit Hours**

*Prerequisite:* CM 3110

A supervised credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency working within the Construction or Facility Management industry. Internship sites must be secured in advance of the semester of the placement and must be approved by the internship coordinator. The goal is for students to attain practical experience while using their acquired academic skills.

### **CM 3400: Risk and Quality Management**

#### **3 Credit Hours**

*Prerequisite:* CM 3110 *Concurrent:* CM 3180

This course focuses on developing risk management steps before and after signing the construction contract. It includes the development of a risk log, risk assessment, risk response planning, and risk control strategies. The course also briefs on quality assurance, quality control, costs of quality, and quality management tools and methods.

### **CM 3410: Construction Quantity Surveying**

#### **3 Credit Hours**

*Prerequisite:* CM 3110 and (CM 3000 or CE 2003 )

A study of techniques in the process of construction estimating, with an emphasis on development of the quantity survey. The completion of a specification takeoff and a quantity survey of commercial construction are required.

### **CM 3411: Construction Estimating Software**

#### **2 Credit Hours**

*Prerequisite:* CM 3410

Hands-on computer application of commonly used commercial construction estimating software to construction projects. Instruction in use of the software.

## **CM 3420: Construction Estimating and Bid Preparation**

### **3 Credit Hours**

*Prerequisite:* CM 3410

The continued study of the estimating process emphasizing pricing the general contractor's work, including estimating procedures, development of direct and indirect unit costs, evaluation of subcontractor bids, bidding strategy and bid opening. The completion of an estimate, bid submission, and development of a schedule of values are required. Also included is an introduction to conceptual estimating.

## **CM 3430: Construction Estimating for Development**

### **3 Credit Hours**

*Prerequisite:* CM 3410

A study of quantity take-off techniques and equipment productivity analysis necessary to development. Small scale development project budgeting will be analyzed from the developer viewpoint. Initial conceptual design budget is based on square foot or assembly pricing for the various construction systems and detailed estimate for the infrastructure costs including site work and utilities. Indirect costs associated with zoning, local codes, and ordinances, as well as soft cost associated with design and engineering will be discussed.

## **CM 3440: Heavy Estimating**

### **3 Credit Hours**

*Prerequisite:* CM 3410

Advanced estimating techniques and bid preparation for heavy construction projects. Study of the principles used in developing cost estimates for heavy construction projects. Includes interpretation of contract documents, quantity take-off, pricing, and preparation of unit-price bid documents. Introduction and practice with takeoff software for bidding earthwork, paving, utilities, roads, and bridges.

## **CM 3480: Mechanical and Electrical Systems Estimating**

### **3 Credit Hours**

*Prerequisite:* CM 3280

A continuation of the study of the estimating process emphasizing the specialty contractors portion of the construction project. Topics covered will include the estimating procedure, soft costs, using standard industry references and software, and bidding strategy. A current set of mechanical, plumbing and electrical plans will be estimated.

## **CM 3500: Building Codes**

### **3 Credit Hours**

*Prerequisite: CM 3110*

This course will provide an overview of building codes from the perspective of construction managers and superintendent. Various issues related to building codes, which must be considered by the PM/CM/superintendent, will be discussed and follow the scheduled reading assignments.

## **CM 3620: Construction Finance and Feasibility**

### **4 Credit Hours**

*Prerequisite: ACCT 2101*

A study of Financial Management for the Contractor, and Builder/Developer Organization. Topics include: balance sheet analysis using Percentage of Completion Method, Completed Contract Method with Absorption Analyses, and Work in Process Accounting regarding construction progress payments in excess of costs and estimated earnings. Ratio analysis for construction industry and bid and payment/bond performance. Cash flow projection for construction projects. Also included is building construction economics in terms of: Value Engineering, Constructability, building delivery systems and real estate processes for the Builder/Developer and Construction Management organizations. Graduate students will do additional work on construction cost accounting.

## **CM 3710: Market and Site Analysis**

### **3 Credit Hours**

*Prerequisite: CM 3310*

An integrated theory and applications course that provides an exposition of theoretical principles associated with the site planning process, and then involves the students in hands-on application. The inter-relationship between site planning decisions and their potential consequences will be demonstrated through practical exercises.

## **CM 3800: Construction Finance**

### **3 Credit Hours**

*Prerequisite: ACCT 2101*

Students in this course study the management of company and project finances. They learn the fundamentals of construction accounting and depreciation, prepare financial statements, analyze company's financial health, conduct cost and profit center analysis, prepare and forecast cash flows, and use the technique of time value of money for economic decision making.

## **CM 3810: Advanced Construction Practice**

### **3 Credit Hours**

*Prerequisite: CM 2000, CM 3000*

This course will prepare students to participate in formal interdisciplinary competitions against other Construction Management/Architecture/ Civil Engineering programs at the 4 year university level. At these competitions students are given a real life project from which they must be able to prepare a preliminary design (Design/Build competitions only), complete estimate, CPM schedule and staffing plan and present these items both in a formal bound written report, as well as a formal oral presentation. The first nine (9) weeks of the course involves intensive instruction in the areas of writing, oral presentation, estimating, scheduling and preliminary design skills as part of the pre-competition preparation process. During the final third of the course students will be expected to make corrections to their competition submittal package based on feedback from the judges at the competition. Following the competition, additional topics involving the use of Building Information Modeling importance of a collaborative team effort from owner, developers, architects, engineers, constructors, technicians and consultants is the overall focus of this course.

## **CM 3910: Sustainable Residential Practices**

### **3 Credit Hours**

*Prerequisite: CM 3110*

This course emphasizes the techniques and methods of sustainable construction for the residential building industry. Students will explore green building rating systems and emerging trends for homes and neighborhood development. Topics will include performance certification techniques for sustainable sites, location & connectivity, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, innovation, and design.

## **CM 3912: Workplace Law**

### **3 Credit Hours**

A study of the legal constraints encountered in the workplace. Topics included are drugs and drug testing, sexual harassment, labor management cooperation, discrimination, worker compensation, foreign labor regulation, minority/women's business enterprises and professional regulation.

## **CM 4190: Sustainable Operation & Maintenance**

### **3 Credit Hours**

*Prerequisite: CM 3180*

This course will emphasize the techniques and methods used in sustainable operations and maintenance. Importance of a collaborative team effort from owner, occupant, facility management, and maintenance providers will be integrated into the course. Influences on the Environment, society, maintenance and energy needs will be analyzed. Topics will include LEED green building operations and maintenance (Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation In Operations). MEP systems such as ventilation, air conditioning, heating, electrical lighting and building control systems will be discussed from a sustainable operations and maintenance perspective.

## **CM 4230: Heavy Materials & Temporary Structures**

### **3 Credit Hours**

*Prerequisite: CM 3170*

Origin, classification, and physical properties of soil as used in engineering and construction applications, together with loads and stresses of soil on, and the more common types of engineering structures. To include an introduction of field sampling and testing for earthwork construction.

## **CM 4400: Construction Management Directed Study**

### **3 Credit Hours**

*Prerequisite: CM 2000 and CM 3000*

This course is an independent study that explores the issues and approaches for developing practical research related to Construction Management. The project involves literature review, data collection, data analysis, and reporting through fundamental, applied, or prototype development studies. Hands-on research in this course will explore the problems in the construction industry and suggest practical solutions.

## **CM 4480: Design/Build MEP Systems**

### **3 Credit Hours**

*Prerequisite: CM 3280*

A study of the design-build delivery method applied to construction projects. The study starts with details of the process and how it differs from other project delivery methods. Topics will include building MEP systems (air-conditioning, heating, ventilation, plumbing, electrical power, electrical lighting and building control) and how they are planned and delivered in a design-build project. The analysis of current construction drawings will be integrated into the course.

## **CM 4490: Construction Management Special Topics**

### **3 Credit Hours**

*Prerequisite: CM 2000 and CM 3000*

This course is a study of selected topics in Construction Management of special interest to faculty and students.

## **CM 4510: Construction Scheduling**

### **3 Credit Hours**

*Prerequisite: CM 3110, and CM 3410*

A study of the management techniques used in controlling the progress of construction projects, including development of a commercial project schedule, as well as simulation of updating and monitoring progress using critical path methodology. Commonly used commercial software packages are introduced.

## **CM 4511: Construction Scheduling Software**

### **2 Credit Hours**

*Prerequisite: CM 4510 or approval of the Department Head*

Hands-on computer application of commonly used commercial construction scheduling software to construction projects. Instruction in use of the software.

## **CM 4512: Emerging Trends in Residential Construction**

### **3 Credit Hours**

*Prerequisite: CM 3110*

This course emphasizes emerging trends in the residential building industry. Students will explore labor issues, residential construction concerns, and innovative strategies that are present in today's residential homebuilding.

## **CM 4560: Construction Project Management**

### **3 Credit Hours**

*Prerequisite: CM 4510, CM 3410*

A study of traditional, design-build and construction management delivery methods, the management of field operations and administration of the construction contracts. Contract documents, project organization, supervision, working with owners and design professionals, procurement, management of subcontractors.

## **CM 4570: Development Process I**

### **4 Credit Hours**

*Prerequisite:* CM 3310

A study of development as a process with special emphasis on teams built around the developer. The various issues that must be considered by the development team will be discussed. These include conformity of the development process to sound business principles, adherence of development activities to relevant zoning and permitting requirements, and the potential environmental impact of the considered development.

## **CM 4620: Development Process and Finance**

### **3 Credit Hours**

*Prerequisite:* CM 3800

Students in this course will study financial feasibility and economic desirability of income producing properties. They will learn various financial feasibility analysis techniques and prepare financial pro-forma models for various stages of the development process. The concepts that will be covered are net operating income, time value of money, different forms of financing, and business entities for development process. Acquisition, development, and construction (ADC) loans will be studied and student will prepare their loan amortization schedule.

## **CM 4639: Construction Safety & Law**

### **4 Credit Hours**

A study of construction safety and law as they pertain to day to day needs of the construction professional. Topics include but are not limited to safety and loss control principles and practices, contract documents and claims, insurance and dispute resolutions.

## **CM 4660: Advanced Scheduling & Project Management**

### **3 Credit Hours**

*Prerequisite:* CM 4510 and CM 3410

This course focuses on Communication, Industry Software, Target Value Design and other best Practices as they pertain to Project Management. Erosion Control Supervisor and Work Zone Traffic Control Certification requirements are examined. Skills generally required for sound project management in a variety of management settings are studied in addition to specific management issues typically associated with construction companies.

## **CM 4710: Construction Safety**

### **3 Credit Hours**

*Concurrent:* CM 3110

A study of construction safety and loss control principles and practices. Topics include project security control, construction accident prevention, safety information sources, weather precautions, emergency planning, and OSHA procedures and regulations.

## **CM 4760: Construction and Real Estate Property Law**

### **3 Credit Hours**

*Prerequisite: BLAW 2200 or ENGR 3324*

A study of Construction Contract Documents and Claims. Topics include: analyses of AIA B141, A101, A201, and contractual graphic and technical documents. Other supporting construction contract documents such as bid bonds, payment and performance bonds and construction modifications are studied. The traditional tri-union construction contract formation process is examined in relation to the owner, contractor, material men, and subcontractors. Discussions regarding damages for differing and unforeseen conditions, defective workmanship, and construction delay claims are surveyed in conjunction with AAA construction arbitration rules regarding emerging construction manager contracting processes.

## **CM 4800: Construction Management Technique**

### **3 Credit Hours**

*Prerequisite: For General Concentration: CM 3420, CM 4510, CM 4560, CM 4710, CM 3620 For Specialty Concentration: CM 4510, CM 4560, CM 4710, ACCT 2101, CM 3480*

Simulations and case studies of events that affect the construction organization and project. Topics and event simulations will include problems typically encountered in the construction industry such as changed conditions, strikes, inconsistencies in documents, and surety assumption of the contract. Presentations by prominent industry representatives pertinent to the event being simulated are included.

## **CM 4900: Capstone Project**

### **3 Credit Hours**

*Prerequisite: CM 3800, CM 4560, and CM 4660*

This course is the application of course materials covered in the four-year curriculum to an actual construction project. Preparation includes: developing a company organization along with detailed project bid, schedule, construction contracts, cash flow, risk management, and safety plan. Students will present and defend their projects to a panel of industry and faculty members.

## **CRJU 1101: Foundations of Criminal Justice**

### **3 Credit Hours**

This course provides an overview of the American criminal justice system including law enforcement, the court system, and the correctional system. Emphasis is placed on crime in the U.S., the criminal justice process from arrest through sentencing, and the roles and responsibilities of criminal justice actors. Current topics in the criminal justice system are addressed such as the death penalty, offender treatment, and criminal justice reform among others.

## **CRJU 2201: Crimes and Defenses**

### **3 Credit Hours**

This course explores substantive criminal offenses and defenses. Topic areas include the types and elements of felony and misdemeanor criminal offenses, defenses to crimes, and lower and appellate case law interpretations of crimes and defenses. Emphasis is placed on federal and state criminal law, including those pertaining to Georgia. The course also evaluates the historical development of crimes and defenses, public policy implications, and the underlying principles that guide the development of crimes and defenses.

## **CRJU 3300: Criminal Courts**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course examines the history, development, structure, operation, and organization of criminal court systems in federal and state courts in the U.S. Topic areas include the roles of major professional and non-professional courtroom participants, stages in the process of adjudication of criminal cases from initial charging through post-conviction review, and an introduction to the constitutional rights of the accused.

## **CRJU 3301: Research Methods in Criminal Justice**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course provides an introduction to the scientific method and the concepts and techniques of social science research. Topic areas include levels of measurement, sampling techniques, research design, survey methodology, and various research techniques. Emphasis is placed on the application of these techniques to the study of specific research questions in criminal justice. This course also examines how to interpret basic statistics and analyze data in a statistical software program.

## **CRJU 3305: Technology and Criminal Justice**

### **3 Credit Hours**

*Prerequisite: CRJU 1101 or SOCI 1101*

This course involves an in-depth study of technology as it relates to crime and the criminal justice system. Topics discussed include technology associated with criminal investigations, law enforcement practices, offender monitoring and supervision, and homeland security. Legal issues and laws pertaining to the use of technology for investigative purposes, privacy issues, and fourth amendment issues are examined. Various technologies used by police, courts, and corrections are also addressed.

## **CRJU 3310: Police in America**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course provides an overview of American law enforcement including the role and purposes of police in society, the major functions and responsibilities of police, and police subculture. This course also examines legal issues related to policing, police discretion and decision-making, and police behavior including use of force and misconduct. Emphasis is placed on police effectiveness in controlling and preventing crime, police/community relations, and future trends in law enforcement.

## **CRJU 3311: Police Administration**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course provides an overview of police administration in the U.S. and examines the social, legal, and political factors that influence police management. Topic areas include the goals of the law enforcement system, recruitment and selection of officers, the roles and responsibilities of police administrators, problem-solving and decision-making, and strategic planning of police operations. Emphasis is placed on police accountability to the public and future trends that influence the management of police organizations.

## **CRJU 3312: State and Federal Law Enforcement Initiatives**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course examines various state and federal law enforcement initiatives. Topic areas include the mission and vision of agencies, as well as their operation and administration, jurisdictional authority, use of technology, and the prediction of future crime issues facing the agencies. Emphasis is placed on career trends in state and federal law enforcement agencies. The hiring and application process and the essential skills applicants ought to possess for employment in these agencies are also discussed.

## **CRJU 3315: Criminal Procedure**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course examines the requirements and interpretation of constitutional amendments by the U.S. Supreme Court and other federal and state courts during the various stages of a criminal case, including police investigation, search, and arrest; the pretrial phase, including screening of complaints and formal charging of the accused; the trial; the sentencing phase; and appellate review. The constitutional requirements regarding reasonable suspicion, probable cause, custodial interrogation, and the exclusionary rule are featured.

## **CRJU 3320: Criminal Investigation**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course examines the historical, theoretical, and technological aspects of the investigation of crime. Topic areas include crime scene examinations, the collection and preservation of evidence, the basic legal principles and procedures governing the use of evidence in court proceedings, forensic and behavioral sciences, interviews and interrogations, and the use of technology by law enforcement agencies.

## **CRJU 3332: Corrections**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course includes a historical and philosophical overview of the American correctional system. Emphasis is placed on the types, goals, and purposes of community-based and institutional corrections, the roles and responsibilities of correctional agencies and actors, and offender characteristics and legal rights. This course also explores correctional policies and their effectiveness to reduce crime and recidivism such as correctional rehabilitation, habitual offender laws, and the death penalty among others.

## **CRJU 3340: Legal Analysis**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course involves students in the process of reasoning objectively and arguing persuasively within a socio-legal framework. Set against a background of formal and informal logic that guides reasoning in general, the course is primarily concerned with the reasoning underlying the construction of legal arguments from judicial, legislative, and scholarly points of view. Theoretical analysis is illustrated by investigating and writing about the law, with an emphasis on topics related to crime.

## **CRJU 3352: Juvenile Justice**

### **3 Credit Hours**

*Prerequisite: CRJU 1101 or SOCI 1101*

This course focuses on the juvenile justice system including the processing of juvenile offenders from the delinquent act through disposition and discharge. The nature and extent of juvenile delinquency and theories of delinquency are also addressed. Emphasis is placed on the historical purpose of the juvenile court, the effects of the due process revolution on the juvenile justice system, and current research and trends related to juvenile delinquency and justice.

## **CRJU 3355: Race, Crime, and Justice**

### **3 Credit Hours**

*Prerequisite: CRJU 1101 or SOCI 1101*

This course provides an in-depth examination into racial and ethnic issues related to crime and justice in America. The course explores how racial stratification and inequalities influence crime and victimization and official responses to crime. Topic areas may include disparities in criminal justice enforcement, minority representation in the criminal justice system, and strategies for addressing discrimination across criminal justice policies and practices.

## **CRJU 3365: Profile of the Serial Offender**

### **3 Credit Hours**

*Prerequisite: CRJU 1101 or SOCI 1101*

This course provides an in-depth examination of repeat, violent offenders. Topic areas include offender characteristics, victim traits and characteristics, offender identification and investigative strategies, and criminal justice policies that are focused on serial offending. Emphasis is placed on the examination of theories and research that explain how serial offenders evolve across their life-course from childhood to adulthood.

## **CRJU 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the coordinator of cooperative education (Career Services) and the internship coordinator.*

A supervised work experience program for a minimum of two academic semesters at a previously approved site in business, industry, government or private agency related to criminal justice field. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

## **CRJU 3398: Internship**

### **3-9 Credit Hours**

*Prerequisite: Criminal Justice Major; 90 credit hours; and successful completion of 12 upper-level CRJU credits.*

This course is a structured off-campus experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly work in the topical area of the internship, under the guidance of both a field supervisor and an academic internship coordinator. In advance of the semester of the internship, students must select an appropriate host agency and attend a mandatory departmental internship orientation session.

## **CRJU 3400: Ideological/Group Violence and Law Enforcement**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course examines law enforcement's response to domestic and international terrorism. Topic areas include the development of modern terrorism and specific terrorist groups, counterterrorism policies and laws, threat analysis, and intelligence processing. Emphasis is placed on proactive measures to prevent terrorism and reactive measures to investigate terrorist acts. This course addresses the roles and responsibilities of local, state, and federal law enforcement agencies in responding to terrorism.

## **CRJU 4100: Ethics in Criminal Justice**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course provides an overview of ethical decision-making and behavior within the context of the criminal justice system. Common ethical dilemmas that occur within law enforcement, the court system, and the correctional system are presented. The relationship between occupational discretion and ethical behavior is explored, and appropriate responses to ethical misconduct are presented. The course also explores various occupational subcultures within the criminal justice system and how these subcultures affect ethical behavior in the workplace.

## **CRJU 4300: Organized Crime**

### **3 Credit Hours**

*Prerequisite: CRJU 1101 or SOCI 1101*

This course examines the origins, histories, and activities of various major organized crime groups in the United States and throughout the world. Special emphasis is placed on emerging organized criminal enterprises in developing countries and regions. In addition, this course explores the methods used by law enforcement to combat organized crime.

## **CRJU 4305: Technology and Cyber Crime**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course provides an overview of cyber crime and computer-related crime issues facing the American criminal justice system, particularly law enforcement. Topic areas include prevalence and types of cyber crime, cyber crime victim and offender characteristics, and methods and types of technologies used to engage in cyber crime. Emphasis is placed on the criminal justice system's investigation and response to cyber crime. Future trends of cyber crime and computer-related crime are also discussed.

## **CRJU 4400: Directed Study in Criminal Justice**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Covers special topics and seminars external to regular course offerings. *Notes: May include original research projects and practicum experiences.*

## **CRJU 4410: Criminal Profiling and Analysis**

### **3 Credit Hours**

*Prerequisite: CRJU 1101*

This course centers on the deductive criminal profiling method, the analysis process of forensic evidence, and the development of offender characteristics from behavioral evidence analysis. An overview of the socio-legal aspects involving profiling and analysis of specific profiling issues in different types of serial crime are addressed. Students examine an actual cold homicide and prepare a threshold assessment of the case.

## **CRJU 4430: Victimology**

### **3 Credit Hours**

*Prerequisite: CRJU 1101 or SOCI 1101*

This course provides an overview of criminal victimization in the U.S. This course includes an examination of theories of victimization, research on the scope and impact of specific types of victimization, and efforts to prevent victimization. Additional topics covered include victims' interactions with the criminal justice system, victims' rights, social services for victims, and other efforts to address the needs of crime victims.

## **CRJU 4490: Special Topics in Criminal Justice**

### **3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected topics of interest to faculty and students.

## **CRJU 4499: Senior Seminar in Criminal Justice**

### **3 Credit Hours**

*Prerequisite: CRJU 1101; CRJU 3301; Criminal Justice Major; and 90 credit hours*

This is a capstone course designed for senior-level criminal justice majors to apply learning from previous criminal justice courses. This course addresses current issues and trends in criminal justice to integrate knowledge concerning criminal justice policy.

## **CSH 2100: Introduction to Culinary Sustainability and Hospitality**

### ***3 Credit Hours***

This course provides an overview of ethical, environmental, and economic sustainable practices in the culinary hospitality industry. Historical development, organization structures, resource conservation, farming, travel and tourism and the role culinary management has in the industry are all discussed. Guest speakers are integrated into the course to provide industry perspective. Students also conduct a carbon footprint analysis identifying the environmental, societal, and economic impact of that footprint, and design strategies to reduce their own footprint.

## **CSH 2200: World Cuisines and Culture**

### ***3 Credit Hours***

This course studies the evolution of agriculture, food preservation and preparation techniques, food habits and beliefs about food. We delve into geographical, historical, technological and religious factors that have influenced the food-related behaviors of various ethnic groups, exploring how all cultures impact individuals' beliefs about food. Students taste and evaluate regional dishes from a variety of countries, focusing on ingredients, flavors, preparation and techniques characteristic of the cuisines and regions.

## **CSH 2300: Basic Culinary Skills**

### ***3 Credit Hours***

This class serves as an introduction to fundamental cooking skills, methods, theories and techniques. Skills include creating sauces, stocks, soups, knife skills, saute techniques, equipment care, safety and usage, meat fabrication, seafood and vegetable identification and preparation, storing and preservation. Topics also include personal hygiene, safety, basic first aid, station organization, and agricultural sustainability. Students must take and pass the ServSafe sanitation certification exam to pass the course.

## **CSH 2400: Services Management and Food Production**

### ***3 Credit Hours***

This course is an introduction to the fundamental principles of food and beverage services management emphasizing how food service professionals create and deliver guest-driven service, enhance value, build guest loyalty, and promote repeat business. Students learn theoretical and practical skills for effective management of food and beverage service operations relating to front and back of the house, leadership, management principles, service skills, service styles (French, Russian, American), and training of personnel.

## **CSH 2500: Principles of Nutrition for the Professional**

### **3 Credit Hours**

This course is designed to introduce students to the basic principles of nutrition as needed for general health and healthy menu design. Topics include macro- and micro-nutrients needs for optimum health, U.S. dietary guidelines (and international equivalents), tools to assist with menu planning and nutrient analysis. Students study food labeling, sustainable food practices, and how to apply these practices to meal and menu development, meal planning, and healthy cuisines.

## **CSH 3100: Food Science I**

### **3 Credit Hours**

*Prerequisite: CSH 2500*

This course explores engineering, biological, and physical sciences to study the nature of foods, the causes of deterioration, the principles underlying cooking and food processing, and the improvement of food quality for the consuming public. Students acquire a basic theoretical understanding of the chemical and physiochemical principles involved in creating and maintaining desirable food sensory and nutritional properties during food storage, preparation and holding.

## **CSH 3200: Food and Beverage Purchasing, Logistics and Supply Chain**

### **3 Credit Hours**

*Prerequisite: ACCT 2101*

This course promotes an understanding of the managerial aspects of hospitality purchasing activities in food, beverage, supplies, equipment, services, and furnishings. Emphasis is placed on strategic selection and procurement considerations based on item need, value, and supplier information. Students learn policies and procedures in the receiving, transportation logistics, storing, controlling, and issuing functions of inventory management all with responsible environmental consideration. Students learn how logistical decisions impact the performance of the operation.

## **CSH 3300: Professional Development**

### **3 Credit Hours**

*Prerequisite: Culinary Sustainability and Hospitality majors: CSH 2100; Non-Culinary Sustainability and Hospitality majors: 60 credit hours and permission of the department.*

This course improves students' abilities to describe their accomplishments and sell their ideas in professional networking situations, company meetings, responses to proposals, and interviews. Students learn to create career objectives based upon their research of career options and potential employers, and prepare a developmental roadmap that will lead them to success within their chosen profession.

### **CSH 3390: International Initiatives in Foods (Study Abroad)**

#### **3 Credit Hours**

*Prerequisite: 75+ credit hours and permission of the department chair.*

In this study abroad course, students evaluate the origins and migration of foods throughout a region, including food's relationship to religion and various cultural groups, geographical location, social practices and economic well-being. Students examine the impact of the country's sustainability practices and the basis for those practices. Students design, create, implement and evaluate a new sustainable practice in the partnered-locale.

### **CSH 3398: Internship (Culinary Services Management)**

#### **3 Credit Hours**

*Prerequisite: Culinary Sustainability and Hospitality majors: 60 credit hours or permission of the department chair; Non-Culinary Sustainability and Hospitality majors: permission of the department chair.*

In this course classroom learning is applied to the professional practice of sustainability in culinary food service and hospitality management. Students gain hands-on experience under direct supervision of managers, chefs and/or staff in establishments approved by the instructor, rotating through multiple departments while learning to engage in a variety of food service operations, sustainable business practices and management responsibilities. 150 hours of internship experience with a host employer is required, in addition to classroom meetings.

### **CSH 3400: Sustainable Facilities Design and Management**

#### **3 Credit Hours**

*Prerequisite: Culinary Sustainability and Hospitality majors: CSH 2100; Non-Culinary Sustainability and Hospitality majors: 60 credit hours and permission of the department chair.*

This course provides fundamental concepts of sustainability and resource conservation in the operations of culinary and hospitality facilities. Students learn how to work effectively with the engineering and maintenance department(s). The course prepares students to responsibly manage with emphasis on the areas of energy, water and waste as related to their impact on the environment and facilities management. CPR/First Aid Training certification is a requirement for successful completion of the course.

### **CSH 3500: Organic Agriculture and Beginning Apiary Studies**

#### **3 Credit Hours**

Students are introduced to the competencies and hands-on methods to practice and experience all aspects of sustainable organic farming and beginning apiary studies. This course emphasizes sustainable food production systems, soil conservation, plant nutrition, honey bees and beekeeping, and the environmental study of how using the local bee population can increase crop production.

## **CSH 3610: Club Management**

### **3 Credit Hours**

This course introduces students to the world of private club management, including club governance, service excellence, organizational structure, quality management systems for clubs, government regulations, club marketing, food and beverage operations, computer technology for clubs, golf operations in clubs, club fitness operations, and club facilities management. Students learn how to incorporate sustainable practices in club management.

## **CSH 4000: CSH Work Experience**

### **0 Credit Hours**

Work experience hours that are industry related (culinary or hospitality) need to be verified by submitting documentation from the work establishment that shows the number of hours worked and the job title/description. Students should hold on to these documents until they are ready to be submitted in the semester the student is taking the CSH 4000 class. Working "under the table" is not considered for work experience hours (plus, illegal). *Notes: In order to graduate, students must complete a minimum of 600 industry-related work experience/volunteerism/service hours, with a minimum 200 of those hours being industry-focused volunteer (non-paid) service hours through VKSU. Any exceptions to the VKSU site requirement require written approval in advance by the department chair. All 600 hours may be acquired through volunteerism/service. Upon completion of the requirements, or in the semester in which the student is certain they will complete the requirements, students will register for CSH 4000 (for work experience) and/or CSH 4010 (for volunteerism). These classes are zero-credit, pass/fail classes used for certification that the required hours were completed, and appear in DegreeWorks. Only register for these courses if the hours will be completed by the end of the semester.*

## **CSH 4010: CSH Volunteerism**

### **0 Credit Hours**

All volunteer hours must be industry-related and non-paid for the student to receive credit. Students are required to log their hours using the VKSU website ([VKSU.kennesaw.edu](http://VKSU.kennesaw.edu)). VKSU does not allow students to volunteer with places of worship, for-profit organizations or businesses, or activities conducted from a non-approved volunteer site. *Notes: In order to graduate, students must complete a minimum of 600 industry-related work experience/volunteerism/service hours, with a minimum 200 of those hours being industry-focused volunteer (non-paid) service hours through VKSU. Any exceptions to the VKSU site requirement require written approval in advance by the department chair. All 600 hours may be acquired through volunteerism/service. Upon completion of the requirements, or in the semester in which the student is certain they will complete the requirements, students will register for CSH 4000 (for work experience) and/or CSH 4010 (for volunteerism). These classes are zero-credit, pass/fail classes used for certification that the required hours were completed, and appear in DegreeWorks. Only register for these courses if the hours will be completed by the end of the semester.*

## **CSH 4100: Principles of Beverage Operations Management**

### **3 Credit Hours**

*Prerequisite:* CSH 2400 and permission of the department chair. All students must be 21 years or older to take this class.

This course examines the management of bar and beverage operations within the various hospitality environments, exploring the history of the beverage industry, the cultural relevance of spirits and ales, and the incorporation of various beverages in food service. Students develop serving techniques of wine, spirits, beer, coffee, and tea, and create wine lists, beer lists, and beverage menus. Students must successfully complete the ServSafe Alcohol exam to pass the class.

## **CSH 4200: Food and Beverage Cost**

### **3 Credit Hours**

*Prerequisite:* ACCT 2101, ACCT 2102, and CSH 3200

This course provides a comprehensive look at the methods, tools and techniques to control food, beverage, and labor costs. Topics include planning, budgeting, standard costing, standardized recipes, menu development, principles of purchasing, staffing and labor costs. Emphasis is placed on controlling costs, allocation of overhead, and fiscal accountability in a sustainable environment.

## **CSH 4300: Hospitality Law and Liability**

### **3 Credit Hours**

*Prerequisite:* MGT 3100

This course provides a basic understanding of the law in general, and of the primary laws that apply to the hospitality and food service industries. Students learn to effectively manage the legal issues and liabilities most commonly faced by all hospitality managers, how environmental and natural resource law impacts the industry, and how to avoid and prevent legal liabilities.

## **CSH 4400: Directed Study**

### **3 Credit Hours**

*Prerequisite:* 3.0 GPA and permission of the department chair.

This course gives students the opportunity for in-depth study of a special topic in culinary sustainability and hospitality not afforded in regular course offerings. Students work under the direction of an individual faculty member.

## **CSH 4498: Strategic Management in Hospitality**

### **3 Credit Hours**

*Prerequisite: Culinary Sustainability and Hospitality majors: Students must have completed MKTG 3100 and MGT 4001. This course is taken in the last or next-to-last semester in the program; Non-Culinary Sustainability and Hospitality majors: Senior standing and permission of the department chair.*

This challenging senior-level capstone course transforms students into strategic business leaders, incorporating disciplines learned throughout the curriculum including marketing, purchasing, situational analysis, quantitative production, environmental awareness, financial and quality management, and strategic formulation and implementation as applied to the hospitality industry. The primary focus is on the successful development, execution, and application of strategic management concepts to a signature event held during the semester.

## **CSH 4499: Quantity Food Management**

### **3 Credit Hours**

*Prerequisite: Culinary Sustainability and Hospitality majors: Students must have completed CSH 3100 and CSH 4200. This course is taken in the last or next-to-last semester in the program; Non-Culinary Sustainability and Hospitality majors: Senior standing and permission of the department chair.*

Students demonstrate established standards, techniques, and practices for large quantity food production by creating a meal service event, including the menu development and design, purchasing, sales and marketing, food service production, cost analysis and service of meals in a dining room environment.

## **CSH 4610: Plant-Based Cuisine**

### **3 Credit Hours**

*Prerequisite: CSH 2500*

This course examines vegan and vegetarian diets and the nutritional preparation of plant-based cuisines. Students explore why vegan and vegetarian diets are chosen for health, social, religious, or other reasons, with a focus on preparing meals with plant-based ingredients, modifying recipes, and determining preparation methods for highest nutritional value. Students analyze the relationship between diet and disease, and compare that for those eating exclusively plant-based cuisine to the average diet.

## **CSH 4620: Exploring the World of Wines**

### **3 Credit Hours**

*Prerequisite: Students must be 21+ years of age by the first day of class to take this class.*

Students obtain an in-depth understanding of vineyard and cellar practices that affect style, quality, commercial viability and long-term sustainability of the world's most important wines. Classic, New World, and emerging regions provide the context within which these practices are studied. The class develops students' sensory evaluation skills for the purpose of guiding commercial decisions made by management within a foodservice or hospitality operation.

## **CSH 4630: Spirits, Beers, and Brews**

### **3 Credit Hours**

*Prerequisite: Students must be 21+ years of age by the first day of class to take this class.*

Students gain an in-depth understanding of key factors that influence price, quality, and long-term sustainability of the world's most important spirits, beers and other alcoholic beverages such as cider and beverages and their regional or generic counterparts. Students will develop their sensory evaluation skills for the purpose of guiding commercial management decisions within the industry.

## **CSH 4640: Beer Culture**

### **3 Credit Hours**

*Prerequisite: Students must be 21+ years of age by the first day of class to take this class.*

Students develop knowledge of the evolution of brewing and brewer's culture and practices, an understanding of various beer and ale styles, the effects of local culture and society, and the relationship of various technologies on the brewing process. Samples of beers illustrate the sensory properties (flavor, color, foam, and haze), microbiological processes, and chemical components that determine beer quality. Students develop and sharpen sensory skills to discern stylistic nuances as well as technical production issues.

## **CSH 4650: Fundamentals of Brewing**

### **3 Credit Hours**

*Prerequisite: Students must be 21+ years of age by the first day of class to take this class.*

Students explore the art and science of brewing beer, the business of its production, distribution and sale and its place in a cuisine pairing. Students will handcraft several types of beer, going from grain to finished product, exploring the science of fermentation, learning to critique various styles, and gaining an understanding of beer's place in history, culture and cuisine.

## **CSH 4660: Event Management**

### **3 Credit Hours**

This course provides an introduction to the principles of event management including special event research, planning, coordination, marketing, management and post-event evaluation. Through instruction, observation and analysis, students probe, explore and draw conclusions about "what works" in event management.

## **CSH 4670: Catering**

### **3 Credit Hours**

Students study the techniques, logistics, and responsibilities involved in the management of on-premise and off-premise catering companies. Students evaluate operations, sales, vendor facilities, challenges and solutions, assessing the needs and requirements in both on-premise and off-premise settings.

## **CSH 4680: Wedding Planning**

### **3 Credit Hours**

Students explore the various business and creative aspects of wedding planning and the wedding industry. Students design an event focusing on client retention, package development, contract and vendor interactions, as well as the creative needs associated with this specific event.

## **CSH 4690: Baking and Pastry**

### **3 Credit Hours**

Students are introduced to fundamental baking and pastry skills, methods, theories and techniques through lecture, demonstration and hands-on production. Students learn the necessity of personal hygiene, safety, basic first aid, and station organization in a production kitchen.

## **CYBR 2310: Software Assurance**

### **3 Credit Hours**

*Prerequisite: IT 1114 and CSE 1321, both with a grade of "C" or higher.*

This course provides an introduction to, and a detailed examination of software assurance practices, methods, and tools required throughout the software development life cycle. An examination of the security challenges inherent in the development of modern software applications, including the identification of flaws and defects that can result in insecure code. Students will apply life-cycle knowledge in exploring common programming errors and evaluate common software testing tools.

## **CYBR 3100: Principles of Cybersecurity**

### **3 Credit Hours**

*Prerequisite: (CSE 1321 and CSE 1321L), and admission to the BS-Cybersecurity eMajor, Cybersecurity Minor, or Undergraduate Cybersecurity Certificate.*

This course offers a foundation in the various technical and administrative aspects of Cybersecurity and provides the terminology and principles for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, as well as designing a consistent, reasonable cybersecurity system.

## **CYBR 3123: Hardware and Software Concepts**

### **3 Credit Hours**

*Prerequisite: (CSE 1321 and CSE 1321L) or IT 1113 Concurrent: None*

This course examines various hardware and software components and how they work together in a modern computing environment. Topics include an overview of computer organization and architecture, machine language and modern languages.

## **CYBR 3153: Database Systems**

### **3 Credit Hours**

*Prerequisite: (CSE 1322 and CSE 1322L) or IT 1113 or (IT 1114 and IT 1114L) and admission to the Bachelor of Science in Cybersecurity eMajor.*

The topics in this course span from a review of the traditional file processing systems to database management systems. Topics include files systems and file processing logic, planning, and major phases of database development: analysis, design and implementation. Labs use an SQL based database product such as Oracle.

## **CYBR 3200: Network Security**

### **3 Credit Hours**

*Prerequisite: CYBR 3100 and admission to the Bachelor of Science in Cybersecurity eMajor, Cybersecurity Minor, or Cybersecurity Undergraduate Certificate.*

This course provides a complete foundation of the cybersecurity of networked information systems, providing a detailed examination of principles, theory, tools, techniques, and technologies used in network cybersecurity.

## **CYBR 3210: Client Systems Security**

### **3 Credit Hours**

*Prerequisite: (CSE 1321 and CSE 1321L), and admission to the Bachelor of Science in Cybersecurity eMajor, Cybersecurity Minor, or Cybersecurity Undergraduate Certificate.*

This course explores client computer system technology, security, and control of vulnerabilities. It will include relevant computer architectures, and operating systems and will provide the detailed technical coverage necessary to protect computer information system clients by presenting the knowledge of client platform computer hardware components, client network devices and interfaces, as well as the structure and usage of common client operating system software from a cybersecurity perspective.

## **CYBR 3220: Global IS Project Management**

### **3 Credit Hours**

*Prerequisite: CYBR 3100 and admission to the Cybersecurity BS eMajor program of study.*

In this course, students will be exposed to the basic principles of Global Project Management, effective teamwork and collaboration. It will prepare students to understand key issues in global project management such as project initiation, planning, scheduling, budgeting, risk analysis, quality management and communicating and collaborating across political and cultural boundaries. Tools such as Microsoft Project will be used to develop and track Information Systems projects.

## **CYBR 3223: Software Acquisition and Project Management**

### **3 Credit Hours**

*Prerequisite: (CSE 1321 and CSE 1321L) or IT 1113, and admission to the Bachelor of Science in Cybersecurity eMajor, Cybersecurity Minor, or Cybersecurity Undergraduate Certificate.*

The course provides a high level introduction to two areas that are crucial to the IT profession, namely project management and software acquisition. It introduces students to the phases both in the project management and software acquisition and implementation process. Since requirements are crucial to both activities, the course will provide students with an in-depth introduction to requirements engineering. The course will also introduce students to a widely used project management information system.

## **CYBR 3300: Management of Cybersecurity in a Global Environment**

### **3 Credit Hours**

*Prerequisite: CYBR 3100, and admission to the Bachelor of Science in Cybersecurity eMajor, Cybersecurity Minor, or Cybersecurity Undergraduate Certificate.*

This course explores managerial aspects of cybersecurity and the administration of strategic planning processes as well as the policies, procedures, and staffing functions necessary to organize and administer the cybersecurity functions of an organization.

## **CYBR 3305: Technology and Criminal Justice**

### **3 Credit Hours**

*Prerequisite:* CRJU 1101, and admission to the Bachelor of Science in Cybersecurity eMajor.

This course involves an in-depth study of technology as it relates to crime and the criminal justice system. Topics discussed include technology associated with criminal investigations, law enforcement practices, offender monitoring and supervision, and homeland security. Legal issues and laws pertaining to the use of technology for investigative purposes, privacy issues, and fourth amendment issues are examined. Various technologies used by police, courts, and corrections are also addressed.

## **CYBR 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite:* CYBR 3100, and admission to the Bachelor of Science in Cybersecurity eMajor, and approval of the coordinator of cooperative education/internships (KSU Career Services).

This is a supervised credit-earning work experience for a minimum of two academic semesters with a previously approved business firm, private agency, or government agency. For sophomore, junior, or senior students who wish to obtain on-the-job experience in conjunction with their academic education.

## **CYBR 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite:* CYBR 3100, and admission to the Bachelor of Science in Cybersecurity eMajor, and approval of the coordinator of cooperative education/internships (KSU Career Services).

A supervised credit-earning work experience for one academic semester with a previously approved business firm, private agency, or government agency. The work experience may not be with a current employer. The course will be graded on an S/U basis. The number of credit hours applicable to degree requirements is limited.

## **CYBR 3423: Operating Systems Concepts & Administration**

### **3 Credit Hours**

*Prerequisite:* CYBR 3123 or IT 3123, and admission to the Bachelor of Science in Cybersecurity eMajor.

This course is an introduction to basic operating system principles. Topics include memory management, peripheral device management, file system management and process management. Different types of operating systems and their administrations are studied. Projects are carried out with simulations

## **CYBR 4200: Perimeter Defense**

### **3 Credit Hours**

*Prerequisite: (CYBR 3200 and CYBR 4323), and admission to the Bachelor of Science in Cybersecurity eMajor.*

An exploration of cybersecurity techniques, tools, and technologies used to protect an organizations network infrastructure. The course will examine the evaluation, selection, deployment, and administration of firewall, VPN, IDPS, and other applications used to defend organizational networks and information assets from attacks.

## **CYBR 4220: Server Systems Security**

### **3 Credit Hours**

*Prerequisite: (CYBR 4200 and CYBR 4423), and admission to the Bachelor of Science in Cybersecurity eMajor.*

This course offers the detailed technical knowledge and skills necessary to protect computer server information system by presenting the knowledge of server platform computer hardware components, server network devices and interfaces, as well as the structure and usage of common server operating system software from a cybersecurity perspective. Additional learning regarding ongoing maintenance and operational issues of server computing systems will also be included.

## **CYBR 4305: Technology and Cyber Crime**

### **3 Credit Hours**

*Prerequisite: CRJU 1101, and admission to the Bachelor of Science in Cybersecurity eMajor.*

This course provides an overview of cyber crime and computer-related crime issues facing the American criminal justice system, particularly law enforcement. Topic areas include prevalence and types of cyber crime, cyber crime victim and offender characteristics, and methods and types of technologies used to engage in cyber crime. Emphasis is placed on the criminal justice system's investigation and response to cyber crime. Future trends of cyber crime and computer-related crime are also discussed.

## **CYBR 4323: Data Communications & Networking**

### **3 Credit Hours**

*Prerequisite: CYBR 3123 or IT 3123, and admission to the Bachelor of Science in Cybersecurity eMajor.*

Fundamental concepts of computer networking include topics such as properties of signals and media, information encoding, error detection and recovery, LANs, backbones, WANs, network topologies, routing, Internet protocols, and security issues. The focus is on general concepts together with their application to support the business enterprise.

## **CYBR 4330: Incident Response and Contingency Planning**

### **3 Credit Hours**

*Prerequisite:* CYBR 3300, and admission to the Bachelor of Science in Cybersecurity eMajor, Cybersecurity Minor, or Cybersecurity Undergraduate Certificate.

This course offers coverage of the cybersecurity contingency planning. It includes the detailed aspects of incident response planning, disaster recovery planning, and business continuity planning. Developing and executing plans to deal with incidents in the organization is a critical function in cybersecurity. This course focuses on the planning processes for the execution of response to human and non-human incidents in compliance with these policies.

## **CYBR 4333: Network Configuration & Administration**

### **3 Credit Hours**

*Prerequisite:* CYBR 4323 or IT 4323 and admission to the Bachelor of Science in Cybersecurity eMajor.

This course continues the study of networks. Topics include design and implementation of networks including synchronization, scheduling, exception and deadlock resolution, client server and web based collaborative systems. Network security will also be covered. Cost estimates and speed are examined from a management perspective.

## **CYBR 4350: Management of Digital Forensics and eDiscovery**

### **3 Credit Hours**

*Prerequisite:* (CYBR 3210 and CYBR 3423), and admission to the Bachelor of Science in Cybersecurity eMajor.

This course explores the key issues in digital forensics: the detection, isolation and response to security breaches and attacks. It provides specific procedures required to respond to a computer crime incident and also provides coverage of the entire digital forensic sequence and the eDiscovery process within organizations.

## **CYBR 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite:* Approval of Instructor and Department Chair and admission to the Bachelor of Science in Cybersecurity eMajor.

This course enables the study of special topics of an advanced nature that are not in the regular course offerings. Students will complete a research project on a topic in the subject area of cybersecurity supervised by a faculty member. Credit hours vary from one to three depending on the nature and content of the project student involved. Up to three credits may be applied to the major area.

## **CYBR 4423: Linux/Unix Administration**

### **3 Credit Hours**

*Prerequisite:* CYBR 3423 or IT 3423, and admission to the Bachelor of Science in Cybersecurity eMajor.

This course introduces Linux/Unix operating systems. Topics include system administration, file systems and access permissions, regular expression, common tools and utilities, and network service configurations. Lessons will be enhanced using hands-on exercises.

## **CYBR 4490: Special Topics in Cybersecurity**

### **1-3 Credit Hours**

*Prerequisite: Junior/Senior Standing, and admission to the Cybersecurity BS eMajor. Additional requirements may vary by topic.*

Special topics proposed by faculty, approved by the Department Chair. Offered on a demand basis. Can be repeated for credit if not duplicate topic.

## **CYBR 4700: Cybersecurity Competitions**

### **3 Credit Hours**

*Prerequisite: CYBR 3100, admission to the Cybersecurity BS eMajor, and permission of the team.*

This course explores emerging issues in cybersecurity. The content of each offering will vary based on current issues and concerns in the cybersecurity industry.

## **CYBR 4810: Cyber Defense**

### **3 Credit Hours**

*Prerequisite: (CYBR 4220 and CYBR 4200), and admission to the Bachelor of Science in Cybersecurity eMajor.*

This course is a semester-long simulation using the virtual systems, software, practices, and procedures necessary for the protection of computer systems and networks. Students learn how to protect networks and systems as deployed in a typical organization. Course topics include policy and practice associated with the protection of communication resources, intrusion detection systems, firewalls, and use of various tools for system and network protection.

## **CYBR 4833: Wireless Security**

### **3 Credit Hours**

*Prerequisite: (CYBR 3200 and CYBR 4323), and admission to the Bachelor of Science in Cybersecurity eMajor.*

This course explores the theory and practice of securing wireless networks from threats and attacks. Topics include Cryptography, Network Security Protocols, Security and Layered Architecture, Voice-Oriented Wireless Networks, Data-Oriented Wireless Networks, Security in Traditional Wireless Networks, Security in Wireless LAN, and Security in Wireless Ad Hoc Networks.

## **CYBR 4843: Ethical Hacking for Effective Defense**

### **3 Credit Hours**

*Prerequisite: (CYBR 3200 and CYBR 4323) and admission to the Bachelor of Science in Cybersecurity eMajor.*

This course explores the identification and validation of network and system vulnerabilities by taking an adversarial approach to network, system, and data access. Topics include network attacks and defenses, Operating System and application vulnerabilities, social engineering attacks, and malware. Ethical, legal implications of network attacks are also discussed.

## **CYBR 4853: Computer Forensics**

### **3 Credit Hours**

*Prerequisite:* (CYBR 3210 and CYBR 3423), and admission to the Bachelor of Science in Cybersecurity eMajor.

This course is an exploration of the tools and techniques used to conduct digital investigations. It will include digital evidence collection, recovery, and analysis. Topics are Legal issues relating to digital evidence, recovery of deleted files and discovery of hidden information, reconstruction of user activity from e-mail, temporary Internet files and cached data, assessment of the integrity of system memory and process architecture to reveal malicious code.

## **CYBR 4883: Infrastructure Defense**

### **3 Credit Hours**

*Prerequisite:* (CYBR 3200 and CYBR 4323), and admission to the Bachelor of Science in Cybersecurity eMajor.

This course provides an overview of the infrastructure assessment and penetration testing process and the processes and techniques for improving the defensibility of that infrastructure.

## **CYBR 4893: Internet of Things: Applications and Security**

### **3 Credit Hours**

*Prerequisite:* (CYBR 3200 and CYBR 4323), and admission to the Bachelor of Science in Cybersecurity eMajor.

This course introduces core knowledge and skills required to develop, design and secure IoT solutions. Students will analyze requirements, develop human-device interaction and learn about broader trends and characteristics in IoT. In addition, students will evaluate the security design of IoT-connected products.

## **DANC 1107: Dance in Society**

### **3 Credit Hours**

Through an examination of the role of arts in society, and an in-depth study of selected dance events, this interactive course provides an understanding of the creative process and develops skills in creativity and critical analysis. Heightened perceptual abilities will be developed through class experiences and field visits to a variety of arts events in dance, music, visual arts, and theater. (Attendance at some events requires paid admission.)

## **DANC 1900: Introduction to the Professional Practice of Dance**

### **3 Credit Hours**

*Prerequisite: Declared Dance Major or Dance Interest.*

This course serves as the introductory cohort experience for dance majors. Students accumulate an overview of the dance industry and its role in the marketplace through topics on professional preparation. Students are acquainted with studying dance in the university learning environment.

## **DANC 2000: Dance History I**

### **3 Credit Hours**

*Prerequisite: Must be a Dance Major, Dance Minor, or Dance- Interest; and ENGL 1101*

Explores dance as a reflection of culture and as an art form from the earliest societies to the present. International ballet, modern dance, and American dance will be observed closely as art forms and as commercial entertainment. Throughout the course students will read from books the observations of prominent dance critics, and they will view recordings of acclaimed dance pieces. Cultural influence and the contributions of individual artists will be investigated.

## **DANC 2100: African Dance Technique**

### **2 Credit Hours**

This course provides an energetic introduction and exploration of African Dance techniques, movement styles, and traditional dance forms that impact how this dance style informs cultural and social norms. Students will learn dance steps from various African Dances that represent and embody the cultural tradition and lifestyles of African people and the African diaspora.

## **DANC 2200: Tap Dance Technique I**

### **2 Credit Hours**

Students develop rhythmic complexity and performance techniques in tap dance. They will develop an understanding and experience of a variety of tap dance styles along with a historical understanding of the development of tap as an American art form. May be taken twice for credit.

## **DANC 2210: Tap Dance Technique II**

### **2 Credit Hours**

*Prerequisite: DANC 2200*

Students strengthen foundational skills covered in Tap Dance I. They further develop rhythmic complexity, performance quality, and a deeper understanding of various tap styles. This course may be taken twice for credit

## **DANC 2290: Special Topics in Dance**

### **1-3 Credit Hours**

*Prerequisite: Varies by topic*

Topics of a special interest to students and faculty.

## **DANC 2500: Indian Dance Technique**

### **2 Credit Hours**

This is an introductory course of Indian Classical dance techniques. Students explore the movement styles of Indian Classical dances from historical, cultural, and aesthetic perspectives. *Notes: May be taken twice for credit.*

## **DANC 2713: Dance Production**

### **2 Credit Hours**

*Prerequisite: Permission of the instructor.*

This course introduces students to stagecraft and live theatrical production. Students are charged with production assignments in support of public productions sponsored by the Department of Dance. *Notes: This course may be repeated for a total of two times for credit.*

## **DANC 2714: Dance Performance**

### **2 Credit Hours**

*Prerequisite: Permission of the instructor.*

This course includes individually designated performance assignments in support of public productions sponsored by the Department of Dance. Students rehearse and take class weekly, in addition to show week responsibilities. *Notes: This course may be repeated a total of 4 times for credit.*

## **DANC 2715: Dance Filmmaking**

### **2 Credit Hours**

*Prerequisite: Dance Major, or Dance Minor, or permission of instructor*

The course is designed to introduce digital video technology in dance through the acquisition of technical and creative skills required to choreograph, compose, edit, and disseminate Dance for Camera works. *Notes: The course may only be taken once for credit.*

## **DANC 3000: Musical Theatre Dance: Styles I**

### **2 Credit Hours**

An introduction to major dance styles for musical theater including: fundamental performance skills, exercises in body awareness, and principles of choreography for musical theater pieces. Students address the process of creating a character through movement and develop audition and rehearsal techniques through in-class work and out-of-class assignments. This course includes a survey of the history of dance in musical theater.

## **DANC 3001: Musical Theater Dance: Styles II**

### **2 Credit Hours**

*Prerequisite: Dance Major, or DANC 3000*

This course offers advanced study of a selected musical theater dance style, including a history of the form and its major choreographers.

## **DANC 3100: Ballet I: Classical Dance Technique**

### **2 Credit Hours**

This course is designed to introduce students to the basic technique and terminology of ballet. Through beginning-level barre and center work, students will explore kinesthetic and spatial awareness, alignment, musicality, and use of weight. Exercises in this course are designed to develop strength, balance, and flexibility. Students will practice professionalism and gain an appreciation and understanding of the art form.

## **DANC 3110: Ballet II: Classical Dance Technique**

### **2 Credit Hours**

*Prerequisite: Dance Major, or DANC 3100*

This course is designed for students who are able to demonstrate and execute a basic understanding of ballet technique. Students will enhance their understanding of kinesthetic and spatial awareness, alignment, musicality, and use of weight. Students will practice professionalism and gain an appreciation and understanding of the art form.

## **DANC 3120: Ballet III: Classical Dance Technique**

### **2 Credit Hours**

*Prerequisite: DANC 3110 or permission of the instructor.*

This course is designed for students who are able to demonstrate an intermediate/advanced understanding of ballet technique. Students will develop a more refined understanding of kinesthetic and spatial awareness, alignment, musicality, and use of weight. Barre and center exercises become more complex and emphasis is placed on strengthening performance skills. Students will practice professionalism and deepen their appreciation and understanding of the art form. *Notes: May be taken twice for credit.*

## **DANC 3130: Ballet IV: Classical Dance Technique**

### **2 Credit Hours**

*Prerequisite: DANC 3120 or permission of the instructor.*

This course is designed for students who are able to demonstrate an advanced understanding of ballet technique. Students will display a complex understanding of kinesthetic and spatial awareness, alignment, musicality, and the use of weight. Barre and center exercises become more intricate and style and performance skills are emphasized. Students will practice professionalism and expand their appreciation and understanding of the art form. *Notes: May be taken four times for credit.*

## **DANC 3200: Jazz Dance: Styles I**

### **2 Credit Hours**

Students will explore the principles and art of jazz dance through correct alignment, body control, flexibility, weight shift and rhythmic control. Center work, stretching, isolations, extensions, turns, jumps, simple combinations and vocabulary are introduced. Students will learn to apply techniques of defined traveling movements in a range of dynamic and changing rhythms while acquiring an understanding and appreciation of jazz dance as an art form.

## **DANC 3210: Jazz Dance: Styles II**

### **2 Credit Hours**

*Prerequisite: Dance Major, or DANC 3200*

Students acquire complex motor skills, intermediate and advanced techniques and knowledge appropriate for the successful participation in jazz dance performance. Multiple simultaneous isolations, contracted falls and turning jumps are explored, along with movement combinations of 64 beats and longer.

## **DANC 3220: Jazz Dance: Styles III**

### **2 Credit Hours**

*Prerequisite: DANC 3210 or permission of the instructor.*

This is an intermediate-advanced jazz technique course for the advanced dancers. Emphasis is placed on learning complex and challenging combinations with correct body placement and balance. Students will continue developing their motor skills, jazz dance techniques, musically and artistry. *Notes: May be taken twice for credit.*

## **DANC 3230: Jazz Dance: Style IV**

### **2 Credit Hours**

*Prerequisite: DANC 3220 or permission of the instructor.*

This is an advanced jazz technique course for pre-professional dancers. Emphasis is placed on continuing to develop advanced level performance techniques and learning technically, musically and artistically challenging combinations as well as professional repertory. *Notes: May be taken four times for credit.*

## **DANC 3300: Modern Dance I: Contemporary Dance Technique**

### **2 Credit Hours**

Students will explore contemporary movement styles, including principles of kinesthetic and spatial awareness, alignment, musicality, and use of weight. The course prepares students for more complex choreography by increasing body connectivity and coordination while building performance skills. Students will practice professionalism and gain an appreciation and understanding of the art form.

## **DANC 3310: Modern Dance II: Contemporary Dance Technique**

### **2 Credit Hours**

*Prerequisite: Dance Major, or DANC 3300*

Students demonstrate knowledge of contemporary movement styles, enhancing understanding of kinesthetic and spatial awareness, alignment, musicality, and use of weight. This course begins to incorporate complex choreography through body connectivity and coordination while strengthening performance skills. Students will demonstrate professionalism and an appreciation and understanding of the art form.

## **DANC 3320: Modern Dance III: Contemporary Dance Technique**

### **2 Credit Hours**

*Prerequisite: DANC 3310 or permission of the instructor.*

Students demonstrate intermediate/advanced knowledge of contemporary movement styles, increasing their complex understanding of kinesthetic and spatial awareness, alignment, musicality, and use of weight. This course incorporates complex movement phrases through integrated body connectivity and coordination while performing at an intermediate/advanced level. Students will demonstrate professionalism and an appreciation and understanding of the art form. *Notes: May be taken twice for credit.*

## **DANC 3330: Modern Dance IV: Contemporary Dance Technique**

### **2 Credit Hours**

*Prerequisite: DANC 3320 or permission of the instructor.*

Students demonstrate advanced knowledge and proficiency of contemporary movement styles, accomplishing complex understanding of kinesthetic and spatial awareness, alignment, musicality, and use of weight. This course incorporates complex movement phrases through integrated body connectivity and coordination while performing at an advanced level and demonstrating professionalism. Students show readiness for the professional practice of contemporary dance and an understanding of their place within the art form. *Notes: May be taken four times for credit.*

## **DANC 3398: Internship**

### **1-3 Credit Hours**

*Prerequisite: Permission of the department chair.*

A supervised, credit-earning work experience of one academic semester with a previously approved professional dance or theater company, dance studio, art agency or government agency serving the arts.

## **DANC 3500: Pas de Deux/Pointe**

### **2 Credit Hours**

*Prerequisite:* DANC 3110 or permission of the instructor.

This course develops a student's partnering skills in dance through increased technical development and the learning of classical repertory. A portion of this course focuses on the development of pointe technique and classical variations. This course is designed to develop the advanced-intermediate level dance student's ability to transfer classical ballet skills into partnered pas de deux work.

## **DANC 3550: Choreography I**

### **2 Credit Hours**

*Prerequisite:* Two 3000-level DANC classes or permission of the instructor.

This course introduces dance choreography including improvisational techniques and choreographic devices appropriate for the concert stage.

## **DANC 3600: Dance Improvisation**

### **2 Credit Hours**

In this course, students will creatively discover and investigate the body's potential to move without preconception. Through a variety of movement stimulation exercises students are encouraged to develop their inner creativity and explore movement invention.

## **DANC 3700: Body Conditioning and Somatics**

### **2 Credit Hours**

This course offers the study of a variety of physical conditioning methods such as yoga and pilates combined with injury prevention techniques that promote physical efficiency and physical development of the body.

## **DANC 4010: Dance History II**

### **3 Credit Hours**

*Prerequisite:* DANC 2000

A historical study of prevalent twentieth-century dance forms and their development. Socio-cultural influences in dance and the contributions of individual artists is investigated and researched. A portion of this course studies the history of dance in world cultures and global trends in the development of dance as an art form.

## **DANC 4100: Dance Kinesiology**

### **3 Credit Hours**

*Prerequisite:* DANC 2000

A study of the science of the human body, its anatomy and movement physics.

## **DANC 4200: Analysis and Criticism of Dance**

### **3 Credit Hours**

*Prerequisite: DANC 2000*

Students develop analytical and critical skills in dance through an understanding of core dance principles, developing refined observation skills, and the study of dance journalism.

## **DANC 4300: Dance Pedagogy**

### **3 Credit Hours**

*Prerequisite: DANC 2000 and ENGL 1102*

Students study the philosophical and practical principles associated with the teaching of dance as an art form. Through practical application of theoretical learning objectives, students learn to identify and work conceptually from core principles in technique and pedagogy.

## **DANC 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected topics of an advanced nature, which may include original research projects.

## **DANC 4490: Special Topics**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Topics of an special interest to students and faculty.

## **DANC 4500: Choreography II**

### **3 Credit Hours**

*Prerequisite: DANC 3550*

This course explores choreographic devices, improvisational techniques, and principles of composition to develop a personalized approach to choreography.

## **DANC 4714: Advanced Dance Performance**

### **2 Credit Hours**

*Prerequisite: Audition and permission of the instructor*

This course includes advanced work in the development of new choreography in support of public productions sponsored by the Department of Dance. Students rehearse and take class weekly, in addition to show week responsibilities.

## **DANC 4800: Senior Seminar**

### **3 Credit Hours**

*Prerequisite: DANC 4010 or permission of the department chair.*

This course engages with aesthetic and critical issues relevant to students' senior capstone projects and provides students with practical knowledge pertaining to careers in dance and related fields.

## **DANC 4900: Senior Project**

### **3 Credit Hours**

*Prerequisite: DANC 4800*

This course combines seminar discussion with studio work to assist students with their senior projects. Each student will present their work publicly at the end of the semester.

## **DATA 1501: Introduction to Data Science**

### **3 Credit Hours**

This course is intended to provide an introduction into the field of Data Science. Students will develop skills in appropriate technology and basic statistical methods by completing hands-on projects focused on real-world data and addressing the social consequences of data analysis and application.

## **DATA 3010: Computer Applications of Statistics**

### **3 Credit Hours**

*Prerequisite: STAT 1401 or ECON 2300 or STAT 3125 or STAT 2332*

This is an intermediate survey course of computer-based statistical software applications in the analysis and interpretation of data. Topics include developing a proficiency in coding in multiple languages through quantitative applications. Software packages include the most in-demand statistical languages and packages in the marketplace. (e.g. Python, SAS, R)

## **DATA 3230: Data Visualization**

### **3 Credit Hours**

*Prerequisite: STAT 1401 or DATA 1501 or STAT 2332 or STAT 3125*

This course introduces students to the field of data visualization. The course covers basic design and evaluation principles to prepare and analyze large datasets, and standard visualization techniques for different types of data using modern data visualization software. The course prepares students to communicate clearly, efficiently, and in a visually compelling manner to a variety of audiences.

## **DATA 3300: Data Science Ethics**

### **3 Credit Hours**

*Prerequisite: STAT 3130*

As the field of data science and artificial intelligence continues to rapidly grow, so does the need for strong ethical guidelines. Throughout this course, students will learn the foundational ethical theories and frameworks, and the origins of ethics within data science. Students will use case studies to learn about the ethical dilemmas around the collection, management, and use of data, the use of models and algorithms, and the future of artificial intelligence and machine learning. Topics include Privacy, Informed Consent, Ownership, Security, Bias, Misinformation, Data Governance and Codes of Ethics.

## **DATA 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the coordinator of cooperative education/internship.*

This course is a supervised work experience program for a minimum of two academic semesters at a site in business, industry, or government. It is for sophomore, junior, or senior-level students who wish to obtain successive on-the-job experience in conjunction with their academic training.

## **DATA 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite: Approval of the program coordinator and department chair.*

This course is a supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency.

## **DATA 4000: Data Science Communication**

### **3 Credit Hours**

*Prerequisite: STAT 2332 or (DATA 3010 and (STAT 3120 or STAT 3125))*

This course equips students to orally communicate data analysis results adapted to both technical and non-technical audiences. Students learn and practice essential data presentation skills, such as using narratives and visuals to communicate data analysis insights for solving business problems.

## **DATA 4030: Programming in R**

### **3 Credit Hours**

*Prerequisite: DATA 3010 or STAT 3125*

In this course, students will learn R programming to effectively manage, explore, visualize, and present data. The course covers practical statistical-computing issues, including reading, manipulating, and analyzing data, using control statements, existing functions, and user-created functions. Reporting results using R packages, such as R Markdown, may also be covered.

## **DATA 4140: Python for Data Science**

### **3 Credit Hours**

*Prerequisite: DATA 3010 and (STAT 3130 or IET 3403 or ISYE 3600)*

This course introduces students to analytic methods using Python. The core focus is the development of Python knowledge within an analytic model development focus. Students will learn fundamental data structures, key algorithms and their application in applying analytic/machine learning methodologies.

## **DATA 4310: Statistical Data Mining**

### **3 Credit Hours**

*Prerequisite: STAT 3130 or permission of the instructor.*

Data Mining is an information extraction activity whose goal is to discover hidden facts contained in databases, perform prediction and forecasting, and generally improve their performance through interaction with data. The process includes data selection, cleaning, coding, using different statistical, pattern recognition and machine learning techniques, and reporting and visualization of the generated structures. The course will cover all these issues and will illustrate the whole process by examples of practical applications. The students will use recent SAS Enterprise Miner software.

## **DATA 4330: Applied Binary Classification**

### **3 Credit Hours**

*Prerequisite: STAT 4210*

Common applications of binary classification include credit worthiness and the associated development of a credit risk score, fraud detection, and the presence of a disease. Students will learn to use logistic regression, odds, ROC curves, and maximization functions to apply binary classification concepts to real-world datasets. This course utilizes statistical coding software and students are expected to have an advanced knowledge of this software.

## **DATA 4400: Directed Study**

### **3 Credit Hours**

*Prerequisite: Approval of the instructor, major area committee, and department chair.*

Special advanced topics external to regular course offerings.

## **DATA 4490: Special Topics in Statistics**

### **3 Credit Hours**

*Prerequisite: STAT 3130*

Special topics of interest to faculty and students.

## **DATA 4990: Data Science Capstone**

### **3 Credit Hours**

*Prerequisite: STAT 4210*

Capstone projects challenge students to acquire and analyze data to solve real-world problems. Students will have to synthesize and strengthen the knowledge and skills learned through the program such as data visualization, inference and modeling, data wrangling, data organization, data mining and machine learning, as well as storytelling with the data.

## **ECE 2205: Organization and Administration of Early Childhood Programs**

### **3 Credit Hours**

*Prerequisite: EDUC 2110*

In this course candidates identify high-quality administrative and programming practices for young children's programs, evaluate the effectiveness of early care, learn administration practices through a 15-hour observation experience in a child care center, and develop a resource portfolio useful to early care and education administration. Additionally, candidates demonstrate knowledge of appropriate child behavior guidance strategies by developing a guidance plan. *Notes: A criminal background check is required of candidates prior to the observation.*

## **ECE 2220: Practicum**

### **3 Credit Hours**

*Prerequisite: Approval of the director of the Center for Education Placements and Partnerships, advisor, and department chair.*

A practicum in a classroom during which the student will be actively involved in the teaching-learning process under the guidance of a professional teacher.

## **ECE 2250: Child Development and Early Learning**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course addresses theories of human development from conception to middle childhood (age eleven years) with attention to the social, emotional, physical and cognitive domains. Issues relating to family, diversity, and culture will be addressed as they relate to development and supporting children's learning. Candidates will also explore effective learning environments, health, safety & nutrition for children. Observations in natural settings will be required.

## **ECE 2540: Health, Wellness and the Young Child**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is designed to provide teacher candidates with opportunities to understand the importance of a healthy and safe environment for young children. Issues include infectious disease control, injury and accident prevention, chronic health care conditions and illnesses, child abuse and neglect, and proper meal planning and nutrition. Upon successful completion of this course, teacher candidates will be awarded certification in Basic First Aid and CPR for infants and young children.

## **ECE 2590: Families, Communities and Schools: Partners in Education**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course analyzes family, school, and community resources as related to the family life cycle; explores environmental approaches; and explores careers related to children and families. Strategies to improve communication and collaboration are emphasized with a focus on family types, cultures, languages, economic conditions, school systems, community services, political forces, advocacy groups, and other factors that impact young children and their families. Fifteen hours of service learning at an approved site is required.

## **ECE 3305: Classroom Assessment for Elementary Teachers**

### **3 Credit Hours**

*Prerequisite: ECE 3320 and ECE 4408 Corequisite: ECE 4409 and ECE 3330*

This course examines purposes, principles and uses of assessment in relation to instructional decision making in the elementary classroom.

## **ECE 3313: Preschool Curriculum and Assessment**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program*

In this course candidates design and implement developmentally appropriate, standards-based curriculum and lessons for preschool children; practice developmentally appropriate screening and assessment with preschool children; and describe effective techniques for working with young children with challenging behaviors. A 30-hour field experience required. Candidates must pass the College of Education's mandatory background check and a mandatory state Bright from the Start criminal background check prior to beginning field experience. *Notes: Verification of professional liability insurance is required prior to placement in the field experience.*

## **ECE 3320: Teaching Reading and Writing in the Elementary Grades PK-2**

### **3 Credit Hours**

*Prerequisite:* Admission to the Teacher Education program, and EDUC 2130

*Concurrent:* ECE 3313

*Corequisite:* ECE 4408

This course emphasizes research-based strategies for instruction in reading, writing, listening, and speaking in preschool to second grade. Culturally responsive and developmentally appropriate literature contextualizes classroom experiences in lesson planning, literacy instruction, and assessment. This course includes multiple theoretical perspectives and approaches to literacy instruction as well as media and extensive field experience to enhance learning.

## **ECE 3330: Teaching Reading and Writing in the Elementary Grades 3-5**

### **3 Credit Hours**

*Prerequisite:* ECE 3320 and ECE 4408 *Corequisite:* ECE 3305

The relationship of reading, writing, speaking, and listening is studied in the context of the diverse elementary classroom, grades 3-5. Assessment, instruction, management, and differentiation of reading comprehension and writing composition are stressed as well as the incorporation of technology to support and extend literacy skills for all learners. This course has a required field experience.

## **ECE 3340: Diagnosis and Application of Literacy Instruction in the Early Childhood**

### **Classroom**

### **3 Credit Hours**

*Prerequisite:* Admission to Teacher Education program, ECE 3320; ECE 3330

This course is the study and application of diagnostic and instructional activities for the pre-service elementary and early childhood classroom teacher. It includes both formal and informal diagnosis, interpretation of formal and informal tests results, planning and implementation of instructional actions, application of literacy diagnosis across the curriculum, and diagnosis of the classroom literacy environments and instruction. Includes a 20 hour field experience. *Notes:* Proof of liability insurance and background check are required for placement.

## **ECE 3360: Reading, Process Writing, and Language Arts, K-5**

### **3 Credit Hours**

*Prerequisite:* Admission to Teacher Education and ECE 3320

The relationship among reading, writing, speaking, listening, and viewing is studied in the context of national and state K-5 standards. Context area reading and writing are taught within a text-based instructional framework. The course will ensure that candidates understand language development, the transition from learning to read to reading to learn, the connection between reading and writing, the process approach to writing instruction, and the use of technology to extend and support literacy.

### **ECE 3364: Children's Literature**

#### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education program*

This course is a survey of literature appropriate for infants through kindergarten and early grade readers. It reviews both current and traditional works in several genres and considers various approaches for teaching such literature.

### **ECE 3370: Child Development and Families**

#### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education*

Candidates will learn about child development theories, educational/early care environments, play, and learning from conception to middle childhood. Building relationships with diverse families will also be addressed. Candidates will use the knowledge gained in the course to identify and plan high quality learning environments for children ages birth through fifth grade and their families.

### **ECE 3398: Internship**

#### **1-12 Credit Hours**

*Prerequisite: Permission of the director of the Center for Education Placements and Partnerships, advisor, and department chair.*

This course is comprised of a supervised teaching experience for teachers seeking certification renewal credit.

### **ECE 3410: Human Reproduction, Perinatal Development, Health, Safety, and Nutrition**

#### **3 Credit Hours**

*Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program.*

*Corequisite: ECE 3420*

Students will learn about human reproduction, the effects of heredity and environment upon fertility, conception, and prenatal development. They will study development from conception to birth, the stages of pregnancy, prenatal health care, the birth process, and associated risk factors. They will learn the importance and effects of maternal attachment, bonding, and nursing. They will study the newborn's amazing capabilities, the importance of effective care, the nutritional needs of mother and child, infectious disease control, and consider safety issues.

## **ECE 3415: Infants: Stages of Growth and Development & Developmentally**

### **Appropriate Care and Activities**

#### **3 Credit Hours**

*Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program. Corequisite: ECE 3410, ECE 3420.*

This course provides students with an understanding of the importance of infant development from birth to eighteen months of age. Students will study the dramatic physical, sensorial, emotional, and cognitive growth that occurs during each stage of development. They will learn to create supportive environments and to use appropriate materials, activities, and methods of care and education that can enhance the important developmental periods that children experience from birth to 18 months of age.

## **ECE 3420: Observation and Supervised Practice Teaching – Infants**

#### **5 Credit Hours**

*Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program. Corequisite: ECE 3410, ECE 3415.*

Teacher candidates will learn to develop, plan, and implement strategies for the care and education of infants from birth to 18 months of age. Candidates will teach under the supervision of childcare professionals and a university faculty. Candidates will develop skills in the application of developmentally appropriate practices with infants. Candidates will meet with a university supervisor each week to review planning and teaching strategies and to discuss their concerns. Verification of professional liability insurance is required prior to placement in the teaching experience.

## **ECE 3435: Toddlers: Stages of Growth and Development & Developmentally**

### **Appropriate Care and Activities**

#### **3 Credit Hours**

*Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program. Corequisite: ECE 3445.*

Students will develop an understanding of the importance of infant development from eighteen months to three years of age. Students will learn to identify and support the important physical, sensorial, emotional, language, and cognitive growth that take place during each stage of development. They will learn how to enhance that development through the creation of supportive environments and through the application of developmentally appropriate activities, methods, and materials.

## **ECE 3445: Observation and Supervised Practice Teaching – Toddlers**

### **5 Credit Hours**

*Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program. Corequisite: ECE 3435.*

Teacher candidates will learn to develop, plan, and implement strategies for the care and education of toddlers from 18 months to 3 years of age. Candidates will teach under the supervision of child care professionals and university faculty. Candidates will develop skills in the application of developmentally appropriate practices with toddlers. Candidates will meet with a university supervisor each week to review planning and teaching strategies and to discuss their concerns. Verification of professional liability insurance is required prior to placement in the teaching experience.

## **ECE 3510: Fostering Young Children's Learning Through Play**

### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education program*

This course is designed to provide teacher candidates with the knowledge and understanding of children's play in a variety of settings. A review of play theories as well as a historical approach to play is presented. Teacher candidates have the opportunity to explore the relationship of play to curriculum development and assessment. Issues regarding gender, culture, second language acquisition, socioeconomic status, stress and personality types are discussed in relationship to play.

## **ECE 3520: Infant and Toddler Curriculum and Assessment**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program. Corequisite: ECE 3565*

In this course candidates design and implement developmentally appropriate curriculum and assessment for infants and toddlers. Candidates utilize developmentally appropriate practices for all infants, toddlers, and very young children, including those with cultural and language differences and/or special needs.

## **ECE 3530: Movement, Music and Art in Birth through Kindergarten Programs**

### **2 Credit Hours**

*Prerequisite: Admission to Teacher Education program Corequisite: ECE 4555*

Teacher candidates will learn the utilization of art, music, movement and creativity to instruct children from infancy through five years of age. Topics that will be studied include movement exploration, children's games, finger plays and songs. This course may require a field experience in an early learning environment. Verification of professional liability insurance is required.

## **ECE 3560: Instructing Young Children through Art, Music, and the Aesthetic Domain**

### **3 Credit Hours**

*Prerequisite:* Admission to the Teacher Education program, ECE 2205 and ECE 2250 *Corequisite:* ECE 4515, ECE 3530, and ECE 4545.

The role of art, music, and creativity will be explored. Teacher candidates will understand the relationship of the infant and young child's development to creative expression, art, and music. Methods of implementing art, music, and creative development in teaching infants and young children will be taught. *Notes:* An intensive field experience will be included.

## **ECE 3565: Infant/Toddler Practicum**

### **1 Credit Hours**

*Prerequisite:* ECE 2205

This course is designed to provide the knowledge and skills to teach children ages six weeks through 36 months. Participation in an intensive 60-hour, hands-on field experience in selected infant toddler/ classroom is required. Lesson plan development, implementation and assessment of infants and toddlers are addressed. Candidates learn how to effectively work with diverse infants and toddlers, including those babies and toddlers with developmental delays and english-language learners.

## **ECE 3570: Preschool Practicum**

### **1 Credit Hours**

*Prerequisite:* ECE 2205

This course is designed to provide the knowledge and skills to teach children ages 3 years through 5 years. Teacher candidates taking this course will participate in an intensive 60-hour, hands-on learning experience in selected preschool/pre-kindergarten classrooms. Lesson plan development, lesson implementation, and assessment of diverse preschoolers are addressed in this course. Teacher candidates learn how to effectively work with diverse preschoolers/pre-kindergarteners, including those young children with developmental delays and English Language Learners.

## **ECE 3575: International Approaches to Early Care and Learning**

### **2 Credit Hours**

*Prerequisite:* Admission the Teacher Education

This course addresses comparative early care and instruction for infants and children in international settings, including countries in Asia, Africa, Europe, Central and South America Australia and North America. Candidates will explore the diversity of prenatal care, parenting, family practices, and international and child welfare issues. Candidates will also develop knowledge and skills of global awareness and instruction in early learning.

## **ECE 4305: Motor Development and Refined Control of Movement**

### **3 Credit Hours**

*Corequisite: ECE 4310, ECE 4315, ECE 4320.*

Students will learn how essential movement is to the physical, emotional, and cognitive development of children. They will learn to present children with motives of activity in which action and interest combine to provide irresistible activities that children love to repeat spontaneously. Students will understand that children develop independence and achieve concentration and self-realization when they work with developmentally appropriate materials. Students will learn to implement teaching strategies that enhance the child's physical, cognitive, emotional, and social development.

## **ECE 4310: A Conceptual Framework for the Montessori System of Education**

### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education program*

Insights into the nature of child development reveal that respect for the child's inner teacher serves as the integrating principle for the effective education of young children. Students will discover that the sensitive periods are the most powerful times for learning. Students will learn the importance of the prepared environment as the third essential element in the teaching learning equation. This environment supports individual and collaborative learning and encourages positive social interaction. Students will learn that the Prepared Environment encourages active engagement in learning, the emergence and development of concentration and intrinsic motivation. This Conceptual Framework undergirds the research based Montessori System of Education.

## **ECE 4315: Sensorial Development**

### **3 Credit Hours**

*Corequisite: ECE 4305, ECE 4310, ECE 4320.*

Candidates will learn to use a rich array of developmentally appropriate materials that address each of the child's senses in ways that establish foundations for cognitive growth. Work with these materials promotes the development that children need for the successful mastery of writing, reading, and mathematics skills. Candidates learn to give sensorial presentations with Geometry, Botany, Geography, and Peace Education Curriculum materials and also learn to help children develop listening, sight singing and musical notation skills.

## **ECE 4320: Observation and Supervised Internship – Early Childhood I**

### **6 Credit Hours**

*Prerequisite: Admission to program Corequisite: ECE 4305, ECE 4310, ECE 4315.*

Candidates will learn to develop, plan, and implement strategies for the care and education of 3 to 5 year old children. Candidates will teach under the supervision of childcare professionals and university faculty. Candidates will develop skills in the presentation of developmentally appropriate practical life and sensorial materials to 3 to 5 year old children. Verification of professional liability insurance is required prior to placement in the teaching experience.

## **ECE 4335: Acquisition of Language and Literacy Skills in One or More Languages**

### **3 Credit Hours**

*Corequisite: ECE 4345, ECE 4355, ECE 4336*

Students will be introduced to classified vocabulary and the presentation of the nomenclatures of Biology, Geography, Zoology, History, and the Arts that enrich and extend children's oral language skills. Students will be introduced to research-based key words, cursive sandpaper letters and movable alphabets help children develop phonemic awareness and achieve sound-symbol associations. Candidates will present writing activities that lead children to discovery reading spontaneously. Candidates will learn to apply the principles of second language acquisition research to the instruction of English language learners.

## **ECE 4336: The Competent Manufacture and Presentation of Language Materials**

### **3 Credit Hours**

*Corequisite: ECE 4335, ECE 4345, ECE 4355*

Students will manufacture and practice presenting the many research-based language materials designed for use in offering developmentally appropriate language arts presentations and activities to 3–5 year old children. These materials are not available from Montessori suppliers, so each teacher prepares 70 selected materials for his/her own classroom. Students practice with the materials to develop and refine the skills they need to give language presentations to young children effectively.

## **ECE 4345: Preparing the Mathematical Mind of the Young Child**

### **3 Credit Hours**

*Corequisite: ECE 4335, ECE 4336, ECE 4355*

Research-based materials and teaching/learning strategies are used to present numeration and mathematics to young children. Candidates will learn to present linear counting, the four operations and tables, cumulative and squaring operations, binomial addition, and the multiplication of polynomials to young children. Memorization materials are presented with which to review and enhance the recall of known number facts.

## **ECE 4355: Observation and Supervised Internship – Early Childhood**

### **6 Credit Hours**

*Prerequisite: ECE 4320 Corequisite: ECE 4335, ECE 4336, and ECE 4345.*

Teacher candidates will learn the utilization of art, music, movement and creativity to instruct children from infancy through five years of age. Topics that will be studied include movement exploration, children's games, finger plays and songs. This course may require a field experience in an early learning environment. Verification of professional liability insurance is required.

## **ECE 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair prior to registration.*

A directed study is a concentrated investigation of a particular aspect of education as a topic within a teaching field concentration or degree major. The content of the directed study will be determined jointly by the instructor and the student.

## **ECE 4401: Teaching Mathematics in Early Childhood Education**

### **3 Credit Hours**

*Prerequisite: MATH 3318*

This course consists of the integration of mathematics concepts, principles and processes into the teaching of mathematics in preschool through fifth grade. Emphasis is placed upon developmentally appropriate practices and culturally relevant pedagogies in planning, implementing and evaluating instruction in the mathematics curriculum. *Notes: Verification of professional liability insurance is required prior to placement in the field experience.*

## **ECE 4402: Teaching Science in Early Childhood Education**

### **3 Credit Hours**

*Prerequisite: ISCI 2001 and ISCI 2002 Corequisite: ECE 4410*

This course is the study of integrating science concepts, principles and processes into the teaching of science in preschool through fifth grade. Emphasis will be placed upon developmentally appropriate practices in planning, implementing and evaluating instruction in the science curriculum. *Notes: Verification of professional liability insurance is required prior to placement in the field experience.*

## **ECE 4403: Teaching Social Studies in Early Childhood Education**

### **3 Credit Hours**

*Corequisite: ECE 4410*

This course consists of integrating social studies across the curriculum and effective strategies for planning, implementing and evaluating instruction in social studies in preschool through fifth grade. Emphasis is placed upon developmentally appropriate practices and culturally relevant pedagogies in planning, implementing and evaluating instruction in the social studies curriculum.

## **ECE 4404: Teaching Reading & Language Arts Across the Curriculum in Early Childhood Education**

### **3 Credit Hours**

*Prerequisite: EDUC 3302 and ECE 3340*

This course encompasses the study of the integration of language arts across the curriculum and effective strategies for planning, implementing and evaluating instruction in reading, writing, listening and speaking in preschool through fifth grade. Emphasis on assessment techniques and approaches to conducting guided lessons in reading and writing that are culturally and developmentally appropriate. Includes an extensive field experience and media use. *Notes: Verification of professional liability insurance is required prior to placement in the field experience.*

## **ECE 4405: Teaching Language Arts and Social Studies in Early Childhood**

### **3 Credit Hours**

**Prerequisite:** Admission to the TOSS program and ECE 3340

This course includes the study and application of social studies and language arts as integrative elements of the elementary curriculum. Candidates will focus on the nature and theory in order to prepare students to become citizens actors, adopt problem solving dispositions and achieve excellence in the application of oral and written communication skills. *Notes: Verification of professional liability insurance is required prior to placement in the field experience.*

## **ECE 4406: Teaching of Elementary Education Internship**

### **3 Credit Hours**

*Prerequisite: Admission to the TOSS program. Corequisite: ECE 4401; ECE 4402; ECE 4403; ECE 4404*

This course is an intensive and extensive field experience in an elementary school. Candidates will be required to spend seven and one half hours per day, five days a week, for four weeks. Candidates must have a satisfactory field experience to continue on to student teaching. Proof of professional liability insurance and a criminal background check are required prior to receiving a school placement.

## **ECE 4408: Teaching Mathematics in Grades P-2**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education Program, EDUC 2130 Corequisite: ECE 3320*

This course consists of the integration of mathematics concepts, principles and processes into the teaching of mathematics in preschool through second grade. Emphasis is placed upon developmentally appropriate practices and culturally relevant pedagogies in planning, implementing and evaluating instruction in the elementary mathematics curriculum. This course includes field experience to enhance learning.

## **ECE 4409: Teaching Mathematics in Grades 3-5**

### **3 Credit Hours**

*Prerequisite: ECE 4408, MAED 3316, ECE 3320, and ECE 3313 Corequisite: ECE 3305*

This course consists of the integration of mathematics concepts, principles and processes into the teaching of mathematics in grades three through five. Emphasis is placed upon developmentally appropriate practices and culturally relevant pedagogies in planning, implementing and evaluating instruction in the elementary mathematics curriculum. This course includes a required field experience.

## **ECE 4410: Reading and Writing Across the Curriculum**

### **3 Credit Hours**

*Prerequisite: MAED 3317 Corequisite: ECE 4650*

This course consists of integrating language arts across the curriculum and effective strategies for planning, implementing, and evaluating instruction in reading, writing, listening, and speaking in preschool through fifth grade. Emphasis is placed upon assessment techniques and approaches to conducting guided lessons in reading and writing that are culturally and developmentally appropriate.

## **ECE 4465: Elementary Classroom Management and Learning Environments**

### **3 Credit Hours**

*Corequisite: ECE 3330*

The course is designed for elementary teacher candidates to explore and understand classroom management, guidance, and ways of dealing with challenging behaviors in developmentally and culturally appropriate ways. Topics include classroom management strategies, the importance of relationship building, reflective practice, stakeholder communication, and building cooperative and mutually beneficial relationships as a part of developing as a professional.

## **ECE 4473: Student Teaching: Early Childhood (P-5)**

### **12 Credit Hours**

*Prerequisite: Admission to student teaching.*

Full-time teaching experience under the supervision of a public school cooperating teacher and college supervisor. Verification of professional liability insurance is required before placement in student teaching.

## **ECE 4475: Designing and Sustaining a Classroom Learning Community**

### **2 Credit Hours**

*Corequisite: ECE 4650*

This course is designed for elementary teacher candidates to explore ways in which positive classroom learning communities are designed, implemented, and sustained. Teacher candidates will also examine their own cultural backgrounds and students' cultural backgrounds, and investigate ways in which they may strengthen teacher-student and student-student relationships in the classroom. Theories investigated in the course will be discussed in relation to the candidates' experiences within the clinical practicum.

## **ECE 4490: Special Topics in Education**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

This course is comprised of selected special topics of interest to faculty and students.

## **ECE 4515: Methods in Teaching and the Development of Teaching Language & Literacy in Birth through Kindergarten**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program. Corequisite: ECE 4545*

This course is designed to deepen the study of language development in typically and atypically developing children from infancy through five years. Candidates learn ages and stages of literacy development, family and cultural influences, and the importance of a language and literacy-rich environment. Candidates also learn methods and strategies for teaching pre-reading and reading to very young children.

## **ECE 4525: Methods of Nurturing Second Language Acquisition**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program; EDUC 2120. Corequisite: ECE 3570*

Candidates will be introduced to the stages of early language development and learn strategies for fostering that development in children birth through five years of age. Candidates will learn appropriate techniques for working with very young dual language learners and families and examine major principles of linguistics as they occur with very young children. Candidates will explore oral and written language teaching for young children and assessment tools for evaluating early dual language development. *Notes: Verification of professional liability insurance is required.*

## **ECE 4535: Methods of Instruction and Identification of B-5 Children with Special Needs**

### **3 Credit Hours**

*Prerequisite: Admission into Teacher Education*

This course is designed to assist the teacher candidate in preparing environments to meet the needs of diverse children with developmental delays, medical conditions, and cognitive, language, and emotional differences. Legal issues and terms involving preschool special education will be addressed. Curriculum modification and environmental accommodations for children with special needs will be reviewed. Assessment techniques and the role of service providers will be discussed. This course will include a 15-hour field experience. *Notes: Verification of professional liability insurance is required.*

## **ECE 4545: Methods in Math & Science in Birth through Kindergarten**

### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education Corequisite: ECE 4515*

This course focuses on integrating the science processes, principles, and concepts of inquiry-based science into early childhood education. Candidates develop and implement math and science curriculum in developmentally appropriate ways to diverse young children. Candidates also design and implement developmentally appropriate math and science assessments with young children. A field experience in an early learning environment may be required.

## **ECE 4555: Methods for Teaching Social Studies Birth through Kindergarten**

### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education Corequisite: ECE 3530*

Candidates plan and teach developmentally appropriate social studies lessons for birth-through-kindergarten students using research-based early childhood teaching methods. Candidates also design and implement developmentally appropriate assessments with young children in their field experience. Additionally, candidates design and evaluate discipline and guidance practices to promote healthy social and emotional development.

## **ECE 4598: Birth through Five Internship I**

### ***variable 1-6 Credit Hours***

*Prerequisite: ECE 3520, ECE 3313, ECE 2590 , ECE 4525 and ECE 4535; Approval of the Department is Required*

This is a supervised intensive internship in a birth through five educational setting. Participation in group instruction, lesson planning, classroom management, indoor and outdoor activities under the guidance of a collaborating teacher and university supervisor is required. Candidates will practice skills and strategies that impact the young child's development and learning. This course does not lead to Certification under the Georgia Professional Standards Commission. Note: Proof of liability insurance, College of Education approved background check, and Bright from the Start background check are required. Can be repeated for a total of 12 credit hours.

## **ECE 4599: Birth through Five Internship II**

### ***Variable 3-9 Credit Hours***

*Prerequisite: ECE 4598*

This is a supervised intensive internship in a birth through five educational setting. Participation in group instruction, lesson planning, classroom management, indoor and outdoor activities under the guidance of a collaborating teacher and university supervisor is required. Candidates will practice skills and strategies that impact the young child's development and learning. This course does not lead to Certification under the Georgia Professional Standards Commission. Note: Proof of liability insurance, college of education approved background check, and Bright from the Start background check are required. Can be repeated for a total of 12 credit hours.

## **ECE 4635: Practicum**

### ***1 Credit Hours***

*Corequisite: ECE 4403*

Candidates are placed in school settings for the purpose of developing their skills in the areas of planning and instruction. Observations and participation in a classroom setting are required with a focus on social studies and culturally relevant learning experiences, materials, and equipment.

## **ECE 4650: Yearlong Clinical Experience I (P-5)**

### ***variable 3-6 Credit Hours***

*Prerequisite: Admission to Teacher Education, Admission to the Yearlong Clinical Experience, Issued Pre-Service Certificate Corequisite: EDUC 4610*

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in elementary education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars.

## **ECE 4660: Yearlong Clinical Experience II (P-5)**

### **Variable 6-10 Credit Hours**

*Prerequisite: ECE 4650; Eligibility to take GACE*

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in elementary education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment. Proof of liability insurance is required.

## **ECON 1000: Contemporary Economic Issues**

### **2 Credit Hours**

This course provides students with the knowledge and tools necessary to critically examine social and policy issues from an economic perspective. Fundamental economic questions as they relate to individuals, firms, and society in the modern global world are addressed. Students learn about different economic systems, how markets function, the role of government in the economy, the basis for international trade, measurement of macroeconomic performance, and the impact of globalization on living standards and economic growth.

## **ECON 2105: Principles of Macroeconomics**

### **3 Credit Hours**

*Prerequisite: Business Majors: MATH 1111 or higher; Non-business Majors: MATH 1101 or higher*

This principles of economics course is intended to introduce students to concepts that will enable them to understand and analyze economic aggregates and evaluate economic policies.

## **ECON 2106: Principles of Microeconomics**

### **3 Credit Hours**

*Prerequisite: Business Majors: MATH 1111 or higher; Non-business Majors: MATH 1101 or higher.*

This principles of economics course is intended to introduce students to concepts that will enable them to understand and analyze structure and performance of the market economy.

## **ECON 2300: Business Statistics**

### **3 Credit Hours**

*Prerequisite: Business Majors: MATH 1111; Non-business Majors: MATH 1101*

An introduction to descriptive and inferential statistics with an emphasis on business applications. Topics covered include data summarization, probability distributions, sampling methods, confidence intervals, hypothesis testing, online data sources, and ethics in research. Small case studies are used to illustrate statistical applications within business settings.

## **ECON 3300: Applied Statistical and Optimization Models**

### **3 Credit Hours**

*Prerequisite: IS 2200 and (ECON 2300 or STAT 1401), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course will convey a working knowledge of several of the most commonly employed quantitative models to support data analysis and improved decision-making within a business environment. Students will learn to identify and apply the appropriate modelling techniques as well as how solve the resultant models via spreadsheet tools and applications. In addition, the course promotes and develops problem-solving and critical thinking skills through the evaluation of problem scenarios and short case-studies.

## **ECON 3397: Internship and Experiential Learning in Economics**

### **0-9 Credit Hours**

*Prerequisite: Admission to the Coles College Undergraduate Professional Program, ECON 2105, ECON 2106, and ECON 2300, approval of the Career and Internship Advisor (KSU Career Planning and Development), and a minimum GPA of 3.0.*

This course is designed to provide hands-on experiences and challenges to help students develop and improve their skills and problem-solving abilities. Prior to enrolling in this course, students are responsible for working with their Career & Internship Advisor to secure an approved internship position. Current and prior work experience does not qualify for credit. Graded assignments are required to receive credit. *Notes: This course will be graded on an S/U basis. This course may only be used in the Business Electives area of the BBA.*

## **ECON 3478: Economics of Healthcare**

### **3 Credit Hours**

*Prerequisite: Any 1000 level MATH or STAT course, and Any 1000, 2000, or 3000 ECON course*

This course provides an overview of the structure of health care markets in the United States. Students will learn to understand the economic issues that mold the structure and evolution of the health care industry in the US and globally. Students will evaluate the impact of the health care system in the United States on the competing goals of broad access, high quality, and affordability. Students will also identify how consumers and providers respond to changes in incentives and develop an appreciation for opposing views on health care reform.

## **ECON 4210: Money and Financial Markets**

### **3 Credit Hours**

*Prerequisite: ECON 2105 and FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Analyzes the operation, structure, regulation, and control of financial markets emphasizing the effects on the level and term structure of interest rates, economic activity, and business decisions. Focuses on monetary theory, monetary and fiscal policies, the Federal Reserve System, and financial institutions, markets, and instruments.

## **ECON 4310: Economic Development in Global Perspective**

### **3 Credit Hours**

*Prerequisite: ECON 2105, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An analysis of key development issues both as they relate to individual countries and to factors linking countries, such as international trade and capital flows. Topics addressed include savings, investment, technology, demographics, human resources, and economic institutions. Investigates these topics for third world countries and those that are more economically advanced.

## **ECON 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.*

Special topics of an advanced nature not in the regular course offerings.

## **ECON 4410: International Trade and Finance**

### **3 Credit Hours**

*Prerequisite: ECON 2105, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Principles of international trade and finance. Management of foreign operations of the firm within constraints of the international environment. Study of international currency flows, exchange rates and international banking practices.

## **ECON 4490: Special Topics in Economics and Quantitative Analysis**

### **1-3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and department chair prior to registration.*

Selected special topics of interest to faculty and students. This course may be taken more than once. *Notes: Up to 9 credit hours are permitted.*

## **ECON 4510: Microeconomics**

### **3 Credit Hours**

*Prerequisite: ECON 2106, ECON 2105, (MATH 1160 or MATH 1190 or MATH 1179) and Admission to the Coles College Undergraduate Professional Program; or student in a Coles College Partner Program that includes this course and 60 credit hours with a minimum GPA of 2.0*

Theory of the determination of price and output in both partial and general equilibrium. Topics include the theory of the firm, consumer behavior, analysis of market structures, welfare economics, social choice, the theory of games, and asymmetric information.

## **ECON 4530: Public and Urban Economics**

### **3 Credit Hours**

*Prerequisite: ECON 2105, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course considers the application of economic models to analyze the role of government in correcting market failures, the effects of taxation and expenditure policies on the allocation of resources, and the distribution of income. There is an emphasis on the optimal provision of public goods, the incidence and behavioral effects of taxes, regulation of externalities, public choice and the spatial organization of the economy.

## **ECON 4550: The Economics of Strategy**

### **3 Credit Hours**

*Prerequisite: ECON 2105 and ECON 2300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An economic analysis of the fundamental issues that underpin the firm's strategic pricing, production, and resource allocation decisions in alternative competitive environments. Topics include the horizontal, vertical and corporate boundaries of the firm, the nature of competitive markets and competitive interactions among firms, how the firm positions itself to compete, and how the firm designs its organizational architecture to support its competitive goals.

## **ECON 4590: Applied Equity Valuation**

### **3 Credit Hours**

*Prerequisite: Permission of the Department Chair, and FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College. Membership in Student Managed Investment Fund.*

This course presents the practical applications of economic and quantitative analysis to determine the intrinsic value of a publicly-traded firm. Students apply contemporary valuation techniques to value an actual firm and prepare a comprehensive investment report based on an evaluation of industry-level economic and competitive conditions, and firm-specific operating risk and financial projections.

## **ECON 4610: Macroeconomics**

### **3 Credit Hours**

*Prerequisite: ECON 2105 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Analysis of the determination of output, employment, interest rates, and income with emphasis on the influence of fiscal and monetary policy.

## **ECON 4710: Econometrics**

### **3 Credit Hours**

*Prerequisite: ECON 2105, (ECON 2300 or STAT 1401), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Study of the tools used for estimating and forecasting demand, revenue and cost, as well as demographic characteristics of importance to an individual in a business decision-making position.

## **ECON 4730: R Programming for Economists**

### **3 Credit Hours**

*Prerequisite: Business Majors: Admission to the Coles College of Business and ECON 3300; Non-Business Majors: 60 credit hours and (ECON 2300 or STAT 1401) and ECON 3300 and permission of department chair.*

This course introduces R programming basics and related multivariate and econometric modeling methods for various business and economic data. Specific topics include basic features of R programming; data input and output; various graphic methods for data presentation; flow control and the use of functions; general principles for programming; simulation methods for econometric modeling; computational linear algebra; regression methods; numerical optimization; matrix algebra theory for multivariate data analysis; case studies in business and economics.

## **ECON 4750: Multivariate Data Analysis**

### **3 Credit Hours**

*Prerequisite: ECON 2105, (ECON 2300 or STAT 1401) 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The theory and application of quantitative methods of data analysis. Emphasis is on the application of statistical principles to empirical model building in business and economics. Topics include regression analysis, analysis of variance, factor analysis, discriminant analysis, parametric and nonparametric tests, sampling techniques, and experimental design.

## **ECON 4760: Business Forecasting**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and [(ECON 4710 and Admission to the Coles College Undergraduate Professional Program) or ((ECON 4710 or STAT 3130) and student in a Coles College Partner Program that includes this course.)]*

Econometric and time series methods for forecasting business and economic data are introduced. Specific topics include: basic graphic methods for analyzing data; modeling forecasting trend and seasonality; ARMA modeling of time series; unit root and ARIMA process; forecasting volatility; evaluation and comparison of forecasting models.

## **ECON 4810: Quantitative Decision Models**

### **3 Credit Hours**

*Prerequisite: ECON 2105 and ECON 3300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course focuses on both the theory and application of quantitative models to support decision-making under uncertainty. General topics include basic spreadsheet modeling, general probability distributions and decision making under uncertainty, and risk analysis. Specific topics to be covered include Monte Carlo Simulation, Decision Trees, and Real Options Analysis. A mixture of cases and in-class demonstrations will be used to develop your skill in applying management science approaches to decision making within a business environment. This course may be cross-leveled with ECON 7730.

## **ECON 4850: Decision Analysis and Simulation**

### **3 Credit Hours**

*Prerequisite: ECON 2105 and (ECON 2300 or STAT 1401), 60 credit hours with a minimum GPA of 2.0, and (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course).*

Simulation is the process of designing and creating computer models of existing or proposed real-world systems to conduct numerical experiments to better understand the behavior of that system for a given set of conditions. It enables the creation of models that can represent the variability that exists in many real business systems. A variety of topics in simulation including event-oriented simulation, continuous simulation, and advanced topics such as experimental design and optimization, object-oriented simulation, response surface methodology, will be covered, using a major commercial simulation package. Software such as ARENA will be used to model complex systems in the manufacturing, service, and transportation industries. Emphasis will be on the use of simulation as a tool to support business decision-making. Because this course requires the use of spreadsheet software such as MSEXcel modules, some experience with spreadsheets is required. This course may be cross-leveled with ECON 7750

## **ECON 4870: Advanced Operations Research**

### **3 Credit Hours**

*Prerequisite: ECON 3300, 60 credit hours with a minimum GPA of 2.0, and (Admission to the Coles College Undergraduate Program or Coles College Partner Program)*

This course focuses on the application of operations research techniques to decision making in business problems from a managerial perspective. A variety of advanced analytical methods will be covered, such as network optimization, nonlinear programming, goal programming, queueing analysis, and simulation. Applications in different business areas will be presented, such as production, planning, finance, scheduling, transportation, resource allocation, and distribution. Excel and Excel add-ins are used extensively to accomplish formulating and solving mathematical models and apply other quantitative techniques. This course may be cross-leveled with ECON 7770

## **EDUC 2110: Investigating Critical & Contemporary Issues in Education**

### **3 Credit Hours**

This course engages students in observations, interactions, and analyses of critical and contemporary educational issues. Students will investigate issues influencing the social and political contexts of educational setting in Georgia and the United States. Students will actively examine the teaching profession from multiple vantage points both within and outside the school. Against this backdrop, students will reflect on and interpret the meaning of education and schooling in a diverse culture and examine the moral and ethical responsibilities of teaching in a democracy. This includes the use of current technologies which are directly related to effective teaching and 15 hours of observation in appropriate elementary/early childhood, middle grades, secondary, or P-12 environments. *Notes: Verification of professional liability insurance and a criminal background check are required prior to receiving a school placement.*

## **EDUC 2120: Exploring Socio-Cultural Perspectives on Diversity in Educational**

### **Contexts**

### **3 Credit Hours**

Given the rapidly changing demographics in our state and country, this course is designed to equip future teachers with the fundamental knowledge of understanding culture and teaching children from diverse backgrounds. Specifically, this course is designed to examine 1) the nature and function of culture; 2) the development of individual and group cultural identity; 3) definitions and implications of diversity, and 4) the influences of culture on learning, development, and pedagogy.

## **EDUC 2130: Exploring Teaching & Learning**

### **3 Credit Hours**

*Prerequisite: EDUC 2110*

Explore key aspects of learning and teaching through examining your own learning processes and those of others, with the goal of applying your knowledge to enhance the learning of all students in a variety of educational settings and contexts. Note: Verification of professional liability insurance is required

## **EDUC 2201: Teaching and Schools in a Changing Society**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

An introductory study of current issues and problems in American education from historical, political, economic, social, philosophical, multicultural, and global perspectives. Focuses on efforts of schools to adapt to a changing society, the role of the teacher as a professional educator and professional ethics. Includes the use of current technologies which are directly related to effective teaching and 30 hours of observation and participation in a classroom setting appropriate to the students' professional interests in elementary/early childhood, middle grades, secondary, or P-12 education. Verification of professional liability insurance is required prior to enrolling in this course.

## **EDUC 2202: Life Span Development: Adolescent and Young Adulthood Emphasis**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

A study of human development through the life span addressing social, moral, emotional, physical, cognitive and psychological development, with an emphasis on how these relate to learning and instruction of adolescents and young adults. Course examines impact of learning styles, developmental and cultural differences, and various levels of student abilities, exceptionalities, and health. Current use of technology will be integrated as communication and instructional tools. Teacher candidates will have the opportunity to observe in naturalistic settings.

## **EDUC 2204: Human Growth, Development and Learning**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

A study of human development through the life span with emphasis on social, moral, emotional, physical, cognitive and psychological development as these relate to learning and instruction. Includes discussing learning styles, developmental and cultural differences, wide range of abilities and exceptionalities, and health. Current use of technology will be integrated as communication and instructional tools. Students will observe children in naturalistic settings, such as schools and day care centers.

## **EDUC 3110: Introduction to Urban Education**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program.*

This course helps teacher candidates to 1) examine the relationship between the urban context and educational policies and practices in urban schools; 2) examine categories of race, ethnicity, class, gender, language, religion, sexuality, and ability as social relations of power that impact urban school experiences; and 3) examine the impact of the urban context on students, teachers, parents, and the community. An intensive 35-hour field component is a requirement of this course.

## **EDUC 3302: Curriculum and Assessment**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education Program*

Examines theories and principles of curriculum and assessment. Focus is placed on the identification and construction of learning outcomes and the development and selection of culturally responsive units and lesson plans. Focus is also placed on standardized and teacher constructed assessment tools consistent with these objectives. Emphasis is placed on the use of assessment tools for instructional decision-making. Technology is integrated for enhancing and assisting instruction.

## **EDUC 3308: Learning, Motivation, and Classroom Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program.*

Examines theories, models, and principles of learning, motivation, and classroom management in schools. In level-specific modules, particular emphasis is placed on the application of theoretical principles to early childhood, middle grades, or secondary classroom settings. Addresses learning theories, motivational theories, learning styles and individual differences, and models and strategies for implementing effective systems of time, material, environment and behavior management in diverse classroom settings. Various technological applications, including the World Wide Web, e-mail, and presentation software, will be utilized.

## **EDUC 3310: Multicultural Perspectives in Teaching and Learning**

### **2 Credit Hours**

*Prerequisite: EDUC 2201*

A study of the influence of diversity on teaching and learning in a pluralistic, democratic society. Examines theories and models of instruction for diversities in race, class, gender, religion, language and exceptionality found in multicultural classrooms.

## **EDUC 4490: Special Topics in Education**

### **1-6. Credit Hours**

*Prerequisite: Permission of the instructor and department chair.*

Selected special topics of interest to faculty and students.

## **EDUC 4610: Introduction to the Yearlong Clinical Experience**

### **0 Credit Hours**

*Prerequisite: Admission to teacher education and an issued pre-service certificate. Concurrent: Varies by program: ARED 4650, or MUED 4650, or FLED 4650, or HPE 4430, or ENED 4650, or HIED 4650, or SCED 4650, or MAED 4650, or ECE 4650, or ECE 4660, or EDMG 4650*

This course is the beginning to the co-teaching Yearlong Clinical Experience in education. Candidates will attend the entirety of pre-planning at their assigned school before the start of the academic year (the exact timing of which will depend on the placement school's schedule). Additionally, candidates will also attend the first week of the academic year in order to familiarize themselves with the policies and routines of their placement school and Collaborating Teacher. *Notes: Please see your advisor to confirm your academic program of study and scheduling.*

## **EDMG 2200: Practicum**

### **1-3 Credit Hours**

*Prerequisite: Permission of advisor and department chair.*

An assigned practicum in a classroom during which the student will be actively involved in the teaching-learning process under the guidance of a professional teacher. Proof of professional liability insurance is required prior to receiving a school placement.

## **EDMG 3300: Success in the Middle: Adolescent Development and Middle Grades**

### **Advocacy**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program and EDUC 2130*

Candidates examine the development and diversity of middle grades learners, as well as the concept and philosophy of the middle school. Issues of teaching young adolescents and the unique role teachers must play as interdisciplinary team members, content specialists, advocates for the middle school and middle level learner are explored. Information from current research and exemplary practices will be used to extend candidate knowledge. Candidates spend at least 15 hours in a classroom. A current criminal history background check and proof of liability insurance is required.

## **EDMG 3350: Planning, Instruction, and Assessment in the Middle Grades**

### **2 Credit Hours**

*Prerequisite: EDMG 3300 Concurrent: ITEC 3200*

This course is designed to introduce future middle grades teachers to the knowledge and skills necessary for effective planning, instruction, and assessment of a diverse population of middle-grades learners. This course includes a 15-hour field experience placement in elementary grades 4-5. A current criminal history background check and proof of liability insurance is required.

## **EDMG 3398: Internship**

### **1-12 Credit Hours**

*Prerequisite: Permission of advisor and department chair.*

A supervised work experience with an approved business firm, private agency or government agency. Credit is allowed only in elective areas. *Notes: Credit is allowed only in the elective areas.*

## **EDMG 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair prior to registration.*

A concentrated investigation of a particular aspect of education as a topic within a teaching field concentration or degree major. The content of the directed study will be determined jointly by the instructor and the student.

## **EDMG 4401: Teaching Mathematics in Middle Grades**

### **3 Credit Hours**

*Prerequisite: EDMG 3350 and successful completion of all teaching field courses. Corequisite: EDMG 4650*

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching mathematics to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

## **EDMG 4402: Teaching Science in Middle Grades**

### **3 Credit Hours**

*Prerequisite: EDMG 3350 and successful completion of all teaching field courses. Corequisite: EDMG 4650*

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching science to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

## **EDMG 4403: Teaching Social Studies in Middle Grades**

### **3 Credit Hours**

*Prerequisite: EDMG 3350 and successful completion of all teaching field courses. Corequisite: EDMG 4650*

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching social studies to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

## **EDMG 4404: Teaching Language Arts in Middle Grades**

### **3 Credit Hours**

*Prerequisite: EDMG 3350 and successful completion of all teaching field courses. Corequisite: EDMG 4650*

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching language arts to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

## **EDMG 4405: Curriculum and Instruction in Middle Grades**

### **5 Credit Hours**

*Prerequisite: EDUC 3308*

This collaboratively taught course is a segment of an 11-hour block designed to develop appropriate teaming skills for middle grades teachers. The teaching team models instructional strategies that exemplify the philosophy of middle school education. Students become part of an instructional team to develop effective strategies for interdisciplinary settings. Student teams are paired with school instructional teams during an extensive field experience. Proof of liability insurance is required prior to school placement. *Notes: Proof of professional liability insurance is required prior to receiving a school placement.*

## **EDMG 4406: Methods and Management in the Middle Grades: Field Experience**

### **3 Credit Hours**

*Prerequisite: EDMG 3350 Corequisite: EDMG 4407 and two of EDMG 4401, EDMG 4402, EDMG 4403, and/or EDMG 4404.*

This course is an intensive and extensive field experience in a middle school. Candidates will be required to spend up to four hours per day, four days per week in their placement. Candidates must have a satisfactory field experience to continue on to student teaching. Proof of liability insurance and criminal background check are required prior to receiving a school placement. *Notes: Proof of professional liability insurance and criminal background check are required prior to receiving a school placement.*

## **EDMG 4407: Classroom Management in the Middle Grades**

### **3 Credit Hours**

*Prerequisite: EDMG 3350 Corequisite: EDMG 4406 and two of EDMG 4401, EDMG 4402, EDMG 4403, EDMG 4404, and/or EDMG 4408.*

The focus of this course is on preparing prospective middle grade teacher candidates to create and manage positive, productive classroom environments, including those in urban settings. It is understood that these classrooms typically include diverse groups of learners. Management is accomplished through both the development of a comprehensive understanding of the learning and behavior principles that underlie effective classroom management and acquisition of the strategies and skills needed to implement an effective management program.

## **EDMG 4408: Teaching Reading in the Middle Grades**

### **3 Credit Hours**

*Prerequisite: EDMG 3350 and successful completion of all teaching field courses. Corequisite: EDMG 4650*

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching reading to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting. *Notes: Proof of professional liability insurance is required prior to receiving a school placement.*

## **EDMG 4411: Seminar in Middle Grades Education**

### **3 Credit Hours**

*Prerequisite: EDMG 4650 Corequisite: EDMG 4660*

This seminar supports and assesses candidate development in middle grades education during the capstone experience. Candidate reflect on the development of their competencies, skills, and dispositions, and support for teacher performance assessments is provided. Seminar discussions will challenge candidates to examine and integrate current issues, values, and practices in the middle grades.

## **EDMG 4475: Student Teaching in Middle Grades**

### **12 Credit Hours**

*Prerequisite: Admission to Student Teaching.*

Full-time teaching experience under the supervision of a public school cooperating teacher and college supervisor in an upper elementary school classroom or in a middle school. Includes regularly scheduled professional seminars. Proof of liability insurance is required prior to school placement. *Notes: Proof of professional liability insurance is required prior to receiving a school placement.*

## **EDMG 4490: Special Topics in Education**

### **1-9 Credit Hours**

*Prerequisite: Permission of the instructor and department chair.*

Selected special topics of interest to faculty and students.

## **EDMG 4498: Classroom Internship**

### **1-12 Credit Hours**

*Prerequisite: Permission of the director of Center for Education Placements and Partnerships and advisor.*

A supervised teaching experience for teachers seeking certification or renewal credit. Proof of professional liability insurance is required prior to receiving a school placement. *Notes: Proof of professional liability insurance is required prior to receiving a school placement.*

## **EDMG 4650: Yearlong Clinical Experience I**

### **2 Credit Hours**

*Prerequisite: Pre-service certification and Admission to Yearlong Clinical Experience, INED 4431 Concurrent: Two of the following: EDMG 4401, EDMG 4402, EDMG 4403, EDMG 4404, EDMG 4408 Corequisite: EDUC 4610 and EDSM 3360*

This course is the first semester of an intensive and extensive co-teaching yearlong clinical practice in middle grades education. Under the guidance of a collaborating teacher and university supervisor, candidates practice professional competencies that impact achievement for diverse populations of learners including students with exceptionalities and English learners. Proof of liability insurance is required.

## **EDMG 4660: Yearlong Clinical Experience II**

### **9 Credit Hours**

*Prerequisite: EDMG 4650 and two of the following: EDMG 4401, EDMG 4402, EDMG 4403, EDMG 4404 Corequisite: EDMG 4411*

This course is the second semester of an intensive and extensive coteaching yearlong clinical experience in middle grades education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment. Proof of liability insurance is required.

## **EDSM 1101: Step 1: Inquiry Approaches to Teaching**

### **1 Credit Hours**

This course provides students with the opportunity to explore teaching as a career. Following an introduction to the theory and practice behind excellent inquiry-based science instruction, students teach lessons in elementary classrooms to obtain firsthand experience in planning and instruction. *Notes: Verification of professional liability insurance and a criminal background check are required prior to receiving a school placement. Course is restricted to participants in the KSUTeach program.*

## **EDSM 1102: Step 2: Inquiry-based Lesson Planning**

### **1 Credit Hours**

*Prerequisite: EDSM 1101*

Students continue developing lesson planning skills learned in EDSM 1101 as they become familiar with middle school science curricula. After observing a lesson being taught in a middle school classroom, students plan and teach inquiry-based lessons to middle school learners. Verification of professional liability insurance and a criminal background check are required prior to receiving a school placement. Course is restricted to participants in the OwlTeach program.

## **EDSM 3360: Classroom Management in the Middle Grades and Secondary**

### **Education**

#### **2 Credit Hours**

*Prerequisite: EDMG 3350 or MAED 4414 or SCED 4414*

This course prepares prospective middle grades and secondary math or science teacher candidates to create and manage positive, productive classroom environments with a diverse population of learners. Candidates will develop a comprehensive understanding of the learning and behavior principles that underlie effective classroom management and acquire the strategies and skills needed to implement an effective management program.

## **EDSM 4414: Teaching Secondary Math and Science- Practicum I**

#### **1 Credit Hours**

*Prerequisite: Admission to the Teacher Education Program: Obtain Pre-Service Certificate Concurrent: SCED 4414 or MAED 4414*

Under the guidance of a collaborating teaching and a university instructor, the teacher candidate will complete a field experience in a designated school. This experience requires working in a co-teaching environment with diverse learners and focuses on understanding and responding to learners' mathematical or scientific reasoning. *Notes: Proof of professional liability insurance and a pre-service teaching certificate is required.*

## **EDSM 4418: Methods of Teaching Secondary Math & Science II**

#### **3 Credit Hours**

*Prerequisite: EDSM 4416; at least 18 hours of required courses in the content area (science or math) Concurrent: MAED 4650 or SCED 4650*

This is the third of three courses in a professional sequence toward becoming a well-prepared beginning secondary mathematics or science teacher. Topics include enhanced assessment and feedback strategies, developing classroom culture, and refining notions of learning, teaching, and equity. Students will apply their learning in an accompanying field experience.

## **EDRD 3320: Understanding the Reader and the Reading Process**

#### **3 Credit Hours**

*Prerequisite: EDUC 2110*

A study of the socio-psycholinguistic foundations of reading and writing for teachers of adolescents. This course examines language development, reading acquisition, phonemic awareness, word identification, phonics, vocabulary, fluency, comprehension and motivation. It explores historical perspectives of reading, reading research and theory, and introduces students to a wide range of instructional practices and curriculum materials that meet the needs of all adolescent learners.

## **EDRD 3330: Methods and Materials for Middle Grades Content Area Reading and Writing**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program and EDUC 2130 Corequisite: EDMG 3300*

This course prepares candidates to teach diverse works for adolescents from a variety of sources including young adult literature as well as technical, informational, environmental text, and the media. Text selection and electronic database media resources are introduced. A focus on language and cultural diversity is included.

## **EDRD 3350: Integrated Reading/Writing Instruction in the Middle Grades**

### **3 Credit Hours**

*Prerequisite: EDRD 3320*

This course is designed to develop appropriate research-based teaching strategies that will enable candidates teaching or mentoring in a middle grades classroom to effectively integrate reading and writing instruction. Candidates will apply learning theories, teaching techniques, instructional materials, and assessment procedures for middle grades learners that apply to both reading and writing instruction. Students will develop and implement plans for teaching writing through content area reading texts that promote critical thinking and cross-curricular engagement.

## **EDRD 3360: Introduction to New Literacies**

### **3 Credit Hours**

*Prerequisite: EDRD 3320*

This course is an introduction to the evolving and multifaceted concept of literacy and its implications for adolescents in both instruction and motivation. Types of literacy to be explored include: media, digital, global, and critical literacies. Emphasis will be placed on understanding universal design in education, considering the impact of technology on literacy, evaluating texts as being current, accurate, and relevant, and developing meaningful plans to incorporate such texts into their classrooms.

## **EDRD 4409: Young Adult Literature: Cross-Curricular Approaches for Diverse Learners**

### **3 Credit Hours**

*Prerequisite: EDUC 2110 and one of the following ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2130, ENGL 2131, ENGL 2132, ENGL 2300*

This course provides an understanding for selecting and using diverse young adult literature in middle grades classrooms. It examines reading and writing theories and introduces students to various methodologies for teaching literature. It acquaints students with a reading and writing experience using diverse literary works for adolescents, introduces students to book selection aids and electronic database media resources for middle grades environments.

## **EDRD 4410: Reading to Learn in the Content Areas**

### **3 Credit Hours**

*Prerequisite:* Admission to the Teacher Education program.

A study of concepts and strategies involved in reading to learn in the content areas. Teacher candidates will study types of text; instructional grouping options; factors related to the reader, text, and context; and strategies to be applied before, during, and after reading. In addition, candidates will explore methods for evaluating textbooks, sources to supplement textbook reading, and ways to use technology within instruction. This course places a heavy emphasis on instruction for strategic reading and writing that meets the individual needs of all adolescent readers. This course is for majors in secondary education only.

## **EDRD 4411: Reading Diagnostics for Teachers of Adolescents**

### **3 Credit Hours**

*Prerequisite:* EDRD 3320 or (EDUC 2110 and ENGL 2271)

A study of the socio-psycholinguistic foundations of reading and writing for teachers of adolescents. This course examines language development, reading acquisition, phonemic awareness, word identification, phonics, vocabulary, fluency, comprehension and motivation. It explores historical perspectives of reading, reading research and theory, and introduces students to a wide range of instructional practices and curriculum materials that meet the needs of all adolescent learners.

## **EDRD 4420: Teaching Adolescents with Disabilities in Literacy**

### **3 Credit Hours**

*Prerequisite:* EDRD 3320

This course prepares prospective content teachers to increase the literacy of students with disabilities in inclusive classrooms. Teacher candidates will learn to: (a) recognize various types of reading and writing disabilities; (b) effectively implement Response to Instruction; (c) develop inclusive, multi-level lesson plans embed accommodations and modifications; (d) identify appropriate roles for parents in fostering literacy in students with disabilities; and (e) work collaboratively with special education teachers.

## **ECET 100I: Orientation**

### **1 Credit Hours**

This course will provide an introduction to Electrical and Computer Engineering Technology, to include: an introduction to the ECET faculty, an overview of career opportunities, available campus facilities, student organizations, etc. Some of the skills necessary to students will also be introduced. These include: writing formal lab reports and learning basic computer skills.

## **ECET 1001L: Introduction to Electrical Engineering Technology Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 1000*

A continuation of ENGR 1000, this course actively introduces the student to an exciting career of applied engineering within the context of Electrical Engineering Technology. The class/lab blends real-world workplace content, engineering tools/processes, critical engineering skills/competencies, and hands-on input-culminating in an exciting class competition that demonstrates an engineered solution to a defined problem.

## **ECET 1012: Design Fundamentals**

### **1 Credit Hours**

*Concurrent: ECET 1001 and (MATH 1113) Corequisite: ECET 1012L*

This course will introduce students to engineering technology design principles by having them participate in team based design projects. Major goals of the course include learning how to work in teams and learning how to approach a complex design problem from many different perspectives. Fundamental engineering technology skills will also be taught which include critical thinking, debugging methodologies, and circuit construction techniques.

## **ECET 1012L: Design Fundamentals Lab**

### **1 Credit Hours**

*Concurrent: ECET 1001, ECET 1012, and (Math 1112 or MATH 1113)*

In this course students will apply engineering technology design principles to assigned team-based design projects. In addition, students will learn about basic electrical instrumentation, basic circuit construction techniques, circuit debugging methodologies, data collection, and the application of analytical and simulation tools to engineering design problems will be emphasized. Teamwork, as well as written and oral communications, will be emphasized through reports and presentations.

## **ECET 1101: Circuits I**

### **3 Credit Hours**

*Prerequisite: ECET 1001L Concurrent: MATH 1190*

This course introduces electrical quantities, element configurations, and circuit analysis tools. DC circuit analysis is emphasized, including circuits containing dependent sources and techniques such as mesh analysis, nodal analysis, superposition, and Thevenin equivalence. Reactive elements are examined, as are the transient responses of circuits that contain a single reactive element. Sinusoidal AC circuit analysis is introduced through the application of basic circuit laws to series and parallel configurations.

## **ECET 1101L: Circuits I Lab**

### **1 Credit Hours**

*Prerequisite: ECET 1012 and ENGL 1101 Concurrent: ECET 1101 and MATH 1190*

This course provides laboratory experiences to complement ECET 1101 Circuits I. Basic prototyping and testing skills are developed, and lecture concepts are reinforced. Circuits are constructed on solderless breadboards using standard electrical components, and measurements are completed using general-purpose instrumentation.

## **ECET 1200: Digital I**

### **3 Credit Hours**

*Concurrent: ECET 1101 Corequisite: ECET 1200L*

This course is a study of digital circuit fundamentals with an emphasis on combinational and sequential logic design, logic simplification and implementation using standard digital integrated circuits and programmable logic devices. Topics also include binary number systems, binary arithmetic, logic families, design techniques, logic simulation, flip-flops, counters, registers, memory technologies, and VHDL programming.

## **ECET 1200L: Digital I Lab**

### **1 Credit Hours**

*Concurrent: ECET 1200*

The laboratory component of ECET 1200 is designed to provide the student with hands-on experience in the fundamental concepts and techniques of discrete logic design and implementation using Boolean logic. The concepts are extended into programmable logic design (PLD) using a VHDL programming language. Lab exercises are based on modern digital design principles and practices.

## **ECET 2111: Circuits II**

### **3 Credit Hours**

*Prerequisite: ECET 1101 and ECET 1101L Concurrent: MATH 2202 and ((PHYS 2211 and PHYS 2211L) or (PHYS 1111 and PHYS 1111L))*

This course primarily extends the circuit analysis techniques learned in ECET 1101 to circuits containing all three types of passive circuit elements and sinusoidal sources. Several adjunct topics are then presented including analysis of complex networks, dependent sources, transformers, 3-phase circuit analysis, resonance, filters and Bode plots. Laboratory exercises reinforce theoretical concepts presented in the class and provide various opportunities to become proficient in working with standard instrumentation in electrical engineering technology.

## **ECET 2111L: Circuits II Lab**

### **1 Credit Hours**

*Prerequisite: ECET 1101 and ECET 1101L Concurrent: ECET 2111*

This laboratory course reinforces theoretical concepts presented in ECET 2111, expanding on circuit analysis techniques learned in ECET 1101 to circuits containing all three types of passive circuit elements and sinusoidal sources. Students document experimental lab results in reports evaluated based on completion, format, and data accuracy. Lab sessions offer students the opportunity to become proficient in working with standard instrumentation in electrical engineering technology.

## **ECET 2210: Digital II**

### **3 Credit Hours**

*Prerequisite: ECET 1200 and ECET 2300 Corequisite: ECET 2210L*

This course is a study of industry-dominant microcontroller architecture and assembly programming language. Principles covered include: the study of an industry standard microcontroller, assembly language programming, logic family characteristics, system interfacing and system timing issues.

## **ECET 2210L: Digital II Lab**

### **1 Credit Hours**

*Prerequisite: ECET 1200 and ECET 1200L Concurrent: ECET 2210*

The laboratory component of ECET 2210 is designed to provide the student with hands-on experience in the fundamental concepts and techniques of microcontroller system design. The concepts are extended into assembly programming language. Lab exercises are based on modern microcontroller embedded design principles and practices.

## **ECET 2300: Electronics I**

### **3 Credit Hours**

*Prerequisite: MATH 1190 Concurrent: ECET 2111, and (PHYS 2211 or PHYS 1111) Corequisite: ECET 2300L*

This course is a study of the characteristics, analysis, and practical applications of diodes, bipolar-junction transistors (BJTs), and field-effect transistors (FETs). Semiconductor theory, biasing, and small-signal models of BJTs and FETs are included. An introduction to the ideal op amp and basic circuits using it is included.

## **ECET 2300L: Electronics I Lab**

### **1 Credit Hours**

*Prerequisite: MATH 1190 Concurrent: ECET 2111, ECET 2300, and (PHYS 1111 or PHYS 2211)*

This course provides laboratory experiences to complement ECET 2300 Electronics I. Standard devices such as op-amps, diodes, bipolar-junction transistors, and field-effect transistors are employed to construct circuits used to: examine device/circuit behavior, become familiar with associated measurements, and reinforce lecture concepts.

## **ECET 2310: Electronics II**

### **3 Credit Hours**

*Prerequisite: ECET 2111, and ECET 2300 Corequisite: ECET 2310L*

This course is a study of bipolar junction transistor (BJT) and field effect transistor (FET) amplifiers including: amplifier frequency response, multistage amps, differential amps, feedback principles, and heat sink principles. The characteristics, performance and, practical applications of modern linear integrated circuits including: operational amplifiers, comparators, multipliers, logarithmic amplifiers, and oscillators are also covered.

## **ECET 2310L: Electronics II Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2111, ECET 2300, and ECET 2300L Concurrent: ECET 2310*

Students simulate, build, and test single- and multi-stage transistor amplifier circuits and operational amplifier circuits. Applications include determining amplifier and filter gain and frequency response, measuring differential amplifier performance, investigating feedback principles, and implementing oscillator circuits.

## **ECET 3000: Electrical Principles**

### **4 Credit Hours**

*Prerequisite: (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L)*

Covers basic circuit theory including the ac and dc characteristics of resistors, capacitors and inductors as used in elementary single and three-phase circuits. Characteristics of basic industrial electric motors and single and three-phase connections are studied. Basic factory automation is covered including sensors, relay control and programmable logic controllers. Laboratory exercises supplement the material discussed in class. This course cannot be used for credit by CpET or EET majors.

## **ECET 3020: Biomedical Instrumentation**

### **3 Credit Hours**

*Concurrent: ECET 2310 Corequisite: ECET 3020L*

An introduction to biomedical instrumentation principles, design, measurement and analysis techniques. This course provides an overview of typical biomedical instruments used in the field. Topics include the acquisition and analysis of biomedical signals, a study of medical diagnostic instruments and equipment; monitors, intensive care units, coronary care units, operating room equipment, telemetry systems, ECG machines, life support equipment, respiratory instrumentation, brain monitors, medical ultrasound, electro-surgery units, and hemodialysis machines.

## **ECET 3020L: Biomedical Instrumentation Lab**

### **1 Credit Hours**

*Concurrent: ECET 2310 and ECET 3020*

In this course students will apply engineering design principles to assigned team-based design projects. Topics include the acquisition and analysis of biomedical signals, biomedical instrumentation circuit design, circuit construction, biomedical data acquisition and measurements, biomedical data analysis, and debugging of biomedical instrumentation circuits. The application of analytical and simulation tools in the study of biomedical diagnostic instruments and equipment will be emphasized.

## **ECET 3398: Internship**

### **4 Credit Hours**

*Prerequisite: Department Chair Approval.*

This course is a structured experience that is related to Electrical and Computer Engineering Technology, in a supervised setting with an industry partner. The goal is for students to enhance their academic classroom skills with practical experiences in a real-world environment. Supervision of the Intern is shared by the working environment supervisor and a faculty advisor.

## **ECET 3400: Data Communications**

### **3 Credit Hours**

*Prerequisite: ECET 2310, and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) Corequisite: ECET 3400L*

This course is a survey of data communication topics. The OSI and TCP/IP protocol models are covered, with emphasis placed on protocols associated with the lower layers. Concepts include synchronous and asynchronous transmission, line codes, signaling, effects of bandwidth and noise, and digital and analog modulation. Error detection and correction are also covered. Other areas studied include analog-to-digital conversion, multiplexing, circuit and packet switching, and network topologies.

## **ECET 3400L: Data Communications Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2310, and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) Concurrent: ECET 3400*

Students simulate and measure the bandwidth properties of signals and the effect of noise on signal quality. Eye patterns and signal constellations are created and measured. Synchronous transmission techniques are examined.

## **ECET 3410: High Frequency Systems**

### **3 Credit Hours**

*Prerequisite: ECET 2310 and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) Corequisite: ECET 3410L*

This course is a study of electronic signal transmission systems. It includes an analysis of transmission lines with a concentration on their fundamental principles, specifications, operation and practical applications. The course also includes the study of the fundamental principles of waveguides, and wireless and fiber-optic communications.

## **ECET 3410L: High Frequency Systems Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2310 and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) Concurrent: ECET 3410*

Students measure the performance of electromagnetic transmission system elements including transmission lines, waveguides, and components. Matching networks are designed with Smith charts, simulated, and analyzed.

## **ECET 3500: Survey of Electric Machines**

### **3 Credit Hours**

*Prerequisite: ECET 2111 and ECET 2111L Corequisite: ECET 3500L*

This course is a survey of electric machine topics, focusing on the characteristics and applications of basic electric machinery. It introduces classical electromagnetism and magnetic circuits as the basis for electromechanical energy conversion and machine operation. Single-phase and three-phase transformers are covered, along with three-phase and single-phase induction machines, DC machines, and synchronous machines, with emphasis placed on their operational characteristics and modeling.

## **ECET 3500L: Survey of Electric Machines Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2111 and ECET 2111L Concurrent: ECET 3500*

This lab course supports the ECET 3500 Survey of Electric Machines course. Students will set-up, operate, measure the operational characteristics, and evaluate the performance of a variety of machines including transformers, induction machines, DC machines, and synchronous machines.

## **ECET 3600: Test Engineering**

### **3 Credit Hours**

*Prerequisite: ECET 2210 and ECET 2310 Corequisite: ECET 3600L*

This course is an introduction to test engineering principles with an emphasis on computer-controlled instrumentation and acquisition using a communication interface. Application software will be written in LabVIEW to automatically test devices using GPIB/VISA test equipment. BIST, MTBF, Boundary scan testing, instrumentation, instrumentation automation, ISO 9000, TQM, usability, and other related test engineering topics will also be covered.

## **ECET 3600L: Test Engineering Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2210 and ECET 2310 Concurrent: ECET 3600*

This course involves extensive use of LabVIEW for simulation and interfacing to test instruments in the lab. Students learn how to program in LabVIEW and they design an automated test and measurement system.

## **ECET 3620: Signals and Systems Analysis**

### **3 Credit Hours**

*Prerequisite: ECET 2310 and ENGT 2000*

This course presents the analysis of continuous- and discrete-time signals occurring in circuits and systems containing linear and nonlinear elements. Methods include graphical techniques, Laplace transform, Fourier analysis, convolution, and difference equations. Topics regarding communication systems, Bode plots for transfer functions, classical filter responses, and practical second-order filter designs are also presented. An introduction to discrete-time systems including sampling theory is provided covered.

## **ECET 3620L: Signals and Systems Analysis Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2310, ECET 2310L and MATH 2306 Concurrent: ECET 3620*

This lab develops the analysis of continuous- and discrete-time signals occurring in circuits and systems containing linear and nonlinear elements. Methods include graphical techniques, Laplace transform, Fourier analysis, convolution, and difference equations. Topics regarding communication systems, Bode plots for transfer functions, classical filter responses, and practical second-order filter designs are also presented. An introduction to discrete-time systems and sampling theory is included. MATLAB is used in conjunction with all laboratory exercises.

## **ECET 370I: Embedded Systems**

### **3 Credit Hours**

*Prerequisite: ECET 2210 and ECET 2310*

Introduction to the programming and interfacing of embedded systems. Programming will introduce a high-level object-oriented language and explore concepts such as multithreading and industry standard resource management/sharing mechanisms. Programming will focus on low-level hardware interfacing via standard GPIO and a variety of serial communication protocols. The class will also explore the use and application of statistical analysis.

## **ECET 370IL: Embedded Systems Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2210 and ECET 2310 Concurrent: ECET 370I*

This laboratory course supplements ECET 370I. The initial part consists of a series of weekly labs designed to familiarize students with the target hardware and programming language used in the course. Later labs increase in complexity and target embedded concepts such as timers and multi-threading. The end of the term culminates in a group project where teams develop a complex embedded system.

## **ECET 3710: Hardware Programming and Interfacing**

### **3 Credit Hours**

*Prerequisite: ECET 1200 and ECET 2300 Corequisite: ECET 3710L*

This course will teach students the fundamental concepts of hardware programming and interfacing using abstract programming language(s) and several interfacing technologies commonly used in microcontroller design. In addition to learning basic design and interfacing techniques, other skills such as writing pseudo code, developing C/C#-based applications, and applying statistical analysis will be explored.

## **ECET 3710L: Hardware Programming and Interfacing Lab**

### **1 Credit Hours**

*Prerequisite: ECET 1200 and ECET 2300 Concurrent: ECET 3710*

The laboratory component of ECET 3710 is designed to provide the student with hands-on experience in the fundamental concepts of hardware programming and interfacing using abstract programming language(s) and several interfacing technologies commonly used in microcontroller design. Lab exercises are oriented around a popular microcontroller and associated peripheral devices.

## **ECET 4020: Biomedical Imaging**

### **3 Credit Hours**

*Prerequisite: (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) Concurrent:*

*ECET 2310, and ECET 2310L Corequisite: ECET 4020L*

An introduction to the principles of the major imaging equipment including x-ray radiology, x-ray computed tomography (CT), ultrasonography and magnetic resonance imaging (MRI). Includes a discussion of other emerging imaging technologies such as nuclear imaging (PET and SPECT).

## **ECET 4020L: Biomedical Imaging Lab**

### **1 Credit Hours**

*Prerequisite: (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) Concurrent: ECET 2310, ECET 2310L, ECET 4020*

This course provides laboratory exercises to reinforce theoretical concepts presented in the ECET 4020 lecture. The course expands on the application of image processing techniques to the processing and analysis of acquired biomedical images from various types of major imaging equipment such as x-ray radiology, x-ray computed tomography (CT), ultrasonography and magnetic resonance imaging (MRI).

## **ECET 4040: Biometrics**

### **3 Credit Hours**

*Prerequisite: STAT 2332 Concurrent: ECET 2310, and ECET 2310L Corequisite: ECET 4040L*

An introduction to biometric recognition systems, which utilize the physiological and/or behavioral characteristics of an individual for identification. Students study the design of various biometric systems based on fingerprints, face, iris, voice, hand geometry, palmprint, retina, and other modalities. The performance of biometric systems and security-related issues of these systems are discussed. Multimodal biometric systems using two or more of the above human characteristics are also discussed.

## **ECET 4040L: Biometrics Lab**

### **1 Credit Hours**

*Prerequisite: STAT 2332 Concurrent: ECET 2310, ECET 2310L, and ECET 4040*

This course provides laboratory exercises to reinforce theoretical concepts presented in the ECET 4040 lecture. The course expands on the application of biometric recognition systems, which utilize the physiological and/or behavioral characteristics of an individual for identification. Students will design and analyze various biometric systems based on fingerprints, face, iris, voice, hand geometry, palmprint, retina, and other modalities.

## **ECET 4320: Active Filters**

### **3 Credit Hours**

*Prerequisite: ECET 2310, and ECET 2310L Corequisite: ECET 4320L*

This course is a study of the characteristics, analysis, and practical topologies of active filters. The state-variable Sallen-Key topologies are emphasized. Popular filter responses including Butterworth, Chebyshev, Bessel, and Cauer (elliptic) are studied. Delay sensitivity, frequency scaling, impedance scaling, determination of pole-zero locations, and transfer function transformations are studied. Filter synthesis techniques are presented. An introduction to switched-capacitor and digital filters is also included.

## **ECET 4320L: Active Filters Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2310 and ECET 2310L Concurrent: ECET 4320*

This course reinforces theoretical concepts presented in the ECET 4320 lecture. Students will design, simulate, construct, and analyze various second-, third, and fourth-order active filter systems. The state-variable Sallen-Key topologies are emphasized. Popular filter responses including Butterworth, Chebyshev, Bessel, and Cauer (elliptic) are studied. Delay sensitivity, frequency scaling, impedance scaling, determination of pole-zero locations, and transfer function transformations are examined.

## **ECET 4330: Audio Technology**

### **3 Credit Hours**

*Prerequisite: ECET 2210, ECET 2210L, ECET 2310 and ECET 2310L Corequisite: ECET 4330L*

The fundamentals of specifications, standards, devices, circuits and systems used in audio are studied. Acoustics, power amplifiers, pre-amplifiers, frequency contouring circuits, signal processors, microphones, loudspeakers and sound reinforcement systems are covered.

## **ECET 4330L: Audio Technology Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2210, ECET 2210L, ECET 2310, and ECET 2310L Concurrent: ECET 4330*

This course reinforces theoretical concepts presented in the ECET 4330 lectures. Topics include the standards, characteristics, design, analysis, and practical implementation of devices, circuits and systems used in audio. Acoustics, power amplifiers, pre-amplifiers, frequency contouring circuits, signal processors, microphones, loudspeakers and sound reinforcement systems are covered. The application of computer based simulation software and computer-aided testing to lab exercises and an audio project are emphasized.

## **ECET 4420: Communications Circuit Applications**

### **3 Credit Hours**

*Prerequisite:* ECET 2310 and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) *Corequisite:* ECET 4420L

This course examines radio frequency communications circuits and their applications. Receiver and transmitter circuits such as amplifiers, oscillators, modulators and demodulators are studied. Spectral analysis is introduced and the effects of noise in communications systems is investigated.

## **ECET 4420L: Communications Circuit Applications Lab**

### **1 Credit Hours**

*Prerequisite:* ECET 2310, either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) *Concurrent:* ECET 4420

Students simulate, build, and test circuits used in communications systems. These include amplifiers, oscillators, mixers, filters, and matching networks.

## **ECET 4490: Special Topics**

### **1-4 Credit Hours**

*Prerequisite:* Department Chair approval

This course covers advanced topics of special interest to faculty and students that are not in the regular course offerings. Offered on a demand basis. This course may be taken more than once.

## **ECET 4510: Power System Analysis**

### **3 Credit Hours**

*Prerequisite:* ECET 2111, and ECET 2111L *Corequisite:* ECET 4510L

This course involves the analysis of power systems starting with the calculation of line resistance, line inductance, and line capacitance of power transmission lines. These parameters are used to model power systems in order to derive the bus impedance matrix, perform network calculations and analyze systems for symmetrical and unsymmetrical faults.

## **ECET 4510L: Power System Analysis Lab**

### **1 Credit Hours**

*Prerequisite:* ECET 2111 and ECET 2111L *Concurrent:* ECET 4510

In this course, the transmission line parameters are used to model power systems in order to simulate power system's operating characteristics and analyze the systems for symmetrical and unsymmetrical faults. The main activity consists of problem solving and involves the solution of network problems using computer simulation and analysis software.

## **ECET 4520: Industrial Distribution Systems, Illumination, and the NEC**

### **4 Credit Hours**

*Prerequisite: ECET 3500 and (ECET 2110 or ECET 2111)*

This introductory design course involves the lighting, wiring and electrical protection systems in commercial and industrial buildings. This course will cover: lighting fundamentals, light sources, lighting system layouts for interior spaces, protection of electrical systems, fuses, circuit breakers, instrument transformers and protective relays, grounding and ground-fault protection, feeder design and branch circuits for lighting and motors. This course will include projects - designing lighting and wiring systems for commercial/industrial buildings.

## **ECET 4530: Industrial Motor Control**

### **4 Credit Hours**

*Prerequisite: (ECET 2111 and ECET 3500) or ECET 3000*

This introductory design course is a study of manual and automatic, starters and controllers of ac and dc motors. The course will concentrate on three-phase induction motor starters and controllers with some study of dc motor starters and controllers. The induction motor coverage will include both full-voltage and reduced voltage techniques, with the emphasis on the reduced voltage methods. Line impedance, auto-transformer, wye-delta and part-winding starters will be included. The laboratory will consist of several projects in designing, testing and demonstrating various motor starters and controllers. The designs will require using Programmable Logic Controllers in the projects. The course will conclude with variable frequency drives.

## **ECET 4610: Control Systems**

### **3 Credit Hours**

*Prerequisite: ECET 2300 and ENGT 2000*

This course is a study of feedback control systems theory including practical applications of compensation and PID concepts. Control system modeling, transient and steady state characteristics, stability and frequency response are analyzed. Compensation and controller design using Root locus methods are covered. The use of control system software, such as MATLAB, in the analysis and design of control systems is emphasized.

## **ECET 4610L: Control Systems Lab**

### **1 Credit Hours**

*Prerequisite: ECET 2310 , ECET 2310L , and MATH 2306 Concurrent: ECET 4610*

This lab course complements the ECET 4610 lectures. Students investigate feedback control systems including practical applications of compensation and PID concepts. Control system modeling, transient and steady state characteristics, stability and frequency response are analyzed. Compensation and controller design using Root locus methods are covered. The use of MATLAB in the analysis and design of control systems is emphasized. MATLAB is used in conjunction with all the laboratories.

## **ECET 4630: Digital Signal Processing**

### **4 Credit Hours**

*Prerequisite: ECET 2210, ECET 2310, and ENGT 2000*

An introduction to the concept of discrete and digital signals and systems. Difference equations, Discrete Fourier Transforms (DFTs), Fast Fourier Transforms (FFTs), Z-Transform techniques, IIR filter design, and FIR filter design are covered. An introduction to the architecture, assembly language and application examples of general and special purpose microprocessors such as the TMS 320 and DSP56000 families is included.

## **ECET 4730: VHDL and Field Programmable Gate Arrays**

### **4 Credit Hours**

*Prerequisite: (ECET 2111 or ECET 2110) and ECET 2210*

Provide a thorough introduction to the Virtual Hardware Description Language (VHDL) and apply this knowledge to Field Programmable Gate Arrays (FPGA's). Current applications will be presented and students will design, develop, test and document complete FPGA based designs. The use of schematic capture tools for configuring FPGA's will also be covered.

## **ECET 4820: Communications Networks and the Internet**

### **3 Credit Hours**

*Prerequisite: ECET 3400 Corequisite: ECET 4820L*

This course covers the fundamental concepts, operational characteristics, and design principles of digital networks. The course focuses on local-area and wide-area network topologies and protocols that are used in the Internet. Topics include: TCP/ IP protocol, Internet standards, routing and switching devices, Internet organization, Ethernet and virtual LANS, MPLS, and an overview of aspects of computer network operating systems related to networking.

## **ECET 4820L: Communications Networks and the Internet Lab**

### **1 Credit Hours**

*Prerequisite: ECET 3400 Concurrent: ECET 4820*

This laboratory course will teach students how to design, configure and implement computer network systems based on modern communication devices such as routers, switches, and bridges. Students will work with the protocols and devices used in local area networks and the Internet and will capture and analyze data traffic in order to analyze communications protocol functions.

## **ECET 4860: Network Security**

### **3 Credit Hours**

*Prerequisite: ECET 3400, and ECET 3400L Corequisite: ECET 4860L*

This class teaches the fundamental concepts of network security including symmetric and asymmetric encryption techniques, key distribution systems, authentication mechanisms, IP security, web security, email security, intruders, and malicious software.

## **ECET 4860L: Network Security Lab**

### **1 Credit Hours**

*Prerequisite: ECET 3400 and ECET 3400L Concurrent: ECET 4860*

This lab course complements the ECET 4860 lectures. Students investigate the fundamental concepts of network security including symmetric and asymmetric encryption techniques, key distribution systems, authentication mechanisms, IP security, web security, email security, intruders, and malicious software.

## **ECET 4900: Senior Capstone Design Project**

### **4 Credit Hours**

*Prerequisite: Senior standing, Instructor approval, Department Chair approval*

This course provides comprehensive design experience for students working in small groups. The course is a culmination of the undergraduate Electrical and Computer Engineering Technology education. Topics covered include: design specifications, evaluation of design alternatives, technical reports and oral presentations. Also covered are topics such as intellectual property, industry standards and conventions, engineering economics, reliability, safety, engineering ethics and current topics in the field of electrical and computer engineering technology.

## **EE 1001L: Introduction to Electrical Engineering Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 1000*

This is the laboratory portion of the multidisciplinary engineering course, ENGR 1000, serving as its specific Electrical Engineering (EE) component. It introduces the EE faculty and gives overviews of career opportunities, campus facilities, student organizations, etc. Skills necessary for EE students are introduced, including writing formal laboratory reports, preparing a speech with audio-visual highlights, learning basic printed circuit board design and soldering, drafting a winning resume, applying basic computer skills, and performing a small-scale EE research project. *Notes: This is the preferred lab in the 2-course orientation sequence for Electrical Engineering major, along with the required lecture ENGR 1000. However, it is open to all students, and it is an allowable lab for all engineering majors' orientation lab requirement.*

## **EE 2290: Special Topics**

### **1-6 Credit Hours**

Special Topics course for Electrical Engineering majors.

## **EE 2301: Circuit Analysis I**

### **4 Credit Hours**

*Prerequisite:* PHYS 2212 or (ENGR 1000 and MATH 1190)

This course introduces basic circuit analysis including resistive circuits, voltage and current sources, analysis methods, network theorems, energy storage elements, and AC steady-state analysis. Techniques for analyzing resistive networks are heavily emphasized. In addition, the physical mechanisms of capacitance and inductance are examined along with analysis of transient responses in circuits containing resistors, capacitors, and inductors. Laboratory exercises reinforce the theoretical concepts presented in class and provide various opportunities to become proficient with standard instrumentation used in electrical engineering.

## **EE 2302: Circuit Analysis II**

### **3 Credit Hours**

*Prerequisite:* EE 2301, MATH 2306 and PHYS 2212

A continuation of basic Circuit Analysis I which focuses on RC, RL, and RLC circuits, mutual inductance, series and parallel resonance, two-port networks frequency response, AC power including power factor correction, as well as three phase circuits. Simulation is heavily emphasized using state of the art software such as PSPICE.

## **EE 2305: Electronic Circuits and Machines**

### **4 Credit Hours**

*Prerequisite:* PHYS 2212 or ISYE 2600

This course covers the electrical characteristics of fundamental circuit components including resistors, capacitors and inductors in DC circuits, single-phase AC and three-phase AC circuits. Fundamental concepts of AC power and phasors are examined. The course also introduces the devices that generate and transform electrical power, as well as switching and protection of electrical circuits. Practical applications of motors, generators, transformers and operational amplifiers will be covered to provide non-electrical engineering majors a comprehensive understanding of electro-mechanical systems.

## **EE 240I: Semiconductor Devices**

### **3 Credit Hours**

*Prerequisite: PHYS 2212, CHEM 1211, and ENGR 1000*

This course effectively applies the knowledge of chemistry and physics to understand the operating principles of various semiconductor devices. The course covers topics starting from the fundamental concepts of atomic and crystal structure, crystal growth, impurity doping and energy bands to the in-depth device operation and quantitative analysis of p-n junction diode, metal-semiconductor contacts and Schottky diode, BJTs and MOSFETs. Also, fundamental operating principles of optoelectronic devices such as, LEDs and photodiodes are discussed. Simple device simulation components reinforces the understanding of various critical aspects of device operation. The course concludes with an experiment-based project on device characterization where students perform analysis on the experimentally acquired data to extract various important device parameters.

## **EE 250I: Digital Logic Design**

### **4 Credit Hours**

*Prerequisite: EE 2301 or ENGR 1000*

This course is a study of digital circuit fundamentals with an emphasis on combinational and sequential logic design, Boolean algebra and switching theory, logic simplification and implementation using standard digital IC's of various logic families and programmable logic devices. A significant emphasis is placed on the study of digital design principles with emphasis on the use of LSI, MSI, and SSI circuits in the application and design of complex digital systems with a detailed examination of CMOS and TTL at the transistor level. Laboratory exercises reinforce theoretical concepts presented in the lecture utilizing an industry standard micro controller.

## **EE 3398: Internship**

### **1-4 Credit Hours**

*Prerequisite: Engineering standing, EE 2302, and (EE 2501 or EE 3401) and permission of the Instructor.*

This course is a structured experience that is related to Electrical Engineering, in a supervised setting with an industry partner. The goal is for students to enhance their academic classroom skills with practical experiences in a real-world environment. Supervision of the Intern is shared by the working environment supervisor and a faculty advisor.

## **EE 340I: Engineering Electronics**

### **4 Credit Hours**

*Prerequisite: EE 230I*

This course introduces the basic circuits used in analog signal processing systems. The primary focus will be on studying bias circuits and small signal models for diodes, BJTs and MOSFETs. In addition, functional circuits including diode rectifiers, logic circuits, and basic amplifier circuits using single transistors are discussed. A brief introduction to op-amps as signal processing blocks is included. Students put their analog circuit theory into practice in the laboratory.

## **EE 3405: Electronic Materials**

### **3 Credit Hours**

*Prerequisite: EE 240I*

This course focuses on the study of important properties of materials (such as electronic properties, thermal properties, magnetic properties, dielectric properties, optical properties, crystallographic and electronic defects) which play important role in the device operation and are engineered for various electrical engineering applications. The course covers topics starting from the elementary materials science concepts and fundamental quantum mechanics to modern device applications including superconductors, supercapacitors, piezoelectricity, magnetic and optical data storage technologies, communication via optical fiber etc. Also the course includes various measurement techniques to probe electronic, crystallographic, and structural properties of materials including resistivity and Hall effect measurements, X-ray diffraction, electron microscopy, and atomic force microscopy. Device design and fabrication aspects are discussed in correlation with the material properties. The core knowledge obtained in this course are applicable to a wide range of areas within electrical engineering discipline, such as Photonics, Semiconductors & Microelectronics, Nano-scale electronics, Electric Machine Design & Electromagnetics etc.

## **EE 350I: Embedded Systems**

### **4 Credit Hours**

*Prerequisite: CPE 2200 and Engineering Standing*

This course will introduce the students to the fundamental concepts of interfacing a microcontroller platform with sensors, actuators, and stand-alone modules. In addition, we will study how embedded systems are designed for real-world applications. Specifically, the student will engage in project-based work utilizing graphical software to configure embedded system applications and apply robust software development skillsets for concurrent programming.

## **EE 3601: Electric Machines**

### **4 Credit Hours**

*Prerequisite: EE 2301 and Engineering Standing*

The study of the fundamentals of electro-mechanical energy conversion, magnetic circuits and electromagnetic devices, theory of operation and operating characteristics of transformers, DC machines, AC induction and synchronous machines and stepper motors.

## **EE 3602: Electric Power Systems**

### **3 Credit Hours**

*Prerequisite: EE 2302, and Engineering Standing*

This course introduces students to topics such as: AC power systems, power system networks, power flow analysis; short-circuit analysis, transient stability analysis, and computer simulation of power systems. Moreover, field trip(s) will be made to centers operated by utilities and/or power-related companies.

## **EE 3603: Electronic Power Conversion**

### **3 Credit Hours**

*Prerequisite: Engineering Standing and EE 2302*

This course introduces students to the following: Power electronic devices; Power electronic circuits; Applications; Modeling, analysis and simulation using various software. Students will also perform experiments on various power converters to learn practical skills, and relate theory to real-world practice.

## **EE 3605: Electromagnetics**

### **3 Credit Hours**

*Prerequisite: PHYS 2212, PHYS 2212L and MATH 2203 and Engineering Standing*

An advanced treatment of static electric and magnetic fields and their sources, Poisson and Laplace equations and boundary value problems, time-varying electromagnetic fields and Maxwell's equations. Plane wave propagation in free space and in materials is examined.

## **EE 3701: Signals and Systems**

### **3 Credit Hours**

*Prerequisite: EE 2302 and Engineering Standing*

This course explores discrete and continuous-time systems analysis, with emphasis on linear time-invariant (LTI) systems, the classification of continuous-time systems, convolution and its application to LTI systems and analysis of LTI systems via the Laplace transform, Fourier transform, and Fourier series.

## **EE 3702: Communication Systems**

### **3 Credit Hours**

*Prerequisite: EE 3701 and Engineering Standing*

Amplitude modulation, frequency and phase modulation and demodulation techniques are examined. Bandwidth and power considerations, noise in communication systems, signal analysis and transmission are included as are noise and probability aspects of communication systems and practical communication systems.

## **EE 3706: Computer Networking**

### **3 Credit Hours**

*Prerequisite: EE 2501 and Engineering Standing*

The main goal of this course is to introduce students to the fundamentals of computer network architecture and network protocols. Topic includes OSI Model, TCP/IP, routing protocols, link layer techniques and network security. Students will read related research papers and work on their group projects, which will solidify the foundation of their knowledge through the real-world implementation of their new ideas in network simulators or test-beds.

## **EE 4201: Control Systems**

### **4 Credit Hours**

*Prerequisite: Engineering Standing , and EE 2301, and MATH 2306.*

The focus of this course is a study of feedback control systems theory including practical applications of compensation and P,PI, and PID concepts. Control system modeling, transient and steady state characteristics and response, stability and frequency response are analyzed; Compensation and controller design using Root locus methods are covered. The use of control system software, such as MATLAB, in the analysis and design of control systems is emphasized.

## **EE 4400: Directed Study in Electrical Engineering**

### **Variable 1 to 4 credit hours Credit Hours**

*Prerequisite: Approval of instructor and department chair*

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. A Directed Study may include original research projects and/or practicum experiences. Repeatable two times for credit.

## **EE 4490: Special Topics**

### **3 Credit Hours**

Special topics course for Electrical Engineering majors.

## **EE 4605: Electromagnetic and Microwave Applications**

### **3 Credit Hours**

*Prerequisite: EE 3605 and Engineering Standing*

In this course students will develop an understanding of the fundamental concepts of propagation, waveguides and radiation of electromagnetic waves. Students will apply basic electromagnetic concepts to the design of transmission lines, antenna systems, radars, and satellite communication.

## **EE 4701: Professional Practice**

### **3 Credit Hours**

*Prerequisite: EE 3401 and Engineering Standing*

This course covers the historical, social and economic considerations of the electrical engineering discipline. It includes studies of professional conduct, risks, and liabilities, and intellectual property relative to the electrical engineering profession. Electrical Engineering case studies will be used. Further the study of professional ethics, electrical code fundamentals (i.e. NEC), laws governing the practice of electrical engineering, contractual relationships, the licensure process for professional engineers are all undertaken in this course.

## **EE 4705: Digital Signal Processing**

### **3 Credit Hours**

*Prerequisite: EE 3701*

This course explores discrete signal processing including concepts of digital signal processing. Primary application domain targeted is speech signals although other signal types will also be considered, including vibration signals, music signals etc. We will cover core concepts of signal processing including classification of discrete-time systems, convolution and its application to LTI systems and analysis of LTI systems via the Z transform, Fourier transform, and Fourier series, Discrete Time Fourier Series and Transform, Discrete Fourier Transform and Fast Fourier Transform. This course will also explore applications like Filter Design and Systems Analysis. Software simulations will emphasize the applied components of the course using MATLAB / SIMULINK programming and perform project on Speech Processing. Students will also be participating in written and oral presentation.

## **EE 4706: Image Processing and Pattern Analysis**

### **3 Credit Hours**

*Prerequisite: EE 2301*

This course is designed to be an introductory course to the world of Computer Vision for the undergraduate electrical engineering students. It will introduce the students to two critical areas of Computer Vision, namely, Image Analysis and Pattern Analysis. The course will cover techniques and tools for digital image processing, and finally also introduce image pattern analysis techniques in the form of image segmentation and object tracking. The course is primarily meant to develop on-hand experience in applying these tools to process these images. Hence, the programming assignments form a key component of this course. Emphasis will be to develop engineering skills and intuitive understanding of the tools used in Image Processing and Pattern Analysis.

## **EE 4800: Senior Project**

### **4 Credit Hours**

*Prerequisite: EE 4701 and Engineering Standing*

This course is designed to be the culmination of the undergraduate electrical engineering education. Under the guidance of the professor, students will form small design teams, choose a proposed or ongoing project and research and redesign the project. Working as independent teams with guidance from the lead professor the capstone projects will be completed and the results presented for review to a panel of faculty, students, and others such as staff and Industrial Advisory Board members.

## **ENGR 1000: Introduction to Engineering**

### **1 Credit Hours**

This course explains the engineering education pathways in the Southern Polytechnic College of Engineering and Engineering Technology. The course introduces University and College resources as well as an overview of career opportunities, available campus facilities and student organizations. The course also covers advising and course planning, and some of the skills necessary for various Engineering disciplines. Students will learn basic skills in problem solving, computation, design, and communication that is needed for future engineering courses.

## **ENGR 1100: Survey of Engineering Applications from Mathematics**

### **4 Credit Hours**

*Prerequisite: MATH 1113 Concurrent: or MATH 1190*

The objective of this course is to increase student retention, motivation, and success in engineering through an application-oriented introduction to engineering mathematics. This course does not replace other math courses, but provides a survey of the most significant math topics used in the core freshman and sophomore-level engineering courses. These include basic descriptions of engineering applications using algebraic manipulation of engineering equations, trigonometry, vectors and complex numbers, systems of equations and matrices, differentiation, integration and differential equations. All these fundamental math topics will be presented within the context of engineering applications, and reinforced through examples of their use in the core engineering courses.

## **ENGR 2214: Engineering Mechanics – Statics**

### **3 Credit Hours**

*Prerequisite: PHYS 2211, and PHYS 2211L*

This course studies the force vectors, equilibrium of particles, equilibrium of rigid bodies in two and three dimensions; trusses, friction, centroids and moments of inertia.

## **ENGR 2500: Solid Mechanics & Materials**

### **4 Credit Hours**

*Prerequisite: See advisor for prerequisite.*

This course is made of two distinct parts. The first part of the course is a study of stress and strain of deformable bodies in tension, compression, bending, and torsion. Topics covered include: axial stress and strain; thermal stress and strain; statically indeterminate systems; torsional stress and strain; bending stresses in beams; beam deflections; combined stresses; and finite element analysis methods. The second part of the course is a study of metals and alloys, ceramics, polymers, and composites as related to design. Areas include corrosion, atomic structure, mechanical properties, fatigue, and the effects of alloying, hot- and cold-working and heat treating. The lab work includes tensile testing, heat treating, impact testing, hardness testing, and corrosion.

## **ENGR 3122: Engineering Mechanics – Dynamics**

### **3 Credit Hours**

*Prerequisite: ENGR 2214 and MATH 2202*

A study of the mechanics of particles and rigid bodies. Topics covered include: kinematics and kinetics of particles; work and kinetic energy; impulse and momentum; rigid body motions; relative motion; and moving coordinate systems.

## **ENGR 3125: Machine Dynamics and Vibrations**

### **3 Credit Hours**

*Prerequisite:* (ME 1311 or (CSE 1321 and CSE 1321L)) and ENGR 3122 and Engineering Standing

The analysis of motion, velocity, acceleration, and forces in mechanisms and machines. Emphasis is placed on the analytical methods suitable for computerized analysis as well as graphical methods for visualization and preliminary design studies. Also an introduction to vibration theory, including the modeling and analysis of oscillatory phenomena found in linear discrete and continuous mechanical systems.

## **ENGR 3131: Strength of Materials**

### **3 Credit Hours**

*Prerequisite:* (ENGR 2214) and MATH 2202

The study and mathematical modeling of the mechanical behavior of materials under load. Emphasis will be on the elastic conditions of equilibrium, compatibility and material behavior. Includes study of stress and strain in columns, connectors, beams, eccentrically-loaded members, as well as introduction to statically indeterminate members.

## **ENGR 3132: Strength of Materials Lab**

### **1 Credit Hours**

*Prerequisite:* ENGR 3131 may be taken concurrently

The study and performance of laboratory testing and analysis techniques used in the determination of the mechanical behavior of materials under load.

## **ENGR 3250: Project Management for Engineers**

### **3 Credit Hours**

*Prerequisite:* (ISYE 2600 or STAT 2332) and Engineering Standing

This course is a comprehensive study of project concepts, such as project definitions, systems and methodologies, project cycles, roles and responsibilities of leaders and members, and procedures used in industrial and production environments. Topics include such areas as scheduling, controlling projects, time-cost trade-off, resource allocation and project cost control.

## **ENGR 3305: Data Collection and Analysis in Engineering**

### **3 Credit Hours**

*Prerequisite:* MATH 2202, CE 2003 and Engineering Standing

This course introduces probability theory and statistical analysis techniques for engineering applications. Major topics include probability and sampling distributions, conditional probability and Bayes' theorem, estimation of parameters, hypothesis test and statistical inference, and linear regression techniques. Students will apply basic statistical techniques to analyze various types of real world engineering data. Emphasis will be given to standard engineering practices. Computer software (e.g., spreadsheet programs) will be used.

## **ENGR 3324: Project Cost Analysis**

### **3 Credit Hours**

*Prerequisite:* MATH 1190, EDG 2160, and Engineering Standing

A study of the project cost measurement and analysis techniques unique to the engineering profession. Cost analysis procedures and their relationship with cost estimation methodologies are examined. Emphasis is placed on techniques for economy studies of multiple alternatives, uncertainties in forecasts, increment costs, taxes, and retirement and replacement of highways, transportation systems, bridges and public works facilities. Current economic issues are also discussed.

## **ENGR 3325: Engineering Economic Analysis**

### **3 Credit Hours**

*Prerequisite:* (MATH 1190 or (MATH 1179 and MATH 1189)) and Engineering Standing

Students learn the time value of money and the basic tools used in engineering economic decision making. The tools include engineering factor notation, algebraic formulas, and Excel functionality. The time value effect is studied as equivalences for present worth, annual worth, or future worth evaluations. Useful algorithms are presented for making sound economic investment decisions involving replacement theory, risk analysis, depreciation, tax incentives, rate of return, cost benefit ratio, return on investment, and economic service life.

## **ENGR 3343: Fluid Mechanics**

### **3 Credit Hours**

*Prerequisite:* ENGR 2214 and Engineering Standing

This course introduces the fundamentals of fluid statics and dynamics including hydrostatic forces on submerged plates, continuity of fluid flow and fluid flow principles. The applications of turbulent and laminar flow in conduits are emphasized. The system approach is practiced in analyzing the applications of flow measuring devices, pipings, pumps and turbines.

## **ENGR 3345: Fluid Mechanics Laboratory**

### **1 Credit Hours**

*Prerequisite:* ENGR 3343 (may be taken concurrently) and Engineering Standing

The laboratory reinforces the principles of fluid mechanics, studied in ENGR 3343, as they apply to hydraulic and pneumatic power, and fluid flow. Developing experimental data into effective laboratory reports is emphasized.

## **ENGR 3398: Experiential Engineering Internship**

### **variable 3-12 audit hours, but 0 billing hours Credit Hours**

*Prerequisite: Enrolled students must be a SPCEET Undergraduate Engineering or Engineering Technology major (Civil Engineering, Computer Engineering, Construction Engineering, Electrical Engineering, Environmental Engineering, Industrial and Systems Engineering, Mechanical Engineering, Mechatronics Engineering, Mechanical Engineering Technology, Electrical Engineering Technology, or Industrial Engineering Technology)*

Students are encouraged to enhance their coursework with engineering work experience. This is a noncredit/no-cost audit course with no tuition or fees attached. Students are eligible to receive full-time enrollment status through their registration, which allows them to retain all privileges of full-time enrolled students while working. The course serves as a placeholder on a transcript. It does not fulfill major degree requirements.

## **ENGR 3410: Fundamentals of Biomedical Engineering**

### **3 Credit Hours**

*Prerequisite: Engineering Standing*

This course provides an extensive overview of the field of biomedical engineering. The fundamentals of various key topics that stand at the intersection of engineering, biology, and medicine will be investigated.

## **ENGR 3411: Biomechanics for Engineers**

### **3 Credit Hours**

*Prerequisite: Engineering Standing*

This course will provide an introduction to the structural and mechanical behavior of biological tissues and systems by building on engineering concepts such as discussed in Statics, Dynamics, or Strength of Materials.

## **ENGR 3412: Biomedical Circuit Applications**

### **3 Credit Hours**

*Prerequisite: Engineering Standing*

This course will provide an overview of instrumentation systems used in clinical medicine and biomedical research. Some circuit theory and its application to bioinstrumentation will be reviewed. Systems for measuring biologic signals, such as biopotentials, stress and strain, pressure, temperature, and optical properties, will be discussed. Electrical hazards, safety, measuring instruments and techniques will also be discussed. There will be applications to engineering design such as transducer systems and sensing and driving circuits. There will also be discussion of ethical and regulatory issues related to bioinstrumentation as well as review of instrumentation such as CT Scan, MRI, EKG, and EEG sensors.

## **ENGR 3501: Fundamentals of Nuclear Engineering**

### **3 Credit Hours**

*Prerequisite: MATH 2202 and Engineering Standing Concurrent: PHYS 2212 and PHYS 2212L*

This course provides an overview of the nuclear sciences field. Topics covered include: basic nuclear physics, radioactivity and radioactive decay process, nuclear reactions, radiation detection, basic health physics, radiation protection, fission and fusion processes, neutron interaction, nuclear energy conversion, different nuclear reactors, reactor operations, reactor control and basic nuclear fuel cycle.

## **ENGR 3502: Radiation Detection & Measurement**

### **3 Credit Hours**

*Prerequisite: ENGR 3501 and Engineering Standing*

The detection and measurement of radiation is an integral component of the nuclear sciences field. This course covers the sources and properties of nuclear radiation, mechanism of radiation interaction with matter, detection methods and in particular detection of ionizing radiation that are of primary interest in nuclear power generation as well as medical and industrial applications. Various types of radiation detectors, neutron detection techniques and counting statistics are also discussed.

## **ENGR 3601: Fundamentals of Renewable Energy**

### **3 Credit Hours**

*Prerequisite: Engineering Standing Requirements*

This course reviews various renewable energy sources to meet the increasing global energy demand of the 21st century in a sustainable manner. The course introduces the fundamental energy conversion principles, energy economics, and the current status of renewable sources, such as Hydroelectric, Wind, Solar Thermal, Solar Photovoltaics, Ocean Waves, Tidal, Geothermal, and Biomass energy. The course also discusses the basic concepts of renewable energy integration to the grid and various energy storage technologies. The course integrates projects on solar thermal, wind and solar photovoltaic systems and concludes with a project where students effectively apply their knowledge to conceptualize and design an alternative energy harvesting device.

## **ENGR 3602: Energy Efficiency**

### **3 Credit Hours**

*Prerequisite: Engineering Standing Requirements*

This course presents a detailed overview of energy efficiency related topics in engineering integrated design with a focus on energy efficiency, energy efficiency base codes and standards, developing energy efficiency knowledge categories (Taxonomy), and developing performance based scoring systems. This course also presents a detail building and manufacturing plant energy modeling with software, presenting energy modeling, energy modeling under uncertainty (uncertainty analysis and sensitivity analysis), use of techniques such as decision making under uncertainty to help different managerial and design decisions for Engineers and Decision Makers.

## **ENGR 3603: Hydrokinetic Energy**

### **3 Credit Hours**

*Prerequisite: Engineering Standing Requirements*

The course introduces various forms of hydrokinetic energy and their potential for the generation of electrical energy. The course will discuss the conversion techniques of hydraulic energy into electrical energy and various hydraulic machines that are used for this conversion process. The course will also elaborate the significance and the impact of hydrokinetic energy on the environment.

## **ENGR 3801: Aerodynamics**

### **3 Credit Hours**

*Prerequisite: MATH 2202 & Engineering Standing*

An introduction to aerodynamics; including circulation theory of lift, thin airfoil theory, viscous flow, boundary layer, finite wing theory, and drag in incompressible flow.

## **ENGR 3802: Aircraft Design & Performance**

### **3 Credit Hours**

*Prerequisite: ENGR 3801 and Engineering Standing*

Airplane conceptual design principles are developed to meet modern aerodynamics, propulsion, structural, and performance specifications. This course examines the complete airplane design, including specifications, aerodynamic calculations, inboard profile drawing, weight and balance, general arrangement drawing, aerodynamic drag analysis, and complete performance report.

## **ENGR 3803: Fundamentals of Avionics**

### **3 Credit Hours**

*Prerequisite: ENGR 3801 & Engineering Standing*

The primary topics of this course are related to the understanding of the principles, theory, and technology of modern avionic systems for both military and civil aircraft. Various subsystems including sensory, fly-by-wire control, display, navigation, air data, autopilots, and flight management are examined individually and as an integrated whole. Both mathematical and conceptual approaches to every subsystem will be taught as well as key considerations, such as flight safety, which undergird their usage and functionality.

## **ENGR 3901: Technology Entrepreneurship: From Ideas to Business Ventures**

### **3 Credit Hours**

*Prerequisite: ENTR 3001*

This course is designed for aspiring engineering students as an introduction to the fundamentals of technology entrepreneurship, as successfully practiced in Silicon Valley and other innovation hotbeds around the world. Through class lectures and experiential learning, students will develop an entrepreneurial mindset and entrepreneurial skill sets that will have a lasting impact on their lives and careers. Students will work together as a project team with the goal to take initial startup ideas to a viable business venture.

## **ENGR 3902: Design Thinking for Engineers**

### **3 Credit Hours**

*Prerequisite: ENTR 3001*

This course is an entrepreneurial, hands-on, entrepreneurial, team-based, and project-centric class. Each team will solve a real-world problem using traditional engineering and the "Design Thinking" process. The final problem solution will be based on stakeholder interviews, business viability studies, and excellent engineering—thus a true value-added solution.

## **ENGR 4402: Engineering Ethics**

### **1 Credit Hours**

*Prerequisite: Engineering Standing*

This course looks at the practice of engineering in the context of ethics and ethical theory. Issues of safety, liability, professional responsibility, legal obligations are considered in the context of case studies. Particular emphasis is given to the application of the Professional Engineering Code of Ethics published by the National Society of Professional Engineers. Students will consider the resolution of ethical dilemmas through the development and evaluation of various courses of action related to specific case studies.

## **ENGR 4412: Air Conditioning**

### **3 Credit Hours**

*Prerequisite: ME 3410 and ENGR 3343*

The basic principles of residential and commercial air conditioning systems are introduced including the calculation of cooling and heating loads, and psychrometric processes. The student is exposed to relevant topics in heating, ventilating and air conditioning (HVAC) such as equipment selection, duct design, piping design, indoor air quality, energy code, HVAC systems, energy conservation options, automatic controls, and testing, adjusting and balancing (TAB) of air conditioning systems.

## **ENGR 4490: Special Topics in Engineering**

### **2-4 Credit Hours**

*Prerequisite: Varies by topic*

This course covers advanced topics of special interest to faculty and students that are not in the regular course offerings. Offered on a demand basis. This course may be taken more than once.

## **ENGR 4501: Nuclear Power Generation**

### **3 Credit Hours**

*Prerequisite: ENGR 3501 & Engineering Standing*

This course covers the principles of nuclear energy conversion to electric power. The content of the course includes: fundamentals of energy conversion, fission reactors, design and construction of light water reactors with emphasis on boiling water and pressurized water reactors, gas cooled reactors, fast breeder reactors, thermal and structural analysis of reactors and plant components, safety elements and accident prevention systems. The economic feasibility of nuclear power plants will also be discussed.

## **ENGR 4502: Radiation Protection & Health Physics**

### **3 Credit Hours**

*Prerequisite: ENGR 3501 & Engineering Standing*

This course covers the fundamentals of individual and population health protection against the harmful effects of radiation. Topics included are: different sources of radiation, interaction of radiation with matter, radiation exposure principles and measurement, relationship between radiation exposure and biological damage, radiation protection and safety standards and guidelines, radiation protection instrumentation, internal and external radiation protection, pathways of radiation movement in the environment and radiation shielding.

## **ENGR 4503: Nuclear Fuel Cycle**

### **3 Credit Hours**

*Prerequisite: ENGR 3501 & Engineering Standing*

The feasibility and operation of nuclear power plants is directly influenced by the availability of suitable nuclear fuel as well as acceptable methods of disposal of nuclear waste. This course covers the progression of the nuclear fuel through different stages of mining, milling, processing, enrichment, fabrication and use in reactors, interim storage, reprocessing and disposal. The environmental impact of nuclear waste, economics of nuclear fuel cycle, challenges and solutions in management of radioactive waste and the prevailing regulations, standards and best practices are discussed.

## **ENGR 4504: Nuclear Reactor Simulation**

### **3 Credit Hours**

*Prerequisite: ENGR 4501 and Engineering Standing*

The objective of this course is to provide an understanding and knowledge about the operational aspects of a variety of nuclear power plant designs. The course integrates the previous studies in nuclear engineering and reactor power generation into safe design and operation of nuclear power plants. This course covers different reactor designs, normal operations and response to abnormal conditions and potential accident situations. Focus is placed on reactor physics fundamentals, defense in-depth, reactor start-up, normal ramp-up and operations, transient conditions, reactor feedback, reactor control, accident scenarios, and safe shut-down.

## **ENGR 4601: Fundamentals of Solar Power**

### **3 Credit Hours**

*Prerequisite: Engineering Standing Requirements*

This course discusses the principles and applications of solar energy. The course covers fundamental physics and current status of solar thermal and various Photovoltaic (PV) technologies to harvest solar energy through heating and direct conversion of light into electrical energy. The course covers the fundamental operating principles of solar collectors, solar water heating systems, air heaters, solar concentrators, sterling engines, concentrated solar thermal power (CSTP) systems and photovoltaic solar cells. In addition, the course covers solar cell simulation using MATLAB and Simulink, fundamentals of PV system design and installation. The course concludes with a real-world experiment-based design project where students effectively apply their knowledge to perform current-voltage measurements on solar cells, analyze the acquired data, extract important electrical parameters, and design a stand-alone photovoltaic system.

## **ENGR 4602: Wind Power**

### **3 Credit Hours**

*Prerequisite: Engineering Standing Requirements*

This course builds upon the basic understandings of fluid mechanics, statics and electrical concepts to provide students with wind energy knowledge as a key renewable energy resource. The course starts with a review of the structure of wind industry in comparison with other renewable and non renewable (conventional) energy resources. Then a detailed engineering analysis and design of wind turbine components and various design configurations will be discussed. The principles of wind power, maximum power, actual power and force analysis on the blades, mean wind and energy velocities will be studied. The Magnus Effect, the lift force, the drag force and different wind turbine designs will be covered. Designing a wind turbine system that can generate power with high efficiency requires a thorough understanding of the principles of aerodynamics and structural dynamics of the rotor system. Therefore, the influence of the number of the blades, the tilt angle of the blades on the power output of the wind turbine will be reviewed in the course. The current-voltage characteristic of wind turbine with constant rotational speed and constant wind speed will be studied as well. The construction, operation and speed control of three-phase induction motors will be thoroughly covered. The course finishes up with a design project of a wind turbine. Students will be assigned to use computer software for wind energy analysis.

## **ENGR 4603: Geothermal and Bioenergy Systems**

### **3 Credit Hours**

*Prerequisite: Engineering Standing Requirements*

This course discusses the resource required for the use of geothermal energy in order to generate electricity, such as fluid, heat and permeability. It also discusses Low-Temperature & Co-produced Resources for electricity generation. An in depth discussion will be provided towards understanding the Enhanced Geothermal Systems (EGS) that hold potential to powering millions of houses and businesses. The course also discusses types, use, and future of Biofuels.

## **ENGR 4604: Distributed Generation & Smart Grids**

### **3 Credit Hours**

*Prerequisite: Engineering Standing Requirements*

The main objective of this course is to provide up-to-date knowledge about the technical and economic issues relating to the distribution generation. In addition to an introduction to various generating technologies, the course will include detailed discussions on the impacts of distributed generation to the power distribution system. The focus will be on electrical issues such as grid connection, control, and power quality. In addition, the economic and regulatory issues will be addressed. The course also introduces the smart grid, both supply-side and demand-side technologies, including advanced metering infrastructure, technologies for better control of the grid and interactions with loads that can be controlled to accommodate variations in supply-side resources.

## **ENGR 4801: Aircraft Propulsion**

### **3 Credit Hours**

*Prerequisite: ENGR 3801 & Engineering Standing*

This course involves preliminary design, subject to specifications, of an air-breathing engine for aircraft propulsion. This course discusses cycle calculations, installed performance and engine sizing information. Design and integration of components and support systems are explored. Propeller theory is introduced.

## **ENGR 4802: Helicopter Theory**

### **3 Credit Hours**

*Prerequisite: ENGR 3801 & Engineering Standing*

The course is designed for students interested in helicopter theory as an application of large scale complex system. It presents a comprehensive introduction to rotorcraft technology, covering a range of disciplines from design, aerodynamics and propulsion points of view. It teaches what a helicopter engineer or enthusiast needs to know to analyze an existing design or participate in the development of a new one. The course covers all aspects of hover, vertical flight and forward flight.

## **ENGR 4803: Aeronautics Senior Design Project**

### **3 Credit Hours**

*Prerequisite: ENGR 3801 and Engineering Standing*

The course focuses on the student completing a project that is related to the design of an aerospace vehicle and demonstrating comprehensive application of the subject matter. The general intent is to demonstrate the students' knowledge of the integrative aspects of the systems engineering process. There is a formal report and a defended oral presentation required before industrial and academic experts.

## **ENGR 4901: Experiential Interdisciplinary Senior Design I**

### **2 Credit Hours**

*Prerequisite: Senior Standing and permission of instructor*

This is the first in a two-course experiential design sequence culminating the undergraduate engineering education. Students form small interdisciplinary engineering teams to apply engineering design principles and methods for solving current industry problems. This first course covers topics such as project planning, design tools, specifications, constraints, standards, ethics, physical and mathematical models, entrepreneurship and Fundamentals of Engineering exam practice.

## **ENGR 4902: Experiential Interdisciplinary Senior Design II**

### **2 Credit Hours**

*Prerequisite: ENGR 4901*

This is the second in a two-course sequence culminating the undergraduate engineering education. Under the guidance of a faculty mentor and an industry partner mentor, students form small interdisciplinary teams to apply engineering design principles and methods for solving industry-relevant engineering design problems. This sequence develops the previously done conceptual design through engineering analysis, modeling, and simulation using CAD/CAE, design iterations, sensitivity analysis, and proof of concept through prototype fabrication.

## **EDG 1210: Survey of Engineering Graphics**

### **2 Credit Hours**

This course introduces the students to a broad range of engineering graphics topics. Freehand sketching, and computer-aided design (CAD) assignments cover theory and application in such areas as fundamentals of engineering graphics, drafting technique, lettering, orthographic projection, sectional views, pictorial drawings, dimensioning, and industry practices.

## **EDG 1211: Engineering Graphics I**

### **3 Credit Hours**

An introduction to engineering graphics in mechanical engineering and manufacturing with an emphasis on using computer-aided design (CAD) to produce finished engineering drawings according to industry and ANSI standards. Topics include fundamentals of engineering graphics, orthographic projection, sectional views, pictorial drawings, dimensioning, industry practices, file management, geometric construction, basic 3D coordinate geometry, surface models, parametric solid modeling, and drawing composition.

## **EDG 1212: Engineering Graphics II**

### **4 Credit Hours**

*Prerequisite: EDG 1211*

A continuation of Engineering Graphics I, covering advanced concepts of 3D geometry, parametric solid modeling, boundary representation of solids, databases for manufacturing and inspection, an introduction to geometric dimensioning and tolerancing according to the American National Standards Institute.

## **EDG 2160: Civil Graphics and Computer Aided Drafting**

### **3 Credit Hours**

An introduction to graphic principles and practices in civil engineering technology. This course includes the development of the basic drafting skills needed to produce civil engineering plans and graphical presentations. The elements of descriptive geometry are addressed. A major component of the course is an introduction to the fundamentals of computer-aided drafting and design (CADD).

## **EDG 3112: Advanced Engineering Graphics**

### **3 Credit Hours**

*Prerequisite: MET majors or department approval, and EDG 1212*

This course covers advanced 3D CAD features and solid modeling techniques including patterning, configurations, library features, sketch blocks, advanced assemblies, and multi-body parts. Students who complete this course are eligible for the SolidWorks CSWP exam.

## **EDG 4111: Surface Modeling**

### **3 Credit Hours**

*Prerequisite: MET majors or department approval, and EDG 1211*

This course covers surface modeling in 3D CAD, combining surface modeling, solid modeling and creating master models. The student is introduced to complex solid modeling, free form surface modeling and surface analysis. Splines, curves and three-dimensional sketches are used in conjunction with surfacing techniques to create shapes common to the automotive or aircraft industry. The shapes are analyzed for surface continuity to optimize designs.

## **EDG 4222: CAD Customization and Standards**

### **3 Credit Hours**

*Prerequisite: MET majors and or department approval, EDG 1212*

This course covers topics in customizing CAD software and creating company standards. Topics include identifying company requirements, customizing the user interface, and writing company standards for the use of the software.

## **EDG 4224: Engineering Design Graphics for Custom Manufacturing**

### **3 Credit Hours**

*Prerequisite: EDG 1212, MET 1400, and MET 1800*

Advanced manufacturing specific CAD skills are emphasized including top-down design, weldments, sheet metal, custom properties, BOMs, custom drawing formats/layouts, and ASME Y14.5 compliant drawing creation. Students will design, document for manufacturing, and complete hands-on manufacturing analysis/exercises during the lab component of the class--gaining an understanding and mastery of manufacturing processes and manufacturing-ready documentation creation.

## **ENGT 2000: Applied Engineering Math**

### **3 Credit Hours**

*Prerequisite:* MATH 2202

This course focuses on the practical application of the essential mathematical skills required by practicing engineers. All the basic math skills needed to manage contemporary technology problems are addressed. Topics include algebra, geometry, trigonometry, complex arithmetic, differential and integral calculus, simultaneous algebraic equations, differential equations, Fourier series and Fourier transform, Laplace transform, Mathematics of vectors, and Probability and Statistics.

## **ENGT 4901: Engineering Technology Senior Design I**

### **1 Credit Hours**

*Prerequisite:* MET 4501 for MET Majors, or ECET 3710 (concurrently) for EET Majors

Part 1 of a two-course senior design capstone project for Engineering Technology. Students will form teams, define design projects, and write a proposal.

## **ENGT 4902: Engineering Technology Senior Design II**

### **3 Credit Hours**

*Prerequisite:* ENGT 4901

Part 2 of a two-course senior design capstone project for Engineering Technology. In teams students will define design projects and write a proposal for the synthesis and analysis of an open-ended mechanical engineering design project, including written and oral communication. Students will also be prepared to take the FE exam.

## **ENGL 0999: Support for English Composition (ENGL 1101)**

### **1 Credit Hours**

*Corequisite:* ENGL 1101

This course provides corequisite skills and additional instruction for topics and concepts covered in ENGL 1101 Composition I.

## **ENGL 1101: English Composition I**

### **3 Credit Hours**

A composition course focusing on skills required for effective writing in a variety of contexts, with emphasis on exposition, analysis, and argumentation, and also including introductory use of a variety of research skills.

## **ENGL 1102: English Composition II**

### **3 Credit Hours**

*Prerequisite:* A grade of "C" or better in ENGL 1101

A composition course that develops writing skills beyond the levels of proficiency required by ENGL 1101, that emphasizes interpretation, and evaluation, and that incorporates a variety of more advanced research methods.

## **ENGL 2110: World Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

A survey of important works of world literature.

## **ENGL 2111: World Literature I**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

A survey of important works of world literature from ancient times through the mid-seventeenth century. This course is managed through the cooperative academic agreement known as eCore.

## **ENGL 2112: World Literature II**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

World Literature II is a survey of important works of world literature from the mid-seventeenth century to the present. This course is managed through the cooperative academic agreement known as eCore.

## **ENGL 2120: British Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

A survey of important works of British literature.

## **ENGL 2130: American Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

A survey of important works of American literature.

## **ENGL 2131: American Literature I**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course surveys American Literature from the Pre-Colonial Period through the mid-nineteenth century. It begins with the Age of European Exploration and interaction with Native American cultures and continues through the 18th century Enlightenment, the American Renaissance, and the Romantic movement, ending with the beginning of American Realism. The literature is studied within the context of history and culture and with an emphasis on literary periods. Students will utilize various critical approaches and reading strategies as they examine important authors and themes of these periods. This course is managed through the cooperative academic agreement known as eCore.

## **ENGL 2132: American Literature II**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

A chronological study of American literature from the Civil War to the present, this course presents a broad overview of American literature from the mid-nineteenth century to the present. Students will utilize various critical approaches and reading strategies as they examine important authors and themes of this period. The course will pay attention to literary movements, regional writing, native and immigrant cultures, and multiple perspectives. This course is managed through the cooperative academic agreement known as eCore.

## **ENGL 2140: African American Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

Survey of important works of African American literature.

## **ENGL 2145: Introduction to English Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces students to the reading, writing, research, and critical strategies essential to KSU English Studies. The course draws connections among the four content areas in the English Department (Literature, Language, Writing, and Theory) and focuses on their relationship to broader social and personal contexts, enabling students to make informed choices about their program of study and their careers.

## **ENGL 2160: American Literature Survey**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This survey of American literature from its beginnings to the present introduces English and Secondary English Education majors to the historical periods and major trends and figures of American literature.

## **ENGL 2172: British Literature, Beginnings to 1660**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This survey of British literature from its beginnings to 1660 introduces English and Secondary English Education majors to the historical periods and major trends and figures of British literature.

## **ENGL 2174: British Literature, 1660 to Present**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This survey of British literature from 1660 to the present introduces English and Secondary English Education majors to the historical periods and major trends and figures of British literature.

## **ENGL 2271: Introduction to Teaching English Language Arts**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course provides an introduction to teaching English Language Arts (grades 6–12). Through the study of theory and practice, context-based models, and specific applications, students explore the potential of the English Language Arts classroom and investigate the professional roles, relationships, and responsibilities of the English Language Arts teacher. This course is a prerequisite for all other English Education courses and mandatory for admittance to the English Education program.

## **ENGL 2290: Special Topics**

### **1–12 Variable Credit Hours**

Students will explore special topics relevant to the Department of English.

## **ENGL 2390: Great Works for Middle Grades Teachers**

### **3 Credit Hours**

*Prerequisite: Any 1000 or 2000 level ENGL course*

This course is a survey of classic literature written by diverse authors. It focuses on text analysis and writing about literature. The texts studied are frequently found in the middle grades classroom.

## **ENGL 3230: Literary Genre**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of the development and history of a particular literary form, such as narrative, poetry, or drama, through the exploration of representative works. Particular attention is given to the evolution of new strategies for the creation and reception of the genre and to the aesthetic, historical, and cultural conditions that shape those strategies.

## **ENGL 3232: Topics in Drama**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of selected topics, authors, or periods of dramatic literature. The course also addresses the fundamental literary generic characteristics of dramatic form, including plot, character, action, and setting, as well as the conventions of dramatic genres, such as tragedy, comedy, tragicomedy, closet, and narrative drama. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

## **ENGL 3241: Technology and Digital Media in English/Language Arts**

### **3 Credit Hours**

*Prerequisite: ENGL 2271 and admission into the English Education program*

This course provides students with experience in the ways that digital media and technology can be used meaningfully in the English/Language Arts classroom. Students consider, experiment with, and apply specific technologies in order to develop comfort with and control over these tools. The course prepares students to develop adolescents' literacy practices with technology in the English/Language Arts classroom.

## **ENGL 3250: Teaching Writing in Middle Grades Language Arts**

### **3 Credit Hours**

*Prerequisite: ENGL 2271*

This course is an exploration of current theories of composition pedagogy in practice at the middle grades level, including a variety of strategies for teaching and assessing writing while dealing with institutional policies (including state standards and high-stakes testing). Students write for a variety of purposes and audiences; analyze traditional and non-traditional writing assignments for their strengths and limitations; and develop effective instructional strategies, materials, and assessments.

## **ENGL 3270: Teaching Grammar and Usage in Middle Grades Language Arts**

### **3 Credit Hours**

*Prerequisite: ENGL 2271*

This course examines approaches for teaching grammar in the middle grades. Students practice grammatical appropriateness in oral and written communication; develop an understanding of grammatical concepts and constructions; analyze errors in order to develop effective instruction; study structures as a means of promoting syntactic growth and diversity of style in writing; and develop constructive, use-based lessons. This course includes an overview of modern grammars, the history of grammar instruction, and research on grammar instruction.

## **ENGL 3310: Principles of Writing Instruction**

### **6 Credit Hours**

*Prerequisite: ENGL 2271 and admission into the English Education or Secondary and Middle Grades Language Arts program*

This course provides an exploration of theories of composition pedagogy and assessment, including a variety of strategies for teaching writing while dealing with institutional policies such as standardized testing. Students practice oral and written communication for various audiences and purposes; create, implement, and assess writing instruction in a middle school setting; and create and practice research-supported approaches to grammar instruction. The course includes a 45-hour embedded field experience in a middle school.

## **ENGL 3320: Scriptural Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of authors, themes, genres, and composition of scriptural writings. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

## **ENGL 3322: Hebrew Scriptures as Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of the Hebrew Scriptures of the Bible, known to Christians as the Old Testament, as literature, concerning its aesthetic value with respect to authors, themes, genres, and composition within the context of its original Hebrew and Jewish audiences. Students improve and refine their abilities to read, think, write, and speak critically and cogently about scriptural literature and have an increased familiarity with much of the Hebrew Bible. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

## **ENGL 3324: New Testament as Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of the New Testament of the Bible as literature, concerning its aesthetic value with respect to authors, themes, genres, and composition within the context of its original Mediterranean audiences. Students improve and refine their abilities to read, think, write, and speak critically and cogently about scriptural literature and have an increased familiarity with much of the New Testament. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

### **ENGL 3330: Gender Studies**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of literature using gender as the primary category of analysis. Viewing gender as a social construction, it explores such issues as gendered roles in society, interactions between private and public life, gender's relation to canon formation, and individuals' struggle to define their place in culture in the face of gendered expectations. It may focus on a region or nation, a time period, a theme, a representative individual, or some combination.

### **ENGL 3340: Ethnic Literatures**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of literature using ethnicity as the primary category of analysis. Individual offerings of the course might survey a range of ethnic literatures (e.g., Asian American, Chicano, Native American, Jewish) or explore one such body of texts (e.g., Caribbean literatures).

### **ENGL 3342: Topics in Native American Literature**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of a selected topic in Native American literature. For example, the course might focus on a single artist (such as Louise Erdrich), a group of artists (such as writers of the Native American Renaissance), a genre (such as Indigenous science fiction), a region (such as writers of the Native South or the Pacific Northwest), or a theme or issue (such as Murdered and Missing Indigenous Women or intergenerational trauma).

### **ENGL 3350: Regional Literature**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of literature using region as the primary category of analysis. Texts might include fiction and nonfiction, performance texts (such as drama and folktales from the oral tradition), and examples of material culture. The class might focus on a specific geographic region (e.g., the Caribbean); a comparative study of regional culture (e.g., Faulkner's Yoknapatawpa vs. Hardy's Wessex); or authors or themes closely associated with a region (e.g., Cather's West).

## **ENGL 3360: Major African American Writers**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course concerns the development of African American literature with emphasis on major writers defining trends, movements, genres, and themes.

## **ENGL 3391: Teaching Literature to Adolescents**

### **3 Credit Hours**

*Prerequisite: ENGL 2271 and admission into the English Education program*

Using narrative as a central genre, this course introduces current English teaching philosophy and practice in teaching literature to adolescents. This course models current ways to integrate technology into the curriculum, identifies a variety of multicultural teaching texts, and extends the study of critical theory into the teaching of literature to adolescents.

## **ENGL 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the coordinator of cooperative education/internships (Career Services).*

A supervised work experience program for a minimum of two semesters at a site in business, industry or government. For sophomore, junior, or senior-level students who wish to obtain on-the-job experience in conjunction with their academic training.

## **ENGL 3398: Internship**

### **1-12 Credit Hours**

*Prerequisite: Approval of departmental internship adviser.*

This course is a supervised, credit-earning work experience of one semester with a previously approved business firm, private agency, or government agency.

## **ENGL 3400: Survey of African Literatures**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a survey of African literatures, including the orature, literature, performance texts, film and/or other media produced in each quadrant of Africa, from early times to the present day. For example, the course might survey African narrative, looking at a selection of early epics, folktales, short stories or novels representing themes, motifs, and styles in each quadrant of Africa.

## **ENGL 3500: Topics in African American Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of a selected topic of African-American literature. For example, the course might focus on a single artist (such as Ralph Ellison), a group of artists (such as writers of the Harlem Renaissance), a genre (such as the slave narrative), a source or technique (such as folklore in twentieth century novels), or a theme or issue (such as depictions of women, the oral-musical tradition or humor and signifying).

## **ENGL 3510: Black Women Writers**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a comparative study of literature by Black women writers from the U.S., the Caribbean, Africa, and/or any region in the African diaspora. Readings for the course may include poetry, short fictions, novels, drama, biography, and autobiography. Topics include narrative strategies, modes of representation, and textual depictions of the intersections of race, gender, sexuality, ethnicity, class, nationality, and/or generation.

Note: This course may be crosslisted with BLCK 3510

## **ENGL 3600: Topics in African Diaspora Literatures**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of a selected topic in the areas of the African Diaspora. For example, the course might focus on a single author or group of authors: "The Novels of Paule Marshall"; a country or region: "Caribbean Literatures"; a movement or an event: "Post-Colonial Caribbean Literatures"; a theme or issue: "Twentieth-Century Caribbean Women Writers"; a genre: "African, African American and Afro-Caribbean Autobiography"; or a combination of these or other categories.

## **ENGL 4220: Critical Theory**

### **3 Credit Hours**

*Prerequisite: ENGL 2145*

An advanced course in interpretive theoretical paradigms as applied to the study of literature and culture, focusing on critical models such as Marxism, Structuralism, Poststructuralism, Deconstruction, Psychoanalytic criticism, and Gender, Ethnic, and Cultural studies.

## **ENGL 4230: Theory-Based Studies in Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 2145*

Concentration on the interpretive strategies and conceptual framework of one of the major paradigms of contemporary literary theory, with attention to the ways in which those paradigms enable the study of a select group of texts, both literary and nonliterary. Topics may include Feminist theory, Marxism, Post-Colonialism, Psychoanalytic Criticism, Cultural Materialism, Ethnic studies, Gender studies, New-Historicism, and Reader Response theories.

*Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

## **ENGL 4240: Rhetorical Theory**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This advanced course is a study of major texts in rhetorical theory from antiquity to the present, focusing on the significant issues in rhetoric, especially the relationship of language to truth and knowledge. Students gain practice in using rhetorical concepts to analyze both literary and non-literary texts and to produce effective written and spoken arguments.

## **ENGL 4340: Shakespeare**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of selected comedies, histories, and tragedies, covering the range of Shakespeare's dramatic art. It may include dramatic form and poetic composition as commentaries on the dramatic genres and an examination of performance theory and practice.

## **ENGL 4360: American Literature Before 1800**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents literary studies of colonial and early United States literature. Students learn about the wide range of literatures that have emerged from the complex and diverse encounters of Old and New World cultures prior to 1800 in the Americas. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

## **ENGL 4370: Medieval Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents studies in medieval literature. It may include prose, poetry, and drama and investigate aesthetic, intellectual, and social issues.

## **ENGL 4372: British Renaissance Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents British literature from the late fifteenth century to 1660, generally exclusive of Shakespeare. It may include poetry, prose, and drama and investigate aesthetic, intellectual, and social issues.

## **ENGL 4374: Restoration and Eighteenth-Century Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents British literature from 1660 to the late eighteenth century. It may include poetry, prose, and drama and investigate aesthetic, intellectual, and social issues.

## **ENGL 4380: World Literature Before 1800**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents a study of representative texts, major themes, or literary movements from around the world before 1800, emphasizing aesthetic and social understanding. It may examine Western and non-Western cultures. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

## **ENGL 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor, curriculum committee, and department chair required prior to registration.*

Selected topics of an advanced nature that may include original research for superior students. Normally for projects not served through pre-established curriculum.

## **ENGL 4401: Topics in African Literatures**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of a selected topic in the areas of orature, literature, performance texts, film and/or other media produced in Africa. The course might focus on an author or group of authors: "The Plays of Wole Soyinka"; a region or country: "Twentieth Century South African Literature"; a movement or event: "African Writers of the Negritude Movement"; a theme or issue: "Women's Rights in African Literature"; or a combination of these categories.

### **ENGL 4460: 19th-Century American Literature**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents a study of representative writers in American literature in the nineteenth century. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

### **ENGL 4470: 19th-Century British Literature**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents studies in Romantic and Victorian literature, from the 1780s to the end of the nineteenth century, examining such aesthetic and social themes as the nature and role of the artist, the impulse toward gothicism, the rise of the autobiography, responses to industrialization, and the conflict between tradition and change. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

### **ENGL 4480: 19th-Century World Literature**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents a study of representative texts, major themes, or literary movements of the nineteenth century, emphasizing aesthetic and social understanding. It may examine Western and non-Western cultures. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

### **ENGL 4490: Special Topics in English**

#### **1-3 Credit Hours**

*Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300*

This course is a study of selected topics of special interest to faculty and students.

### **ENGL 4560: 20th-Century and 21st-Century American Literature**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course presents a study of representative texts, major themes, or literary movements in twentieth-century and twenty-first-century America, emphasizing aesthetic and social understanding. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

## **ENGL 4570: 20th-Century and 21st-Century British Literature**

### **3 Credit Hours**

*Prerequisite:* ENGL 1102

This course presents a study of representative twentieth-century and twenty-first-century British literature, with an eye towards important themes, aesthetic movements, and social changes during the period. *Notes:* This course can be taken more than once provided the course content differs entirely from the previous offering.

## **ENGL 4580: 20th-Century and 21st-Century World Literature**

### **3 Credit Hours**

*Prerequisite:* ENGL 1102

This course presents a study of representative texts, major themes, or literary movements of twentieth-century and twenty-first-century world literature, emphasizing aesthetic and social understanding. *Notes:* This course can be taken more than once provided the course content differs entirely from the previous offering.

## **ENGL 4620: Senior Seminar**

### **3 Credit Hours**

*Prerequisite:* Completion of 90 hours, and permission of the department

The senior seminar is a summative academic experience that builds on previous coursework and gives advanced English majors the opportunity to engage with in-depth research on a topic related to language, literature, or writing. The small class size fosters a community of readers and writers that provides support in the process of writing a substantial seminar essay informed by current scholarship. Students also develop their communication skills through oral presentations.

## **LING 3020: Linguistics and Literature**

### **3 Credit Hours**

*Prerequisite:* One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300 .

This course surveys intersections between linguistics and literary studies. It introduces students to one or more of the major linguistic theories and methodologies that can inform literary analysis, such as semiotics, poetics, pragmatics, narrative theory, structuralism, post-structuralism, (neo-)formalism, discourse analysis, or stylistics.

## **LING 3025: Linguistics for Education**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Because language study is a key component of the English/Language Arts classroom, this course focuses on specific linguistic aspects of the English language (e.g., morphology, stylistics, discourse, etc.), grammar in context, language variation in life and literature, and sociolinguistic implications of teaching English. There is a strong focus on methodology, such as examining pedagogical stances and creating lesson plans.

## **LING 3030: Studies in Grammar and Linguistics**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of the theories and methods of linguistics, including their application to topics such as language acquisition, sociolinguistics, politics, discourse analysis, advanced grammar, or the historical development of English. *Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.*

## **LING 3035: Introduction to Language and Linguistics**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course analyzes the nature of human language. It includes an introduction to speech sounds, morphology, and syntax. A heavy emphasis is placed on the social and pedagogical implications of modern linguistic theory, which includes an examination of issues such as Standard English, dialect variation, language acquisition, or English as a Second Language.

## **LING 3040: History of the English Language**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study of the development of English, with attention to influential historical events and to the evolving structure of the language.

## **LING 3045: Grammar of Contemporary American English**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course surveys both traditional and contemporary approaches to grammar. It addresses long-established grammatical terms and concepts, inviting students to critically examine the notion of "correct" grammar and to discuss the development and maintenance of standard language. It also considers contemporary topics such as rhetorical grammar, functional grammar, and grammar in digital environments. This course is particularly useful for students considering careers in education, editing, or professional writing.

## **LING 3050: Sociolinguistics**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is an introduction to English sociolinguistics. It surveys how language is impacted by social variables such as ethnicity, gender, age, sexuality, and geography. It also explores topics including slang, jargon, dialect, identity, and power. Students are introduced to the basic subfields of linguistics—phonology, morphology, and syntax—before venturing into deeper sociolinguistic issues. The course should interest students pursuing careers in education, writing, business—and those wanting to expand their knowledge of linguistics.

## **LING 3055: Politics and Language**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course surveys a number of the most important intersections between linguistics and politics in American and global cultures today. Topics may include the "English only" movement; political correctness; the politics of gendered language; framing theory and the language of American political debate; language, ideology, and discourse analysis; and the politics of English as a "global" language. This class may be of particular interest to students heading towards careers in journalism, law, politics, or education.

## **LING 3760: World Englishes**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This writing-intensive course is a study of the unprecedented growth of English on a global scale. It examines the current state of English in the world and the cultural and social factors that have given rise to a number of different varieties of English. These varieties, attitudes towards them, and implications for various written media are explored.

## **ESL 1105: Grammar Seminar for International Students**

### **3 Credit Hours**

This course is an individualized and small group seminar open to all Kennesaw State University students for whom English is a second language. International students will discuss North American English (NAE) grammar and its academic applications, focusing on those features of the language that are most problematic for second language writers and speakers. The development of editing skills is emphasized.

## **ESL 1106: Oral Communication for International Students**

### **3 Credit Hours**

This course is open to all Kennesaw State University students for whom English is a second language. The course is designed to help intermediate to advanced ESL students improve both their conversation and public speaking skills through small group activities and class presentations. Also, pronunciation practice will play an important role throughout the course in helping students become more confident speakers of North American English (NAE).

## **ENED 4000: Service Learning in English Education**

*Prerequisite: 60 hours and permission of the instructor and department chair/program director.*

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

## **ENED 4414: Teaching of English Language Arts I**

### **3 Credit Hours**

*Prerequisite: ENGL 3241, ENGL 3310, ENGL 3391, and admission to the English Education program and Yearlong Clinical Experience. Corequisite: ENED 4650*

This course addresses the practical application of English Language Arts curricula, learning theories, teaching strategies, instructional materials, and assessment choices within specific teaching contexts. The course emphasizes justifying teaching decisions based on clear rationales anchored in practice, theory, and research; refining the facilitation of high levels of learning in all students through effective practices; and adjusting teaching moves based on evidence, such as classroom self-observation, student response and performance, and student products.

## **ENED 4416: Teaching English Language Arts II**

### **3 Credit Hours**

*Prerequisite: ENED 4414 and ENED 4650 Corequisite: ENED 4660*

This course continues the practical application of English Language Arts curricula, learning theories, teaching strategies, instructional materials, and assessment choices within specific teaching contexts begun in Teaching of Language Arts I. This course emphasizes justifying teaching decisions based on clear rationales anchored in practice, theory, and research; refining the facilitation of high levels of learning in all students through effective practices; and adjusting teaching moves based on evidence, such as classroom self-observation, student response and performance, and student products.

## **ENED 4498: Internship in Teaching English**

### **12 Credit Hours**

*Prerequisite: Provisional teaching license issued by State of Georgia, full-time employment teaching English.*

Student teaching experience in English for employed, provisionally certified teachers. Supervision will be in collaboration with a mentor-teacher in the local school and a university English education supervisor. When taken for 12 hours of credit at the same school, this internship will automatically substitute for ENED 4475. Proof of professional liability insurance is required. Students are responsible for their own school placements.

## **ENED 4650: Yearlong Clinical Experience in ELA I**

### **6 Credit Hours**

*Prerequisite: ENGL 3241, ENGL 3310, ENGL 3391; Admission to the English Education Program; Pre-Service Certificate; Admission to Yearlong Clinical Experience Corequisite: ENED 4414, EDUC 4610*

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in English education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars. Proof of liability insurance is required.

## **ENED 4660: Yearlong Clinical Experience in ELA II**

### **6 Credit Hours**

*Prerequisite: ENED 4650 Corequisite: ENED 4416*

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in English Education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars. Proof of liability insurance is required.

## **ENTR 3001: Entrepreneurial Thinking**

### **3 Credit Hours**

*Prerequisite: ECON 1000 , completion of 30 credit hours with a minimum GPA of 2.0.*

This course provides an introduction on how to think and act entrepreneurially. The course examines how creative and innovative thinking along with initiative allow the student to see and seize opportunities. This course will give students an introduction to what it means to have an entrepreneurial mindset, explore different skill sets needed in entrepreneurship, and expose them to how entrepreneurship can be utilized in all types of careers. This course takes the approach that everyone (not just those who want to start businesses) can benefit from understanding and applying an entrepreneurial mindset to any situation that demands change in their lives. This course will be filled with experiences to have students understand what it feels like to act entrepreneurially.

## **ENTR 4002: Venture Creation**

### **3 Credit Hours**

*Prerequisite: ENTR 3001, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

As an introduction to creating value for an entrepreneurial venture, this course provides information to increase students' awareness of the importance of being both externally-centric (focusing on definitions of value from the customer perspective) and internally-directed. This is achieved by developing and implementing strategies that meet customer expectations and satisfy the objectives of the new venture.

## **ENTR 4003: Venture Funding**

### **3 Credit Hours**

*Prerequisite: ENTR 3001, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Students identify and examine different types of financing, differentiate between venture capital and angel investor funding, and locate alternative financing (such as crowd-funding, peer-to-peer lending, micro-loans, and SBA loans). Additionally, students learn how to determine the value of a new venture. The course explores sourcing and acquiring financial resources that are required in new venture start-ups. Exit strategies including mergers, acquisitions, firm sales, and initial public offerings (IPOs) are examined.

## **ENTR 4004: Venture Commercialization**

### **3 Credit Hours**

*Prerequisite: ENTR 4002 and ENTR 4003, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course integrates the aspects of developing the entrepreneurial mindset, creating market value, financing the venture, and commercializing the opportunity for a new for-profit, enterprise initiative (Intrapreneurship) or social business venture. The students execute the action phase of the business plan, engage capital strategies, secure charter customers, interview community entrepreneurs, and formally pitch the new venture for critique by entrepreneurs or venture capitalists.

## **ENTR 4005: Entrepreneurial Experience**

### **3 Credit Hours**

*Prerequisite: ENTR 4002*

This course uses an action learning approach to create, deliver, and reflect on an meaningful experience in entrepreneurship. Students have the option of working on solving a problem for a small business, making substantive progress on a personal venture idea, or enacting change within an existing organization. Students will be required to create the terms of the engagement, set deliverables, participate in the experience, and reflect on the process and results.

## **ENTR 4122: Venture Analysis**

### **3 Credit Hours**

*Prerequisite: MGT 3100 or ENTR 3001*

A course that applies the concepts of small business management, entrepreneurship and creativity to the analysis of complex business problems faced by new ventures and existing small businesses. Case studies will be used to develop students' ability to identify and solve problems. Work will continue on personal startup projects and business plans.

## **ENTR 4125: International Entrepreneurship**

### **3 Credit Hours**

*Prerequisite: (MGT 3100 or MGT 3600 or ENTR 3001) and [Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course.)]*

An examination of the role of the entrepreneur in creating new international business ventures. This course provides students with both a theoretical and practical understanding of new venture creation in the international marketplace, including extensions of domestic enterprises and new enterprises.

## **ENTR 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.*

Special topics of an advanced nature not in the regular course offerings.

## **ENTR 4490: Special Topics in Entrepreneurship**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.*

Selected topics of interest to faculty and students.

## **ENVS 2202K: Introduction to Environmental Science**

### **4 Credit Hours**

This course is an examination of contemporary environmental issues related to Earth's natural systems such as human population dynamics, natural resources, environmental quality, global changes, and environmental values in society. Students will learn how to apply scientific principles and data to gain an understanding of modern environmental challenges on local, regional, and global scales.

## **ENVS 3100K: Soil & Water Science**

### **4 Credit Hours**

*Concurrent: (CHEM 1212 and CHEM 1212L )*

This course will provide an overview of soil and water science including study of the physical, chemical and biological properties of each and how these properties relate to soil health and water quality. Students will consider human activities that impact soil and water resources, learn how to assess those impacts and apply management approaches towards them. Laboratory exercises will involve the application of techniques for monitoring soil and water quality and methods for remediation.

## **ENVS 3110L: Directed Methods**

### **1-3 Credit Hours**

*Prerequisite: ENVS 2202K and permission of the instructor*

This laboratory course will allow students to gain in-depth skills with a specific set of research methodologies through direct involvement in faculty-led research or scholarship. Course content and instructional methodologies will be identified by the faculty's needs and expectations.

## **ENVS 3150K: Environmental Toxicology**

### **4 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L) and (CHEM 3361 and CHEM 3361L)*

Environmental toxicology is the study of the nature, properties, effects and detection of toxic substances in the environment and environmentally exposed species, including humans. Students taking this course will learn to quantify environmental exposures using dose-response relationships, categorize the absorption of toxicants, calculate the distribution of storage toxicants, describe the biotransformation and elimination of toxicants, determine target organ toxicity, teratogenesis, mutagenesis, and carcinogenesis of various toxins and manage the risks associated with them.

## **ENVS 3350: Oceanography**

### **3 Credit Hours**

*Prerequisite: (CHEM 1212 and CHEM 1212L) and (BIOL 1108 and BIOL 1108L)*

Students in this course will learn how plate tectonics affect the positioning of our continents, how the physical and chemical makeup of seawater affects the ocean's properties, and how air-sea interactions, ocean circulation, waves and tides all affect our climate. Finally, students will explore the biological richness of the ocean ecosystem by studying coastal habitats, biological productivity, pelagic and benthic marine organisms, marine pollution and the exploitation of marine resources.

## **ENVS 3398: Internship**

### **1-4 Credit Hours**

*Prerequisite: 90 credit hours and permission of the instructor.*

This course provides a structured out of the classroom experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of faculty and the internship supervisor. Internship sites must be secured in advance of the semester of the placement and must be approved by the student's advisor and internship coordinator.

## **ENVS 3450: Conservation Biology**

### **3 Credit Hours**

*Prerequisite: BIOL 1108 and BIOL 1108L*

This course will cover fundamental principles of conservation biology. Students will learn about the history and development of the conservation movement, learn how to examine human impacts on plants and wildlife, delve into interaction of conservation and society, and determine how to manage and conserve endangered species. Class exercises will cover quantitative techniques used to evaluate and predict the status of plant and animal populations and ecological methods for monitoring and maintaining biodiversity in ecosystems.

## **ENVS 3720: Sustainability at KSU**

### **3 Credit Hours**

*Prerequisite: (BIOL 1108 and BIOL 1108L) or GEOG 1113K*

The course includes an in-depth survey of sustainability efforts in the areas of campus facilities and curriculum at Kennesaw State University and is especially relevant for students with interest in the area of Environmental Studies. The course has a service-learning component in which teams of students examine aspects of KSU's sustainability activities and develop proposals to improve or enhance ongoing efforts or introduce new ones. *Notes: This course is cross-listed with BIOL 3720.*

## **ENVS 3730: Natural Resource Management**

### **3 Credit Hours**

*Prerequisite: (BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L) or (SCI 1101 and SCI 1102)*

This is an introductory course designed to provide students with a basic foundation for an understanding of the importance of natural resource conservation within the context of a variety of local, regional, national, and global resource and environmental concerns. This course examines the effects various natural resource management practices have on the quality of life for both present and future generations with much of the material focusing on the concept of sustainable development.

## **ENVS 4000K: Wetlands and Mitigation**

### **4 Credit Hours**

*Prerequisite: BIOL 1107 and BIOL 1107L and ENVS 3100K*

This course covers wetlands as components of natural landscapes. Students will learn to characterize the biogeochemistry, hydrology, geomorphology, and soil properties of wetlands. Students will learn how to classify wetlands by considering soil and hydrologic factors important to wetland delineation and jurisdictional determination. Finally, students will learn how to mitigate impacts on wetlands with an emphasis on wetland restoration and creation.

## **ENVS 4200: Research Methods**

### **3 Credit Hours**

*Prerequisite: Any geography or science lab course and 60 credit hours.*

This course is designed to prepare students for scientific research in the environmental field and related disciplines. It introduces students to a variety of spatial and environmental research concepts, approaches, methods, and techniques. This course guides students through aspects of scientific research. *Notes: This course is crosslisted with GEOG 4200.*

### **ENVS 4300: Environmental Ethics**

#### **3 Credit Hours**

This course is designed to extend the traditional boundaries of the ethical relationships between humans to the nonhuman world in the natural environment. Philosophical and social issues have surfaced in the twenty-first century emerging as environmental ethical dilemmas demanding resolution. Case studies and a variety of interdisciplinary literature pieces are incorporated which allow students to consider the impact of ethical dilemmas and evaluate their social influences.

### **ENVS 4399: Environmental Science Seminar**

#### **1 Credit Hours**

*Prerequisite: Environmental Science Major and 90+ Credit Hours Concurrent: ENVS 3100K*

This seminar will explore current topics in environmental science, regulation, and policy. Faculty and outside speakers from government and private industry will give presentations and lead discussions. Students will be expected to attend all lectures and participate.

### **ENVS 4400: Directed Study**

#### **1-4 Credit Hours**

Approval of Instructor and Dept. Chair for Ecology, Evolution and Organismal Biology  
Students will learn selected topics of an advanced nature and may include original research projects.

### **ENVS 4490: Special Topics in Environmental Science**

#### **1-4 Credit Hours**

*Prerequisite: Instructor approval.*

Selected special or current topics of interest to faculty or students.

### **EUST 2050: Introduction to European Studies**

#### **3 Credit Hours**

This course is a survey of the foundational figures, themes, and texts in European Studies in an interdisciplinary and global context. It serves as an introduction to European Studies with a focus on the Modern Era. Students engage with appropriate texts from a variety of European countries and cultures in an interdisciplinary intellectual environment.

### **EUST 4040: Capstone in European Studies**

#### **3 Credit Hours**

*Prerequisite: EUST 2050 or permission of the instructor*

This course offers an in-depth examination of a topic or major figure relevant to the field of European Studies. This course may include but not be limited to humanistic, analytical research and / or literary analysis; and / or community engagement exercises with the express purpose of applying knowledge in the field of European Studies in the community.

## **ES 2100: Physical Activity in Health and Disease**

### **3 Credit Hours**

This course provides an epidemiological foundation to physical activity research specific to public health. Participants will examine the literature relative to the physiological impact of regular physical activity on chronic diseases (e.g., cardiovascular diseases, diabetes, cancer, etc.).

## **ES 2200: Safety Training for Exercise Science**

### **2 Credit Hours**

*Prerequisite: Exercise Science Majors*

The purpose of this course is to provide students with the knowledge and skills necessary for using the Exercise Physiology Laboratory safely. Students will learn and practice the emergency action plan. This course will provide students with the knowledge and skills necessary to help provide a safe environment for athletes when they are participating in sport/exercise and, in an emergency, to help sustain life and minimize the consequences of injury or sudden illness until advanced medical help arrives. Students will have an opportunity to become certified in First Aid and CPR/ AED for the Professional.

## **ES 2290: Special Topics**

### **1-3 Credit Hours**

This course includes select physical activity units not regularly offered through the Department of ESSM.

## **ES 2300: Medical Terminology**

### **2 Credit Hours**

*Prerequisite: Exercise Science Major, Exercise Science Interest, Public Health Education Interest, Public Health Education Major, Biomedical Engineering Minor, or Integrated Health Science Major. Concurrent: BIOL 2251 or HPAL 2250*

This course will cover the basic techniques for anatomical, physiological, and medical word-building. The course will teach a systematic approach to defining general medical terms and terms for pathological disorders by dividing them into word roots, combining forms and prefixes.

## **ES 2500: Principles of Nutrition**

### **3 Credit Hours**

*Prerequisite: Exercise Science Interest/ Major, or Public Health Education Interest/ Major, or Sport Management Major, or Integrated Health Science Major, or Nutritional Science Minor*

This course is designed to introduce students to the basic principle of nutrition as needed for general health. Topics include the role of diet in the development and prevention of chronic diseases, such as cardiovascular disease, cancer, diabetes, etc.; macro- and micro-nutrient needs for optimum health; U.S. dietary guidelines (and international equivalents); tools to assist with menu planning; and dietary analysis.

## **ES 3100: Group Exercise Leadership**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; BIOL 2251 Concurrent: ES 2200*

This course is designed to provide students with leadership skills and experience that directly apply to group exercise programming. Topics include current trends in group exercise, program design and implementation, monitoring exercise, evaluation of existing programs, and administrative considerations.

## **ES 3105: Lifecycle Nutrition**

### **3 Credit Hours**

*Prerequisite: Nutritional Science Minor; ES 2500 .*

This course is designed to introduce students to the role of nutrition through the different stages of the lifecycle. Physiological and biological changes, and their implications for nutritional factors will be discussed with each stage of life, including preconception, pregnancy, lactation, infancy, childhood, adolescence, adulthood, and older adults (65+).

## **ES 3200: Research Methodology**

### **3 Credit Hours**

*Prerequisite: Exercise Science major, STAT 1401, and 60+ credit hours.*

This course provides an overview of the research process applied in the study of exercise and health science. Students are introduced to simple experimental design, data gathering techniques, statistical concepts and methods, and research writing.

## **ES 3300: Food Science**

### **3 Credit Hours**

*Prerequisite: Nutritional Science Minor; ES 2500.*

This course explores engineering, biological, and physical sciences to study the nature of foods, the causes of deterioration, the principles underlying cooking and food processing, and the improvement of food quality for the consuming public. Students acquire a basic theoretical understanding of the chemical and physicochemical principles involved in creating and maintaining desirable food sensory and nutritional properties during food storage, preparation and holding.

## **ES 3398: Internship in Exercise Science**

### **1-3 Credit Hours**

*Prerequisite: Exercise Science major and approval of the department chair*

This course offers students a supervised, credit-earning experience of one academic semester with a previously approved business firm, sport organization, private agency or governmental agency. Students must have current professional liability insurance and CPR/AED certification. Credit may be placed in the elective areas. *Notes: S/U grading only. Repeatable once.*

## **ES 3420: Food and Culture**

### **3 Credit Hours**

*Prerequisite: Nutritional Science Minor; ES 2500.*

This course explores how food behaviors are influenced by geography, nationality, social class, history and religion. Students will evaluate food systems at local and global levels, focusing on how food is produced, transformed, distributed, consumed, and how food waste is managed. Students will also explore sustainable food practices and what certain cultures are doing to minimize food production's negative impact on climate change.

## **ES 3500: Nutritional Assessment**

### **3 Credit Hours**

*Prerequisite: Nutritional Science Minor; ES 3105.*

This course provides a comprehensive introduction to the dietary, biochemical, and anthropometric methods used in assessing nutritional status for individuals and groups. This course also includes the study of medical terminology, counseling techniques, and approaches to determining nutrient requirements.

## **ES 3600: Health Fitness Management**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; BIOL 2251 and ES 2200 .*

This course provides an introduction to the professional standards and guidelines that assist a health and fitness facility with providing quality service and program offerings in a safe environment. Course content will include an overview of risk management and emergency policies, operating practices, facility design and construction, equipment concerns and signage issues related to health and fitness facilities.

## **ES 3700: Strength and Conditioning**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; BIOL 2251 and ES 2300 . Corequisite: ES 3750 Strength and Conditioning Laboratory*

This course offers students an introduction to scientific and practical foundations associated with strength and conditioning programs. The course content promotes the use of a structured scientific approach in the prescription of progressive resistance training and cardiorespiratory conditioning.

## **ES 3750: Strength and Conditioning Laboratory**

### **3 Credit Hours**

*Prerequisite: Exercise Science Major, BIOL 2251, ES 2300. Corequisite: ES 3700*

This laboratory course provides an introduction to techniques commonly associated with instructing strength and conditioning programs. The laboratory content promotes the use of a structured scientific approach in the prescription of progressive resistance training and cardiorespiratory conditioning.

## **ES 3800: Biomechanics**

### **3 Credit Hours**

*Prerequisite: Exercise Science major, BIOL 2251 and ES 2300 .*

This course introduces students to the study of neuromuscular and mechanical principles of motion related to the analysis of human movement.

## **ES 3900: Physiology of Exercise**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; BIOL 2252 .*

This course provides an overview of the human body's responses to the stress of physical exercise. Students are introduced to the metabolic, cardiovascular, pulmonary and neuromuscular adaptations to acute and chronic exercise.

## **ES 4000: Service Learning in Exercise Science**

### **1-3 Credit Hours**

*Prerequisite: 60+ semester hours, Exercise Science major and permission of the department chair.*

This course offers students a community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. The community activity is designed with the instructor and approved by the department chair.

## **ES 4050: Community Nutrition**

### **3 Credit Hours**

*Prerequisite: Nutritional Science Minor; ES 3105.*

This course will examine the role of state and federal nutrition programs in promoting and improving health within the community. It will explore nutritional assessment and monitoring methods, as well as intervention and management strategies for nutrition services.

## **ES 4120: Weight Management**

### **3 Credit Hours**

*Prerequisite: Nutritional Science Minor; ES 3105.*

This course will introduce techniques for assessing weight status and health, and explore dietary and physical activity approaches for weight control. The course will also provide a comprehensive overview of weight loss strategies and treatment approaches to obesity and disordered eating.

## **ES 4200: Nutrition and Performance**

### **3 Credit Hours**

*Prerequisite: Exercise Science major, (ES 2500 or CSH 2500 ) and ES 3900 .*

This course covers the nutritional needs of individuals participating in exercise and sport. Topics include but are not limited to the dietary needs of the human body before, during and after various modalities and intensities of athletics in order to optimize performance.

## **ES 4250: Advanced Human Nutrition**

### **3 Credit Hours**

*Prerequisite: Nutritional Science Minor; CHEM 3500 and ES 3105*

This course will explore the physiological and biochemical processes involved in both macro and micro nutrient metabolism. This course will cover the basics of digestion and absorption, how the body metabolizes and utilizes essential and nonessential nutrients.

## **ES 4300: Physiology of Exercise and Aging**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; ES 3900 .*

This course provides an overview of exercise physiology and healthy aging. The course emphasizes special considerations during fitness assessment, exercise prescription, and health promotion for special populations including the older adult, children, adolescents, and females during pregnancy and the post-partum period.

## **ES 4400: Directed Study**

### **1-15 Credit Hours**

*Prerequisite: 2.75 Institutional GPA, Exercise Science major, 60+ semester hours and permission of the department chair*

This course covers topics and seminars of an advanced nature external to regular course offerings.

## **ES 4490: Special Topics in Exercise Science**

### **1-3 Credit Hours**

*Prerequisite: 2.75 Institutional GPA, Exercise Science major*

This course includes selected topics of interest to faculty and students not regularly offered by the Department of ESSM.

## **ES 4500: Physiology of Exercise II**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; ES 3900. Corequisite: ES 4550*

This course examines the study of the physiological basis of training and factors limiting human performance. Students are introduced to concepts of neuromuscular function, hormonal control, environmental conditions and ergogenic aids as they relate to acute and chronic exercise.

## **ES 4550: Exercise Science Laboratory Techniques**

### **1 Credit Hours**

*Prerequisite: Exercise Science major; ES 3900. Corequisite: ES 4500*

This course provides an introduction to laboratory techniques commonly used in the field of exercise science. The course includes an overview of ergometry, energy expenditure, blood pressure, cardiovascular, pulmonary, and musculoskeletal responses during exercise. The topics within the course include safe, legal, and ethical practices required when working in an exercise physiology laboratory.

## **ES 4600: Exercise Prescription**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; ES 4500 and ES 4550. Corequisite: ES 4650*

This course introduces students to methods utilized in creating exercise prescriptions and developing exercise programs. Emphasis is placed on developing and delivering safe and valid exercise prescriptions.

## **ES 4650: Exercise Testing**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; ES 4500 and ES 4550. Corequisite: ES 4600*

Exercise Testing is a detailed examination of various fitness assessments. This course emphasizes current test procedures used for determining body fat percentage, maximum oxygen uptake, maximum power output, and muscular strength and endurance. This course thoroughly familiarizes students with lab procedures, test protocol, and the interpretation.

## **ES 4700: Clinical Exercise Physiology**

### **3 Credit Hours**

*Prerequisite: Exercise Science major; ES 4500 and ES 4550.*

This course is designed to address the clinical aspects and implications of exercise physiology principles for those with or at risk of developing cardiovascular, pulmonary or metabolic disease.

## **ES 4800: Clinical Biomechanics**

### **3 Credit Hours**

*Prerequisite: 2.75 Institutional GPA, Exercise Science major, ES 3800.*

This course includes a survey of acute and chronic activities related to injury and biomechanical mechanisms. The course will expose students to basic kinetic and kinematic analyses. The course includes an examination of contemporary theories of prevention using a biomechanical perspective.

## **ES 4900: Senior Seminar in Exercise Science**

### **3 Credit Hours**

*Prerequisite: Exercise Science Major. Concurrent: ES 4600 and ES 4650*

This course is a capstone course designed as a culminating experience for the major by integrating the student's prior academic experience in Exercise Science. Students are provided an overview of contemporary issues, trends, theories, and research related to Exercise Science. This course is delivered in a seminar format to encourage student participation and interaction with peers and faculty.

## **ES 4950: Exercise Science Senior Internship**

### **3 to 12 Credit Hours**

*Prerequisite: Exercise Science major, ES 4500 and ES 4550, 90+ credit hours, and approval of the department chair.*

This course is a senior-level credit-earning experience at an approved exercise science internship site. During this course, students work under the direct supervision of an exercise science professional and university supervisor. Students must have current professional liability insurance and CPR/AED certification. *Notes: Credit for the course can be placed in the elective areas only.*

## **FILM 2290: Special Topics**

*Prerequisite: Varies based on subject*

Special topics selected in the study of Film.

## **FILM 3105: Introduction to Screenwriting**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This class introduces students to fundamental and foundational techniques of screenwriting such as formatting, three-act structure, character development, plot function, and dialogue. Students will study screenwriting theory and practice techniques as they develop original (short) screenplays. Students will learn about professional standards and best industry practices. Table readings, one-on-one conferences, and peer revision techniques may be used.

## **FILM 3125: Introduction to TV Writing**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This class introduces students to fundamental and foundational techniques of writing for television such as formatting, television act structure, character development, television plot function, and dialogue. Students will study television writing theory and practice techniques as they develop an original (short) pilot script. Students will learn about professional standards and best industry practices. Table readings, one-on-one conferences, and peer revision techniques may be used.

## **FILM 3200: Film History I**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course surveys the major artistic movements, technological changes, and critical approaches important to film from 1895 to 1950, covering German Expressionism, Soviet montage, the Hollywood studio system, and the transition from silent to sound cinema.

## **FILM 3205: Series and Serials**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course surveys the formal qualities, technological developments, and critical approaches important to understanding episodic forms of cinema: movie shorts, serials, teleplays, television movies, anthology shows, and film adaptations of television series.

## **FILM 3210: Film History II**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course surveys the major developments, movements, and critical approaches in international cinema from 1950–1980, including considerations of the rise of the auteur, the institutionalization of widescreen, the impact of television on film design and distribution, and the emergence worldwide of several creative "new waves."

## **FILM 3215: Film History III**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course surveys major developments in film since 1980, including the rise of the blockbuster, the co-production, and the independent film; the use of digital animation, special effects, and distribution technologies; the impact of VHS, DVD, and streaming services on film exhibition, reception, and design; and the rise of several new international cinematic movements.

## **FILM 3220: Topics in American Cinema**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course focuses on the output of a specific studio, the concerns of a filmmaking collective, the aesthetic trends of a historical period, or a theme of special importance to American cinema.

## **FILM 3230: Topics in World Cinema**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course focuses on the artistic contributions, the representational traditions, and the major works of a specific national cinema, diasporic filmmaker, or worldwide cinematic movement.

## **FILM 3240: Film Genres and Movements**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces students to the major films of a specific genre, such as the Western, the comedy, or the horror film, or to the milestones, stylistic features, and cinematic influence of a major film movement.

## **FILM 3250: Film Authors**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces students to the major films, the stylistic signatures, the thematic obsessions, and the cinematic influence of a noteworthy filmmaker, whether a director, actor, screenwriter, or other artist.

## **FILM 3560: Women in Film**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course focuses on critical approaches to women and cinema, films geared toward female audiences, portrayals of women on screen, and the influence of significant works by women filmmakers.

## **FILM 4105: Advanced Screenwriting**

### **3 Credit Hours**

*Prerequisite: FILM 3105*

In this class, students will build on fundamental skills developed in FILM 3105, exploring advanced screenwriting methods such as genre conventions, scene dynamics, integration of theme, and advanced rewriting practices. Students will also study and practice skills such as pitching and marketing finished works. Table readings, one-on-one conferences, and peer revision techniques may be used. This class is writing intensive. This course can be taken up to two times (**6 Credit Hours**) for credit towards graduation.

## **FILM 4125: Advanced TV Writing**

### **3 Credit Hours**

*Prerequisite:* FILM 3125

In this class, students build on fundamental skills developed in FILM 3125, exploring advanced television writing topics such as the development process, modes and standards of production, how writers rooms function, and how to build a series bible. Students also study and practice skills such as pitching and marketing finished works. Table readings, one-on-one conferences, and peer revision techniques may be used. This class is writing intensive.

## **FILM 4200: Theory-Based Studies in Film**

### **3 Credit Hours**

*Prerequisite:* FILM 3200, FILM 3210, FILM 3215, FILM 3220, FILM 3230, FILM 3240, or FILM 3250

This course surveys major theoretical writings about film, focusing on such discourses as queer theory, feminist film theory, psychoanalytic film theory, and film semiotics.

## **FIN 2500: Consumer Finance**

### **3 Credit Hours**

A nontechnical course designed to develop an understanding of the basic principles and techniques as they apply to personal income, spending and investing. Emphasis is placed upon financial planning, budgeting, saving, home ownership, estate planning, and retirement.

*Notes:* This course is for non-business majors. This course will not count for business majors.

## **FIN 3100: Principles of Finance**

### **3 Credit Hours**

*Prerequisite:* (Grades of "B" or higher in ACCT 2101, ACCT 2102, ECON 2106, ECON 2105 and ECON 2300) or Admission to Coles College Undergraduate Professional Program or completion of 60 credit hours with a minimum GPA of 2.0, ACCT 2101, ACCT 2102, ECON 2106, ECON 2105 (ECON 2300 or STAT 1401) and student in a Coles College Partner Program that includes this course.

An introductory course designed to develop knowledge of the basic concepts, principles, and functions of managerial finance. Topics include the time value of money, valuation of bonds and stocks, financial analysis, working capital management, capital budgeting, and capital structure strategies.

## **FIN 3397: Internship and Experiential Learning in Finance**

### **0-9 Credit Hours**

*Prerequisite:* Admission to the Coles College Undergraduate Professional Program, FIN 3100, approval of the Career and Internship Advisor (KSU Career Planning and Development), and a minimum GPA of 3.0.

This course is designed to provide hands-on experiences and challenges to help students develop and improve their skills and problem-solving abilities. Prior to enrolling in this course, students are responsible for working with their Career & Internship Advisor to secure an approved internship position. Current and prior work experience does not qualify for credit. Graded assignments are required to receive credit. *Notes:* This course will be graded on an S/U basis. This course may only be used in the Business Electives area of the BBA.

## **FIN 4220: Corporate Finance**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Application of the principles and concepts of finance to the acquisition and management of corporate assets and financial resources, the management of the firm's capital structure, and development of dividend policy.

## **FIN 4260: Short Term Financial Management**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Focuses on the structure and functioning of payment systems, the management of short-term assets and short-term liabilities of the business firm, and the impact of computer and communications technologies on financial management systems.

## **FIN 4320: Fixed Income Securities**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course provides students with knowledge of the fixed-income markets. The course will cover the pricing and risk management of fixed-income securities, and an introduction to fixed-income derivatives. It covers interest rate management, product fundamentals, and portfolio strategies. This course is a valuable preparation for students interested in taking the Chartered Financial Analysts (CFA) examination.

## **FIN 4360: Investments**

### **3 Credit Hours**

*Prerequisite: (MATH 1160 or MATH 1190 or MATH 1179) and FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course provides students with working knowledge of equity securities and portfolio management with an emphasis on the fundamental trade-off between risk and return. The course covers securities markets, efficient diversification, asset pricing models, and investment strategies of individual and institutional investors. It also introduces students to bonds and financial derivative products.

## **FIN 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 3.0, Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course, and approval of instructor and Department Chair prior to registration.*

Special topics of an advanced nature not in the regular course offerings.

## **FIN 4420: International Financial Management**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Investigates the implications for financial decision making rules and policies that result from consideration of an international financial perspective.

## **FIN 4460: Financial Statement Analysis**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course focuses on financial statement users, their information needs, and how effective financial statement analysis addresses those needs. Students will be instructed in methods to assess the financial health and performance of a firm to make realistic valuations and sound financial decisions (e.g., as to investing, lending, liquidity, and risk) in light of industry and economic conditions.

## **FIN 4490: Special Topics in Finance**

### **1-3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course, and approval of instructor and department chair prior to registration.*

Selected special topics of interest to faculty and students. This course may be taken more than once.

## **FIN 4520: Financial Derivatives and Financial Engineering**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course is designed to help students gain a thorough understanding of the roles of futures, options, and other financial derivatives in allocating risk; the design of financial derivatives; the valuation of financial derivatives; and their applications to financial risk management problems.

## **FIN 4560: Behavioral Finance**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The tools and applications of behavioral finance are presented. Topics include expected utility, prospect theory and mental accounting; conventional finance and challenges to market efficiency; heuristics and biases, overconfidence and emotion; financial decision-making stemming from psychology; behavioral explanations of observed behavioral anomalies; aggregate stock market puzzles; and retirement and pensions.

## **FIN 4590: Applied Equity Valuation**

### **3 Credit Hours**

*Prerequisite: Permission of the Department Chair, and FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College. Membership in Student Managed Investment Fund.*

This course presents the practical applications of economic and quantitative analysis to determine the intrinsic value of a publicly-traded firm. Students apply contemporary valuation techniques to value an actual firm and prepare a comprehensive investment report based on an evaluation of industry-level economic and competitive conditions, and firm-specific operating risk and financial projections.

## **FIN 4620: Financial Management of Financial Institutions**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Financial decision making concepts are applied to the particular financial management issues of financial institutions, including funds acquisition and management of operations and capital investments.

## **FIN 4660: Advanced Corporate Finance**

### **3 Credit Hours**

*Prerequisite: FIN 4220, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course provides an in-depth coverage and quantitative analysis of the firm's decisions to raise capital publicly, privately, domestically, and globally. The course also covers restructurings of debt obligations (bond refunding, exchange and tender offers), and equity/asset restructurings.

## **FTA 3810: Payments Processing**

### ***3 Credit Hours***

This course focuses on the payment process ecosystem, lifecycle, regulation, security, fraud protection, and payment networks. The student will learn about products and services of the payments, fraud and risk reduction strategies, roles and responsibilities of issuers, acquirers, merchants and banks, and strategies for maximizing payment usage while minimizing loss. The student will also learn about payments negotiations, risk management, customer relationships, principles of authorization, settlement, chargeback, and procedures, strategies, and best practices. This course may be cross-leveled with FIS 6810.

## **FTA 3850: Digital Payments Security**

### ***3 Credit Hours***

This course examines security issues in the payments vertical. Students explore application security addressing the challenges and weak points of applications, learn the tools and techniques of machine learning as a defensive security strategy overcoming the continuous automatic attack generated by machines, and engage in hands-on practice in penetration testing. Payments framework and standards including NIST cybersecurity framework, ISO 27001 information security management, and Payment Card Industry Data Security Standards (PCI DSS) will be discussed. Administration of the information security function including the strategic planning process, policies, procedures, and staffing functions necessary to organize and administer ongoing security functions will be discussed. In addition, fraud, regulation, security practices, security architecture, competitive intelligence, and operating environments are emphasized throughout the course. This course may be cross-leveled with FIS 6850.

## **FTA 3860: Emerging Payments Technology**

### ***3 Credit Hours***

Emerging technologies promise immediate payment processing, execution, clearing, and settlement. In reality, businesses have critical infrastructure assets that present conversion challenges or incompatible. In this course, students learn the existing critical payments infrastructure assets to understand how the current technologies work. Students will also learn the opportunities presented by emerging payment technologies. This course will challenge students to develop ideas, write business cases, and develop mockup solutions for the transition. This course may be cross-leveled with FIS 6860

## **FTA 3890: Experiential Learning**

### ***3 Credit Hours***

Students engage in a team-based interactive virtual experiential learning with a collaborating industry partner to gain on-the-job experience. Stakeholders from the industry partner interact with students synchronously and asynchronously. A virtual collaboration platform is used to enroll, onboard, empathize, reboot, experiment, and deliver business solutions for client problems. Students get mentored, trained, and practice on tools and techniques used in industry. Student progress is tracked using a feedback loop to improve their learning. Prototyping and experimentation are encouraged to understand "real world" issues. Partner companies share their anonymized dataset, tools and techniques. Coaching activities including design thinking, backlog management, and business modeling are used in this course. This course may be cross-leveled with FIS 6890

## **FTA 4001: Foundations of FinTech**

### ***3 Credit Hours***

The financial services industries are changing rapidly with the emergence of financial technology (FinTech). The objective of the course is to provide students with an overview of FinTech and introductions to its applications in financial services, such as commercial and investment banking, digital investing, financial advising, and insurance. Students are expected to develop a broad understanding of the recent FinTech development and its impact on different parts of the financial world. Students will also have hands-on problem-solving experiences that can be useful in FinTech applications and innovation. Topics may include but are not limited to: blockchain and cryptocurrencies, smart contracting, payments, digital banking, P2P lending, crowdfunding, robo-advising, and InsurTech.

## **FTA 4002: Financial Technologies**

### ***3 Credit Hours***

This course examines the information and communications tools, technologies, and standards integral to consumer, merchant, and enterprise services in the payments and financial service sectors. Explores technology's role in reshaping FinTech businesses. Technologies span messaging, communication networks and gateways, core processing, mobile and online software, and application program interfaces (APIs). Includes the challenges, standards, and techniques associated with securing systems and data.

## **FTA 4003: Commercial Banking and FinTech**

### ***3 Credit Hours***

The FinTech revolution is creating significant disruption to the traditional processes of managing and regulating financial institutions, especially banks. Understanding, assessing and forecasting FinTech's impact on banking is particularly important because proper management and oversight of financial institutions is essential to the efficient operation of the national, as well as global, economy. In this course, students will learn about the principles and practices of commercial bank management, bank regulation, and the tradeoffs between risk and return. Challenges presented by the FinTech evolution, including traditional and emergent competitors as well as demographic, social, and technology forces driving change in the industry, will be integrated throughout the entire course.

## **FTA 4005: Introduction to Financial Data Analytics**

### ***3 Credit Hours***

This course provides the foundation for financial data analytics used in business and FinTech applications. The objective of this course is for students to gain experience in analyzing financial data using modern machine learning techniques, statistical methods, and prediction models. Students will develop computational skills to perform data analysis using a modern statistical programming environment, and apply these skills to address a range of problems encountered by business firms, including those in the FinTech industry. The topics discussed include an introduction to R language, visualization of financial data, cluster analysis, simple and multiple linear regression, classification models, high dimension data analysis using Lasso, tree regression, and model assessment and selection using cross validation. Students will have hands-on experience in the development of data analytics applications to analyze real world financial problems.

## **FTA 4100: Introduction to Information Security for FinTech**

### ***3 Credit Hours***

The purpose of this course is to introduce students to the rapidly evolving and critical international arenas of Privacy, Information Security, and Critical Infrastructure for FinTech. This course is designed to develop knowledge and skills for security of information and information systems within FinTech organizations. It focuses on concepts and methods associated with security across several systems platforms, including internal and Internet-facing systems. The course utilizes a world view to examine critical infrastructure concepts as well as techniques for assessing risk associated with accidental and intentional breaches of security in a FinTech network. It introduces the associated issues of ethical uses of information and of privacy considerations.

## **FL 1001: Elementary Foreign Language and Culture I**

### **3 Credit Hours**

Introduction to a foreign language and culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of the culture being studied.

## **FL 1002: Elementary Foreign Language II**

### **3 Credit Hours**

*Prerequisite: FL 1001, or by placement, or the equivalent*

This course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of the culture being studied.

## **FL 2001: Intermediate Foreign Language and Culture I**

### **3 Credit Hours**

*Prerequisite: FL 1002 or permission of the instructor.*

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

## **FL 2002: Intermediate Foreign Language and Culture II**

### **3 Credit Hours**

*Prerequisite: FL 2001 or permission of the instructor.*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

## **FL 2209: World Languages and Cultures**

### **3 Credit Hours**

An overview of world languages and cultures and their manifestations in our society. Class discussions and readings are reinforced through supervised field experiences in the metro Atlanta area. In addition, students survey academic and professional career opportunities in fields that require linguistic skills and cultural competence.

## **FL 2306: Voices of Dissent Around the World**

### **3 Credit Hours**

This course analyzes non-canonical, traditionally marginalized narratives that deal with issues of social injustice and political violence in a transnational context. It also explores how cultural artifacts, such as film, television, music, pop art, and literary texts contribute to constructing memory of the past.

## **FL 3309: Survey of Chinese Literature and Culture**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course, is a survey of Chinese literature and culture, examining major works and literary and artistic movements as well as cultural issues. Readings and discussions are in English; some readings are in the original for Chinese language students. *Notes: FL 3309, cross-listed as ASIA 3309*

## **FL 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: FL 2002*

Covers special topics external to course offerings in order to allow a student to work individually with an instructor.

## **FL 4490: Special Topics in Foreign Language**

### **1-3 Credit Hours**

*Prerequisite: FL 2002 or permission of the instructor.*

Selected topics of interest to faculty and students.

## **HEBR 1001: Elementary Hebrew I**

### **3 Credit Hours**

This course introduces students to Hebrew language and Israeli culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Israeli culture.

## **HEBR 1002: Elementary Hebrew II**

### **3 Credit Hours**

*Prerequisite: HEBR 1001 or by placement or equivalent*

This course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Israeli culture.

## **HEBR 1050: Introduction to Biblical Hebrew**

### **3 Credit Hours**

This course introduces students to the ancient Hebrew language. It lays a solid foundation for reading and analyzing Biblical texts. Note: This course does not prepare students for the study of modern Hebrew, nor is it sequenced with other HEBR courses.

## **HEBR 2001: Intermediate Hebrew I**

### **3 Credit Hours**

*Prerequisite: HEBR 1002*

Students continue to develop proficiency in listening, speaking, reading, and writing and learn to communicate in culturally appropriate ways.

## **HEBR 2002: Intermediate Hebrew II**

### **3 Credit Hours**

*Prerequisite: HEBR 2001*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

## **FLED 4408: Second Language Acquisition**

### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education Program or ASIA 3001 or permission of instructor.*

This course examines theories of second language acquisition (SLA) and their practical application to second language teaching and learning. It addresses the theoretical foundations of working with second language learners. It focuses on the classroom applications of this theoretical base to interactions with language learners, curriculum, instruction, and assessment. Students interpret relevant SLA research that informs language teaching and takes ownership of SLA theories and research as a rationale for pedagogical decisions

## **FLED 4410: Methods, Materials, and Curriculum of Foreign Language Education, P-8**

### **3 Credit Hours**

This course is an overview of methods, materials and curriculum in foreign language instruction grades P-8. The field experience emphasizes principles of classroom and behavior management as well as ways to put theory into practice. Proof of professional liability insurance and a pre-service teaching certificate is required.

## **FLED 4412: Methods, Materials, and Curriculum of Foreign Language Education, 9-12**

### **3 Credit Hours**

*Prerequisite: FLED 4408 and FLED 4410 Corequisite: FLED 4414*

This course is an overview of methods, materials and curriculum in foreign language instruction grades 9-12. The field experience emphasizes principles of classroom and behavior management as well as ways to put theory into practice. Field experience is required. Proof of liability insurance is required for field experience.

## **FLED 4414: Technology for Foreign Language Teaching**

### **3 Credit Hours**

*Prerequisite: FLED 4408 and FLED 4410 Corequisite: FLED 4412*

This course introduces teacher candidates to the use of instructional technology in foreign language education. Specifically, teacher candidates learn to evaluate, design, create, and implement a variety of technology-enhanced teaching and learning materials. A particular focus is placed on forming the essential connections between Second Language Acquisition theories, sound pedagogical approaches, and cutting edge technologies to ensure that teacher candidates can integrate technology meaningfully into P-12 curriculum planning and teaching practices.

## **FLED 4650: Yearlong Clinical Experience I**

### **6 Credit Hours**

*Prerequisite: Admission to Teacher Education, FLED 4408, FLED 4410, FLED 4412, FLED 4414, Issued Pre-Service Certificate, and Admission to Yearlong Clinical Experience. Corequisite: EDUC 4610 and INED 3300*

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in Foreign Language Education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars.

## **FLED 4651: FLED Seminar I**

### **1 Credit Hours**

*Prerequisite: FLED 4408, FLED 4410, FLED 4412, FLED 4414, Pre-Service Certificate, and Admission to Yearlong Clinical Experience. Corequisite: FLED 4650*

This FLED Seminar I course corresponds to the FLED Yearlong Clinical Practice I course and is designed to support teaching candidates in successful completion of edTPA tasks and assessments, focusing as well on the ethics and practice of culturally-responsive foreign language pedagogy and instruction.

## **FLED 4660: Yearlong Clinical Experience II**

### **6 Credit Hours**

*Prerequisite: FLED 4650*

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in foreign language education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment. Proof of professional liability insurance, a pre-service teaching certificate, and GACE eligibility are required.

## **FLED 4661: FLED Seminar II**

### **2 Credit Hours**

*Prerequisite: FLED 4650 and FLED 4651 Corequisite: FLED 4660*

This FLED Seminar II course corresponds to the FLED Yearlong Clinical Practice II course and is designed to support teaching candidates in successful completion of edTPA tasks and assessments, focusing as well on the ethics and practice of culturally-responsive foreign language pedagogy and instruction.

## **FLED 4670: FLED Yearlong Clinical Internship I**

### **5 Credit Hours**

*Prerequisite: FLED 4410, FLED 4412, FLED 4408, FLED 4414, and FL 4400 Corequisite: FLED 4671*

This course is the first semester of an intensive and extensive supervised, credit-earning yearlong clinical work experience in Foreign Language education for student in the Alternative Teacher Preparation program.

## **FLED 4671: FLED Internship Seminar I**

### **1 Credit Hours**

*Prerequisite: FLED 4410, FLED 4412, FLED 4408, FLED 4414, FL 4400 Corequisite: FLED 4670*

This FLED Internship Seminar I course corresponds to the FLED Yearlong Clinical Internship I course and is designed to support teaching candidates in successful completion of edTPA tasks and assessments, focusing also on the ethics and practice of culturally-responsive foreign language pedagogy and instruction. This course provides candidates the opportunity to work under the guidance of the FLED instructor and engage in discussion of issues related to language teaching with the FLED ATP cohort.

## **FLED 4680: FLED Yearlong Clinical Internship II**

### **4 Credit Hours**

*Prerequisite: FLED 4670 and FLED 4671 Corequisite: FLED 4681*

This course is the second semester of an intensive and extensive supervised, credit-earning yearlong clinical work experience in Foreign Language education for students in the Alternative Teacher Preparation program.

## **FLED 4681: FLED Internship Seminar II**

### **2 Credit Hours**

*Prerequisite: FLED 4670 and FLED 4671 Corequisite: FLED 4680*

This FLED Internship Seminar II course corresponds to the FLED Yearlong Clinical Internship II course and is designed to support teaching candidates in successful completion of edTPA tasks and assessments, focusing also on the ethics and practice of culturally-responsive foreign language pedagogy and instruction. This course provides candidates the opportunity to work under the guidance of the FLED instructor and engage in discussion of issues related to language teaching with the FLED ATP cohort.

## **FREN 1001: Elementary French I**

### **3 Credit Hours**

Introduction to listening, speaking, reading, and writing in French and to the culture of French-speaking regions.

## **FREN 1002: Elementary French II**

### **3 Credit Hours**

*Prerequisite: FREN 1001, or by placement, or the equivalent*

Continued listening, speaking, reading and writing in French with further study of the culture of French-speaking regions.

## **FREN 2001: Intermediate French I**

### **3 Credit Hours**

*Prerequisite: FREN 1002 or by placement.*

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

## **FREN 2002: Intermediate French II**

### **3 Credit Hours**

*Prerequisite: FREN 2001 or by placement.*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Course will serve as a transition between intermediate and upper-level courses in French.

## **FREN 2003: Accelerated Intermediate French Language and Culture**

### **6 Credit Hours**

*Prerequisite: Two years of high school French or FREN 1002*

This accelerated intermediate level course in French language and culture covers in one semester the materials presented in FREN 2001 and FREN 2002. The course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of French and Francophone cultures.

## **FREN 2290: Special Topics**

### **3 Credit Hours**

*Prerequisite: Permission of the department chair.*

Covers special topics and study abroad courses external to course offerings at the intermediate level.

## **FREN 3200: Critical Reading and Applied Writing**

### **3 Credit Hours**

*Prerequisite: FREN 2002 or FREN 2003*

This course emphasizes skill development and refinement in the areas of critical reading and writing in French. Designed to give students extensive experience in reading and writing in French, the course focuses on the relationship between writing and reading, and on ways to improve one through the other.

## **FREN 3302: Practical Conversation**

### **3 Credit Hours**

*Prerequisite: FREN 2002 or FREN 2003*

This course stresses expansion of effective listening comprehension and speaking skills through culturally and linguistically appropriate activities.

## **FREN 3303: Grammar and Composition**

### **3 Credit Hours**

*Prerequisite: FREN 2002 or FREN 2003*

This course provides a general review of grammar through composition and other written activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

## **FREN 3304: Literature and Culture I**

### **3 Credit Hours**

*Prerequisite: FREN 3200 and FREN 3303*

An introduction to French and Francophone literature and culture from the Middle Ages to 1820. Students examine literary and artistic movements as well as cultural issues of the period. *Notes: Readings and discussion in French.*

## **FREN 3305: Literature and Culture II**

### **3 Credit Hours**

*Prerequisite: FREN 3200 and FREN 3303*

An introduction to French and Francophone literature and culture from 1820 to the present. Students examine literary and artistic movements as well as cultural issues of the period. *Notes: Readings and discussion in French.*

## **FREN 3390: Upper-division Study Abroad in French**

### **3 Credit Hours**

*Prerequisite: Junior or Senior status and permission of the department chair.*

This course fulfills the study abroad requirement for the B.A. in Modern Language & Culture with a primary language of French. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the degree in Modern Language & Culture.

## **FREN 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite: FREN 3302 and FREN 3303 or permission of the instructor.*

Supervised, credit-earning work experience of one semester requiring use of French in the work place. *Notes: Prior approval by department coordinator and internship supervisor is required. No more than three semester hours may be applied toward the major.*

## **FREN 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: FREN 3302 and FREN 3303 or permission of the instructor.*

Covers special topics and seminars external to course offerings that allow a student to work individually with an instructor. *Notes: Requires prior approval by instructor and department chair.*

## **FREN 4402: Contemporary Culture**

### **3 Credit Hours**

*Prerequisite: FREN 3304 or FREN 3305*

An examination of the historical, social, and political contexts of the contemporary French and Francophone experience through the analysis of cultural representations such as film, media, plastic arts, music, and literature. *Notes: Readings and discussion in French.*

## **FREN 4404: Commercial French**

### **3 Credit Hours**

*Prerequisite: FREN 3302 and FREN 3303 or permission of the instructor.*

An in-depth study of business practices and the language of business in the French-speaking world. This course will prepare students for the exam for the Certificat Pratique de Francais Commercial given by the Paris Chamber of Commerce.

## **FREN 4434: Topics in Language, Literature, and Culture**

### **3 Credit Hours**

*Prerequisite: FREN 3304 or FREN 3305*

An exploration of a period, movement or genre in literature, a topic in culture, or language related issues. Topics are chosen for their significance and impact on French and Francophone cultures. *Notes: Course taught in French.*

## **FREN 4456: Advanced Grammar and Linguistics**

### **3 Credit Hours**

*Prerequisite: FREN 3302 and FREN 3303*

Advanced study of grammar from a linguistic perspective. Provides an overview of phonetics, phonology, morphology, and syntax. Exposes students to dialectical variations of the French-speaking world. Stresses development of oral proficiency. *Notes: Course taught in French.*

## **FREN 4490: Special Topics in French**

### **3 Credit Hours**

*Prerequisite: FREN 3302 or permission of the instructor.*

Special topics relevant to the study of French speaking societies.

## **FREN 4499: Senior Seminar**

### **3 Credit Hours**

*Prerequisite: FREN 3304 and FREN 3305 and senior status.*

This is a capstone course designed to synthesize and connect the student's prior academic experiences in the major and related fields of study. Students will prepare a reflective essay and a research paper to present to the faculty. *Notes: Papers and presentation in French.*

## **GWST 1102: Love and Sex**

### **3 Credit Hours**

This course examines the phenomena of love and sex from multi- and interdisciplinary perspectives in a global context. Students critically evaluate the personal and social significances of intimacy and analyze the ethical, political, and cultural dimensions of love and sex through a variety of media. Topics may include family, marriage and monogamy, sexual identity and orientation, reproductive politics, sex work, consent, and representation.

## **GWST 2000: Introduction to Gender and Women's Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a survey of the foundational figures, themes, and texts in the history of gender and women's studies in an interdisciplinary and global context. Themes to be addressed include sameness vs. difference feminisms; the sex/gender distinction; internal and external critiques of Western feminisms; transnational and global feminisms; feminism's relationship to critical race studies, postcolonialism, queer theory; and gender, trans-gender, and masculinity studies. *Notes: All sections include a required supervised civic and community engagement project.*

## **GWST 2050: Global Perspectives on Gender**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course offers global perspectives and contexts within which gender can be explored, analyzed, and critiqued. The course will be driven by cross-cultural and comparative study and may include analysis of the construction of gender in relation to social practices, the law, tradition, religion, institutional culture, economics, and popular culture. *Notes: This course may be repeated for credit with prior approval.*

## **GWST 3001: Feminist Theories**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Feminist Theories involves the study of concepts and ideologies that articulate and define theories of feminism through the intersections of gender with race, class, nationality, sexuality, and other social differences. Students will engage with several foundational and vibrantly contested conversations within feminist theory that draw from a variety of theoretical perspectives, including those influenced by liberalism, Marxism/socialism, psychoanalysis, radical feminism, post-modernism, and post-colonialism.

## **GWST 3010: Queer Theory & Sexuality**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Queer Theory & Sexuality is an interdisciplinary course that considers the global emergence and significance of theories and practices that 1) refute and destabilize the notion of an essential, normative sexuality and gender and 2) suggest that sexuality is fluid and varied and is constructed by social, political, and economic factors. The course surveys a broad array of scholarship and other forms of print and non-print media and explores a range of topics that might broadly be identified as 1) practices, identities, and communities; 2) the cultural construction of gender and sexuality; 3) sexual citizenship and the nation-state.

## **GWST 3020: Black Feminisms**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

A survey of historical and contemporary black feminist traditions. Core themes could include the intersections of race and gender with class, sexuality, generation, and place; black feminist thought and its relationship to womanism and other feminisms; outsider-within positionality of black women; black feminist epistemologies; mediated representations of black women's identities; black lesbian feminism; commodification of black women's bodies; black women's global resistance to racism and sexism.

## **GWST 3030: Gender in Popular Culture**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

An examination of gender as depicted in popular culture texts. Focusing on one medium (e.g., film, television, periodicals, music) or surveying a range of popular culture forms, students will critique depictions of gender; practice using theories and methods from gender and women's studies to understand popular culture's role in shaping gender identity; and do research on gender in the context of popular culture.

## **GWST 3060: Gender in the Workplace**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Gender and the Workplace examines work and professional-related gender issues from several perspectives, including the legal, sociological and economic viewpoints. Students will engage with a variety of relevant and timely topics that include gender stereotyping and discrimination, career development, diversity issues, sexual harassment, and work/life balance. As part of the course requirements, students will complete a civic/community engagement assignment relative to the course.

## **GWST 3070: Gender and Social Justice**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course offers an interdisciplinary approach to the social and historical constitution of gender in a social justice framework. Students will explore a wide variety of critical and literary materials to analyze interlocking systems of hierarchy and domination; to evaluate gendered experience across local, regional, national, and global contexts; and to identify critical responses to systemic forms of oppression in the contemporary world.

## **GWST 3080: Masculinity Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Masculinities Studies is an interdisciplinary introduction to this growing and often contested field. Using a variety of texts, students explore historical, political, and theoretical development, as well as social and cultural constructions, of the category "masculinity." Students map central debates surrounding masculinity, including why it is frequently thought to be "in crisis." The course examines political and social movements related to masculinity as it considers masculinity in relation to other theories, including feminist, postcolonial, etc.

## **GWST 3090: Transnational Feminisms**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Transnational Feminisms is an interdisciplinary study of the economic, social, and political consequences of the phenomenon known as globalization, particularly those consequences that affect issues of gender. As such, students analyze transnational feminisms, studying both the opportunities and challenges that are inherent in transnational feminist scholarship and activism. Through critical inquiry into a variety of texts, the course dynamically reconceptualizes relationships between women and nation; between gender and globalization; and between feminist theory and practice.

## **GWST 3100: Gender and the US South**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Gender and the U.S. South examines intersections between cultural norms and values of the southern United States with gender and related identity categories such as race, class, and sexuality. The course invites students to consider ways that gender, race, class, and sexuality are complicated by and related to regional ideas, history, and identity. Additionally, the course explores gender in the U.S. South in connection with other cultures in the Global South.

## **GWST 3200: Disability & Culture**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is an interdisciplinary study of social understandings of disability, particularly its relationship to categories of sex/sexuality, gender, and identity. Using examples drawn from various points in history, various countries around the world, and various disability categories (psychiatric/psychosocial, intellectual, physical, etc.), students read a variety of texts including ethnographies, autobiographies, and case studies in order to understand the variety of the disability experience. This class draws from critical disability studies, feminist, and queer theory.

## **GWST 3398: Internship**

### **3 Credit Hours**

*Prerequisite: GWST 3000 and approval of the internship coordinator.*

A structured off-campus experience in a supervised setting that is chosen in relation to student's focus and interests. Practical experience is combined with a research approach that investigates issues relevant to the internship. Students will meet with the internship coordinator to develop an appropriate plan that will lead to the writing of a research-oriented paper or research project, a required part of the internship. Students should consult with the internship coordinator at the midpoint of the semester prior to the internship to choose from an approved list of internship sites, none of which may be with a current employer

## **GWST 4000: Research in Gender and Women's Studies**

### **3 Credit Hours**

*Prerequisite: GWST 2000 and completion of 60 credit hours.*

A study of research models of scholarship in gender and women's studies, combined with an opportunity for students to conduct a research project of their own. Students will read examples of outstanding research and survey discipline-based scholarship focusing on gender and women's studies. Topics for studying methods could include debates regarding different methodologies, critiques of traditional research methodologies, integrating feminist theory with scholarship, and ethical questions associated with producing research in gender and women's studies. *Notes: This course should be taken as the final course of the GWST minor.*

## **GWST 4040: Major Topics & Figures**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course offers an in-depth examination of a major topic or major figure relevant to the field of gender and women's studies. Students will learn how to conduct interdisciplinary research and employ gender analysis through the advanced study of one major thinker or the advanced, comparative study of a set of thinkers grouped according to a major topic.

*Notes: Specific content may vary, so course may be repeated.*

## **GWST 4400: Directed Study**

### **3 Credit Hours**

*Prerequisite: Another GWST course, approval of the instructor, and approval of the program coordinator.*

The Directed Study is an advanced, individual study of a selected topic not offered in the regular curriculum. Students may conduct in-depth, gender-related research under the supervision of a faculty member. The directed study is student driven, and students are responsible for selecting the subject matter to be studied, method, data sources, and theoretical question(s), all under the direction of a faculty member.

## **GWST 4498: GWST Certificate Colloquium**

### **1 Credit Hours**

*Prerequisite: Declaration of GWST certificate.*

This course provides a capstone experience for students pursuing a GWST certificate. Students examine interdisciplinary perspectives on knowledge, engage in cultural and intellectual activities beyond the classroom, and participate in an online discussion forum.

## **GWST 4499: Senior Seminar in GWST**

### **3 Credit Hours**

*Prerequisite: GWST 2000 and completion of sixty credit hours.*

This capstone course is designed to complete the major by integrating prior academic experiences in Gender and Women's Studies. Students research, write, and present a senior thesis that addresses the relationship between theory and practical experience. A seminar format is used throughout the course.

## **GIS 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite: (GEOG 4405 or GEOG 4500) and permission of the GIS program director.*

A structured off-campus experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of GISc faculty and the internship supervisor. Sites must be selected in advance of the semester of the internship and must be approved by the director of the GISc program.

*Notes: Geography students seeking a B.A. in Geography need to take GEOG 3398.*

## **GIS 4100: Directed Applied Research**

### **1-6 Credit Hours**

*Prerequisite: (GEOG 3305 or GEOG 3315) and consent of Instructor and Department Chair*

This course offers students an opportunity to investigate geospatially-oriented concepts and issues by assisting in faculty-led research or scholarship. Course content and instructional methodologies are identified by the faculty's needs and expectations.

## **GIS 4415: Practicum in Geographic Information Systems**

### **3 Credit Hours**

*Prerequisite: (GEOG 4405 or GEOG 4500) and permission of the GIS program director.*

This is a capstone course for the GIS Certificate Program and is designed to integrate students' prior training in geospatial theory, technologies and/or data analyses through the use of geographic information systems in on-site work settings. Student experiences are applied in nature and are on campus or with selected private or public organizations in the community. Students find and obtain their own practicums, which require the program director's approval.

## **GEOG 1101: Introduction to Human Geography**

### **3 Credit Hours**

This course is a survey of global patterns of resources, population, culture, and economic systems. Emphasis is placed upon the factors contributing to these patterns and the distinctions between the technologically advanced and less advanced regions of the world.

## **GEOG 1110: The Digital Earth**

### **3 Credit Hours**

This is a survey course for students with an interest in geographic theories, laws, fundamentals, methods, environmental applications and visualizing natural phenomena. With a focus on physical geography, students learn about geographic principles of place and space, as well as introductory geospatial techniques such as map reading, coordinate systems, scale, distance, direction, global positioning system (GPS), geographic information system (GIS), remote sensing, and spatial analysis. Students also learn basic skills in collecting, manipulating, and understanding geospatial data by creating and analyzing maps, aerial photos and satellite imagery to solve problems and interpret the environment.

## **GEOG 1112K: Introduction to Weather and Climate**

### **4 Credit Hours**

Components of weather processes, and their measurement. Climatic elements and their control factors. Geographic classification of climatic and vegetative types on the Earth's surface. The lab focuses on practical and applied aspects of these environmental systems and evidence-based research. Lab work includes map reading, data collection, and data analysis.

### **GEOG 1113K: Introduction to Landforms**

#### **4 Credit Hours**

Introductory analysis and classification of major types of land surfaces, stressing geographic characteristics. Study and interpretation of relationships between landforms and other phenomena through maps, air photos, and field observations. World coverage with stress on North America. The lab focuses on practical and applied aspects of landform patterns and processes.

### **GEOG 1125: Resources, Society, and the Environment**

#### **3 Credit Hours**

Interactions between physical systems and human activities, and their effects on environmental quality and sustainability are emphasized. Topics include: geography of population and resource consumption, food production, water and air quality, energy policy, land/biotic resource management. Contrasting social, ethical, and technological perspectives on environmental concerns are explored.

### **GEOG 1130: World Regional Geography**

#### **3 Credit Hours**

An introduction to world regions through the context of human geography. The course focuses on basic geographic concepts to analyze social, economic and political issues at local, regional and global scales. Elements of fundamental physical geography will be discussed to illustrate the spatial relationships between the physical environment and human geography.

### **GEOG 2200: Research Methods**

#### **3 Credit Hours**

*Prerequisite: (GEOG 1101, or GEOG 1125, or GEOG 1130) and (GEOG 1112K or GEOG 1113K) and GEOG 1110*

This course is designed to prepare students for scientific research in the environmental field and related disciplines. It introduces students to a variety of spatial and environmental research concepts, approaches, methods and techniques. This course guides students through aspects of scientific research.

### **GEOG 2391: Professionalism and Ethics**

#### **2 Credit Hours**

*Prerequisite: GEOG 1101 or GEOG 1102 or GEOG 1112K or GEOG 1113K or GEOG 1125 or GEOG 1130*

This course develops the current professional accomplishments and abilities of students for future professional settings. Students recognize soft skills that promote personal and professional development and competences, and prepare portfolios for their chosen professions. Students also examine ethical problems faced by professionals, and focus on issues of personal decision making and public policy.

## **GEOG 3000: Geography of Beer**

### **3 Credit Hours**

*Prerequisite:* Students must be 21 years of age.

This course examines the geographic origins of beer and brewing, and how location influences beer types, styles, and varieties. Students explore the physical, cultural, and economic dimensions that showcase the importance of place, as well as the local to global factors that influence the creation and distribution of beer.

## **GEOG 3305: Introduction to Cartographic Processes**

### **3 Credit Hours**

This course is an introduction to the processes and technology of cartography, the science and art of map making. The foundations of map construction and design are presented from theoretical and applied perspectives. Students use hands-on and computerized mapping, leading to a basic appreciation of the map as the integral component of geographic information systems data analysis. This course does not count as an upper-division GEOG requirement toward the degree program for SSED majors.

## **GEOG 3310: Historical Geography**

### **3 Credit Hours**

This course is a global approach to the study of the geographic factors affecting historical events associated with the human exploration and settlement of the planet. The influence of geography on economic and political changes over time is reviewed for selected historical phenomena.

## **GEOG 3312: Geography of Europe**

### **3 Credit Hours**

A geographical survey of Europe and its environs, with emphasis on the tremendous diversity found in both the physical and human geography of the region. Economic, political and cultural geography are examined within the framework of the forces that are rapidly restructuring the landscapes of Eastern and Western Europe.

## **GEOG 3315: Introduction to Geographic Information Systems**

### **3 Credit Hours**

Students are introduced to the basic design of state-of-the-art GIS and its analytical capabilities. Topics may include: Geodatabases, applications in GIS, map projection information, raster/vector data models, introduction to available data on the internet, and basic GIS analytical functions such as querying and overlaying. The course uses ArcGIS 10 to introduce these concepts in a hands-on environment.

## **GEOG 3320: Political Geography**

### **3 Credit Hours**

This course is intended to explore the following concepts and issues from a geographical perspective: territoriality, theories of the state, spatial expressions of ideology, boundary issues, imperialism, geopolitics, nationalism, electoral geography, national identity, religion and governing power in a spatial context, and cultural and/or economic hegemony.

## **GEOG 3330: Economic Geography**

### **3 Credit Hours**

This course offers a geographic analysis of global resources and economic growth. The underlying theme of the course is the impact of space (location, distance, area, boundaries) on economic decision-making. Topics discussed include population, transportation, rural and urban land use, industrial location, natural resource management, and development/underdevelopment. Differing spatial theories are employed to explain the global economy in transition.

## **GEOG 3340: Cultural Geography**

### **3 Credit Hours**

A thematic approach is applied to analyze human cultures, to examine world cultural regions, to note the spread of cultural traits, to interpret interactions between culture and environment, and to appreciate multiple traits of cultures and cultural landscapes. The five themes of region, diffusion, ecology, integration, and landscape are used to explore historical and contemporary issues of population, agriculture, politics, language, religion, ethnicity, popular culture, and urban spaces. The philosophy of the course is based on the premise that the built environment is a spatial expression of the beliefs, attitudes, and practices of a people.

## **GEOG 3350: Geography of Sub-Saharan Africa**

### **3 Credit Hours**

A spatial survey that focuses on the physical, historical, cultural, and economic forces at work on the African continent, south of the Sahara. Special emphasis is placed on the roles of the natural environment, population geography, historical geography, agriculture, economic development, and other factors that shape the landscapes of Sub-Saharan Africa.

## **GEOG 3360: Geography of Asia**

### **3 Credit Hours**

*Prerequisite: GEOG 1101 or GEOG 1130*

This course is designed as a survey of the physical and cultural geography of the Asian region. Students will be provided with an overview of Asian landform features and climate coupled with a discussion of human interaction with a variety of Asian landscapes in terms of historical, political, economic, religious, and ethnic factors using geographic and cartographic analytical techniques.

## **GEOG 3370: Geography of Latin America and the Caribbean**

### **3 Credit Hours**

This course studies the major physical, cultural and geopolitical sub-regions in Latin America and the Caribbean. In-depth geographic awareness and knowledge of the Latin American and Caribbean region is gained from the study of physical landscapes, natural hazards, economics, historical geography, environmental and resource issues, cultures and societies, urbanization, development, current events, and prospects for the future.

## **GEOG 3390: Geography of the Middle East and North Africa**

### **3 Credit Hours**

This course is a spatial survey that focuses on the physical, historical, cultural, and economic forces at work in the Middle East & North Africa. Special emphasis is placed on the roles of the natural environment, demography, historical geography, agriculture, economic development, and other factors that shape the landscapes of this particular region.

## **GEOG 3395: Geography of Clothing**

### **3 Credit Hours**

This course examines the human and environmental impact of the clothing industry, using an examination of the global commodity chain to frame questions about globalization and explore competing visions of sustainable economic development. We learn about the "fast fashion" revolution that has transformed the clothing industry in recent decades, and trace the linkages that exist between advertising and consumer behavior, networks of "flexible" production and distribution, and trends of urbanization in developing countries that result in the ongoing supply of the young, typically female labor on which the entire global industry depends.

## **GEOG 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite: GEOG 4405 for GIS internships, or at least 15 hours of upper division geography courses for non-GIS internships.*

A structured off-campus experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of geography faculty and the internship supervisor. Those seeking experience in a GIS environment will work under the guidance of the GIS Program Director. Sites must be in advance of the semester of the internship and must be approved by the student's advisor or internship coordinator. *Notes: This course is for GEOG majors. GIS majors should register for GIS 3398 and GIS certificate students should register for GIS 4415. A departmental internship orientation session is scheduled once a semester.*

## **GEOG 3700: Introduction to Environmental Studies**

### ***3 Credit Hours***

This course is designed to give students an overview of the human dimensions of US environmental issues and is a core course for the environmental studies minor. From a geographical perspective, the course explores how US environmental laws, ethics, viewpoints and economics interact, shape, and manifest themselves across the landscape. Students are introduced to technologies, such as geographic information systems and satellite images, used by geographers to study environmental issues. The course examines spatial patterns arising from the ways in which we manage our natural resources and environment. Natural resources such as water, air, soil, energy and fossil fuels are used as examples in the discussion of spatial patterns arising from resource extraction, transportation and use.

## **GEOG 3710: Local & Global Sustainability**

### ***3 Credit Hours***

This course is a critical review of the concept of sustainability and sustainable development in theory and practice. Students analyze ideological arguments, sustainability indicators and other tools, and case studies of sustainability projects worldwide. Students examine different interpretations of sustainability across the globe with special attention given to how sustainability is viewed and implemented in both the developed (core) and developing (periphery) regions.

## **GEOG 3800: Climatology**

### ***3 Credit Hours***

This course examines the nature of Earth's climate and the physical processes that determine the variations in climate and weather worldwide. Emphasis is on the interactions among the atmosphere, the hydrologic cycle, and earth's surface. Aspects of climate change are also addressed.

## **GEOG 3850: Global Climate Change**

### ***3 Credit Hours***

This course gives students an overview of Global Climate Change by bringing together science, impacts, abatement technologies, and policy solutions. From an interdisciplinary perspective with geographical emphasis, it leads students to examine the scientific basis, current scientific understanding, future projections, and impacts of climate change, uncertainties and debates on climate change, and technologies and policies to deal with climate change, through lecture presentations, group projects, readings, exams, and a research paper.

## **GEOG 3900: Biogeography**

### **3 Credit Hours**

This course examines the geographic distribution of plants and animals from historical, cultural, and ecological perspectives. Emphasis is on the local, regional, and global patterns and processes that have influenced the distribution and evolution of plant and animal species. Aspects of environmental change and conservation are also addressed.

## **GEOG 4100: Directed Applied Research**

### **1-6 Credit Hours**

*Prerequisite: Any upper-division geography course; consent of instructor and chair.*

This course will offer students an opportunity to investigate geographically-oriented concepts and issues by assisting in faculty-led research or scholarship. Course content and instructional methodologies will be identified by the faculty's needs and expectations.

## **GEOG 4300: Urban Geography**

### **3 Credit Hours**

This course is an introduction to and analysis of the urban environment. Students will examine concepts that focus on the location and the distribution of urban centers, urban land use patterns, and the geographical aspects of general urban issues.

## **GEOG 4345: Population Geography**

### **3 Credit Hours**

This course examines key issues that affect population patterns and change at different geographic scales, including fertility, mortality, demographic change, race and ethnicity, internal and international migration, refugee movement, and internal displacement. Students gain a theoretical framework to understand local, national, regional, and global population dynamics, and an applied framework to assess contemporary issues such as population growth, labor migration, refugee resettlement, immigration policy, and transnational identity.

## **GEOG 4349: Health Geography**

### **3 Credit Hours**

The geography of health considers impacts of natural, built, and social environments on human health. This course introduces students to three geographical contributions to health studies. First, it emphasizes the importance of ecological approaches of health, considering interactions between humans and their environments. Second, a geographical approach examines how aspects such as race, socioeconomic status, and identity influence human health. Third, it considers how spatial methods (cartography, GIS, and spatial statistics) help answer health-related questions.

## **GEOG 4380: Geography of North America**

### **3 Credit Hours**

A geographical survey of North America emphasizing the significant diversity found in both the physical and human geography of the region. Past, current and changing locational arrangements of people and resources are examined as they relate to economic, political, urban and cultural geographic perspectives within the framework of the forces that have created the variety of landscapes of the North American continent.

## **GEOG 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of advisor, instructor, major area committee and department chair prior to registration.*

Covers special topics and seminars external to regular course offerings.

## **GEOG 4405: Advanced Geographic Information Systems**

### **3 Credit Hours**

*Prerequisite: GEOG 3305 and GEOG 3315*

This course builds upon basic concepts addressed in the Introduction to Geographic Information Systems (GIS) course. The use of topological data procedures and relational database concepts within the GIS context will be investigated along with procedures relevant to building Geodatabases, including map projections, coordinate systems, digitizing vectors, and transformations. Fundamental spatial analysis operations are expanded upon, including spatial query, address matching, spatial aggregations, buffering, polygon overlay, and point-in-polygon operations. *Notes: ArcGIS software is used in class.*

## **GEOG 4410: Introduction to Remote Sensing**

### **3 Credit Hours**

*Prerequisite: SURV 3320*

Students investigate various mapping techniques used in GIS and geospatial technologies. These techniques can include data collection and management, mapping and visualization, 3D GIS, spatial analytics, and scripts and automation. Students demonstrate their comprehension of GIS techniques by way of exercises that render the production of digital maps. *Notes: ArcGIS software is used in this course.*

## **GEOG 4490: Special Topics in Geography**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected topics of interest to faculty and students.

## **GEOG 4499: Senior Seminar in Geography**

### **3 Credit Hours**

*Prerequisite:* Students must be GEOG or GSS major with 60+ credit hours.

This is a required capstone course for all Geography BA majors and is an option for Geospatial Sciences majors. This seminar helps students apply their geographic knowledge and skills culminating in a research project. The course also includes preparation for graduate study and job opportunities in geography.

## **GEOG 4500: Advanced Topics in Geospatial Science**

### **3 Credit Hours**

*Prerequisite:* (GEOG 3305 and GEOG 3315) or admission to GIS Certificate program

This course examines advanced topics in geospatial science that fit the needs and interests of students and faculty. Example topics include ArcGIS server, online mapping, geospatial databases, geodatabase modeling, python programming, global positioning systems, and spatial statistics in GIS. This course is theme-based and does not focus solely on any one geospatial technique or application. The course can be taken more than one so long as it is not identical in content.

## **GEOG 4700: Geomorphology**

### **3 Credit Hours**

This course examines Earth surface processes and landforms, including tectonic, volcanic, hillslope, karst, fluvial, glacial, periglacial, eolian, and coastal geomorphic systems, as well as weathering and soils. Relationships between environmental change and the evolution of landscapes are addressed.

## **GEOL 1121K: Introductory Geosciences I**

### **4 Credit Hours**

*Prerequisite:* A grade of 'C' or better in any two 1000-level or 2000-level science courses

This course covers Earth materials and processes. This course introduces students to the study of Earth, and processes which modify it over time. The course provides an overview of plate tectonics, describes relationships between rocks and structures, examines the role of water in landscape evolution, and places an emphasis on the environmental applications of Earth processes. Lecture and lab familiarize students with the methodology and tools of the geologist, and emphasize the connections between the components of the Earth system.

## **GFA 1000: Introduction to On-Set Film Production**

### ***6 Credit Hours***

This course is the first of an 18-credit hour certification which provides an introduction to the skills used in on-set film production, including all forms of narrative media which utilize film-industry standard organizational structure, professional equipment, and on-set procedures. Students learn film production organizational structure, job descriptions, and duties in various film craft areas, names, uses and protocols related to various pieces of professional on-set film equipment. In addition to the use of topical lectures, PowerPoint presentations, videos, and hand-outs, the course includes demonstrations of equipment and set operations as well as hands-on learning experiences. Students also learn, through lecture and exercises, how the various film craft relate to one another on a working set, as well as how and why they all must operate in sync. In addition, students will learn skills related to networking and self-marketing.

## **GFA 1040: Introduction to Film & Television Post-Production**

### ***6 Credit Hours***

This course is the first of an 18-credit hour certification in "Film & Television Post-Production." Students will operate various professional non-linear editing (NLE) systems, with a focus on practical skills and essential knowledge of editing, including file management, footage logs, timecodes, proxies, edit decision lists (EDLs), synchronization, transitions, simple effects, basic audio mixing and file exports. Additionally, students will explore the terminology, department hierarchy, history and theory of editing and sound design through topics such as continuity style, montage, juxtaposition of images, development of sound design, and linear and flat-bed editing. Students will also develop an understanding and awareness of current post-production industry standards and workflow practices. This course is the prerequisite for ALL other GFA courses in the "Film & Television Post-Production" Certification Pathway. The class includes creative video editing projects on various NLE systems that require the usage of the practical skills learned. The second project will utilize Avid editing programs, working with the industry-standard software. This course is managed through the cooperative academic agreement known as the Georgia Film Academy.

## **GFA 2000: On-Set Internship**

### **6 Credit Hours**

*Prerequisite: GFA 1000*

Upon successful completion of GFA 1000: Introduction to On-Set Film Production, the GFA Film & Television Production Internship course is a 6 hour option as part of the 18 credit hours needed for the Georgia Film Academy (GFA) Certification Program. The course is designed to provide students with a basic level of on-set film production skills, knowledge and experience with film-industry standards, organizational structure, professional equipment and on-set procedures by giving students hands-on experience on the sets and offices of working film productions and businesses. Students also have an opportunity to network and to build resumes in order to help market themselves with the intention of integrating into the film industry as entry-level workers.

## **GFA 2010: Set Construction & Scenic Painting**

### **6 Credit Hours**

*Prerequisite: GFA 1000*

This course is designed to equip students with entry-level skills and knowledge of set construction for the film and television industry. Students participate in goal-oriented class projects including mood-boards, drafting, reading blueprints, architectural models, set safety, use of power tools, carpentry and scenic paint. Students ultimately work on a final project that gives them hands-on experience from concept to completion, solving real world problems with the skills they learn. A large emphasis will be placed on set etiquette, including but not limited to attitude, professionalism and technique on and off set.

## **GFA 2020: Electric & Lighting**

### **6 Credit Hours**

*Prerequisite: GFA 1000*

This course is designed to equip students with the skills and knowledge of electrical distribution and set lighting on a motion picture or episodic television set in order to facilitate their entry and advancement in the film business. Students participate in goal-oriented class projects including power distribution, set protocol and etiquette, properly setting lamps, department lingo, how to light a set to feature film standards, motion picture photography, etc. Upon completion of this course, students have a very solid and broad base of knowledge that includes, but is not limited to, the equipment, techniques, communications, specifications, etc. used in the set lighting department. Students also have a virtually complete understanding of the behavior of light and how to manipulate and control it to feature film standards.

## **GFA 2030: Grip & Rigging**

### **6 Credit Hours**

*Prerequisite: GFA 1000*

Grip and Rigging is an introduction and orientation to the practice of rigging and supporting grip equipment, cameras, vehicles and other physical/mechanical devices. In addition to a gaining a thorough knowledge of the equipment used in grip and rigging, students engage in on-set exercises in inventory, maintenance, set-up, trouble-shooting, teamwork, set protocol and safety. The purpose of this course is to prepare students to work on a motion picture production set. As such, student responsibilities are matched to potential responsibilities as a team member on a production set as closely as possible.

## **GFA 2040: Post Production: Film & Television AVID Editing, Digital Imaging, & Story Craft I**

### **6 Credit Hours**

*Prerequisite: GFA 1000*

This course is designed to certify students with Avid Media Composer User Certification. This certification is recognized world-wide as the industry standard for assistant editors in feature films and broadcast television. This course equips students with a unique skillset and knowledge of industry standard digital imaging, editorial process and story forging on both motion picture or episodic nonlinear productions. At the end of the course, the students will be qualified to advance a career in entertainment post production of film and television. Successful completion of the coursework will award students Avid Media Composer Certified User 100 certification and qualify them to work as an assistant editor in feature films and episodic television. Students will learn "Avid Media Composer" post production processes and best practices, industry standard department lingo, image processing, basic visual effects, and color grading as well as "Digital Imaging Technician (DIT)" workflows. A large emphasis will be placed on the technical aspects of the industry standard editing tools, as well as attitude, professionalism and technique in and out of the edit room. Students will certify as an Avid Media Composer User upon passing Avid's certification exam.

## **GFA 2050: Intro to Special Makeup Effects**

### **6 Credit Hours**

*Prerequisite: GFA 1000*

This course is designed to educate students with entry-level skills and knowledge in practical Special Effects (SFX) Make Up for the film and television industry. Students participate in goal-oriented class projects including fabrication, material safety, use casting materials, professional make-up, sculpting, airbrushing, and design. A large emphasis is placed on set etiquette including, but not limited to, attitude, professionalism and technique on and off set.

## **GFA 2060: Production Accounting & Office Management**

### **6 Credit Hours**

*Prerequisite: GFA 1000*

This course will train students to identify the key players in Accounting and Production Office departments, define their responsibilities, and perform the essential functions. The Production Office component of this course focuses on the relationship between the Production Office and the overall production and the importance of the communication hub that exists between the Office, Set and Post-Production teams. The Accounting component of this course will focus on the guidelines and reporting practices that are used to track and manage the finances of a production. Practical elements will be created through the use of actual production software and scenario simulations. The course is intended for students who wish to understand the larger importance of how the Production Office and Production Accounting departments affect production with effective communication, organization and problem-solving skills. This course is managed through the cooperative academic arrangement known as the Georgia Film Academy.

## **GFA 2140: Fundamentals of Sound Design with Avid Pro Tools 100**

### **6 Credit Hours**

*Prerequisite: GFA 1040*

The tools and techniques of post-production sound design are presented through lecture, demonstration, and hands-on exercises. The foundation of the curriculum is the industry-standard Avid Pro Tools Certified Training in the most recent Fundamentals 1 (PT101) and Fundamentals 2 (PT110) courses. Avid's certification training is supplemented with academic curriculum, including but not limited to: an historical overview of the sound design process and tools; current processes, procedures and terminology; project organization; audio sample rates and file types; audio manipulation; and introductory troubleshooting. Technical operations are covered, including: creating sessions; recording and importing audio and MIDI; multi-track recordings of live audio; editing session media; MIDI sequences and virtual instruments; navigating sessions and arranging media on tracks; and using basic processing and mixing techniques to finalize a production. Upon successful completion of this course, students will demonstrate the skills needed for entry-level positions in film and television post-production. Students will demonstrate knowledge of industry standards, tools and techniques related to preparation of recording, media management, editing, audio mixing, audio effects, and digital file delivery. Emphasis will be placed on understanding industry working conditions and employer expectations. Rigorous study of the PT101 and PT110 books, combined with hands-on practice, in and outside of class, will greatly aid in successfully passing Avid's two certification exams. While Avid certification is not required for successful completion of the course, passing the two certification exams will earn the student the credential of Avid Pro Tools Certified User, recognized worldwide as an industry standard for sound editors in feature film and broadcast television. This course is managed through the cooperative academic arrangement known as the Georgia Film Academy.

## **GRMN 1001: Elementary German I**

### **3 Credit Hours**

An introduction to the German language and the culture of the German-speaking world. Beginning of a survey of basic German grammar and the development of the four language skills of listening, speaking, reading, and writing German. Some aspects of everyday life in the German-speaking world will also be introduced.

## **GRMN 1002: Elementary German II**

### **3 Credit Hours**

*Prerequisite: GRMN 1001, or by placement, or the equivalent*

The second part of an introduction to the German language and the culture of the German-speaking world. Completion of the survey of basic German grammar and further development of the four language skills of listening, speaking, reading, and writing German. Aspects of everyday life in the German-speaking world will also be introduced.

## **GRMN 2001: Intermediate German I**

### **3 Credit Hours**

*Prerequisite: GRMN 1002 or by placement.*

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

## **GRMN 2002: Intermediate German II**

### **3 Credit Hours**

*Prerequisite: GRMN 2001 or by placement.*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Course will serve as a transition between intermediate and upper-level courses in the language.

## **GRMN 2003: Accelerated Intermediate German Language and Culture**

### **6 Credit Hours**

*Prerequisite: Two years of high school German or GRMN 1002*

This accelerated intermediate level course in German language and culture covers in one semester the materials presented in GRMN 2001 and GRMN 2002. The course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of German culture.

## **GRMN 3200: Critical Reading and Applied Writing**

### **3 Credit Hours**

*Prerequisite: GRMN 2002 or GRMN 2003*

This course emphasizes skill development and refinement in the areas of critical reading and writing in German. Designed to give students extensive experience in reading and writing in German, the course focuses on the relationship between writing and reading, and on ways to improve one through the other. *Notes: This course is taught in German.*

## **GRMN 3302: Practical Conversation**

### **3 Credit Hours**

*Prerequisite: GRMN 2002 or GRMN 2003*

In this course, students learn to express themselves verbally, using role-play, skits and extemporaneous speaking on a variety of topics including basic situations as well as discussions of professional areas. This course is taught in German.

## **GRMN 3303: Grammar and Composition**

### **3 Credit Hours**

*Prerequisite: GRMN 2002 or GRMN 2003*

This course provides an introduction to the more difficult points of German grammar, syntax and style. In addition to the development of writing skills, students will concentrate on expanding their active vocabulary. This course is taught in German.

## **GRMN 3304: Literature and Culture I**

### **3 Credit Hours**

*Prerequisite: GRMN 3200 or GRMN 3302 or GRMN 3303*

An introduction to the literature and culture of Germany and German-speaking countries from the Middle Ages to 1848. Students examine literary and artistic movements as well as cultural issues of the period. *Notes: Readings and discussion in German.*

## **GRMN 3305: Literature and Culture II**

### **3 Credit Hours**

*Prerequisite: GRMN 3200 or GRMN 3302 or GRMN 3303*

An introduction to the literature and culture of Germany and German-speaking countries from 1848 to the present. Students examine literary and artistic movements as well as cultural issues of the period. *Notes: This course is taught in German.*

### **GRMN 3390: Upper-division Study Abroad in German**

#### **3 Credit Hours**

*Prerequisite: GRMN 2002 and permission of the department chair.*

This course fulfills the study abroad requirement for the B.A. in Modern Language & Culture with a primary language of German. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the degree in Modern Language & Culture.

### **GRMN 3398: Internship**

#### **1-9 Credit Hours**

*Prerequisite: GRMN 3302 or permission of the instructor.*

Supervised, credit-earning work experience of one semester requiring use of German in the work place. *Notes: Prior approval by department coordinator and internship supervisor is required.*

### **GRMN 4400: Directed Study**

#### **1-3 Credit Hours**

*Prerequisite: GRMN 2002 or permission of the instructor.*

Covers special topics and seminars external to course offerings that allow a student to work individually with an instructor. *Notes: Requires prior approval by instructor and department chair.*

### **GRMN 4402: Contemporary Culture**

#### **3 Credit Hours**

*Prerequisite: GRMN 3304 or GRMN 3305 or permission of the instructor.*

This course is an examination of the historical, social, and political contexts of the contemporary experience in the German-speaking world through the analysis of cultural representations such as film, media, plastic arts, music, and literature. Readings and discussions are in German.

### **GRMN 4404: Commercial German**

#### **3 Credit Hours**

*Prerequisite: GRMN 2002 or permission of the instructor.*

An in-depth study of business practices and the language of business that focuses on verbal and written communication as well as economic, social and political factors that are important to the conduct of business in the German-speaking world. *Notes: This course is taught in German.*

### **GRMN 4434: Topics in Language, Literature, and Culture**

#### **3 Credit Hours**

*Prerequisite: GRMN 3304 or GRMN 3305 or permission of the instructor.*

This course explores a period, movement or genre in literature, a topic in culture, or language-related issues. Topics are chosen for their significance and impact on German-speaking cultures. The course is taught in German.

## **GRMN 4456: Advanced Grammar and Linguistics**

### **3 Credit Hours**

*Prerequisite: GRMN 3303 or permission of the instructor.*

This course is an advanced study of grammar from a linguistic perspective. It provides an overview of phonetics, phonology, morphology, and syntax. The course exposes students to dialectical variations of the German-speaking world and stresses development of oral proficiency. The course is taught in German.

## **GRMN 4490: Special Topics in German**

### **3 Credit Hours**

*Prerequisite: GRMN 2002 or permission of the instructor.*

Selected topics of interest to students and faculty.

## **GRMN 4499: Senior Seminar**

### **3 Credit Hours**

*Prerequisite: Senior status and permission of the instructor.*

This is a capstone course designed to synthesize and connect the student's prior academic experiences in the major and related fields of study. Students will prepare a reflective essay and a research paper to present to the faculty. Papers and presentations are in German.

## **HPAL 1010: Beginning Flag Football**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in the sport of flag football. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1030: Aerobic Conditioning/Weight Training**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in a variety of cardiovascular fitness related activities and weight training principles. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1055: Archery**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in the sport of archery. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1060: Beginning Badminton**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of badminton. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1075: Beginning Basketball**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of basketball. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1076: Intermediate Basketball**

### **1 Credit Hours**

**Prerequisite:** HPAL 1075, or instructor permission

This course is designed to reinforce fundamental basketball skills and introduces advanced offensive and defensive tactics as well as strategies commonly employed in the sport of basketball. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1080: Beginning Softball**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of slow pitch co-ed softball. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1090: Dance: Ballet**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in classical ballet dance. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1130: Dance: Jazz**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in basic jazz dance. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1150: Dance: Modern**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in basic modern dance. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1160: Rhythmic Activities for Children (P-5)**

### **1 Credit Hours**

Rhythmic and movement concepts used in expressive movement and as a foundation for motor skills included. Strategies for teaching creative movement will be addressed. Field experience with young children included. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1170: Folk/Square/Social Dance**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques, and knowledge appropriate for participation in folk, square, and social dance. Will include selected folk dances representing different cultures around the world. Circle, contra, and western style square dance will be emphasized. Social dances shall include Fox Trot, Waltz, Swing, and various Latin dances. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1185: Beginning Soccer**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of team soccer. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1195: Intermediate Soccer**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in intermediate soccer. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1210: Golf**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in golf. *Notes: Additional fee required. In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1220: Beginning Cycling**

### **1 Credit Hours**

This course provides an overview of bicycling as a fitness and recreational activity. Basic cycling techniques, safety, training, fitness principles, and equipment maintenance are among the major focal points of the course. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1230: Martial Arts**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in the development of martial arts and self defense skills. *Notes: Additional fee required. In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1235: Intermediate Martial Arts**

### **2 Credit Hours**

*Prerequisite: HPAL 1230*

This course focuses on motor skill development, techniques, and knowledge appropriate for participation in alternate martial art forms. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1240: Beginning Mountain Biking**

### **1 Credit Hours**

This course provides an overview of mountain biking as a fitness and recreational activity. This course focuses on basic mountain biking techniques, safety, training, fitness principles, and equipment maintenance. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1250: Outdoor Recreational Pursuits**

### **1 Credit Hours**

*Prerequisite: HPAL 1310 or permission of the instructor.*

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation and appreciation of outdoor recreation activities. Units represented may include backpacking, camping, orienteering and canoeing. Weekend trips, off campus field experiences and additional fee required. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1260: Beginning Team Handball**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of team handball. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1270: Ultimate Frisbee and Disc Golf**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in popular flying disc sports, including ultimate Frisbee and disc golf. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1280: Beginning Rock Climbing**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and knowledge appropriate for the successful participation in rock climbing. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1285: Intermediate Rock Climbing**

### **1 Credit Hours**

*Prerequisite: HPAL 1280*

This course develops the skills of experienced climbers, fostering their abilities to enter both the competitive indoor and outdoor climbing environments. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1290: Stunts & Tumbling/Gymnastics**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in the development of stunts, tumbling and gymnastic skills. *Notes: Additional fee required. In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1310: Swimming: Beginning**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful completion of the American Red Cross Beginning through Intermediate swimming levels. Course is designed for the non-swimmer or individual with limited aquatic experience. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1330: Swimming: Intermediate**

### **1 Credit Hours**

*Prerequisite: HPAL 1310 or permission of the instructor*

Motor skill acquisition, fundamental techniques and knowledge appropriate for swimming and water safety. Successful completion of this course corresponds to standards for the American Red Cross Swimmer level. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1350: Swimming: Lifeguard Training**

### **1 Credit Hours**

*Prerequisite: HPAL 1330 or permission of the instructor*

Motor skill acquisition, fundamental techniques and knowledge appropriate to become certified in American Red Cross Lifeguard Training. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1390: Beginning Tennis**

### **1 Credit Hours**

This course is designed to introduce tennis to the student at the beginning level, encompassing basic skills, rules, terminology, basic strategy, and safety through drills and game play. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1395: Intermediate Tennis**

### ***1 Credit Hours***

This course is designed to reinforce fundamental tennis skills and introduces advanced offensive and defensive skills. The focus of the course will be on developing successful singles and doubles game-play strategies. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1430: Beginning Volleyball**

### ***1 Credit Hours***

This course is designed to introduce volleyball to the student at the beginning level, encompassing basic skills, rules, terminology, basic strategy, and safety through drills and game play. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1435: Intermediate Volleyball**

### ***1 Credit Hours***

This course is designed to reinforce fundamental volleyball skills and introduces advanced tactics, strategies and offensive/defensive systems. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1450: Scuba Diving**

### ***1 Credit Hours***

This course is designed to develop fundamental concepts, principles, and techniques of sport SCUBA diving. Course covers selection and maintenance of gear, snorkeling skills, physiology of diving, use of dive tables, diving environment, and an emphasis on safe diving practices. Scuba Diving International (SDI) certification curriculum will be followed but the open water certification is not required to fulfill HPE credit. A required swim test will be administered prior to the end of the drop/add period. This swim test must be passed for the student to continue in the course. Other equipment and physical requirements will be discussed during the first week of classes. *Notes: Additional fee and mask, fins, and snorkel required. In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1470: Self Defense**

### ***1 Credit Hours***

This course develops self defense tactics and the knowledge of personal safety. Topics may include but are not limited to hand and leg strikes, various escapes and releases, safety in the car and home, sexual harassment, date rape, self defense and the law, and sexual abuse of children. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1480: Beginning Yoga**

### **1 Credit Hours**

This course addresses basic principles, philosophies, and practices of yoga. The class will include basic anatomy principles, terminology, strength, flexibility, and balance activities to develop an individualized yoga program. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1485: Intermediate Yoga**

### **1 Credit Hours**

*Prerequisite: HPAL 1480 or instructor approval*

This course addresses intermediate and advanced asanas, philosophies, and practices of yoga. The class will also include advanced conditioning movements. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1490: Beginning Pilates**

### **1 Credit Hours**

This course addresses basic principles, philosophies, and practices of Pilates. The class will include basic anatomy principles, terminology, alignment, strength, and flexibility exercises to develop an individualized Pilates program. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1500: Beginning Sand Volleyball**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of sand volleyball. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1505: Intermediate Sand Volleyball**

### **1 Credit Hours**

*Prerequisite: HPAL 1500 or permission of instructor*

This course reviews basic motor skills necessary for successful participation in sand volleyball, as well providing a primer for advanced motor skills, tactics, and strategies for students striving to play the sport at a higher or tournament level. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1510: Fitness Swimming**

### **1 Credit Hours**

*Prerequisite: HPAL 1310 or permission of the instructor*

This course provides opportunities for students with good swim skills to increase their fitness level via the medium of water. Workouts will be comprised of drills designed to increase stroke efficiency as they improve aerobic capacity, body composition, and muscular endurance. This is a vital opportunity for those students with physical limitations that prohibit typical land based exercise. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1520: Beginning Ice Skating**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and knowledge appropriate for the successful participation in the sport of ice skating. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1525: Intermediate Figure Skating**

### **1 Credit Hours**

*Prerequisite: HPAL 1520 or instructor approval*

This course focuses upon motor skill development, techniques, and knowledge for more advanced level figure skating skills as turns, spins, and jumps. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1530: Water Aerobics**

### **1 Credit Hours**

This course is comprised of aerobic exercises and muscular strength/endurance exercises performed in the water. These exercises will focus on increasing mobility, cardiovascular fitness, muscle tone, and improving body composition. This is a vital opportunity for students with physical limitations prohibiting typical land based exercise. *Notes: No aquatic proficiency required. In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1540: Indoor Soccer/Futsal**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in indoor soccer and Futsal. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1570: Walk/Jog for Fitness**

### **1 Credit Hours**

Motor skill acquisition, fundamental techniques, and knowledge appropriate for the successful participation in walking/jogging cardiovascular fitness activities. Nutritional principles for lifetime health will also be discussed. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1590: Beginning Lacrosse**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in the sport of lacrosse. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1610: Beginning Racquetball**

### **1 Credit Hours**

This course is designed to introduce racquetball to the student at the beginning level, encompassing basic skills, rules, terminology, strategy, and safety through drills and game play. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1700: Beginning Table Tennis**

### **1 Credit Hours**

This course focuses on motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in table tennis. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1710: Beginning Wakeboarding**

### **1 Credit Hours**

This course introduces the motor skills, techniques, terminology, and safety considerations for successful participation in the sport of Wakeboarding. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1810: Outdoor Recreation and Education**

### **1 Credit Hours**

Fundamental techniques and leadership skills necessary for safe participation in a variety of land and water outdoor recreational and educational activities without disturbance to the environment. Activities may include backpacking, camping, orienteering, canoeing, basic survival and problem solving adventure activities. *Notes: Additional fee required. In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1830: Swimming: Water Safety Instructor**

### **2 Credit Hours**

*Prerequisite: HPAL 1330 or permission of the instructor*

Fundamental techniques, knowledge and methods appropriate to become certified to teach all levels in the American Red Cross swimming programs. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1850: Advanced Strength and Aerobic Training**

### **1 Credit Hours**

This course introduces advanced strength and aerobic training for health-related fitness and enhanced sport performance. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 1870: Beginning Fencing**

### **1 Credit Hours**

This course introduces the motor skills, fundamental techniques and knowledge appropriate for the successful participation in the sport of fencing. *Notes: In accordance with USG Academic and Student Affairs Handbook 2.4.5, this physical education activity course may not be used in Area F in any program of study.*

## **HPAL 2020: Adventure Education and Facilitation**

### **2 Credit Hours**

*Prerequisite: Declared HPAL major*

This course provides fundamental techniques and knowledge appropriate for successful participation in adventure education and outdoor recreation activities. Students will learn skills needed to develop and facilitate experiential programs including team-building initiatives, problem-solving activities, and challenge course elements.

## **HPAL 2100: Introduction to Health and Physical Activity Leadership**

### **3 Credit Hours**

This course serves future HPAL professionals by introducing theories and factors associated with youth success in schools, non-profit organizations, faith-based organizations, recreation/community agencies, military settings, and grant extension services/programs, and other arenas where a focus on youth is established. This course will cover youth development, leadership, and current issues facing youth with an emphasis on positive outcomes and skill development through a dynamic learning environment.

## **HPAL 2250: Anatomy and Physiology for Health and Physical Activity Leadership**

### **3 Credit Hours**

*Prerequisite: Any General Education D2 core curriculum course.*

This course is an examination of the structure and function of the major body systems, with emphasis on the muscular, skeletal, and cardio-respiratory systems role in human movement and physical activity.

## **HPAL 3010: Technology in Health and Physical Activity Leadership**

### **3 Credit Hours**

This course will explore current trends in technology for a variety of disciplines within the field of health and physical activity, including physical education, health education, coaching, and recreation. Sport and fitness technology provides students with foundations that make up the use, understanding, and application of technology in the different fields that are emerging within the sport and fitness industry. The future professional workforce in teaching, coaching, and recreational industries is evolving as technology advances.

## **HPAL 3020: Teaching Games and Sports**

### **3 Credit Hours**

This course will combine two approaches to teaching games and sports. The Sport Education and Tactical Games approaches will prepare students to facilitate the learning and management of games and sports in a variety of settings including schools, sport leagues, and recreation facilities that promote sport participation.

## **HPAL 3050: Coaching Principles**

### **3 Credit Hours**

Basic understanding of the theoretical and practical applications of the sport science areas of physical education related to coaching. Current issues and topics addressing the principles and problems of the prospective interscholastic coach including coaching philosophy, pedagogy, sport psychology, sport medicine and sport physiology. Students successfully completing the course may become certified as a Leader Level Coach by the American Coaches Effectiveness Program.

## **HPAL 3055: Advanced Coaching Methods for Basketball**

### **3 Credit Hours**

*Prerequisite: HPAL 3050*

In this course students will examine the theories and techniques of coaching basketball. The course content may include, but is not limited to, key coaching topics such as: teaching and evaluating technical and tactical skills, player selection for various positions, practice and season planning, offensive and defensive systems of play, game coaching considerations, and conditioning principles.

## **HPAL 3061: Advanced Coaching Methods for Football**

### **3 Credit Hours**

*Prerequisite: HPAL 3050*

This course is designed to enhance the student's usable knowledge of and coaching techniques for American football. Elements of the course will include but are not limited to: technical and tactical skills of position and team play, determining offensive and defensive schemes and personnel use, drill and practice organization, the evaluation of player talent, expectations of today's coach, logistical planning and organization, philosophy development, common terminology, and film evaluation. In addition, topics may also include the role of the coach in the academic world and skills for increasing employment opportunities.

## **HPAL 3065: Advanced Coaching Methods for Soccer**

### **3 Credit Hours**

*Prerequisite: HPAL 3050*

In this course students will examine theories and techniques of coaching soccer. The course content may include, but is not limited to, key coaching topics such as: teaching and evaluating technical and tactical skills, player selection for various positions; practice and season planning; offensive and defensive systems of play, game coaching considerations, and conditioning principles.

## **HPAL 3071: Advanced Coaching Methods for Archery**

### **3 Credit Hours**

*Prerequisite: HPAL 3050 and HPAL 1055*

Starting with a basic understanding of the USA Archery National Training System for recurve bow, students will progress through advanced coaching topics such as: Macro to Micro philosophy, connecting with athletes, coaching the mental aspect of archery, and practice and competition planning.

## **HPAL 3075: Advanced Coaching Methods for Softball**

### **3 Credit Hours**

*Prerequisite: HPAL 3050*

In this course students will examine the theories and techniques of coaching softball. The course content may include, but is not limited to, various key coaching topics such as: teaching and evaluating technical and tactical skills, player selection for various positions, practice and season planning, offensive and defensive systems of play, game coaching considerations, and conditioning principles.

## **HPAL 3085: Advanced Coaching Methods for Tennis**

### **3 Credit Hours**

*Prerequisite: HPAL 3050*

In this course students will examine the theories and techniques of coaching tennis. The course content may include, but is not limited to, various key coaching topics such as: teaching and evaluating technical and tactical skills, player selection and development, practice and season planning, singles styles of play, doubles styles of play, game coaching considerations, and conditioning principles.

## **HPAL 3090: Advanced Coaching Methods for Strength and Conditioning**

### **3 Credit Hours**

*Prerequisite: HPAL 3050*

Students will learn to apply practical and scientific foundations of muscular development, metabolic training concepts and program design for youth and adolescent sports. Course content is intended to guide middle and high school coaches in the implementation of a scientific based approach in the prescription of periodization as it applies to resistance training and anaerobic conditioning specific to adolescence.

## **HPAL 3095: Advanced Coaching Methods for Volleyball**

### **3 Credit Hours**

*Prerequisite: HPAL 3050*

In this course students will examine the theories and techniques of coaching both indoor and sand volleyball. The course content may include, but is not limited to, various key coaching topics such as: teaching and evaluating technical and tactical skills, player selection for various positions, practice and season planning, offensive and defensive systems of play, game coaching considerations, and conditioning principles.

## **HPAL 3100: Behavioral and Psychological Aspects of Physical Activity and Coaching**

### **3 Credit Hours**

This course is an examination of behavioral and psychological factors affecting performance in physical education, physical activity, and sports. Emphasis is on the impact of these factors on performance and the teaching/learning process. Topics will include leadership, motivation, group cohesion, social facilitation, arousal/anxiety, cognitive processes, competition, cooperation, and performance enhancement.

## **HPAL 3140: Youth Fitness Development and Assessment**

### **3 Credit Hours**

This course is designed to provide students with knowledge and skills necessary to assist diverse populations in the development of health and skill-related fitness. Students will learn the scientific theories behind youth training, apply them to the design of effective programs that maximize creativity, engagement, and fun, and reflect upon contemporary issues that affect youth fitness development.

## **HPAL 3200: Motor Learning and Development**

### **3 Credit Hours**

This course addresses current theories and principles of motor learning and motor development. Topics include individual differences in motor abilities, information processing, sensory contributions to skilled performance, principles of motor control, and fundamental locomotor skills/movements from a developmental perspective.

## **HPAL 3250: Family Health and Sexuality**

### **3 Credit Hours**

This course focuses on the historical, sociological, physiological, and educational perspectives of family living and human sexuality.

## **HPAL 3252: Measurement and Evaluation for Health and Physical Activity**

### **Leadership**

### **3 Credit Hours**

*Prerequisite: Any General Education D1 core curriculum course*

An overview of the purposes and forms of assessments used in health and physical activity programs. Emphasis includes the study of authentic assessments as opportunities for student learning as well as instructional tools for effective teaching. Topics include assessments of knowledge and skill acquisition, long-term athletic development, general athletic assessments, sport-specific testing batteries, skill-related and health-related fitness tests, reporting and interpreting assessment results, and validity and reliability of assessment instruments.

## **HPAL 3300: Contemporary Health Issues**

### **3 Credit Hours**

This course examines the physical, psychological, and social health factors related to personal wellness and contemporary health issues.

## **HPAL 3330: Sport First Aid and Injury Prevention**

### **3 Credit Hours**

This course addresses the essential concepts and principles of first aid and injury prevention in sports and recreational activities. Students will examine common and severe injuries to learn the appropriate treatment methods. Students will learn common first aid techniques and many first aid myths will be addressed. Theory, practice, and application for safety, injury prevention, and care to include the American Red Cross First Aid/ Adult & Pediatric CPR & AED (ARC FA/CPR/AED).

## **HPAL 3340: Applied Anatomy and Physiology for Health and Physical Activity**

### **Leadership**

### **3 Credit Hours**

*Prerequisite: HPAL 2250*

This course examines the principles of biomechanics and exercise physiology as they relate to the motor performance and physical fitness levels of children and youth. The course will focus on the application of concepts to all concentrations in the Health and Physical Activity Leadership Program.

## **HPAL 3393: Practicum in Youth Activity Leadership**

### **3 Credit Hours**

*Prerequisite: HPAL 3140 and Permission from YAL Program Coordinator*

A senior-level youth activity leadership experience designed for candidates in the Youth Activity Leadership Concentration. Candidates will be assigned as an intern (assistant) who will work under the supervision of an experienced organization leader at a recreation or a youth program. This is a field-based practicum that will provide candidates with practical experiences in planning and implementing plans and strategies while working with youth within various organizations.

## **HPAL 3395: Coaching Practicum**

### **3 Credit Hours**

*Prerequisite: HPAL 3050 and permission from the Coaching Coordinator*

A senior-level coaching experience designed for candidates in the Coaching concentration or certificate program of study. Candidates will be assigned as intern (assistant) coaches who will work under the supervision of experienced head or senior coaches at the collegiate, school (only if enrolled in the HPE curriculum), or recreation program levels. This is a field-based practicum that will provide candidates with practical experiences in planning and implementing competitive athletic programs.

## **HPAL 3600: Child and Adolescent Health Issues**

### **3 Credit Hours**

This course is designed to explore the dynamic factors affecting the health and wellbeing of children and adolescents. Students will examine changing patterns of adolescent health behaviors, strategies to promote health literacy, approaches to youth development, and evidence-based youth programming in schools and communities.

## **HPAL 3750: Adapted Physical Education**

### **3 Credit Hours**

This course examines the characteristics and abilities of individuals with disabilities and their effect on the physical performance of the individuals. This includes methods for assessing abilities, modifying activities and equipment, and developing suitable physical education programs for schools and activity centers. Particular attention is given to the implications of current legislation affecting individuals with disabilities. Includes a 15-hour practical experience working with an adapted sports program. *Notes: Students in the Health and Physical Education Teacher Certification Concentration are required to earn a "B" or better to be eligible for certification. This course addresses the GaPSC 505-3-.01 certification rule.*

## **HPAL 4900: Capstone in Coaching**

### **3 Credit Hours**

*Prerequisite: HPAL 3050, HPAL 3395, and one Advanced Coaching Course, and Permission from the Coaching Coordinator*

In this capstone course for the Coaching Concentration, students gain insights into the best practices for coaching. This will occur through extensive observations of an experienced, highly renowned coach; reading a biography of a well-known coach; and through in-depth research on fundamental skill(s), tactics, or team season practice plans or strategies. Students will collaborate with an athletic program to explore the qualities, knowledge, values, skills, and attitudes in an ever-changing career environment.

## **HPAL 4950: Capstone in Youth Activity Leadership**

### **6 Credit Hours**

*Prerequisite: HPAL 3393 and Permission from YAL Coordinator*

In this course, students gain insights into the best practices for Youth Activity Leadership (YAL). Students will integrate and synthesize knowledge, skills, attitudes, and values from the array of courses taken in the YAL Concentration as they engage in their internships. The insights will occur through extensive observations, working as an intern, reading assignments, and through in-depth research on fundamental skill(s), plans, or strategies for leading youth.

## **HPE 2050: Fundamentals of Teaching Health and Physical Education**

### **3 Credit Hours**

This course introduces the fundamental knowledge and skills for effective health and physical education instruction. Students will develop initial competencies in lesson planning, pedagogical content development, differentiation strategies, instructional technology, and behavior management in classroom and movement settings.

## **HPE 2200: Skills-Based Approach to Health Education**

### **2 Credit Hours**

*Prerequisite: WELL 2000*

This course is designed to introduce students to the National Health Education Standards and essential components of an effective health education program. Aligned with current best practices of the health education field, students will focus on key elements of a skills-based approach. Topics of study may include acquisition of functional health information, fostering of health-enhancing attitudes, development of health skills and adoption of health behaviors to promote personal, family and community health.

## **HPE 2290: Special Topics**

### **1-3 Credit Hours**

This lower-division special topics course focuses on selected physical activity topics not regularly offered through the Department of HPE.

## **HPE 2300: First Aid/CPR Instructor Training**

### **3 Credit Hours**

Theory, practice, and application for safety, injury prevention, and care to include the American Red Cross Pediatric & Adult First Aid/CPR/AED. Teaching methodologies are also needed to prepare professionals to teach Pediatric & Adult First Aid/CPR/AED (Instructor Level Certification) to the layperson. Topics may include but are not limited to: personal, school, home, recreation, traffic, work site, and disaster safety.

## **HPE 3450: Curriculum, Instruction and Management for Early Childhood Physical Education**

### **3 Credit Hours**

*Prerequisite: Admission to the Health and Physical Education Teacher Certification Concentration, current teacher liability insurance, and a currently issued PSC Preservice Certificate. Corequisite: HPAL 3750*

This course addresses the knowledge, fundamental techniques and motor skill analysis appropriate for the development of children's games, dance, and gymnastics. The focus of this course is on curriculum development, methods, and materials for planning and implementing a total developmental program for elementary physical education. This course requires a 16-hour early field experience at local elementary schools which provides for the practical application of concepts presented in HPE 3450.

## **HPE 3550: Curriculum, Instruction and Management for Middle Grade and Secondary Physical Education**

### **3 Credit Hours**

*Prerequisite: Admission to the Health and Physical Education Teacher Certification Concentration, current teacher liability insurance, and a currently issued PSC Preservice Certificate. Corequisite: HPE 4430*

The purpose of this course is to help candidates acquire the necessary skills and knowledge to design and implement instructional programs in middle and secondary school physical education. Students will concentrate on developing learning objectives, planning instructional units and lessons, exploring instructional strategies, assessing learner performance, and creating a positive learning environment in a middle and secondary physical education classroom.

## **HPE 3650: Curriculum, Methods and Materials in Health Education**

### **3 Credit Hours**

*Prerequisite: HPE 2200, HPAL 3600, admission to the Health and Physical Education Teacher Certification Concentration, current teacher liability insurance, and a currently issued PSC Preservice Certificate Corequisite: HPE 4420*

This course provides a foundation for teaching health education in K-12 settings. Building on previous knowledge of the National Health Education Standards and other appropriate practices, students will concentrate on developing learning objectives, planning instructional units and lessons, exploring pedagogical methods, assessing learner performance, and creating a positive learning environment in a health education classroom.

## **HPE 3670: Early Childhood Health and Physical Education for the Classroom Teacher**

### **2 Credit Hours**

*Prerequisite: Admission to Teacher Education*

The study of health education and movement experiences for early childhood school children as part of the Coordinated School Health program. Planning, teaching, and evaluating developmental programs in the elementary classroom. Emphasis will be placed upon integrated experiences.

## **HPE 4420: Practicum in Middle and Secondary School Health Education**

### **1 Credit Hours**

*Prerequisite: Admission to the Health and Physical Education Teacher Certification Concentration, current teacher liability insurance, and a currently issued PSC Preservice Certificate Corequisite: HPE 3650*

A field-based practicum in both the middle and secondary public schools is designed to provide students with practical experiences in planning and implementing school health education instruction in grades 6-12.

## **HPE 4430: Practicum in Middle and Secondary School Physical Education**

### **1 Credit Hours**

*Prerequisite: Admission to the Health and Physical Education Teacher Certification Concentration, current teacher liability insurance, and a currently issued PSC Preservice Certificate*  
*Corequisite: HPE 3550*

This course is a field-based practicum in both the middle and secondary public schools. It is designed to provide students with practical experiences in planning and implementing physical education instruction in schools for grades 6-12.

## **HPE 4490: Special Topics in HPE**

### **1-3 Credit Hours**

This upper-division course focuses on selected research topics of interest to the faculty not regularly offered by the Department of HPE.

## **HPE 4850: Student Teaching in Health and Physical Education (P-12)**

### **10 Credit Hours**

*Prerequisite: Admission to the Health and Physical Education Teacher Certification Concentration, current teacher liability insurance, and a currently issued PSC Preservice Certificate, in addition to admission to student teaching. Concurrent: EDUC 4610*

This course is a full semester intensive and extensive co-teaching clinical experience in Health and Physical Education. Under the guidance of a collaborating teacher and university supervisor, teacher candidates will work in a diverse learning environment to practice and enhance professional competencies that promote student achievement.

## **IPE 4413: Interprofessional Care and Collaboration**

### **3 Credit Hours**

*Prerequisite: At least 60 earned credit hours.*

This course is designed to provide students with an opportunity to develop the knowledge, values and skills needed for working effectively within interprofessional teams in health care and non-health care settings. Students will learn about their own styles of working in teams and how to address conflict to ensure best outcomes for the final beneficiaries. Emphasis will be placed on the transfer of skills to different contexts and issues in the various disciplines and professions.

## **PHE 2000: Writing and Analysis for Public Health Education**

### **2 Credit Hours**

*Prerequisite: PHE Major and PHE Major-Interest students only*

This course is designed to advance students' critical thinking, reading, and writing skills for the discipline. In this course, students will learn analytical techniques and communication strategies that will help make them successful in the Public Health Education program and the workforce. The course will build writing skills for health literacy, with emphases on research methods, identifying reliable sources of health information, clear and accurate presentation of findings, APA formatting, and delivering audience appropriate health messages. Students will hone their analytical skills through engagement with various health topics and sharpen their writing skills through multiple drafts of papers, with substantial feedback from their peers and their instructor. The culmination of the course will be a portfolio that demonstrates the individual student's growth in comprehension and production of core Public Health literature.

## **PHE 2100: Introduction to Public Health Education**

### **3 Credit Hours**

*Prerequisite: WELL 2000*

This course provides an introduction to the Public Health Education discipline with a focus on historical, current, and future significance of public health education, key principles and terminology, philosophical and research foundations, writing and presentation skills, prominent public health officials and agencies, overview of various public health professions and institutions, ethical issues within the profession, professional roles and responsibilities, the public health education marketplace and core Public Health disciplines.

## **PHE 2290: Special Topics**

### **3 Credit Hours**

*Prerequisite: WELL 2000*

This lower-division course focuses on current and pertinent topics and content specific to the public health education discipline not regularly offered through the HPE Department.

## **PHE 2400: Behavior Theory and Applications**

### **3 Credit Hours**

*Prerequisite: PHE 2000 and PHE 2100*

This course will provide a theoretical foundation for public health education practice. Topics include behavior theories, determinants and influences of health behaviors, and the use of behavior theories in guiding public health education practice.

## **PHE 2900: Peer Health Education**

### **3 Credit Hours**

*Prerequisite: WELL 2000*

This course introduces students to health promotion programming specific to planning, implementation, and evaluation of peer-to-peer health education. Emphasis is placed on educating students on current health topics and teaching strategies for effective peer health education. Students will be eligible to receive a national peer health education certification through The BACCHUS Network.

## **PHE 3150: Applied Analytic Techniques in Public Health Education**

### **3 Credit Hours**

*Prerequisite: PHE 2100 or IHS 2100*

This course introduces students to the applied analytic techniques used in public health education and research. Topics include basic concepts of quantitative data analysis, methods of examining and describing central tendency and variability of public health data, techniques of analyzing numerical and categorical data, approaches to comparing differences and changes of public health status and outcome over time among population groups, and interpreting and communicating the results of data analysis. Emphasis is placed on applying relevant quantitative analytical techniques to solving practical problems encountered in public health education and practice.

## **PHE 3330: Health Systems & Health Policy**

### **3 Credit Hours**

*Prerequisite: PHE 2100 or IHS 2100 or NURS 3209*

This course provides an overview of the basic structures and operations of the U.S. health system, including its major characteristics, foundations, components, finance, and future; health policy development process; and the impact of health policy on health systems and population health. *Notes: This course is crosslisted with NURS 3330*

## **PHE 3400: Disease Prevention and Management**

### **3 Credit Hours**

*Prerequisite: HPAL 2250 or BIOL 2251*

This course provides an overview of human diseases, including causes/risk factors, signs and symptoms, diagnosis, treatment, and prevention. Emphasis will be placed on the role of public health education specialists in prevention and management of diseases that are the leading causes of premature disability and death domestically and globally.

## **PHE 3850: Fundamentals of Program Planning**

### **3 Credit Hours**

*Prerequisite: PHE 2400 and PHE Major*

This course introduces the fundamentals of public health program development in community, work site, and clinical settings. Emphasis will be placed on the knowledge and skills necessary to plan a public health education program.

## **PHE 4000: Public Health Education Study Abroad**

### **3 Credit Hours**

*Prerequisite: WELL 2000 and 2.5 Institutional GPA.*

This course is to afford students a unique opportunity to explore the function and structure of public health in developing communities. Students will assist in the development and implementation of health promotion and prevention activities in developing communities. Participants will be engaged in public health activities such as community mapping, program planning, direct service, assessment, and reflection. Understanding cultural values and beliefs related to health and working as part of interdisciplinary teams will also be part of the student's experiences.

## **PHE 4200: Introduction to Community and Worksite Health**

### **3 Credit Hours**

*Prerequisite: PHE 2400*

This course examines various community and worksite health issues. Topics include community organization, health issues of diverse populations and demographics, global and national health issues, minority health, health care and the U.S. health care system, and occupational and community safety and health.

## **PHE 4300: Environmental Health Issues**

### **3 Credit Hours**

*Prerequisite: PHE 2100 or IHS 2100*

This course will examine issues associated with environmental factors and conditions and their impact on the health of individuals and communities. Topics will include environmental epidemiology, toxicology, policy, and regulation as well as environmental agents of disease and the implementation of environmental interventions to improve public health and safety.

## **PHE 4350: Methods of Public Health Education Research**

### **3 Credit Hours**

*Prerequisite: PHE 3150 and PHE 3850*

This course offers a comprehensive introduction to the research process including the development and exploration of a single research question using empirical data, elements of the research process within quantitative, qualitative, and mixed methods approaches, and the submission and review process of a research manuscript.

## **PHE 4400: Directed Study in Public Health Education**

### **3 Credit Hours**

*Prerequisite: PHE 2100 and permission of the instructor*

Field, research, and/or academic experience under the supervision of a KSU course instructor will provide students the opportunity to work with internal and external academic partners outside of the traditional classroom setting.

## **PHE 4490: Special Topics in Public Health Education**

### **3 Credit Hours**

*Prerequisite: WELL 1000 or WELL 2000*

This upper-division course focuses on current and pertinent topics and content specific to the public health education discipline not regularly offered through the HPE Department.

## **PHE 4500: Epidemiology**

### **3 Credit Hours**

*Prerequisite: PHE 2100 or IHS 2100*

This course introduces the principles, concepts, and methods of epidemiology to examine a full range of disease occurrence, including genetic, environmental and social causes of both infectious and non-infectious diseases. Epidemiological techniques to promote health and wellness and to prevent and control disease will be emphasized.

## **PHE 4600: Program Implementation and Evaluation**

### **3 Credit Hours**

*Prerequisite: PHE 3850*

This course builds upon the Fundamentals of Program Planning course and guides students in the implementation and evaluation of a health promotion program in a community-based setting. This course is designed to provide the student advanced knowledge and skills in the implementation and evaluation of health promotion programs. The focus of this course is to provide students with practical field-based experience in a variety of program implementation and evaluation activities for diverse priority populations.

## **PHE 4650: Health Coaching and Patient Education**

### **3 Credit Hours**

*Prerequisite: PHE 3850 Concurrent: PHE 3400*

This course integrates health coaching and patient education concepts and principles applicable to the current healthcare system. Topics include behavior change theories, motivational interviewing techniques, individual and group coaching strategies, population based health, survey of medical issues and health information, and patient empowerment.

## **PHE 4700: Advanced Internship**

### **1-6 Credit Hours**

*Prerequisite:* Completion of Public Health Minor Core (PHE 2100 and WELL 2000), Adjusted GPA of 2.5, approval of the internship coordinator and/or program coordinator.

The Public Health Minor Advanced Internship is designed to be the culminating capstone academic experience for students completing the core course requirements in the Public Health Minor Program. It is designed as a senior-level credit-earning experience of 1-6 Credit Hours at an approved public health internship site. Students work under the direct supervision of public health professionals and a university supervisor.

## **PHE 4710: Introduction to Public Health Education Internship**

### **0 Credit Hours**

*Prerequisite:* Admission to the Public Health Education major, 90 Credit Hours, and Senior-Level Status.  
*Concurrent:* PHE 4600 or PHE 4650

This course is required in the semester prior to the PHE 4750 Seminar and Internship in Public Health Education course and will lead students through the requisite steps for applying and securing the capstone PHE 4750 internship placement.

## **PHE 4750: Public Health Education Seminar and Internship**

### **12 Credit Hours**

*Prerequisite:* Completion of all PHE program courses and PHE 4710 and Institutional GPA of 2.5

This course is the capstone experience for students completing the program requirements for the Bachelor of Science in Public Health Education. Course topics include public health education trends, certifications, professional ethics, liability, marketplace needs, and employment strategies. Students will work under the direct supervision of public health education professionals and a university supervisor. The course will also include regularly scheduled professional development seminars on campus.

## **WELL 2000: Foundations of Health and Wellness**

### **3 Credit Hours**

This course is designed to examine the scientific and theoretical foundations of health and wellness. Students focus on developing health knowledge and skills necessary to adapt to changing personal, social, and environmental factors related to lifespan development. Topics of exploration include health literacy, goal setting, physical activity, nutrition, stress management, emotional health, substance use, sexual health, self-care, and other health determinants.

## **HIST 1100: Survey of World History**

### **3 Credit Hours**

A thematic survey of World History to the present era.

### **HIST 1111: Survey of World History I**

#### **3 Credit Hours**

A survey of World History to early modern times.

### **HIST 1112: Survey of World History II**

#### **3 Credit Hours**

A survey of World History from early modern times to the present.

### **HIST 2111: Survey of U.S. History I**

#### **3 Credit Hours**

A survey of U.S. History to the post-Civil War period.

### **HIST 2112: Survey of U.S. History II**

#### **3 Credit Hours**

A survey of U.S. History from the post-Civil War period to the present.

### **HIST 2206: Origins of Great Traditions**

#### **3 Credit Hours**

*Prerequisite: HIST 1100, HIST 1111, or HIST 1112*

This course is a systematic examination of five centers of civilization in Afro-Eurasia during their defining moments. The course focuses on the historical contexts that gave rise to China's classical philosophies, India's transcendental world-view, the Judaeo-Christian-Islamic synthesis, African mythoreligious systems of thought, and Latin-European culture in the West. The course's content emphasizes cross-cultural influences and connections.

### **HIST 3100: Historical Methods**

#### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course introduces students to historical inquiry as a conversation about the past. It surveys methods, concepts, and frameworks relevant to the discipline. Students engage in the close reading of scholarly historical work, learn and practice a variety of research methods, and analyze historical sources. Students cultivate good scholarly practices and habits of mind that will benefit them in future courses. Students should take this course during the second semester of the sophomore year.

## **HIST 327I: Introduction to History Education**

### **3 Credit Hours**

*Prerequisite:* Permission of Program Coordinator, HIST 1111, HIST 1112, HIST 2111, HIST 2112, and EDUC 2110

This reading and writing-intensive course introduces fundamental approaches, methods, and concepts relevant to the discipline of history, historical thinking, and teaching American history. Teacher candidates engage in reading and analyzing scholarly works, learn and practice basic research methods, examine contemporary debates and developments in history and history education, contextualize and plan lessons that engage secondary students in studying history. This course also includes a field component.

## **HIST 3304: History of Georgia**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A consideration of Georgia's political, economic, social, and cultural development from the colonial period to the present. Topics include the cultures of indigenous peoples, the Spanish in Georgia, the founding of a British colony, the Revolution, Indian removal, antebellum society, the Civil War, Reconstruction, the New South era, the rise and decline of the cotton economy, race relations, and post-World War II prosperity and problems.

## **HIST 3305: The World Since 1945**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A survey of major themes in world history since 1945, this course focuses on sociocultural and intellectual developments in addition to the traditional concerns with political and economic relations. Particular emphasis is given to great power relations, the role of the middle powers, and North-South relations as well as the interactions between Western and non-Western cultures in the context of increasing globalization.

## **HIST 3310: The Old South**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

This course will be an exploration of the American South from the colonial period to the end of the Civil War. While major political and economic events will be an important part of the course, such events grow out of the ordeals of ordinary people. Therefore, close attention will be paid to the experiences of men and women -- white, black, and Native American -- from all social classes whose lives created a unique society known as the Old South.

### **HIST 331I: The New South**

#### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

The South's social, political, and economic development from 1865. Emphasizes Reconstruction, the "New South Creed," race relations, industrialization, and the region's changing role in national affairs.

### **HIST 3325: Introduction to Public History**

#### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

The course exposes students to how Americans think about the past, as well as its commemoration and public presentation. Special focus will be placed on the ways in which historians transfer their writing, research, and analytical skills to professions outside of academia. Major subfields and professions within public history are examined as are the current issues and controversies within the field.

### **HIST 3326: Historic Preservation**

#### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

Examines the history, theories, and methods of historic preservation. Students are exposed to such activities as renovation approaches for historic architecture, neighborhood and downtown revitalization, and heritage tourism, as well as the social and ethical issues swirling around preservation. Students are also introduced to the "tools" of preservation, including tax incentives, historic inventories, HABS/HAER, the National Register of Historic Places, and the National Trust's Teaching with Historic Places.

### **HIST 3327: Architectural History**

#### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

The course introduces students to vernacular and high-style architecture and its relationship to social, political, and economic forces. The focus will be on the forms, spaces, and stylistic traits of historic architecture, how architecture has evolved through the years, how technological evolutions and innovations have influenced architecture, and what the built environment reveals about public and private life. The geographic focus of the course can change, depending upon the instructor and the needs of the department.

## **HIST 3328: Introduction to Archives and Records Management**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course introduces the student to the archival and records management professions, principles, practices, and legal/ethical challenges. In addition, students hands-on experience working with sample collections and original materials.

## **HIST 3331: History of Religion in the U.S.**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

A survey of religious history in the United States, with special emphasis on beliefs and institutions and their social and cultural context.

## **HIST 3333: African American History to 1865**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

A history of the people of African descent in the United States, from the African beginnings to 1865. The course will emphasize the forced migration of Africans, their experiences under plantation slavery, their resistance and emancipation, and their contributions to American society.

## **HIST 3334: The Africans in the Diaspora**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

A survey of the activities and experiences of African people who live outside the continent from the earliest times to the present. This course examines the migration of Africans to Eurasia, Oceania, and the Americas, and gives special attention to the slave trade across the Sahara Desert and the Atlantic and Indian Oceans; the comparative experience of Africans in slavery in the Middle East and the Americas; emancipation and the process of racial and national integration; and the economic, political, and cultural contributions of Africans in the Diaspora.

## **HIST 3335: African American History, 1865 to Present**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

A history of African Americans in the United States since emancipation. The course emphasizes the struggles waged by African Americans to achieve racial equality and full citizenship in the United States, and the social, cultural, political, and economic forces that have shaped the African American community. Special attention is given to the men and women who led the struggle, the ideas and ideals which inspired and dominated each phase of the struggle, and the movements and institutions which were created in the process.

## **HIST 3340: U.S. Military Experience**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A survey of the development of the American military and its role in U.S. and world history. The course will emphasize the political, economic, and social importance of the military and its role in integrating U.S. society as well as the evolution of strategy, operations and tactics and their use in warfare.

## **HIST 3341: Women in U.S. History and Culture**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

Focuses on the social, economic, political, cultural, and religious experiences of American women of various racial, ethnic, and religious backgrounds from the Colonial period to the present.

## **HIST 3350: England to 1688**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A survey of English history from the earliest time to 1688. The course emphasizes political, cultural, and social developments between the Norman conquest and the transformation of England into a constitutional monarchy by the Glorious Revolution.

## **HIST 3351: Modern England**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

English history from 1689. The course emphasizes the rise of parliamentary government, the importance of the British Empire, and the social, cultural, and economic ideas that have made England and much of the English-speaking world what they are today.

## **HIST 3357: Africans in Asia**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A survey of the history of people of African descent in Asia from the African beginnings to the present. The course evaluates the historical significance of the African presence in the Middle East, India, Southeast Asia, and China. It emphasizes the historical contacts and connection between Africa and Asia, the forced migration of Africans in the age of Islamic expansion and imperialism, the comparative experiences of Africans in bondage and freedom, and their integration into the host societies.

## **HIST 3358: Africans in Latin America and the Caribbean**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A history of the people of African descent in Latin America, the Caribbean, and the United States, from the African beginnings to 1888. The course will examine the forced migration of Africans; their roles in the conquest and settlement of Spanish America, Brazil, and the West Indies; and their comparative experiences under plantation slavery. It will emphasize their resistance and emancipation, and their contributions to the development of the multiracial character of Latin American and Caribbean societies.

## **HIST 3361: Themes in Slavic and Eastern European Studies**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

This course is an introduction to the history, politics, arts, and culture of Slavic and Eastern Europe with a concentration on the last two centuries and contemporary events. After a brief historical survey, students examine prominent themes such as nationalism, ethnicity, state-building, and imperialism. Many themes are analyzed using examples from the arts, popular culture, music, and literature.

## **HIST 3366: History of Mexico and Central America**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

Examines the Mesoamerican pre-classic civilizations, the Aztec Empire and the Maya kingdoms, the Spanish conquest and establishment of New Spain, and the independent nation-states of Mexico and Central America. Themes include Spanish colonialism, the Indian struggle for justice, modern nation-state building, and relations with the United States.

## **HIST 3367: History of Brazil**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A study of Brazil, to include the Native American period, Portuguese colonialism, the Empire of Brazil, and Brazil in the 20th century. Major themes are sugar and slavery, boom and bust economic cycles, the formation of the Brazilian social identity, Brazil and the Amazon, and Brazil's place in the contemporary global world.

## **HIST 3371: Modern Europe**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course surveys European history from 1789 to the present. The course focuses on forces that have shaped modern Europe such as liberal ideologies, industrialization, and the development of mass society. It examines the causes and consequences of the French Revolution, the era of national unification, imperialism, the two World Wars, the impact of the post-WWII era, the collapse of Euro-communism, the evolution and impact of NATO and the European Union, and current challenges.

## **HIST 3372: Ancient to Pre-Modern China**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course introduces the main themes in Chinese history from the Neolithic to 1600; discusses how traditional cultures and outside influences have interacted to produce traditional China; explores the great diversity and impressive continuities of traditional Chinese civilization; and assesses the significance of the institutions of state, family, and women in Chinese history.

## **HIST 3373: Modern India and South Asia**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course emphasizes how Hindu, Buddhist, Islamic, and other traditional cultures combined with British colonial rule and other modernizing influences to produce the India of today. Some attention is also given to peripheral areas, particularly Pakistan and Bangladesh.

## **HIST 3374: Modern China**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course provides a basic survey of the major political, economic, social, cultural and intellectual developments of China since 1600. The course emphasizes how traditional cultures, outside influences, and modernizing forces have interacted to produce the China of today.

### **HIST 3375: Silk Road**

#### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

The Silk Road was the world's first great superhighway, linking China and Japan to the Mediterranean World across Central Asia from ancient times. The peoples along the way traded luxury goods as well as ideas, religions, art, culinary and musical traditions. Through lectures, reading, and films, we explore the cultural interactions between East and West. Primary sources help us understand the great ideas in Buddhism, Islam, the Indian royal epics, Christian crusading and Mongol expansion.

### **HIST 3376: Historiographical Debates**

#### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

Investigates the major limits and problems inherent in historical understanding and introduces the student to philosophies of history that have sought to address those problems. Case studies of major historical controversies help students recognize the important ways those limits and problems influence even the greatest scholar's efforts at historical analysis.

### **HIST 3377: History of Science**

#### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

History of scientific ideas and methods from ancient times to the present, with special emphasis on intellectual trends that contributed to the modern world's scientific outlook.

### **HIST 3378: History of Technology**

#### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course examines technology as a factor in historical change, emphasizing the role of tools, machines, and systems in revolutions, culture, politics, and economics. Students engage historiographical debates and readings on the role of technology in the recent and distant past. More broadly, students develop a critical understanding of the role of humanistic inquiry in technological knowledge through biographies, case studies, and primary source documents.

## **HIST 3379: Central Asia in World History**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course provides an advanced introduction to the history of Central Asia from a global perspective. It covers a large territory including Kazakhstan, Turkmenistan, Uzbekistan, Kirgizstan, and Tajikistan. This course focuses on the changes and continuities in the cultures and societies that flourished in this region during the times of major transformations with global significance, such as the expansion of the Mongolian Empire, spread of Islam, encounters with modernity, and emergence of the nation states.

## **HIST 3380: Premodern Japan**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course provides a basic survey of the major political, economic, social, cultural and intellectual developments of the Japanese archipelago from the earliest times to 1600. The course emphasizes Japan's interactions with outside world and how the indigenous and foreign elements were combined to create the basis of Japanese society.

## **HIST 3381: Modern Japan**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course provides a basic survey of the major political, economic, social, cultural and intellectual developments of the Japanese archipelago from 1500 to the present. The course emphasizes Japan's interactions with the outside world and how indigenous and foreign elements were combined to create the basis of modern Japanese society.

## **HIST 3382: North Africa and Middle East in Modern Times**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 30 credit hours.*

This course analyzes the history of North Africa and the Middle East since the emergence of Islam. Its major themes include the rise of Berber-Arab/Islamic civilization, the historical ties between North Africa and the Middle East, and the impact of Ottoman rule. Consideration of the 20th century includes European imperialism, the advent of military rule, the establishment of Israel, Arab-Israeli wars and the search for peace, pan-Arabism and the independence movement in Maghrib, petroleum and international politics, the rise of Muslim fundamentalism, and the problems of economic development and modernization are all important themes in the course.

## **HIST 3391: History of West Africa**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A history of West Africa from the earliest times to the present. The course emphasizes cultural continuities and changes, trade and cultural ties with North Africa, and contemporary challenges of economic development and nation building in the region. It examines important themes like village, urban, and community life; the formation of mini and mega states such as Ghana, Mali, and Songhai empires; the creation of trans-Saharan and trans-Atlantic trade networks; traditional religion, Islam, and Christianity; European colonialism and African resistances; and decolonization.

## **HIST 3392: History of Southern, Eastern and Central Africa**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 30 credit hours.

A history of Southern, Eastern, and Central Africa from the earliest times to the present. The course emphasizes continuities and changes in African culture, African participation in Indian Ocean and Middle Eastern trade networks, and the impact of European colonization. It examines important themes like Bantu migration and state formation in Central Africa; the emergence of the Ethiopian kingdom; the impact of the Zulu Mfecane; Swahili culture and Omani rule in East Africa; Dutch settlement and the development of apartheid; and the achievement of Black majority rule in South Africa.

## **HIST 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the co-op coordinator.

A supervised work experience program for a minimum of two academic semesters at a site in business, industry, or government. For sophomore, junior, or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

## **HIST 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite:* 60 Credit Hours and Approval of the internship coordinator.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, or private or government agency. *Notes:* Credit is allowed in elective areas.

## **HIST 4163: The United States between the World Wars**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course provides an overview of the economic, political, legal, social, and cultural developments that occurred in the United States during the period between World War I and World War II

## **HIST 4204: The History of the American West**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course surveys the history of the American West with special emphasis on the development of the Trans-Mississippi West from the early 19th century to recent years. The crucial influences of the environment, the interaction of Native Americans, Hispanics, Euro-Americans and other cultural groups, and the unique relationship of the region with the Federal government are explored.

## **HIST 4245: Business & Economic History of United States**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course surveys American business and economic development from colonial times to the present. Its major themes include the history of small business and family business; the shifting position of the U.S. within the world economy; the regional economy of Georgia and the South; labor-management relations; the labor movement; and the changing social, political, and cultural context within which business and economic institutions have developed.

## **HIST 4251: U.S. Social and Cultural History**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course explores the cultural history of the United States since inception. It considers the themes of nationality, immigration, ethnicity (Asian-Americans, Hispanic-Americans, and Middle Eastern-Americans), the elderly, popular culture, and the environment.

## **HIST 4255: Diplomatic History of the United States**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course examines major trends in U.S. diplomacy from 1890 to the present, emphasizing U.S. rise to world power, World Wars I and II, the Cold War and its end, and U.S. relations with developing world areas.

## **HIST 4373: Modern India and South Asia**

### **3 Credit Hours**

*Prerequisite:* Must have completed 45 credit hours.

This course covers major themes and events in the history of the Indian subcontinent from 1526, the beginning of the Mughal era, to 1947, the independence of India and creation of Pakistan. It explores the making of India as the process was continuously enmeshed with colonial modernity and the birth of nationalist movements. The course provides students with a solid introductory understanding of modern South Asian history and the exploration of historical methods.

## **HIST 4374: History of Ancient and Medieval India**

### **3 Credit Hours**

*Prerequisite:* Must have completed 45 credit hours.

This course introduces students to the history of India starting with the Indus River civilizations (c. 2500 before common era) to the advent of Islam and the eventual rise of the Mughal Empire. Students explore multiple religious traditions, ethno-linguistic communities, constant migrations of people, and how broader global forces beyond India shaped the subcontinent during this period.

## **HIST 4375: Themes in Asian History**

### **3 Credit Hours**

*Prerequisite:* Must have completed 45 credit hours.

This course examines various themes in the social, political, and cultural history of South Asia and the Indian Ocean World. Possible themes might include major historical figures in South Asian history, labor and subaltern studies, or Indian Ocean World.

## **HIST 4391: Emerging Themes in African History**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course is a survey of major themes in African cultural history from the earliest times to the beginning of European colonialism. The course introduces students to the peoples, societies, and cultures of the continent and emphasizes dominant themes such as cultural unity and diversity, empire and civilization, kinship and family, ethnic and nation building, Islam and traditional religions, indigenous institutions, slavery, and sociopolitical transformations before European colonialism. Course may be cross-leveled with HIST 6391.

## **HIST 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the Department Chair

Covers special topics and seminars external to regular course offerings.

## **HIST 4410: Colonial America to 1763**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

Starting in the pre-Columbian period, this course covers the American experience until 1763. It looks at Native American life, colonization and settlement by the Spanish, French and English, interaction with the Atlantic world, and the wars for imperial dominance fought in North America until 1763. Issues explored include class structure and family life, religion, politics, intellectual movements, society and culture, slavery, and treatment of minorities.

## **HIST 4411: The American Revolution**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 45 credit hours.*

Examines the American Revolution from the start of the colonists' disputes with Britain through the ratification of the Constitution. Issues covered include the development of tensions between Britain and the colonies during the Seven Years' War and decade-long dispute over taxation, the decision to declare independence and the Revolutionary War, the postwar Confederation government, and the creation of the Constitution. The roles of women, Native Americans, African Americans, and loyalists are also examined.

## **HIST 4412: The Early Republic**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 45 credit hours.*

This course will explore the history of the United States from 1787-1824. Topics and issues covered will include the creation of the Constitution, the formation of the first party system, the growth and development of the federal government, the young republic's foreign policy, the War of 1812, the Market Revolution, the Era of Good Feelings, and the development of a uniquely American culture. Social, economic, political, and military aspects of the American experience will be addressed.

## **HIST 4415: Jacksonian America**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 45 credit hours.*

This course will explore the history of the United States from 1815-1848. Topics and issues covered will include the War of 1812, the Market Revolution, the Era of Good Feelings, the rise of Andrew Jackson, Indian Removal, the formation of the second party system, the rise of the reformist impulse, sectional disruptions caused by territorial expansion and slavery, the annexation of Texas, the Mexican War, and the continued development of a uniquely American culture. Social, economic, political, and military aspects of the American experience will be studied.

## **HIST 4424: Museum Education**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 45 credit hours.*

This course exposes students to both the theory and practice of education in museums, historic sites, and other public history and cultural institutions. An emphasis is placed on the way that museum educators combine theory with practice when implementing educational programming. Major trends in the field of museum education are explored including K-12 education, museum-community partnerships, online learning, and audience engagement.

## **HIST 4425: Oral History**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

Focuses on the methods of taking, processing, and utilizing oral histories. Additional emphasis is placed on the study of planning, development, and operation of oral history projects for libraries, museums, corporations, and public history agencies.

## **HIST 4426: Documentation and Interpretation of Historic Sites**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

Explores the methods of documenting historic properties, especially as related to the National Register of Historic Places. Special emphasis is placed on completing a nomination for the National Register of Historic Places. Includes interpretation of historic sites for public exhibit.

## **HIST 4427: Museum Exhibitions**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course examines the process by which museums create exhibitions, from planning and research through object identification and selection, community involvement, script and text preparation, design, fabrication, installation and maintenance. The course brings students into contact with theory, and provides application of theory through their conceptualization and installation of an interpretive history exhibition. Repeatable once for a total of six credits with approval of instructor.

## **HIST 4428: The Third Reich**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course draws a wide range of texts to place the Third Reich (1933-1945) in a broad historical context to understand its rise, causes, consequences, and legacies.

## **HIST 4430: Museum Studies**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

Provides a broad introduction to the museum world and the functions of museums in American society. Emphasis will be placed on historical museums. Subjects covered will include museum management, collections management, education, interpretation, exhibit design, ethics, and scholarly criticism of museums.

## **HIST 4435: History and Memory**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 45 credit hours.*

This seminar experience examines the literature of public history and memory. Through readings and discussion the class will examine what we know about the past and how we know it, the changing interpretation of historical events over time, the shape and influence of historical memory, the politics of historical interpretation, and the public presentation of history.

## **HIST 4440: Medieval Europe**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 45 credit hours.*

This course is a survey of the origins of European culture, this course focuses on the period between the fourth and the fourteenth centuries, during which time Europe achieved its own form of cultural unity distinct from that of its Mediterranean neighbors.

## **HIST 4441: The Holy Roman Empire**

### **3 Credit Hours**

*Prerequisite: Must have earned 45 credit hours.*

This course provides a survey that examines the social, political and cultural history of the Holy Roman Empire from its medieval origins to its dissolution in 1806. This course emphasizes the impact that the Holy Roman Empire had on the development of European politics, ethnicity, and religion from the medieval era to the early modern period, with a particular emphasis on Central Europe.

## **HIST 4442: History of Religious Tolerance**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 45 credit hours.*

This course traces the origins of the concept of tolerance of the religious "other," with a focus of content on medieval and Early Modern Europe. Besides the historical exploration of the topic and an examination of the emergence and development of the idea of religious toleration against a background of persecution and wars of religion, students also examine and discuss philosophical and practical aspects of religious tolerance today.

## **HIST 4445: Age of Enlightenment**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

A contextualized discussion of major developments in European thought during the eighteenth century. Topics include rationalism and the notion of the social applicability of science, the idea of progress, the critique of established religion, economic theories such as those of the Physiocrats, and epistemological interests as expressed in the *Encyclopedie* of Diderot and d'Alembert, as well as the increased cosmopolitanism and the importance of extra-European models (especially the Chinese Confucian model).

## **HIST 4451: Civil War and Reconstruction**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

Causes and development of the U.S. Civil War from 1830. Includes an analysis of the political, social, and economic aspects of the Reconstruction Era.

## **HIST 4453: World War I**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course provides an overview of the major issues and events surrounding the First World War, exposing students to its opposing governments, leaders, military forces, and major battles, aspects that shaped the conduct and outcome of this momentous international confrontation. It affords students an understanding of the political, military, and social histories of the war and the long-range political and social implications and consequences of the treaty that came at its conclusion.

## **HIST 4454: Twentieth Century Europe**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

A survey of European history from 1914 to the present. The course focuses on the main forces that have shaped Europe such as the Second Industrial Revolution and the development of mass society. It examines women's issues; the rise of Fascism; the impact of existentialism on philosophy, literature, and art; the collapse of Euro-communism; and progress toward European Union.

## **HIST 4456: World War II**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

A survey of the causes, events, and results of World War II. The course emphasizes military history and the global nature of the conflict but also examines the economic, political, and diplomatic aspects of the war.

## **HIST 4461: Gilded Age & Progressive Era**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

An examination of the expansion, industrialization, and urbanization of the United States in the late 19th and early 20th centuries and of the era's cultural, political, economic, intellectual, and social issues.

## **HIST 4471: Recent United States History**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

Recent United States History, 1939–present. Considers domestic political history, an overview of foreign policy, economic growth and change, and social and cultural reform movements. Course may be cross-leveled with HIST 6471.

## **HIST 4488: Approaches to World History**

### **3 Credit Hours**

*Prerequisite:* HIST 3271, and Permission of Program Coordinator

The course examines approaches to world history as a field of study, including important debates and controversies in the tradition, along with best practices in teaching world history. The course includes a consideration of recent developments on topics such as modernization and globalization and their significance in world history, philosophical perspectives on the importance of world history in today's secondary classrooms, world history lesson planning and teaching, and a middle school field component.

## **HIST 4490: Special Topics in History**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

The course treats topics of interest to both students and faculty.

## **HIST 4495: Research Seminar in US History**

### **3 Credit Hours**

*Prerequisite:* HIST 3100; Departmental Approval.

This seminar introduces students to the historiography of a particular topic or theme in US History. It requires students to develop an original research paper on the topic or theme using primary and secondary sources and reflecting standard practices within the discipline. *Notes: This course should not be taken before the second semester of the junior year and may be repeated once for credit.*

## **HIST 4496: Research Seminar in European History**

### **3 Credit Hours**

*Prerequisite: HIST 3100; Departmental Approval.*

This seminar introduces students to the historiography of a particular topic or theme in European History. It requires students to develop an original research paper on the topic or theme using primary and secondary sources and reflecting standard practices within the discipline. *Notes: This course should not be taken before the second semester of the junior year and may be repeated once for credit.*

## **HIST 4497: Research Seminar in non-Western History**

### **3 Credit Hours**

*Prerequisite: HIST 3100; Departmental Approval.*

This seminar introduces students to the historiography of a particular topic or theme of a particular region in the non-Western world. It requires students to develop an original research paper on the topic or theme using primary and secondary sources and reflecting standard practices within the discipline. *Notes: This course should not be taken before the second semester of the junior year and may be repeated once for credit.*

## **HIST 4498: Research Seminar in World History**

### **3 Credit Hours**

*Prerequisite: HIST 3100; Departmental Approval.*

This seminar introduces students to the historiography of a particular topic or theme in World History, using the approaches of cross-cultural, transnational, or transregional history. It requires students to develop an original research paper on the topic or theme using primary and secondary sources and reflecting standard practices within the discipline. *Notes: This course should not be taken before the second semester of the junior year and may be repeated once for credit.*

## **HIST 4499: Senior Thesis in History**

### **3 Credit Hours**

*Prerequisite: HIST 3100 and (HIST 4495 or HIST 4496 or HIST 4497 or HIST 4498) and approval of the department chair.*

A combined tutorial and seminar in which students research and write a senior thesis in addition to making a computer based presentation in class.

## **HIST 4501: Ancient Greece**

### **3 Credit Hours**

*Prerequisite: Must have earned 45 credit hours.*

This is an upper-level history course on the history of the Greek world in the Bronze, Archaic, Classical, and Hellenistic ages (c. 3000 - 200 BC). In addition to core political and military developments, lectures cover Greek literature and extended forays into a range of important social and cultural topics including art, religion, and the family.

## **HIST 4502: Ancient Rome**

### **3 Credit Hours**

*Prerequisite: Must have earned 45 credit hours.*

This is an upper-level history of the Roman people and their empire from the foundation of the city of Rome to the end of the so-called Pax Romana (753 BC -180 AD). In addition to core political and military developments, this course covers literature, religion, imperial ideology, Romanization, and Roman daily life.

## **HIST 4503: Twilight of Antiquity**

### **3 Credit Hours**

*Prerequisite: Must have earned 45 credit hours.*

This is an upper-level history course on the final phase of the ancient Roman empire and the transition from antiquity to the early Middle Ages (c. 200 - 600 AD). Major topics include the fall of the western half of the empire, the survival of the East, the rise of new barbarian kingdoms, and the Christianization of the Roman world.

## **HIST 4544: Renaissance Europe**

### **3 Credit Hours**

*Prerequisite: Completion of at least 45 credit hours*

This course is an overview of European history ca. 1400 to ca. 1530, focusing on the Renaissance, a revival, originating in Italy, of ancient models for education, art, literature and politics. Among the topics the course covers are humanism, the transformation of art and architecture, Renaissance political models, the military and print revolutions, and the European voyages of reconnaissance and conquest. This course emphasizes the close reading of period texts and frequent critical writing.

## **HIST 4545: Reformation Europe**

### **3 Credit Hours**

*Prerequisite: Completion of at least 45 credit hours*

This course provides an overview of European history in the long sixteenth century, focusing on the religious upheavals known as the Reformations. It traces the emergence of the Protestant confessions, as well as Catholic reform and reaction. Examining both the actions of key figures and the broader social forces, the course assesses the immediate and enduring repercussions of the splintering of western Christendom.

## **HIST 4555: Topics in European Culture**

### **3 Credit Hours**

*Prerequisite:* Must have completed 45 credit hours.

This course introduces themes in early modern and modern European cultural history. It explores the premise that literary and artistic developments could drive—not just reflect—political, social, economic, and intellectual changes. Topics may include, but are not limited to, the use of popular song as political propaganda, changing gender norms in eighteenth-century literature, identity formation through music, culture as an industry, film and globalization, and the relationship between visual art and warfare.

## **HIST 4558: The Holocaust**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course puts the Holocaust into historical perspective and reflects on what it reveals about genocide in the twentieth and twenty-first centuries. The course examines the roots of anti-Semitism, the rise of fascism in Europe as it relates to the ideology of the Nazi Party, and the implementation of the Final Solution. The structure and purpose of the ghettos and death camps is studied, as well as efforts to resist. The course concludes by looking at what contemporary representations of the Holocaust mean for a post-Shoah generation.

## **HIST 4633: Modern German History**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours

This course examines German history from Napoleon to Hitler. It explores Germany's ascent to global power and its dramatic losses in two world wars. Special attention is paid to the collapse of the Weimar Republic and the rise of the Nazi dictatorship. This course situates the Nazis within the larger narrative of Germany history and demonstrates the global influence of Germany in many areas of life from gymnastics and corporate R&D to cinema and gay rights.

## **HIST 4640: Modern Ireland**

### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course surveys Irish history from 1700 to the present. The primary emphasis is on the political history of Ireland, but the course also seeks to convey an understanding of Irish economic, social and cultural history, as well as of the influence of the Irish in America. Major topics include Irish nationalism, Ulster unionism, the Famine, Irish revolutions, the Irish Civil War, and the Troubles. This course may be cross-leveled with HIST 6640.

### **HIST 4654: Russia to 1861**

#### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course is a study of Russian history to 1861 that examines the cultural, social and political history from the origins of the Russian State in Kiev to the emancipation of the serfs. This course may be cross-leveled with HIST 6654.

### **HIST 4655: Russia Since 1861**

#### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course is a study of Russia since 1861 that examines the cultural, social and political history of Russia from the emancipation of the serfs to the present. Course may be cross-leveled with HIST 6655.

### **HIST 4760: The Age of Imperialism**

#### **3 Credit Hours**

*Prerequisite:* Must have earned 45 credit hours.

This course explores the Age of Imperialism in its political, social, economic, and cultural dimensions mainly from the 1870s through the 1960s. The course examines imperialism as a global phenomenon and utilizes inter-cultural, transnational, and transregional perspectives.

### **HIST 4765: History of Terrorism**

#### **3 Credit Hours**

*Prerequisite:* Completion of at least 45 credit hours

This course studies the history of terrorism, analyzing how terrorist attacks and definitions of terrorism change over time. Students explore why people use certain types of violence in specific eras to achieve distinct goals. All terrorism is political, and terrorist attacks are deeply embedded in the politics of their day. Thus, students also examine the historical societies affected by terrorism and their reactions to attacks.

### **HIST 4905: History of the Atlantic World**

#### **3 Credit Hours**

*Prerequisite:* Must have earned at least 45 credit hours.

This course exposes students to the momentous socioeconomic transformations that occurred in the Atlantic basin in the wake of Christopher Columbus's voyage of 1492. The changes were engendered by the convergence of diverse cultural groups and the complex social and economic networks that they established in the Atlantic basin. Students examine the complex interconnections, the consequences, and the resultant new social and economic institutions which significantly informed our contemporary world.

## **HIST 491I: Themes in American Environmental History**

### **3 Credit Hours**

*Prerequisite: Must have earned at least 45 credit hours.*

This course focuses on the interaction of the natural environment and human societies in North America from approximately 1500 to the present. Topics include colonial and imperial expansion, industrialization and the rise of modern technological systems, agricultural intensification, the development of contemporary environmental thinking, and the origins of the modern environmental movement. Selected themes present American environmental history within a global context.

## **HIED 4490: Special Topics in History Education**

### **1-6 Credit Hours**

*Prerequisite: Permission of the instructor and department chair.*

Selected special topics of interest to faculty and students.

## **HIED 4498: Internship in Teaching Social Studies (6-12)**

### **12 Credit Hours**

*Prerequisite: Provisional teaching license issued by State of Georgia, full-time employment teaching social studies (7-12).*

Student teaching experience in social studies for provisionally certified teachers. Supervision will be in collaboration with a mentor-teacher in a local school and a specialist in social studies education. Twelve (12) hours of this internship will automatically substitute for SSED 4475. Proof of professional liability insurance. Students are responsible for their own school placements.

## **HIED 4550: Methods of History Education**

### **3 Credit Hours**

*Prerequisite: Pre-Service Certificate, Admission to Yearlong Clinical Experience, Permission of Program Coordinator* *Corequisite: HIED 4650, INED 3300, and EDUC 4610*

This course is an examination and application of curriculum issues, learning theories, teaching strategies, instructional materials, and assessment procedures for teaching secondary social sciences in the multicultural and diverse classrooms of today. Emphasis is on those practices suggested by research in secondary social science education and encouraged by our accrediting agencies.

## **HIED 4650: Yearlong Clinical Experience I**

### **6 Credit Hours**

*Prerequisite: Admission to Yearlong Clinical Experience, Issued Pre-service Certificate, HIST 3271, and HIST 4488. Corequisite: EDUC 4610, INED 3300, and HIED 4550*

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in history education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars. Proof of liability is required.

## **HIED 4660: Yearlong Clinical Experience II**

### **6 Credit Hours**

*Prerequisite: HIED 4550, HIED 4650, and permission of the program coordinator*

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in history education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment. Proof of liability insurance is required.

## **HON 1000: An Introduction to Honors Education**

### **0 Credit Hours**

*Prerequisite: Admissions to the University Honors Program*

This course introduces students to the philosophy of Honors education, the requirements of the University Honors Program, and the Honors Foundations. Students learn strategies for maximizing their academic opportunities at KSU through the Honors Program and developing the eight Honors Foundations: appreciation of diverse perspectives, creativity and innovation, critical thinking, effective communication, information fluency, interdisciplinary learning, leadership, and professionalism

## **HON 1100: The First-Year Honors Colloquium: An Introduction to Honors Education**

### **1 Credit Hours**

*Prerequisite: Admission to the Undergraduate Honors Program.*

This course introduces students to the educational philosophy of the Honors College. Students explore and engage in various forms of academic inquiry, guided by a member of the Honors Faculty. In addition, they learn strategies for building strong academic credentials, finding good leadership and service opportunities, and preparing effective scholarship applications, both for internal (KSU) awards and for Rhodes, Marshall, Fulbright, or other major scholarships they may decide to pursue later in their academic career.

## **HON 2001: Introduction to Honors Research**

### **1 Credit Hours**

*Prerequisite: Admission to the Undergraduate Honors Program*

In this one-hour introduction to Honors research, students will learn how to find a wide array of credible sources for research in any discipline; how to construct a research question and a thesis/hypothesis; how to write a literature review; and how to document their sources correctly using the documentation manual specific to their disciplines.

## **HON 2400: Honors Discovery**

### **0 Credit Hours**

*Prerequisite: Admission to the University Honors Program*

Honors Discoveries are short-term, not-for-credit learning experiences focused on topics outside the usual college curriculum. They often integrate disciplines, current events, or popular culture. Honors Discoveries involve small groups of Honors students learning through seminar discussion and experiential learning under the guidance of a KSU faculty member. May repeat once.

## **HON 2800: Honors Applied Learning Experience**

### **0 Credit Hours**

*Prerequisite: Admissions to University Honors Program*

An Honors Applied Learning Experience is a way to acquire hands-on experience related to your major in a meaningful way that is less formal than an internship. Some common types of applied learning include volunteering, shadowing a professional in your future field, and observations. At least 48 hours of applied learning experiences are required, along with a written proposal within the first month of the semester and a written report and reflection on the experience by the final class day of the semester.

## **HON 3000: Honors Colloquium**

### **0-1 Credit Hours**

*Prerequisite: Admission to the University Honors Program*

In this seminar, selected faculty lead Honors students in an exploration of a topic of interest.

## **HON 3002: Honors Research**

### **0-3 Credit Hours**

*Prerequisite: Admission to the Undergraduate Honors Program*

This course enables Honors students to earn course credit and gain hands-on experience by assisting a professor with his or her research. Students work one-on-one within their major field or within a closely related field doing primary and/or secondary research for a research project conducted by the instructor. Both the student and the instructor are expected to present their findings to members of the campus community at the end of the semester.

### **HON 3010: Ancient Classics I (Pre-5th Century BC)**

#### **1 Credit Hours**

*Concurrent: HON 1100*

This class will examine ancient classics prior to the 5th century BC. Themes may include, but are not limited to, the relation of religion and of poetry to both the family and the city, as well as to wisdom.

### **HON 3020: Ancient Classics II (5th Century BC - 4th Century AD)**

#### **1 Credit Hours**

*Prerequisite: A grade of "B" or higher in HON 1100*

This class will examine ancient classics ranging from the 5th century BC to the 4th century AD through the analysis of themes including, but not limited to, nature, religion, politics, happiness, and wisdom.

### **HON 3030: Modern Classics I (12th Century AD - 16th Century AD)**

#### **1 Credit Hours**

*Prerequisite: Grade of "B" or higher in HON 1100*

This class will examine themes in modern classics from the 12th century AD to the 17th century AD. The themes explored include, but are not limited to, the nature of love and of marriage and their relation to nature, religion, politics, happiness, and wisdom.

### **HON 3040: Modern Classics II (16th Century AD - 19th Century AD)**

#### **1 Credit Hours**

*Prerequisite: Grade of "B" or higher in HON 1100*

This one-credit-hour course will examine modern classics from the period of the 17th century AD to the 19th century AD through the exploration of a variety of themes.

### **HON 3100: Honors Research Methods**

#### **3 Credit Hours**

*Prerequisite: Admission to the University Honors Program*

Students learn about conducting various kinds of research. Topics include advantages and disadvantages of different research methods, designs of studies, methods of collecting and analyzing data, ethical issues, application of findings, and protocols for writing reports and proposals. As their final project, students choose a topic and write a sample research proposal for the Honors Senior Capstone Experience.

## **HON 3102: Honors Peer Mentoring**

### **0-3 Credit Hours**

*Prerequisite: Admission to the Undergraduate Honors Program*

This course is intended to help students develop mentoring and leadership skills within their major field, a field of interest, or a KSU Journey Honors College or University service program (e.g., HON 1100, Student Affairs, or Housing and Residence Life). Guided by a professor, department chair, program director, or administrator, students develop and use interpersonal skills as well as a variety of teaching methods and study skills to assist a peer or a group of peers.

## **HON 3203: Honors Teaching Assistance**

### **0-3 Credit Hours**

*Prerequisite: Admission to the Undergraduate Honors Program*

This class is intended to help students develop teaching and leadership skills within their major field or a field of interest. Students will assist a professor in teaching duties. The class teaches students how to disseminate ideas and how to assess learning. It teaches communication skills since teaching assistants will work one-on-one, in small groups, and full class with students taking the course.

## **HON 3301: Honors Interdisciplinary Seminar**

### **3 Credit Hours**

*Prerequisite: Admission to the Undergraduate Honors Program*

In this intensive reading and writing course, honors students will explore creative integrations of evidence from two or more disciplines, with emphasis on global learning. In addition to investigating the how and why of interdisciplinary thinking, they will examine the origins, consequences, and principles underlying their own assumptions about issues raised in class lectures and discussions.

## **HON 3600: Introduction to Community, Service, and Leadership**

### **3 Credit Hours**

*Prerequisite: Admission into the President's Emerging Global Scholars Minor*

The purpose of this course is to enable students to prepare for a life of service, leadership and community engagement. The class will teach various leadership theories and how each theoretical approach is applied in a variety of organizations. Concepts learned through the course will be immediately applicable for students. Students will have the opportunity to place their theoretical learning in the context of active service.

## **HON 3620: Issues in the Global South**

### **3 Credit Hours**

*Prerequisite: HON 3600*

Students must gain global competencies and an inclusive worldview to help further their global citizenship and prepare them for leadership positions within their specific academic discipline and intended careers. This course examines global issues related to developing countries, or what are collectively called the "Global South." The Global South numerically consists of the largest number of nations in the world encompassing more than 150 countries in Asia, Latin America, Africa, and the Middle East. Despite their diversity, developing nations share several common characteristics. Common issues include war, poverty, oppressive gender norms, race and religious inequality, globalization, neo-liberalism, the impact of colonialism, and political and social instability. This course aims to help students identify and critically analyze the major issues and challenges facing developing nations in dialogue with specific contexts and greater global experiences. Using an interdisciplinary approach, this course leads students in examining a specific developing country in the Global South as a case study for understanding common issues faced by developing countries.

## **HON 3640: Introduction to Civic Engagement**

### **3 Credit Hours**

*Prerequisite: HON 3620*

This course will explore theoretical and applied concepts in civic engagement. Students will choose from a variety of opportunities to investigate and select options to learn and serve in the community for causes and ideas in which they believe.

## **HON 3660: The Developed World and Global Competency**

### **3 Credit Hours**

*Prerequisite: HON 3640*

We live in a connected, complex world. Students must obtain global competencies to develop an inclusive worldview while maturing their commitment to responsible global citizenship in an integrated and interdependent world. They must master the skills necessary to become agents of change in leadership positions within their specific academic discipline and intended careers. Accordingly, students should understand how historical, political, economic, social, cultural, and other frameworks provide insights into developed countries, as they explore global issues, related challenges and their impact on the future. Through lectures, service engagements within a developed country, readings, and student led research and presentations, participants will increase their global knowledge while acquiring the analytical tools necessary to examine developed countries. Using an interdisciplinary approach, this course leads students in examining competency frameworks by focusing on a specific developed country or region other than the United States.

## **HON 4010: Dante's Italy**

### **3 Credit Hours**

*Prerequisite:* Grade of "B" or higher in HON 1100

This course will focus upon the social, religious, and political aspects of Dante's Divine Comedy. *Notes:* This course will take place through a KSU Study Abroad experience. For students who do not wish to pursue experiences abroad, alternatives to the completion of this course include: HIST 4454: Renaissance Europe, HIST 4440: Medieval Europe, and HIST 4545: Reformation Europe.

## **HON 4020: Modern Classics of the British Isles & Commonwealth**

### **3 Credit Hours**

*Prerequisite:* Grade of "B" or higher in HON 1100

Students will be introduced to the literature of the British Isles & Commonwealth, emerging from the Romantic Era to the present day. As participants in a survey course conducted along the lines of a seminar, students will have the dual responsibility—and pleasure!—of reading and assimilating the literature of various eras and contributing to an ongoing, collective discussion of the cultural, political, and social elements that serve as creative bedrock for these texts. *Notes:* This course will take place through a KSU Study Abroad experience. For students who do not wish to pursue experiences abroad, alternatives to the completion of this course include: ENGL 4380: World Literature Before 1800

## **HON 4030: British Classics of Modern Democracy**

### **3 Credit Hours**

*Prerequisite:* Grade of "B" or higher in HON 1100

This course examines the foundations of the Enlightenment and the reactions against it through the discussion of works such as those of Bacon, Hobbes, Swift, and Burke. *Notes:* This course will take place through a KSU Study Abroad experience. For students who do not wish to pursue experiences abroad, alternatives to the completion of this course include: POLS 4423: Great Political Thinkers.

## **HON 4400: Honors Directed Study**

### **1-3 Credit Hours**

*Prerequisite:* Admission to the University Honors Program

This independent study course is designed to accommodate independent study through traditional or applied learning honors experiences that are exclusive of those offered in other Honors courses.

## **HON 4490: Honors Special Topics**

### **3 Credit Hours**

*Prerequisite:* Admission to the Undergraduate Honors Program

This course addresses special topics of interest to Honors students and faculty.

## **HON 4495: Honors Ancient and Modern Classics (AMC) Capstone Project**

### **1 Credit Hours**

*Prerequisite:* A grade of "B" or higher in HON 1100

This course is the culminating experience of the AMC Minor. During this course, students develop a project that focuses on defining a fundamental issue or topic that first appears in AMC literature with the intention of exploring how the understanding of this issue may have evolved over time as well as explaining its relevancy to today's world.

## **HON 4497: Honors Senior Capstone Proposal**

### **0-1 Credit Hours**

*Prerequisite:* Admission to the University Honors Program

To complete their Honors requirements, students design and execute a senior project reflecting original research; an original synthesis of existing research; an application of existing research to a new context; original creative work, or the design and coordination of a major-related service learning project. This first capstone course gives students credit for producing a substantive honors capstone proposal.

## **HON 4499: Honors Senior Capstone Project**

### **0-3 Credit Hours**

*Prerequisite:* Admission to the University Honors Program

This final segment of the Honors Senior Capstone Experience requires an honors student to complete and submit the final capstone product(s): original research, an original synthesis of existing research, an application of existing research to a new context, original creative work, or the design and coordination of a major-related service learning project.

## **HMGT 3300: Introduction to Hospitality**

### **3 Credit Hours**

*Prerequisite:* Admission to the Coles Undergraduate Professional Program or student in a Coles College Partner Program

This survey course provides students with an understanding of the hospitality industry and the role it plays in both the U.S. and global economies. This course offers an overview of the industry, its economic impact, its history, its current and future challenges, and its business characteristics. The main goal of the course is to expose students to the hospitality industry and provide an understanding of the unique aspects of managing businesses in this industry.

## **HMGT 3397: Work Experience In Hospitality Management**

### **0 Credit Hours**

*Prerequisite: Hospitality management major and (admission to the Coles College Undergraduate Professional Program).*

All hospitality majors, upon completion of 400 hours of verifiable work experience in the hospitality, tourism, or related industries must sign up for this course. The work experience may be obtained any time from the freshmen year at KSU to the semester of graduation at KSU and must be completed in its entirety before a degree will be awarded. This course carries no credit hours, and thus no tuition fees. Grading is Satisfactory or Unsatisfactory based on successful completion of the work-hour requirement and a reflection paper, which details work experiences and involves the students' self-critique of their skills and knowledge in preparation for a career in the hospitality industry.

## **HMGT 3500: Guest Service Management**

### **3 Credit Hours**

*Prerequisite: HMGT 3300 and (admission to the Coles College undergraduate professional program or student in a Coles College Partner program).*

This course explores the dimensions of successful service management of hospitality organizations. It also offers an in-depth study of the provision and management of high quality service provided within a hospitality business. It prepares students for enlightened guest service management and suggests creative approaches. The course will use an integrated viewpoint on issues of measurement, continuous service improvement, staff member training from a guest perspective, and the ability to benchmark among hospitality competitors are discussed.

## **HMGT 4100: Hospitality Marketing and Revenue Management**

### **3 Credit Hours**

*Prerequisite: HMGT 3300 and (admission to the Coles College undergraduate professional program or student in a Coles College Partner Program).*

Students in this course survey common marketing practices and revenue management issues that are unique to the hospitality industry. These practices include sales procedures, revenue management (i.e., setting room rates), the use of technology to maintain a leadership position compared to one's competitors, building a loyal customer base, a discussion of the relationship of marketing to overall organizational success, and an analysis of a hospitality operation's annual marketing plan.

## **HMGT 4200: Hospitality and Travel Law**

### **3 Credit Hours**

*Prerequisite: BLAW 2200 and (admission to the Coles College undergraduate professional program or student in a Coles College Partner Program)*

This course acquaints students with the legal aspects of the hospitality and travel industry. Students examine laws and regulations governing the industry with specific emphasis on: sources and principles of hospitality and travel law; the hotel-guest relationships and the duty owed to each other; liability and sale of guestrooms, food and beverage; employment practices; government regulations; contracts; licensing and insurance; risk management; management and franchise agreements and; commercial and case law. At the completion of the course, students will be able to recognize and evaluate legal issues for the purpose of decision making in hospitality and travel work environments.

## **HMGT 4201: Event Planning and Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and a student in a Coles College Partner Program that included this course)*

The events industry is a multi-faceted, multi-billion-dollar industry. A keen understanding of the industry's dynamics and complexities is essential for individuals planning to enter the industry. In this course, students analyze the steps in the events planning process and learn how to conceptualize events. The nature of the industry and the importance of risk management and sustainability are also explored. Upon completing this course, students will be able to plan, execute and evaluate events.

## **HMGT 4202: Restaurant Concept Development and Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and a student in a Coles College Partner Program that included this course)*

In this course, students will learn about restaurant concepts and their development and operation. Students will examine the key restaurant development and operational functions such as: concept development; restaurant opening; the legal and regulatory aspects of restaurant development and operations; equipment and design; menu design; marketing and promotion; financial statement analysis; restaurant analytics; pricing; supply chain management; customer experience management and employee staffing, engagement, and performance management. At the completion of the course, students will be able to implement strategies to effectively own, manage and operate a successful restaurant or food service business.

## **HMGT 4203: Hotel Real Estate Investment and Asset Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and a student in a Coles College Partner Program that included this course)*

Real estate represents one of the largest and most significant investment by firms and individuals in the hospitality industry. The course will also cover hotel market analysis and valuation techniques including estimating hotel occupancy and room rate, forecasting hotel revenue and expenses and the hotel valuation process. Students will learn how to perform a hotel valuation market study using the Hotel Market Study and Valuation Software. The course will also examine the components of hotel asset management, a service which has become a central tenet for several hotel ownerships.

## **HMGT 4300: Hotel Management and Operations**

### **3 Credit Hours**

*Prerequisite: HMGT 3300 and (admission to the Coles College undergraduate professional program or student in a Coles College Partner Program).*

This course examines hotels with students gaining a basic understanding of the various departments within these lodging venues. The relationship between major departments such as rooms division, and food and beverage are illustrated. Managerial and operational functions and decisions are identified and discussed. Students are exposed to key abilities and skill sets necessary to manage such facilities by familiarization with the role of a managerial position.

## **HMGT 4490: Special Topics in Hospitality Management**

### **1 to 3 Credit Hours**

*Prerequisite: Admission to the Coles College undergraduate professional program or student in a Coles College Partner program*

Selected topics of interest to students and faculty in Hospitality Management.

## **HMGT 4500: Strategic Analytics for Hospitality Managers**

### **3 Credit Hours**

*Prerequisite: HMGT 3300, HMGT 4100, and (admission to the Coles College undergraduate professional program or student in a Coles College Partner program)*

This course focuses on the analysis of data as they apply to operational and financial decision making. Stemming from the operational hospitality manager's perspective, industry-specific tools are used to conduct predictive and prescriptive analytics, and financial and non-financial performance analysis, including but not limited to, service measurement, expenses and profitability, turnover and human resources information, guest satisfaction, competitor performance data, and other measures of operational performance in hospitality.

## **HS 2100: Overview of Human Services**

### **3 Credit Hours**

This required course provides students with an overview of helping professions. Topics include: philosophy of human services; characteristics of human service workers; careers in human services; description of public, nonprofit and for-profit agencies; theory; and cultural diversity. Human service majors are required to take this course prior to applying for admission into the HS program. This course is also a prerequisite for other HS courses. Students must complete 20 hours of volunteer service as a requirement of this class.

## **HS 2200: Fundamentals of Nonprofits**

### **3 Credit Hours**

This introductory course is designed to provide knowledge, theory, and skills in the administrative/management aspects of nonprofit organizations. *Notes: This course is a required course for students seeking Nonprofit Leadership Alliance Certification.*

## **HS 2300: Cultural Competence in the Human Services**

### **3 Credit Hours**

This foundation required course in human diversity enhances students' abilities to understand, evaluate, and provide culturally sensitive and competent human services to members of diverse groups. This course gives students the opportunity to reflect upon their own cultural development and to be more sensitive to others

## **HS 2400: Interviewing Skills for the Helping Professions**

### **3 Credit Hours**

*Prerequisite: HS majors or HS Interest or Non-Majors with permission of Department.*

This required course introduces students to interviewing skills in non-crisis settings. Communication skills learned in the course include relation skills building techniques within a problem solving model. Additionally, students learn skills to identify client strengths and to work with resistant clients. Students are required to role-play, videotape, and critique skills learned in the course. The goal of this course is to expose the student to a variety of perspectives used by all human service workers.

## **HS 2900: Working with Support Groups**

### **3 Credit Hours**

*Prerequisite: HS 2400 and (HS Majors or Permission of Department)*

This course introduces students to basic theory, skills, methods and values necessary to lead support groups. Students will develop, facilitate/co-facilitate issue oriented groups for different ages, genders, etc.

## **HS 3000: Foundation Internship**

### **3 Credit Hours**

*Prerequisite: HS 2200, HS 2300, HS 2400, HS Majors only, Minimum 2.8 Institutional GPA*

This course provides students the opportunity to begin to explore the helping professions by completing service learning while applying theoretical knowledge, skills and human services value systems. Specifically, HS majors will be expected to demonstrate knowledge content from prerequisite courses. Students will be expected to demonstrate beginning competencies in micro and macro practice.

## **HS 3100: Poverty and Culture**

### **3 Credit Hours**

*Prerequisite: HS 2300 and (HS major or HS Interest or Non-major with permission of department)*

This required course will provide an overview of poverty in the US, its causes, efforts to alleviate it, and its reflection in and by culture. Students will examine theories of the causes of poverty, insights into personal experiences of poor people, and critical thinking activities relative to this social issue.

## **HS 3200: Policy & Advocacy**

### **3 Credit Hours**

*Prerequisite: HS 2200; HS major or HS Interest or Non-majors with permission of the department.*

Students gain the skills to analyze, interpret, and ultimately change policies and laws that impact service users, nonprofit organizations, and service delivery in the human services/social sector. A highlight of the course features ways in which advocates in the area of social policy have been mobilized to effect real change for diverse communities. Students have the opportunity to experience how activism and advocacy in their roles as human service professionals can lead to change.

## **HS 3300: Human Socialization**

### **3 Credit Hours**

*Prerequisite: HS majors or HS Interest or Non-majors with permission of the department*

This required course provides students with an overview of human development within the social environment. This course focuses on the effect of the environment on personal and social functioning.

## **HS 3400: Community Intervention**

### **3 Credit Hours**

*Prerequisite: HS majors or Non-majors with permission of the department*

This required course focuses on macro-human service practice as a complement to preparation in micro-direct services. It is specifically designed to provide students with a working knowledge and basic skills required for helping communities and organizations address their needs and concerns. Students will learn various models of community and organizational intervention that can be used in diverse settings.

## **HS 3500: Research Methods for the Human Services**

### **3 Credit Hours**

*Prerequisite: HS 3000 and (STAT 2332 or STAT 1401 or MATH 1160 or MATH 1190 or MATH 1179 or MATH 2202); HS majors or Non-majors with permission of department*

This required course introduces quantitative and qualitative social science research methods with an emphasis on specific methods necessary for human service research and evaluation. This course enables students to become informed producers and consumers of research products, particularly in the human service areas. The emphasis is on basic concepts and underlying assumptions of various social science research methodologies and their design implications. It also develops skills in designing research projects with a particular emphasis on survey research. This course content has critical application in HS 4900–Capstone course.

## **HS 3600: Program Development and Evaluation**

### **3 Credit Hours**

*Prerequisite: HS 2200*

This course introduces students to the development and evaluation of human services programs. Students will discuss appropriate program evaluation techniques and design elements, including an evaluation plan.

## **HS 3650: Governance, Advocacy, and Leadership in Nonprofits**

### **3 Credit Hours**

*Prerequisite: HS 2200*

This course introduces students to the theory and practice of governance, leadership and advocacy within non-profit organizations. *Notes: This course is a required course for students seeking Nonprofit Leadership Alliance Certification and is offered as an online course.*

## **HS 3700: Aging and the Family**

### **3 Credit Hours**

*Prerequisite: HS majors or Non-majors with permission of the department.*

This course introduces students to family systems theory and practice in relation to working with older adults and their families. Impact on nursing home placement, Alzheimer's disease, death and dying, and depression as it relates to family function is stressed. Services and solutions to aging related problems will be included.

## **HS 3750: Death, Dying and Bereavement**

### **3 Credit Hours**

*Prerequisite: HS majors or Non majors with permission of the department*

In this course, students will examine death, dying, and bereavement from historical, contemporary, and cultural points of view. Students will also study skills necessary for working with dying and bereaved populations.

## **HS 3800: Social Entrepreneurship and Enterprise**

### **3 Credit Hours**

*Prerequisite: HS 2200 or MGT 4001*

This course introduces students to the theory and practice of social entrepreneurship and innovation.

## **HS 3850: Introduction to Nongovernmental Organizations and Development**

### **3 Credit Hours**

*Prerequisite: HS 2200 or Permission of Department*

Students critically examine types, challenges, strategies and activities of international nonprofit organizations (i.e., nongovernmental organizations). This course provides a forum for students to analyze NGOs and their relationships to governments, civil societies, donors and other stakeholders. International development serves as the unifying theme of exploration. Note: This course may be cross-listed with POLS 3850.

## **HS 3900: Dynamics of Family Violence**

### **3 Credit Hours**

*Prerequisite: HS majors or Non majors with permission of the department*

This course provides students with a working knowledge of family violence issues. Students will become familiar with different theories regarding causation and treatment as well as society's response to family violence.

## **HS 3950: Perspectives on Child Maltreatment and Child Advocacy**

### **3 Credit Hours**

*Prerequisite: HS 3300, PSYC 2103, SOCI 3364, or ECE 2250*

In this course, students will study the history, comparative perspectives, legal framework and responses to child maltreatment. They will discuss and begin to develop the skills necessary to work in the field and speak about pertinent issues pertaining to child maltreatment and child advocacy.

## **HS 3960: Professional and System Responses to Maltreatment**

### **3 Credit Hours**

*Prerequisite: HS 3300, PSYC 2103, SOCI 3364, or ECE 2250*

This course prepares students to identify and investigate child maltreatment and apply intervention strategies for children and their families including prosecution where indicated. Students will be able to discuss issues related to child witnesses such as recantation, suggestibility, memory and the impact of multiple interviews on children.

## **HS 3970: Global Child Advocacy**

### **3 Credit Hours**

The purpose of this course is to prepare students to recognize child advocacy issues around the world. The course is designed for students majoring in various disciplines where knowledge of child maltreatment and advocating for children will be necessary. Multidisciplinary approaches to advocacy in different countries throughout the world will be presented and discussed.

## **HS 4100: Grant Writing and Fundraising**

### **3 Credit Hours**

*Prerequisite: HS 2200*

In this course students study fundraising/development, including grant writing, special events, and basic finance in the nonprofit sector. It is appropriate for students working in all areas of Human Services as well as other majors who plan to work with nonprofits or governmental agencies. *Notes: This course is a required course for students seeking Nonprofit Leadership Alliance Certification.*

## **HS 4200: Human Resources for Nonprofit Organizations**

### **3 Credit Hours**

*Prerequisite: HS 2200*

Students will examine theories and management practices necessary to effectively manage human resources for nonprofit organizations, including staff and volunteers. *Notes: This course is a required course for students seeking Nonprofit Leadership Alliance Certification.*

## **HS 4300: Education Abroad in Human Services**

### **3 Credit Hours**

Students will explore the issues and challenges of planning and will participate in the delivery of human services internationally.

## **HS 4400: Directed Study in Human Services**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

This course covers special topics and seminars external to regular course offerings. May include original research projects and practicum experiences.

## **HS 4430: Forensic Social Work**

### **3 Credit Hours**

*Prerequisite: HS 3300 or permission of the department.*

This course provides an overview of the interplay between human service professionals and the court systems. It will also focus on forensic social work practice and theory. Additionally, it illustrates skills for working with diverse populations across the lifespan and across diverse settings, such as community, medical, school, child welfare, mental health and addictions, and juvenile and criminal justice settings.

## **HS 4490: Special Topics in Human Services**

### **3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

This course provides selected topics of interest to faculty and students.

## **HS 4500: Working with Families**

### **3 Credit Hours**

*Prerequisite: HS 3000 or Permission of Department*

This course provides students an overview of the basic theoretical models used for family interventions. Students will also apply family intervention skills in a variety of practice simulations.

## **HS 4600: Working with Children and Youth**

### **3 Credit Hours**

*Prerequisite: HS 3000 or Permission of Department.*

This course focuses on theoretical interventions through the life span phases of childhood and adolescence. Intervention techniques within an ecological frame work are explored and assessed for use in a wide range of problem areas and settings.

## **HS 4700: Crisis Intervention**

### **3 Credit Hours**

*Prerequisite: HS 3000 or Permission of Department*

Students will learn crisis intervention theory, advanced communication skills and knowledge about different crises and crisis settings. Students will be required to role-play crisis intervention techniques.

## **HS 4800: Ethics in the Helping Profession**

### **3 Credit Hours**

*Prerequisite: HS Majors only; Completion of 90 credit hours; Minimum 2.0 Institutional GPA*

This course provides students with an understanding of the importance of ethics and values in the Human Services profession. The course exposes students to different ethical decision-making models and diverse value systems. Students demonstrate skills in applying NOHS Code of Ethics to ethical dilemmas in Human Services and balance their personal values in the process.

## **HS 4900: Capstone Seminar in Human Services**

### **3 Credit Hours**

*Prerequisite: HS Majors only; Completion of 90 credit hours; Minimum 2.0 Institutional GPA and Permission of the Human Services Coordinator* *Corequisite: HS 4950*

This course is the culmination of the Human Services major, and thus integrates students' education and experiences. It provides students with the opportunity to synthesize and apply learning from their program of study in a comprehensive manner. This course should be taken concurrently with HS 4950 in the student's final semester.

## **HS 4950: Advanced Internship for Human Services Professionals**

### **6 Credit Hours**

*Prerequisite: Permission of the Department*

This course is an advanced supervised field experience that includes regular class meetings to discuss field experiences.

## **INED 3300: Educating Students with Exceptionalities in Inclusive Settings**

### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education Concurrent: SCED 4650 or ENED 4650 or FLED 4650 or HIED 4650 or MAED 4650 or EDMG 4650*

This course prepares candidates to work collaboratively with families and school personnel to positively impact the academic, social/emotional, and behavioral development of students with exceptionalities. This course requires a ten-hour observational and instructional experience in assigned school placement(s). Verification of professional liability insurance is required prior to placement in the field experience. Candidates must have an issued preservice certificate for this course. This course fulfills Georgia HB 671 requirement. Beginning July 1, 2019, all candidates must earn a "B" or higher in this course for certification as stated in the Georgia PSC 505-2-.24 Special Georgia Requirements. *Notes: This course may be cross-leveled with INED 6400*

## **INED 3304: Education of Exceptional Students**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program. Corequisite: ECE 4650*

Prepares candidates to work collaboratively with families and school personnel to have a positive impact on the educational, social and behavioral development of all students, including those with a full range of disabilities, in a diverse society. The course focuses on knowledge of legislative mandates for serving exceptional students, characteristics of exceptionality, best practice in facilitating teaching and learning, and accountability through assessment of outcomes. This course requires an observational experience in an assigned school placement. Verification of professional liability insurance is required prior to placement in the field experience. Fulfills Georgia HB 671 requirement.

## **INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I**

### **2 Credit Hours**

*Prerequisite: Admissions to EPP Concurrent: EDMG 4650 or ENED 4650 or FLED 4650 or HIED 4650 or MAED 4650 or SCED 4650*

This course prepares candidates to work collaboratively with families, school personnel to have a positive impact on the educational, social and behavioral development of students, including those with a full range of exceptionalities, in a diverse society. It focuses on knowledge of legislative mandates for serving exceptional students and the characteristics of exceptionalities. This course, along with INED 3306, fulfills Georgia HB 671 requirement. *Notes: Acceptance into Yearlong Clinical Experience required.*

## **INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II**

### **1 Credit Hours**

*Prerequisite: Admission to Teacher Education and INED 3305 Concurrent: EDMG 4660 or ENED 4660 or FLED 4660 or HIED 4660 or MAED 4660 or SCED 4660*

This course prepares candidates to work collaboratively with families and school personnel to have a positive impact on the educational, social and behavioral development of all students, including those with a full range of exceptionalities, in a diverse society. It focuses on knowledge of legislative mandates for serving exceptional students, characteristics of exceptionality, best practices in facilitating teaching and learning, and accountability through assessment of outcomes. This course requires an observational experience in an assigned school placement. Verification of professional liability insurance is required prior to placement in the field experience. This course, along with INED 3305, fulfills Georgia HB 671 requirement.

## **INED 4000: Service Learning in Special Education**

### **1-3 Credit Hours**

*Prerequisite: 60 hours and permission of the instructor and department chair/program coordinator.*

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program coordinator.

## **INED 4430: Applied Linguistics and English Language Literacy**

### **3 Credit Hours**

*Prerequisite: EDUC 2120 and EDRD 3320, or approval of the department.*

This course is an introduction to linguistic systems and their acquisition as they occur in the language development of English (ELs) and other limited English proficient learners. There is a strong focus on cognitive and social processes of language acquisition, including how functional, cultural, and critical literacies are constructed and promoted. Students will explore relationships among the four language domains, their connections to language proficiency levels and development of academic vocabulary.

## **INED 4431: Foundations for Teaching Diverse English Learners**

### **3 Credit Hours**

*Concurrent: EDUC 4610 or EDMG 3350*

This course introduces middle and/or secondary teacher candidates to today's diverse English learner population, education policies that impact these students and how cultural resources can be leveraged to meet their academic needs. This course focuses on developing effective instruction, assessment, and literacy development for English learners and other linguistically diverse learners in middle grade classrooms. Specifically, candidates will a) examine the academic, linguistic and social needs of linguistically diverse learners, b) explore the differences between teaching reading and writing to English learners and native English speakers; and c) develop skills necessary for the differentiation, scaffolding language and content for English learners at a variety of language proficiency levels.

## **INED 4435: Foundations of Teaching Adolescent English Learners**

### **1 Credit Hours**

*Corequisite: Yearlong Clinical Experience I or department approval*

In this course, middle and/or secondary preservice content teachers are introduced to today's student immigrant population, education policies that impact urban youth, first and second language acquisition, linguistic elements, and linguistically responsive pedagogy. In addition, candidates will begin to develop an understanding of these concepts as they relate to meeting the academic needs of English learners and recognizing the cultural resources that they bring to the content classroom in relation to the larger sociopolitical context.

## **INED 4436: Foundations of Teaching Adolescent English Learners II**

### **2 Credit Hours**

*Prerequisite: INED 4435*

This course focuses on developing effective instruction, assessment, and literacy development for English learners and other linguistically diverse learners in middle GRADE classrooms. Specifically, candidates will a) examine the academic, linguistic and social needs of linguistically diverse learners, b) explore the differences between teaching reading and writing to English learners and native English speakers; and c) develop skills necessary for the differentiation, scaffolding language and content for English learners at a variety of language proficiency levels.

## **INED 4437: Education for Linguistically Diverse Students**

### **2 Credit Hours**

In this course, teacher candidates are introduced to first and second language acquisition, linguistic elements, and linguistically responsive pedagogy. In addition, students will begin to develop an understanding of these concepts as they relate to understanding the educational experiences of English learners and recognizing the vast cultural resources that they bring to the classroom in relation to the larger sociopolitical context.

## **INED 4482: Applied Linguistics for Teachers of K-5 English Learners**

### **3 Credit Hours**

*Prerequisite: Admission to BS in Elementary Education, and EDUC 2130 Corequisite: ECE 3320*

This course focuses on the major theories of first and second language acquisition, principles of linguistic systems (i.e., phonology, phonetics, morphology, syntax, pragmatics), and examines these topics drawing on a student-centered approach. Specifically, course content explores these topics as they relate to classroom-based language learning and implications for elementary classrooms. In addition, course content is framed within current conversations related to literacy, assessment, English language development standards.

## **INED 4483: Methods and Materials for Teaching ESOL in the K-5 Classroom**

### **3 Credit Hours**

*Prerequisite: INED 4482 Corequisite: ECE 3305*

In this course, candidates will articulate and apply knowledge of culturally and linguistically responsive pedagogy to the development of sheltered content area lessons for students learning English as an additional language. As part of lesson implementation, candidates will document and analyze the impact of instruction on English learners' language development and content learning through development of formative and summative assessments. A 20-hour field experience teaching English learners is a requirement for this course. The field experience also requires a GaPSC-issued pre-service certificate.

## **INED 4490: Special Topics in Inclusive Education**

### **1-6 Credit Hours**

*Prerequisite: Permission of the instructor and department chair.*

Selected special topics of interest to faculty and students.

## **IET 1001L: Industrial Engineering Technology Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 1000*

This is an introductory course for Industrial Engineering Technology majors. The course covers the curriculum and how industrial engineering technology (IET) is used in industry applications. Also covered are research, writing, and presentation skills, Microsoft Excel, and Microsoft PowerPoint.

## **IET 2000: Introduction to Industrial Engineering Design**

### **3 Credit Hours**

*Concurrent: IET 1001L*

Introduce students to Industrial Engineering design concepts important for ensuring product, process, and service performance and safety. Topics include design for usability, safety, reliability, manufacturability, quality, and other current topics in design.

## **IET 2227: Probability and Statistics I**

### **3 Credit Hours**

*Prerequisite: MATH 1113*

This course covers descriptive statistics, probability, sampling distributions and the central limit theorem, continuous and discrete distributions used in engineering, and inferences about single samples, including point and interval estimates for means, proportions and variances. Industrial applications rather than theoretical developments are emphasized. Computer based solution techniques are used when appropriate. This is the first of a two-course sequence.

## **IET 2432: Introduction to Managerial Costing**

### **3 Credit Hours**

Introduces the basics of managerial costing and concepts of tracking variable costs in business production such as administrative costs, labor costs, and cost of goods sold. Includes basic managerial cycle concepts of fixed and variable cost collection, calculations, and decision-making analysis. Topics include: costing vocabulary, concepts, managerial cycle, cash control, inventory, and labor costing.

## **IET 2449: Logistics and Supply Chain Management**

### **3 Credit Hours**

This course offers an analysis of decision making in the current logistics environment and the tools needed for finding solutions to problems relating to purchasing, inventory, transportation, and warehouse management.

## **IET 3320: Advanced Logistics**

### **3 Credit Hours**

*Prerequisite: IET 2449*

This course will expand on the topics covered leading students to a deeper understanding of logistics and supply chain systems. Special emphasis will be given to current trends in the field such as global logistics, reverse logistics, nontraditional supply chains and risk assessment/disaster recovery. Each student will also research in more depth a single topic that interest them

## **IET 3322: Work Measurement and Ergonomics**

### **4 Credit Hours**

This course will focus on work design and ergonomics in manufacturing. Topics will include work methods and production processes to improve operator effectiveness and reduce production costs. Techniques studied include operation analysis, motion study, work sampling, time study, line balancing and ergonomic applications.

### **IET 3339: Statistical Quality Control**

#### **3 Credit Hours**

*Prerequisite: IET 3403*

A study of the fundamentals of statistical quality control is provided. Topics include statistical process control with emphasis on applications and techniques including control charts for variables and attributes, and process capability. Other topics include scientific sampling fundamentals, acceptance sampling by attributes and variables, and reliability.

### **IET 3356: Quality Concepts and Systems Design**

#### **3 Credit Hours**

Students will study quality history, philosophies, and the relationship between quality and organizational performance excellence, as well as the managerial and engineering concepts needed to ensure quality and organizational success through quality.

### **IET 3398: IET Internship**

#### **1-4 Credit Hours**

*Prerequisite: Department Chair Approval*

This course is a structured experience in a supervised setting with an industry partner that is related to Industrial Engineering Technology. The goal is for student's to attain more practical experience while using their acquired academic skills.

### **IET 3403: Probability and Statistics II**

#### **3 Credit Hours**

*Prerequisite: (IET 2227 or STAT 1401) and MATH 1113*

This second of a two-course sequence covers hypothesis testing for means, proportions and variances (one and two samples), categorical data analysis (chi-square contingency tables and goodness-of-fit tests), one- and two-way analysis of variance, experimental design, and introduction to regression analysis, all with engineering applications. Techniques for gathering, analyzing, and presenting technical and engineering data are presented. Computer-based solution techniques are used where appropriate.

### **IET 3410: Principles of Team Dynamics**

#### **3 Credit Hours**

Students will learn the skills and techniques to succeed as a team member in the workplace. Topics include leadership and communication skills, social influences, decision making, problem solving techniques, and team development.

## **IET 3424: Engineering Economy**

### **3 Credit Hours**

*Prerequisite: MATH 1113 or STAT 1401 Concurrent: MATH 1190*

As an introduction to the effect of the time value of money, this course will use equivalent annual cost, present worth, internal rates of return, and benefit to cost ratios in making economic analysis. Tax consequences, replacement theory and economic life will be examined in the analysis of engineering problems.

## **IET 3433: Product and Process Costing**

### **3 Credit Hours**

*Prerequisite: ACCT 2101*

This course explores cost measurement related to manufacturing and non-manufacturing sectors through cost measurement and control in job order, process, standard and variable costing systems. Content includes the recording and control of material, labor and overhead costs, absorption and direct costing, budgeting, and cost volume profit and analysis.

## **IET 3511: Sustainability Engineering**

### **3 Credit Hours**

Topics in green engineering focuses on the science and ethics of ecological, economical, and social environmental issues. The course will delve into the impact the human population has on the current environment as well as explore new sources of energy, air & water quality, waste treatment, reclamation, and conservation efforts. Government regulations, worldwide consortiums, and trends that are leading industries toward sustainability will also be explored.

## **IET 3620: Warehousing Systems**

### **3 Credit Hours**

This course explores various methods and systems dealing with warehousing systems including such areas as management systems, operations, storage and handling strategies, work flow, automation, transportation modes and performance benchmarking.

## **IET 4115: Human Resources Management for Engineers**

### **3 Credit Hours**

*Prerequisite: Senior Standing and IET 2000*

This course is a comprehensive study of human resource management used in industry today. Topics covered are organizational structures, labor relations, supervising professionals, legal issues, team-based environments, performance appraisal, leadership, wage and salary and employee benefits.

## **IET 4135: IET Project Management**

### **3 Credit Hours**

*Prerequisite: MATH 1113 Concurrent: MATH 1190*

This course is a comprehensive study of project concepts, such as project definitions, systems and methodologies, project cycles, roles and responsibilities of leaders and members, and procedures used in industrial and production environments. Topics include scheduling, controlling projects, time-cost tradeoff, resource allocation and project cost control.

## **IET 4151: Operations Management for Engineers**

### **3 Credit Hours**

*Prerequisite: (IET 2227 or STAT 1401) and IET 2000*

This course includes basic production and inventory control systems. Areas of focus include forecasting, master planning, MRP, productivity, competitiveness, strategy, product and service design, process selections, capacity planning, and location planning.

## **IET 4400: Directed Study in Industrial Engineering Technology**

### **(1-5), variable Credit Hours**

*Prerequisite: Permission of the instructor*

This course covers special topics and seminars external to regular course offerings that allow a student to work individually with an instructor. Class structure and assessments depend upon the specific background and interests of the student and professor.

## **IET 4405: Operations Research - Concepts, Models and Methods**

### **3 Credit Hours**

*Prerequisite: (IET 2227 or STAT 1401) and IET 2000 and MATH 1113*

This course will introduce the students to quantitative techniques used in the solution of industrial operations problems. Topics include linear programming, assignments, transportation/shipment techniques, integer linear programming, and decision analysis.

## **IET 4422: Facilities Design, Plant Layout, and Materials Handling**

### **4 Credit Hours**

*Prerequisite: IET 2000 and IET 3322 Concurrent: IET 3433*

This course introduces the students to fundamental concepts, theories, and procedures for studying facilities design, physical layout, material flow, and material handling systems. The lab portion of the course teaches students to design facility and parking lot layouts using CAD software. Students are involved in a group project to design a manufacturing or service facility.

## **IET 4451: Systems Simulation**

### **3 Credit Hours**

*Prerequisite: (IET 2227 or STAT 1401) and IET 2000 and MATH 1113*

This is an in-depth study of simulation as applied to manufacturing, inventory and distribution systems. Topics will include basic simulation and system modeling techniques, random sampling procedures, production modeling, inventory modeling and system evaluation. Emphasis will be upon hands-on simulation of various operations using ARENA, a PC-based graphical simulation program.

## **IET 4475: Senior Project**

### **3 Credit Hours**

*Prerequisite: IET 2000 and IET 2449 and IET 3356 and IET 4422 Concurrent: IET 4135*

This course focuses on the student completing a project that is a comprehensive application of the subject matter in the IET curriculum. A large-scale feasibility study is to be performed to emphasize the interrelated topics of logistical and production processes for a fictitious company. The course requires a formal written report and a defended oral presentation before industrial and academic experts.

## **IET 4490: Special Topics in IET**

### **1-4 Credit Hours**

*Prerequisite: Department Chair Approval*

This course covers special topics related to Industrial Engineering Technology such as process improvement, quality assurance, industrial systems and logistics. Students may take this course more than once for credit with approval of the department chair.

## **ENGR 3407: Lean Six Sigma**

### **3 Credit Hours**

*Prerequisite: Engineering Standing or IET 2227 or ENGT 2000*

An introduction to the application of the Six Sigma methodology in the area of process improvement and an introduction to Lean manufacturing concepts. This course includes a Term Project where the student will use the concepts presented in this course to create a quality control plan or a Lean production plan for an organization that includes an acceptance sampling plan, a control chart, or Lean applications, and recommendations for optimizing the overall efficiency of the organization. *Notes: Students cannot receive credit for both ENGR 3407 and IET 3407 or cannot receive credit for both ENGR 3407 and ISYE 3407.*

## **ISYE 1000: Introduction to Industrial & Systems Engineering**

### **3 Credit Hours**

This course is an introduction to the industrial and systems engineering profession and discipline through exposure to problems, principles, and practice. Integrated systems approach to problem solving. Foundation of data manipulation and preparation for problem analysis. Development of communication skills, career opportunities, importance of professionalism, ethics, contemporary challenges, lifelong learning, and introduction to the department. How to plan for graduation and other useful items are also included.

## **ISYE 1001L: Introduction to Industrial and Systems Engineering**

### **1 Credit Hours**

*Prerequisite: ENGR 1000*

Introduction to the industrial and systems engineering degree and profession through exposure to real-world scenarios, hands-on activities, and a semester-long project. Students will be exposed to common tools and methods of industrial and systems engineering and how those tools are utilized to improve processes and organizations. *Notes: This is the preferred lab in the 2-course orientation sequence for Industrial and Systems Engineering majors, along with the required lecture ENGR 1000. However, it is open to all students, and it is an allowable lab for all engineering majors' orientation lab requirement.*

## **ISYE 2600: Probability and Statistics I**

### **3 Credit Hours**

*Prerequisite: MATH 1190 or (MATH 1179 and MATH 1189)*

This course covers descriptive statistics, probability, sampling distributions and the central limit theorem, continuous and discrete distributions used in engineering, and inferences about single samples, including point and interval estimates for means, proportions and variances.

## **ISYE 3100: Systems Reliability & Maintainability**

### **3 Credit Hours**

*Prerequisite: (ISYE 2600 or STAT 2332) and Engineering Standing*

This course introduces engineering principles and methods used for system reliability and maintainability. Data collection, accelerated testing, FMEA, FTA, system safety, and availability, sustainability are introduced.

## **ISYE 3120: Contemporary Technological Systems: Design, Analysis, & Architecture**

### **3 Credit Hours**

*Prerequisite: ISYE 1000, ISYE 3100 and Engineering Standing*

This course focuses on how system engineering principles are applied to modern technological and infrastructure systems. Defense, space, communication, energy, transportation, aerospace and manufacturing systems are analyzed. Other topics include architecture descriptions, heuristic problem solving, sociotechnical issues and managing complexity.

## **ISYE 3125: Statistical Quality Control**

### **3 Credit Hours**

*Prerequisite:* (ISYE 2600 or STAT 2332), ISYE 3600, and Engineering Standing

A study of the fundamentals of statistical quality control is provided. Topics include statistical process control with emphasis on applications and techniques including control charts for variables and attributes, and process capability. Other topics include scientific sampling fundamentals, acceptance sample by attributes and variables, and reliability.

## **ISYE 3150: Design & Improvement of Quality Processes**

### **3 Credit Hours**

*Prerequisite:* Engineering Standing

Students will learn quality history, philosophies, and the relationship of quality to organizational performance. Emphasis will be given to the management, organization, creation and evaluation of quality systems necessary to assure organizational performance, including basic quality tools, and approaches to quality and process improvement such as Lean and Six Sigma.

## **ISYE 3200: Human Machine Systems**

### **3 Credit Hours**

*Prerequisite:* Engineering Standing

In this course students will study the relationship between humans and the systems they interact with. Students will study human physical and psychological strengths and weaknesses as well as organizational and political issues that influence the effectiveness of Human Machine interactions.

## **ISYE 3300: System Dynamics and System Thinking**

### **3 Credit Hours**

*Prerequisite:* Engineering Standing and ISYE 2600

The course focuses on system dynamics modeling skills to be applied to complex socio-technical systems. The course provides the conceptual and technical knowledge necessary to conceptualize dynamic policy problems, formulate appropriate simulation models, and use models to understand socio-technical systems and develop effective policy interventions. A principle focus of the course is the significance of information feedback and circular causality in the behavior of social systems.

## **ISYE 3350: Logistics & Supply Chain Systems**

### **3 Credit Hours**

*Prerequisite:* Engineering Standing

This course is an analysis of decision making in the current logistics environment and the tools and optimization models needed for finding solutions to problems relating to supply chain design and strategy, transportation, and warehouse management.

## **ISYE 3398: Internship**

### **1-4 Credit Hours**

*Prerequisite: Engineering Standing, Minimum of 60 credit hours completed, Minimum internship work hours of 10 hours/week, Minimum of three ISYE learning objective identified by site supervisor, The majority of the work is ISYE related, A signed Internship Agreement form*

This is a specialized experiential learning development course that is determined by the students' needs and interests, in consultation with and under the guidance of an ISYE faculty member and site supervisor.

## **ISYE 3400: Deterministic Operations Research**

### **3 Credit Hours**

*Prerequisite: MATH 3260*

This course covers formulation and solution of deterministic models of operations research linear, integer, and dynamic programming. Transportation, assignment, shortest path, and minimum spanning tree problems will be introduced to address various applications in the areas of engineering design, production planning and scheduling, inventory control, transportation and logistics.

## **ISYE 3450: Work Measurement Study**

### **3 Credit Hours**

*Prerequisite: (ISYE 2600 or STAT 2332) and Engineering Standing*

An examination of the principles and practices of work analysis and work measurement. Emphasis is on a variety of analytical tools and the development of the student's skill in the use of a stopwatch. This course includes a Term Project where the student will use the concepts of human factors engineering to create an optimal work area layout that maximizes production output and achieves the quality and safety objectives of the organization and also minimizes employee fatigue. The Term Project will include the creation of an engineering time standard for the optimized process.

## **ISYE 3600: Probability and Statistics II**

### **3 Credit Hours**

*Prerequisite: (ISYE 2600 or STAT 2332 or MATH 3332) and MATH 2202*

This course covers hypothesis testing for means, proportions and variances (one and two samples), categorical data analysis (chi-square), analysis of variance, and introduction to regression analysis, with applications to engineering problems.

## **ISYE 4200: Engineering Optimization: Stochastic Decision Models**

### **3 Credit Hours**

*Prerequisite: (ISYE 3400 or MATH 3272) and (ISYE 2600 or STAT 2332 or MATH 3332) and MATH 2202*

Modeling and solution of decision problems under uncertainty. Topics include Markov Chains, stochastic programming, stochastic dynamic programming, theory, utility theory and simulation. Computer solution techniques are emphasized.

## **ISYE 4250: Manufacturing & Service Systems**

### **3 Credit Hours**

*Prerequisite: Engineering Standing*

An analysis of decision making in the current production environment and the tools and optimization models needed for finding solutions to problems relating to production planning and scheduling, inventory, and warehouse design.

## **ISYE 4320: Advanced Logistics**

### **3 Credit Hours**

*Prerequisite: ISYE 3350 and Engineering Standing*

This course will expand on the topics covered in the introductory logistics course, leading students to a deeper understanding of logistics and supply chain systems. Special emphasis will be given to current trends in the field, such as global logistics, reverse logistics, nontraditional supply chains, and risk assessment/disaster recovery. Each student will also research in more depth a single topic that interests them.

## **ISYE 4400: Directed Study**

### **1-4 Variable Credit Hours**

*Prerequisite: Approval of instructor and department chair.*

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. A Directed Study may include original research projects and/or practicum experiences.

## **ISYE 4425: Facilities Planning & Material Handling**

### **3 Credit Hours**

*Prerequisite: EDG 1210 and Engineering Standing*

This course explores fundamental concepts, theory, and procedures for the study of facilities design and location; physical layout; material flow principles; and material handling. Product design, process planning, and schedule design are integrated through the development of analytical procedures and use of Computer Aided Design (CAD) layout planning software to enhance the decision-making process in the design, rationalization and improvement of factory and office layouts. The knowledge learned in this course is integrated with knowledge from selected related courses to develop a laboratory design project by students working in teams.

## **ISYE 4490: Special Topics**

### **1-4 Variable Credit Hours**

*Prerequisite: Approval of instructor and department chair and Engineering Standing*

Selected special topics of interest to faculty and students. This course may be taken more than once.

## **ISYE 4500: System Modeling & Simulation**

### **3 Credit Hours**

*Prerequisite:* (ISYE 2600 or STAT 2332) and Engineering Standing

This course covers modeling and simulation of systems. Topics include basic simulation and system modeling techniques, random sampling procedures, input analysis, output analysis and system evaluation. Practical implementations using common modeling languages and simulation software are emphasized.

## **ISYE 4800: Industrial and Systems Engineering Book Study**

### **1 Credit Hours**

*Prerequisite:* Engineering Standing

The student will obtain and read a book chosen by the instructor that covers a topic from industrial and systems engineering. The student will reflect on the topics within the book throughout the semester and complete assigned assessments.

## **ISYE 4901: Senior Design Project I**

### **1 Credit Hours**

*Prerequisite:* Engineering Standing and Senior Status

This is the first in a two-course sequence culminating the undergraduate engineering education in Industrial and Systems Engineering. Under the guidance of a faculty mentor and/or an industry partner mentor, students form small teams to apply engineering design principles and methods for solving an industry-relevant engineering design problem. This first course in the sequence covers topics including engineering ethics, the Fundamentals of Engineering exam, and professional engineering organizations.

## **ISYE 4902: Senior Design Project II**

### **3 Credit Hours**

*Prerequisite:* ISYE 4901

This is the second in a two-course sequence culminating the undergraduate engineering education in Industrial and Systems Engineering. The course focuses on the student completing a project that is a comprehensive application of the subject matter in the ISYE curriculum. The general intent of the project is to demonstrate the students' knowledge of the integrative aspects of the systems engineering process. Students are encouraged to 'Design and Build' and utilize concepts learned from courses throughout the program. Formal report and oral presentations are required in this course.

## **ISA 3010: Security Script Programming**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course provides a study of secure programming and security scripting techniques. The course examines aspects of developing traditional computer software, applying additional controls and measures to prevent the development of vulnerable and exploitable code. The course then examines scripting techniques used in support of ongoing technical security functions.

## **ISA 3100: Principles of Information Security**

### **3 Credit Hours**

An introduction to the various technical and administrative aspects of Information Security and Assurance. This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features.

## **ISA 3200: Network Security**

### **3 Credit Hours**

*Prerequisite: ISA 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course provides a detailed examination of tools, techniques, and technologies used in the protection of information assets. This course is designed to provide a solid foundation in data communications and networking fundamentals and the security of networks and networking technologies.

## **ISA 3210: Client Systems Security**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course is an exploration of client computer system security and vulnerabilities, including client computer architectures, and operating systems. It provides the detailed technical coverage necessary to protect computer information system clients by presenting the knowledge of client platform computer hardware components, client network devices and interfaces, as well as the structure and usage of common client operating system software from an information security perspective. Additional learning regarding ongoing maintenance and operational issues of client computing systems will also be included.

## **ISA 3300: Management of Information Security in a Global Environment**

### **3 Credit Hours**

*Prerequisite: ISA 3100 , 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course provides a detailed examination of the administration of the information security function beginning with the strategic planning process and including an examination of the policies, procedures, and staffing functions necessary to organize and administrate ongoing security functions in the organization. Subjects include security practices, security architecture security in light of international regulation, competition, and operating environments is emphasized throughout the course.

## **ISA 3330: Information Security Approach to Crisis Management**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course. This course may not be used toward the ISA major.*

This course is an interdisciplinary examination of detailed aspects of contingency planning and crisis management. It includes disaster recovery planning, business continuity planning, and a complete and detailed treatment of crisis management. Students will learn to develop and execute plans for implementing contingency operations when critical functions are disrupted.

## **ISA 3396: Cooperative Study in Information Security and Assurance**

### **3 Credit Hours**

*Prerequisite: ISA 3100, Admission to the Coles College Undergraduate Professional Program, and approval of the Career and Internship Advisor (KSU Career Planning and Development).*

A supervised work experience for a minimum of two semesters at a site in business, industry, or government, focusing on some aspect of information security and assurance. For junior- or senior-level students who wish to obtain on-the-job experience in Information Security and Assurance, in conjunction with their academic training. Students may take a cooperative study for multiple semesters, however only six credit hours are applicable toward the BBA in Information Security and Assurance as Business Electives. Contact the department office for additional information on the requirements and restrictions of the cooperative study. *Notes: Co-op credit can be used only in the "Business Electives" area of the BBA.*

## **ISA 3397: Experiential Learning in Information Security and Assurance**

### **3 Credit Hours**

*Prerequisite: ISA 3100 and approval of the Career and Internship Advisor (KSU Career Planning and Development).*

This course offers engaging, measurable, and scalable methods of learning to enlist a new generation of information security and assurance professionals. The course revolves around participation in various experiential learning opportunities, which are designed to provide hands-on experiences and challenges to help students to develop and improve their skills and problem-solving abilities. Students are responsible for securing their own experiential learning opportunity prior to enrolling in this course. Notes: Students who take this course cannot also take ISA 3396 or ISA 3398 for academic credit.

## **ISA 3398: Internships in Information Security and Assurance**

### **1-6 Credit Hours**

*Prerequisite: ISA 3100, Admission to the Coles College Undergraduate Professional Program, and approval of the Career and Internship Advisor (KSU Career Planning and Development).*

A supervised work experience for one semester at a site in business, industry or government, focusing on some aspect of information security and assurance. For sophomore-, junior-, or senior-level students who wish to obtain on-the-job training experience in Information Security and Assurance, in conjunction with their academic training. Students can earn between one and six credit hours toward their degree programs subject to the programs' restrictions. Contact the department office for additional information on the requirements and restrictions for the internship. Notes: *Internship credit can be used only in the "Business Electives" area of the BBA.*

## **ISA 3400: Information Security Governance, Auditing, and Control**

### **3 Credit Hours**

*Prerequisite: ISA 3100*

This course examines how various governance, risk, and compliance (GRC) practices can improve the security posture of organizations. It provides students with the knowledge and skills to evaluate information security (IS) governance as well as to plan and execute audit strategies and controls, based on proven IS audit standards, frameworks, and guidelines. The course also exposes students to the underlying legal, ethical and security issues.

## **ISA 3710: International Issues in Information Security and Assurance**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course explores emerging international issues in information security and assurance. It provides content about the interaction between the organization, society, and public agencies across national boundaries. It examines the role of people versus technical security as currently debated by contemporary organizations from multiple cultures and nations. Each semester, the specifics of this course will be developed to leverage the current international information security landscape and the context of the scheduled course offering.

## **ISA 4200: Perimeter Defense**

### **3 Credit Hours**

*Prerequisite: ISA 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A detailed examination of the techniques, tools, and technologies used to support the protection of an organization's electronic perimeter. The course will examine the evaluation, selection, deployment, and administration of firewall, virtual private network, intrusion detection and prevention systems, and other applications used to guard organizational information from external attacks.

## **ISA 4213: Cloud Security**

### **3 Credit Hours**

*Prerequisite: ISA 3200*

Introduction to the important concepts pertaining to securing cloud-based infrastructure. Covers architectural and design requirements of cloud systems. Includes data, platform, and application security topics. Cloud operations and legal and compliance issues are examined. Experiential labs and assignments using a large cloud service provider are integrated in the course.

## **ISA 4220: Server Systems Security**

### **3 Credit Hours**

*Prerequisite: ISA 3010 and ISA 3200*

This course is an exploration of server computer system security and vulnerabilities, including server computer architectures, and operating systems. It provides the detailed technical coverage necessary to protect computer information system servers by presenting the knowledge of server platform computer hardware components, server network devices and interfaces, as well as the structure and usage of common server operating system software from an information security perspective. Additional learning regarding ongoing maintenance and operational issues of server computing systems will also be included.

## **ISA 4330: Incident Response and Contingency Planning**

### **3 Credit Hours**

*Prerequisite: ISA 3400, 60 credit hours with a minimum GPA of 2.0, and (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course)*

An examination of the detailed aspects of incident response and contingency planning consisting of incident response planning, disaster recovery planning, and business continuity planning. Developing and executing plans to deal with incidents in the organization is a critical function in information security. This course focuses on the planning processes for all three areas of contingency planning incident response, disaster recovery, and business continuity, and the execution of response to human and non-human incidents in compliance with these policies.

## **ISA 4350: Management of Digital Forensics and eDiscovery**

### **3 Credit Hours**

*Prerequisite: ISA 3200 and ISA 3210, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course focuses on the detection, isolation and response to security breaches and attacks. It provides a detailed examination of the entire computer forensic process and presents specific procedures required to respond to a computer crime incident. Subjects include recognizing unauthorized access, identifying file anomalies, and traffic monitoring.

## **ISA 4400: Directed Study in Information Security and Assurance**

### **1-3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor, major area committee, and Department Chair prior to registration.* Selected topics of advanced nature that are not in the regular course offerings.

## **ISA 4490: Special Topics in Information Security and Assurance**

### **1-3 Credit Hours**

*Prerequisite: Specified courses which vary by topic, 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and department chair prior to registration.*

Selected special or current topics of interest to faculty and students.

## **ISA 4700: Emerging Issues in Information Security and Assurance**

### **3 Credit Hours**

*Prerequisite: Permission of the department chair; minimum 2.0 GPA*

This course explores emerging issues in information security and assurance, and the role of organizational information security in state, regional and national policy. It provides content about the interaction between the organization, society, and public agencies. It examines the role of people versus technical security ideals currently debated by contemporary organizations.

## **ISA 4705: Information Security Competitions**

### **3 Credit Hours**

*Prerequisite: Permission of the Department Chair*

This course offers engaging, entertaining, measurable, and scalable methods of learning to enlist a new generation of information security and assurance professionals. The course revolves around participation in various competitions, which are designed to provide hands-on experiences and challenges to help students to develop and improve their skills and problem-solving abilities.

## **ISA 4805: Penetration Testing**

### **3 Credit Hours**

*Prerequisite: ISA 3210 and ISA 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course contains a detailed examination of real world information security knowledge, enabling recognition of vulnerabilities, exploitation of system weaknesses, and implementation of safeguards against threats. Through hands-on exercises and a final project students will learn the art of penetration testing. Students who complete this course will be equipped with the knowledge necessary to analyze and evaluate systems security.

## **ISA 4810: Cyber Defense**

### **3 Credit Hours**

*Prerequisite: ISA 3210, ISA 4200 and ISA 4220, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course discusses the hardware/software tools and techniques associated with the protection of computer systems and networks. Students learn how to protect network resources as deployed in a typical organization. Course topics include policy and practice associated with the protection of communication resources, intrusion detection systems, firewalls, and use of various tools for system and network protection.

## **ISA 4820: Information Security and Assurance Programs and Strategies**

### **3 Credit Hours**

*Prerequisite: ISA 4213, 60 credit hours with a minimum GPA of 2.0, and (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.)*

The course integrates learning from across the ISA program and encourages the student to develop skills in synthesis and communication (both written and oral) as well as teaching new material about the role of the CISO and the strategic and tactical planning and operation of the information security department in a variety of organizations. Outside speakers will supplement the course and provide the student additional, outside perspective on the information security industry.

## **IS 2200: Information Systems and Communication**

### **3 Credit Hours**

*Prerequisite: ENGL 1101 and (MATH 1001 or higher)*

This course will provide an overview of fundamentals of information systems technologies and their applicability to real world scenarios. Topics may vary as technology changes but the students will learn the tools of productivity. The course aims to improve communications skills appropriate to the business setting.

## **IS 3020: Application Development I**

### **3 Credit Hours**

This course will provide students with the knowledge and skills needed to develop applications in a development environment. Program logic and decision structure will be covered using a modern programming language and framework.

## **IS 3040: IS Infrastructure and Strategy**

### **3 Credit Hours**

*Prerequisite: IS 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course provides foundation skills on information systems infrastructure and their implementation strategies. Topics include hardware, software, communications which includes networking such as LAN, WAN, and wireless; transaction support; facilities for business continuity and security; infrastructure management best practices; cloud, emerging, and edge technologies; risk management including compliance, sourcing, disaster planning, auditing, controls and standards. Looking at the technologies from single board computing, IoT, to SOHO to small corporate and global enterprises, and how infrastructure plays an essential role in corporate information systems, how it is developed and how it is part of corporate strategies. These strategies include local, campus, wide area, national and global implications.

## **IS 3060: Systems Analysis and Design**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An introduction to the basic concepts underlying systems analysis and design, and the application of those techniques in the development of business information systems. The student will learn how to develop information systems based on user requirements and specifications. The course will expose the students to UML and other graphic modeling processes.

## **IS 3080: Information Resource Management**

### **3 Credit Hours**

*Prerequisite: IS 3020 and IS 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Information Resource Management (IRM) constantly strives to improve its commitment to incorporate new technologies to advance the organization. The focus of this course is on management of information systems resources, technologies and people. Covers strategic planning of information resources investments, operations, and support; management of human, technological, and financial resources; management of end-user computing; IS functional organization and the CIO; and organizing information resources for efficient and effective services.

## **IS 3100: Information Systems Management**

### **3 Credit Hours**

*Prerequisite: [(Earned grade of "B" or higher in ACCT 2101, ACCT 2102, ECON 2105, ECON 2106 and IS 2200) or Admission to Coles College Undergraduate Professional Program] or [completion of 60 credit hours with a minimum GPA of 2.0, IS 2200, and student in a Coles College Partner Program that includes this course].*

This course illustrates how to effectively use, manage, and participate in the development of information technology applications that support common business processes. This course focuses on the interdependence among an organization's management, business processes, and information systems and provides hands-on experience in developing a business information system.

## **IS 3220: Global IS Project Management**

### **3 Credit Hours**

*Prerequisite: IS 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

In this course, students will be exposed to the basic principles of project management, effective global teamwork and collaboration. It will prepare students to understand key global issues in project management such as project initiation, planning, scheduling, budgeting, risk analysis, quality management and communicating and collaborating across political and cultural boundaries. Tools such as Microsoft Project will be used to develop and track Information Systems projects.

## **IS 3260: Web Development I**

### **3 Credit Hours**

*Prerequisite: IS 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course presents introductions to many of the basic concepts, issues and techniques related to designing, developing and deploying Web sites. During the course, students will learn about Web design, HTML, basic scripting, and Cascading Style Sheets (CSS). Students will learn how to create sites both manually and through the use of Web site development software tool such as a text editor, Dreamweaver, and Adobe Photoshop.

## **IS 3280: Data Management**

### **3 Credit Hours**

This course introduces the student to the properties, logic, design, implementation, and access to business databases. Particular emphasis is placed on the relational approach to database management and processing, which focuses more on the logical nature of a database than its physical characteristics. Relational database programming assignments are drawn from the fields of business and government.

## **IS 3397: Experiential Learning in Information Systems**

### **0 or 3 Credit Hours**

*Prerequisite: IS 3100 and approval of the Career and Internship Advisor (KSU Career Planning and Development).*

This course offers engaging, measurable, and scalable methods of learning to enlist a new generation of information systems professionals. The course revolves around participation in various experiential learning opportunities, which are designed to provide hands-on experiences and challenges to help students to develop and improve their skills and problem-solving abilities. Students are responsible for securing their own experiential learning opportunity prior to enrolling in this course. *Notes: This course is repeatable for credit. If the student chooses to complete this course for three credit hours, their experience must include 150 field hours.*

## **IS 3560: Business Process Management**

### **3 Credit Hours**

*Prerequisite: IS 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The course addresses the methods and techniques required to analyze, design, implement, automate, and evaluate business processes. It introduces key concepts, process design principles, and approaches to business process management. Students learn to analyze organizational performance from a process perspective and identify, document, model, assess, and improve core business processes. The course will include hands-on exercises in an ERP system to demonstrate business process integration. The challenges and approaches to organizational change, domestic and offshore outsourcing, and inter-organizational processes will be discussed.

## **IS 3720: Advanced IT Project Management**

### **3 Credit Hours**

*Prerequisite: IS 3220, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course will explore advanced concepts related to IT Project Management (PM) including project selection and integration of the knowledge areas of PMBOK. Topics necessary for excellence such as PM methodologies and program management will be emphasized. We will elaborate on case studies of companies that manage global IT portfolios and have benchmarked best practices. Students will use case studies and project scenarios to familiarize themselves with real life issues, constraints, and solutions while using project management tools for scheduling, budgeting, and resource allocation.

## **IS 3740: Human Computer Interaction**

### **3 Credit Hours**

*Prerequisite: IS 3020 and IS 3260, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A comprehensive introduction to the principles and techniques that impact human interaction with computers. Topics include the foundations of human-computer interaction, building a graphical user interface, human-centered software evaluation, human-centered software development, graphical user-interface design, graphical user-interface programming, HCI aspects of multimedia, and HCI aspects of collaboration and communication. Major research and the building of a working graphical user interface are included.

## **IS 3760: Web Development II**

### **3 Credit Hours**

*Prerequisite: IS 3260, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The architectural model for computer-based application intense software systems centers around component development and deployment. This course will explore concepts related to the development of dynamic component-based web systems including web page connectivity to database systems and the development and utilization of Web Services. Web services include the ability to integrate code written in different programming languages and the emerging platforms, architectures, and technologies (such as XML, SOAP, and WSDL) that have arisen to support the next generation of software systems. Specifically students in this course will have an opportunity to directly interact with an Integrated Development Environment (such as Microsoft's .NET) and will be required to develop and implement dynamic Web pages and Web services.

## **IS 3815: Blockchain for Business**

### **3 Credit Hours**

In this course, students master the essential and foundational technologies of blockchain. Students apply blockchain technologies to multiple business use-cases in sectors across several industries such as governance, finance, education, and healthcare. They use permissioned (private) and permissionless (public) blockchain services. The course engages the learner to apply immutable transaction ledger design to achieve triple-ledger accounting. Students engage in hands-on labs building blockchain use-cases. Activities include writing chaincode (Smart Contracts); creating blockchain business network participants, identities, and access control; coding a client application, as well as designing queries and events; building an interactive front end; and exploring the utility of blockchain deployment.

## **IS 3920: Application Development II**

### **3 Credit Hours**

*Prerequisite: (IS 3020 or ISA 3010), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This development course provides an advanced development environment using information systems technologies and their applicability to real world application scenarios. Students will complete projects and assignments designed to explore advanced object oriented programming languages in the context of application development for mobile, personal computer, and/or sever devices. Students will use modern application and/or web development technology tools in various environments such as agile, mobile, and social and dynamic development.

## **IS 3940: Data Warehousing**

### **3 Credit Hours**

*Prerequisite: IS 3100 and IS 3280, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course provides an overview of planning, designing, building, populating a successful data warehouse and business intelligence system. Topics covered in this course include business requirement analysis, dimensional modeling, physical design, extraction-transformation-load (ETL) design and development, Analysis Service Online Analytical Processing (OLAP) database, and data mining.

## **IS 4000: IS Project Lab**

### **3 Credit Hours**

*Prerequisite: Permission of Instructor*

This course engages students in faculty research projects. The field of information systems and security is constantly filled with emerging problems and problems without good solutions. By conducting formal research, students in this course learn to carefully organize and design studies to articulate research questions within the field and answer them in more evidential and persuasive ways. Organizations need these skills and value them.

## **IS 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.*

Special topics of an advanced nature that are not in the regular course offerings.

## **IS 4490: Special Topics**

### **1-3 Credit Hours**

*Prerequisite: Specified courses (varies by topic), 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and department chair prior to registration.*

Selected special or current topics of interest to faculty and students.

## **IS 4540: Data Mining**

### **3 Credit Hours**

*Prerequisite: [(IS 3100 and Admission to the Coles College Undergraduate Professional Program) or (STAT 1401 and student in a Coles College Partner Program that includes this course)] and 60 credit hours with a minimum GPA of 2.0*

Data Mining is the process of extracting useful information from data sets. It involves exploring and analyzing data sets to discover meaningful and valuable information. This course covers major data mining techniques including but not limited to data visualization, association analysis, classification, clustering, trend analysis, prediction, neural networks, text and web mining, and their applications in business. Various data analysis and data mining tools will be used to create analytical applications and achieve data mining goals.

## **IS 4860: Global Information Systems Strategy**

### **3 Credit Hours**

*Prerequisite: IS 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course will discuss contemporary global IT issues with respect to the role of information systems in providing organizational competitive advantage. Strategic IT planning and the evaluation process to ensure proper alignment of technology to business goals are also explained.

## **IS 4880: IS Capstone Project**

### **3 Credit Hours**

*Prerequisite: IS 3020, IS 3280, and IS 3060, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course. Concurrent: IS 3220 and IS 3040*

This course is the capstone course in the IS curriculum. In this course the students will apply the concepts learned in earlier courses to develop Information Systems projects.

## **IT 1113: Introduction to Programming**

### **3 Credit Hours**

This course covers the fundamentals of computer programming. Concepts of counters, accumulators, decision-making, looping, subroutines, arrays, files, and string processing are covered. A programming language is used for assignments.

## **IT 1114: Programming Principles**

### **3 Credit Hours**

*Concurrent: IT 1114L*

This course provides an introduction to object-oriented programming. Upon completion of this course, the student will design, code, debug, document and apply the basic concepts of structured programming. This will include basic syntax and semantics for sequence, conditional, and iteration control structures, design & use of functions, and single dimensional arrays. The student will be able to solve problems by designing and modularizing their solutions with proper use of functions and objects.

## **IT 1114L: Programming Principles Lab**

### **1 Credit Hours**

*Concurrent: IT 1114*

This course provides lab activities to accompany IT 1114. Upon completion of this course, the student will design, code, debug, document and apply the basic concepts of structured programming. This will include basic syntax and semantics for sequence, conditional, and iteration control structures, (design & use of functions) as well as single dimensional arrays. The student will be able to solve problems by designing and modularizing their solutions with proper use of functions and usage of objects.

## **IT 2290: Special Topics**

### **1-4 Credit Hours**

*Prerequisite: IT 1113 & permission from Department*

The course covers special topics at the intermediate level that are not in the regular course offerings.

## **IT 3003: Professional Development & Entrepreneurship**

### **3 Credit Hours**

*Concurrent: IT 3123*

This course covers two major topics: professional development and entrepreneurship. The course will prepare students for internship positions and careers after graduation. The course will cover such things as creating a professional development plan, the STAR interviewing method, professional presentations, team dynamics, 10 principles of entrepreneurship, and innovation and entrepreneurship.

## **IT 3123: Hardware and Software Concepts**

### **3 Credit Hours**

*Prerequisite: (IT 1114 and IT 1114L with 'C' or better) OR (IT 1113 with 'C' or better) OR (CSE 1321 and CSE 1321L with 'C' or better)*

This course examines various hardware and software components and how they work together in a modern computing environment. Topics include an overview of computer organization and architecture, machine language and modern languages.

## **IT 3203: Introduction to Web Development**

### **3 Credit Hours**

*Prerequisite:* (IT 1114 and IT 1114L with 'C' or better) OR (IT 1113 with 'C' or better) OR (CSE 1321 and CSE 1321L with 'C' or better)

This introduction course covers applications for the world wide web. Topics include current languages (such as HTML and JavaScript), basic web protocols, and human-computer interfaces for the web.

## **IT 3223: Software Acquisition and Project Management**

### **3 Credit Hours**

*Prerequisite:* (IT 1114 and IT 1114L with 'C' or better) or (CSE 1321 and CSE 1321L with 'C' or better)

This course provides a high-level introduction to two areas that are crucial to the IT profession, namely project management and software acquisition. It introduces students to the phases both in the project management and software acquisition and implementation process. Since requirements are crucial to both activities, the course will provide students with an in-depth introduction to requirements engineering. The course will also introduce students to a widely used project management information system.

## **IT 3423: Operating Systems Concepts & Administration**

### **3 Credit Hours**

*Prerequisite:* IT 3123 or CS 3503.

This course is an introduction to basic operating system principles. Topics include memory management, peripheral device management, file system management and process management. Different types of operating systems and their administrations are studied. Projects are carried out with simulations.

## **IT 3503: Foundations of Health Information Technology**

### **3 Credit Hours**

*Prerequisite:* ENGL 1102

This course introduces students to the field of health information technology (HIT). Students will become familiar with the content, use, and structure of the health care data and medical records, health information management, the fundamentals of healthcare workflow and process analysis and redesign as a necessary component of complete practice automation, and health information systems. Students will also become familiar with the health care delivery systems in the U.S. and IT organizations and resources.

## **IT 3703: Introduction to Data Analytics and Technology**

### **3 Credit Hours**

*Prerequisite:* IT 3123 *Concurrent:* CSE 3153 or CS 3410

This course provides a comprehensive overview of processing technologies, systems, and application. Latest trends in data analytics, big data, and data science will be introduced.

## **IT 3883: Advanced Application Development**

### **4 Credit Hours**

*Prerequisite:* ((IT 1114 and IT 1114L with 'C' or better) or (CSE 1321 and CSE 1321L with C or better)) and (CSE 3153 or CS 3410 with 'C' or better)

This course will allow students to learn a second programming language and application development. Topics include review of language fundamentals, features of the programming language and development environment, and software development processes. This course will include course projects for hands-on experience with processes and tools.

## **IT 4153: Advanced Database**

### **3 Credit Hours**

*Prerequisite:* CSE 3153 or CS 3410

This course will study how databases are used with programming applications. Topics include advanced PL/SQL (or similar database programming language), database transaction, database security, database maintenance, and distributed and web databases.

## **IT 4323: Data Communications & Networking**

### **3 Credit Hours**

*Prerequisite:* IT 3123 or (CS 3503)

Fundamental concepts of computer networking include topics such as properties of signals and media, information encoding, error detection and recovery, LANs, backbones, WANs, network topologies, routing, Internet protocols, and security issues. The focus is on general concepts together with their application to support the business enterprise.

## **IT 4333: Network Configuration & Administration**

### **3 Credit Hours**

*Prerequisite:* IT 4323 or ECET 3400 or CS 4622

This course continues the study of networks. Topics include design and implementation of networks including synchronization, scheduling, exception and deadlock resolution, client server and web based collaborative systems. Network security will also be covered. Cost estimates and speed are examined from a management perspective.

## **IT 4400: Directed Studies**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the instructor and department chair

This course covers special topics of an advanced nature that are not in the regular course offerings. Students will complete a research project in the computing field supervised by a faculty member. Credit hours vary from one to three depending on the nature and content of the project student involved. Up to three credits may be applied to the major area.

## **IT 4403: Advanced Web and Mobile Applications**

### **3 Credit Hours**

*Prerequisite: IT 3203*

This course covers advanced topics on web and mobile applications with a focus on modern web application architectures and mobile friendly user interfaces. Students will complete one major development project using the latest web technologies.

## **IT 4423: Linux/Unix Administration**

### **3 Credit Hours**

*Prerequisite: IT 3423 or CS 3502*

This course introduces Linux/Unix operating systems. Topics include system administration, file systems and access permissions, regular expression, common tools and utilities, and network service configurations. Lessons will be enhanced using hands-on exercises.

## **IT 4490: Special Topics in Information Technology**

### **1-3 hours Credit Hours**

*Prerequisite: Vary by specific topic, Junior/Senior Standing*

Special topics selected by the Department Chair. Offered on a demand basis.

## **IT 4493: IT Undergraduate Research**

### **3 Credit Hours**

*Prerequisite: 60 Credit Hour Completion (junior standing)*

This course promotes undergraduate research in information technology. Students develop research ideas and conduct research to investigate topics with the guidance of an IT faculty member. Students document their finding in final reports, present their findings, and prepare research papers for publication in appropriate venues.

## **IT 4513: Electronic Health Record Systems & Applications**

### **3 Credit Hours**

*Prerequisite: IT 3503*

This course provides an overview of the importance of key technical aspects of electronic health records, the overall architecture, features and functions of major EHR systems. Hands-on exercises with EHR systems allow students to learn by doing.

## **IT 4523: Clinical Processes and Workflows: Analysis and Redesign**

### **3 Credit Hours**

*Prerequisite: IT 3503 or concurrent*

This course introduces the fundamentals of healthcare workflow and process analysis and redesign as a necessary component of complete practice automation. Students will become familiar with the concepts of processes, process analysis and redesign in the healthcare settings. Workflow and process mapping in healthcare improvement including detailed guidance, helpful tools, and case studies are introduced.

## **IT 4533: Health information Security and Privacy**

### **3 Credit Hours**

*Prerequisite: IT 3503*

Health information security and privacy are of utmost importance in today's healthcare environment. This course introduces the concepts, practices and concerns of information privacy and security unique to the healthcare settings. The course provides the student with a thorough understanding of the HIPAA security and privacy rules, meaningful use security requirements, security risk assessment and management, and how to integrate privacy and security into medical practices. Resources of privacy and security in healthcare are provided.

## **IT 4603: Introduction to Blockchain Technologies**

### **3 Credit Hours**

*Prerequisite: CSE 3153 or CS 3410*

This course covers the foundation of IT application and innovation. Topics include but not limited to blockchain and cryptocurrencies, Bitcoin, Ethereum, smart contracts, decentralized applications, machine learning and its applications in the enterprise, security and privacy concerns, operational risks as part of the IT support transformation.

## **IT 4613: Machine Learning Technology in Banking and Investment**

### **3 Credit Hours**

*Prerequisite: IT 4603*

This course covers applications of different machine learning techniques to a variety of banking and investment problems. Topics include supervised learning for predictive analysis, unsupervised learning for financial data clustering and visualization, and deep learning/reinforcement learning for financial decision making.

## **IT 4623: Blockchain Technologies Security & Privacy**

### **3 Credit Hours**

*Prerequisite: IT 4603 and IT 4823*

This course provides an overview of security and privacy issues in domain systems. Topics may include, but not limited to, blockchain protocol, security and privacy criteria associated with cryptography techniques, identity management in blockchain, and secure smart contract writing. The course will also cover exploiting systems and developing mitigation approaches and best practices to prevent security breaches.

## **IT 4633: IT Technology Systems Internship**

### **3 Credit Hours**

*Prerequisite:* IT 4603 and (IT 4613 or IT 4623)

This course helps students gain practical experience in the field of blockchain and related domains. Students will work in a real-world project jointly supervised by an industry sponsor and a faculty advisor. In this project, the students will apply the knowledge acquired in the degree program to solve problems in enterprise settings, demonstrate ethical behavior as computing professionals, and practice soft skills such as communication and leadership skills.

## **IT 4673: Virtual IT Systems**

### **3 Credit Hours**

*Prerequisite:* (IT 3423 or CS 3502) and IT 4323 and (CSE 3153 or CS 3410)

This course explores the design, implementation and use of virtualization, including desktop and server aspects such as deployment, clustering, storage and security. A high level overview of the various certifications available will be discussed. A project will be completed as part of the course.

## **IT 4683: Management of Information Technology and Human Computer**

### **Interaction**

### **3 Credit Hours**

*Prerequisite:* CSE 3153 or CS 3410

This course provides a study of the information needs in a formal organization and the information systems required to meet those needs within the planning, control, operating and decision-making processes. User acceptance of IT applications that crucially depend on the HCI component will be covered.

## **IT 4713: Business Intelligence Systems**

### **3 Credit Hours**

*Prerequisite:* IT 3703

This course introduces the concepts, practices, technologies and systems of business intelligence, which supports enterprise level data management, analytical processing, and reporting.

## **IT 4723: IT Policy and Laws**

### **3 Credit Hours**

*Prerequisite:* IT 3123 and IT 3223

This course covers current policies and law, and ethical, legal, and social issues in IT through lectures, discussion, research, and case studies. Topics include copyright, patents, trademarks, trade secrets, computer ethics, computer crime, computer abuse, cultural impact, web issues, information warfare and current legislation.

## **IT 4733: Big Data System Administration**

### **3 Credit Hours**

*Prerequisite: IT 3703*

This course introduces contemporary distributed big data platforms and database systems. Topics include big data computing paradigms, big data platform architectures and administration, and big data database concepts and administration.

## **IT 4773: Machine Learning for Enterprise Applications**

### **3 Credit Hours**

*Prerequisite: IT 3703*

This course covers enterprise applications of machine learning on data analytics. Topics span the complete life cycle of data analytics from envisioning the problem, identifying proper data, selecting suitable machine learning methods, evaluating modeling performance, and deploying the results to improve decision-making.

## **IT 4793: Applied Data Driven Solutions**

### **3 Credit Hours**

*Prerequisite: IT 3703*

This course will apply data technologies and applications in a chosen application domain and expose students to real world problems and issues. Students will analyze, design, and develop a practical and technical data driven solution in a chosen field, such as healthcare, finance, security, social media, academia, sports, and utilities.

## **IT 4823: Information Security Administration & Privacy**

### **3 Credit Hours**

*Prerequisite: (CSE 2300 or MATH 2345) and (IT 3123 or CS 3503)*

The student develops knowledge of the principles of information assurance at the policy, procedural, and technical levels to prepare the student for a role as a business decision-maker. Real-world examples from the text and current events will be used to demonstrate the applicability of the techniques of information assurance.

## **IT 4833: Wireless Security**

### **3 Credit Hours**

*Prerequisite: IT 4323 or ECET 3400 or CS 4622*

This course covers methods and techniques to secure wireless networks against threats and attacks. The topics may include Security and Cryptography, Network Security Protocols, Security and Layered Architecture, Voice-Oriented Wireless Networks, Data-Oriented Wireless Networks, Security in Traditional Wireless Networks, Security in Wireless LAN, Security in Wireless Ad Hoc Network, Special Topics such as Mobile Security.

## **IT 4843: Ethical Hacking for Effective Defense**

### **3 Credit Hours**

*Prerequisite: IT 4323 or ECET 3400 or CS 4622*

This course focuses on detection of network and system vulnerabilities by taking an attacker-like approach to system, network, and data access. Topics include network attacks and defenses, Operating System and application vulnerabilities, social engineering attacks, and malware. Ethical, legal implications of network attacks are also discussed.

## **IT 4853: Computer Forensics**

### **3 Credit Hours**

*Prerequisite: IT 4323 or CS 4622 or ECET 3400*

This course studies techniques and tools in computing investigation, digital evidence collection, recovery, and analysis. Topics include: Legal issues relating to digital evidence, recover deleted files and discover hidden information, reconstruct user activity from e-mail, temporary Internet files and cached data, assess the integrity of system memory and process architecture to reveal malicious code.

## **IT 4863: Web and Mobile Application Security**

### **3 Credit Hours**

*Prerequisite: IT 3203*

This course introduces web and mobile application security issues, hands-on practices to explore security vulnerabilities, and best practices to defend against vulnerabilities in web and mobile.

## **IT 4883: Infrastructure Defense**

### **3 Credit Hours**

*Prerequisite: IT 4323 or ECET 3400 or CS 4622*

This course provides an overview of the infrastructure assessment and penetration testing process and the processes and techniques for improving the defensibility of that infrastructure.

## **IT 4893: Internet of Things: Applications and Security**

### **3 Credit Hours**

*Prerequisite: IT 4823 and IT 4323*

This course introduces core knowledge and skills required to develop and design innovative IoT solutions. Students will analyze the challenges, apply appropriate patterns for user-interaction and learn about trends and characteristics in IoT. In addition, students will evaluate the security design of a suite of IoT-connected products.

## **IT 4983: IT Capstone**

### **3 Credit Hours**

*Prerequisite: IT 3423, IT 3223, IT 3203 Concurrent: IT 4323, IT 4823*

Students work in teams to develop or implement a real-world IT solution integrating the knowledge acquired in preceding IT courses. Components that are emphasized include technical design, research, documentation, project management, leadership, team work, and communication skills. The final result will be an IT solution addressing a typical business or organizational need such as data management or networking, which will be evaluated by faculty members, Industrial Advisory Board members, and project owners.

## **ITEC 3100: Improving Learning with Technology in Elementary Classrooms**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program.*

Teacher candidates learn to use technologies to promote student achievement in elementary content area and technology literacy standards. Special topics include using technology to improve students' English language learning, to assess student learning, and to differentiate instruction. Candidates also learn to manage their digital activities in ways appropriate for a professional educator; advocate for students without beyond-school access; and teach K-12 students how to use technology safely, ethically, and legally.

## **ITEC 3200: Improving Learning with Technology in Middle Grade Classrooms**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program.*

Teacher candidates learn to use technologies to promote student achievement in middle school content area and technology literacy standards. Special topics include using technology to improve students' English language learning, to assess student learning, and to differentiate instruction. Candidates also learn to manage their digital activities in ways appropriate for a professional educator; advocate for students without beyond-school access; and teach K-12 students how to use technology safely, ethically, and legally. This is a three-credit (3) course.

## **ITEC 3300: Improving Learning with Technology in High School Classrooms**

### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program.*

Teacher candidates learn to use technologies to promote student achievement in high school content area and technology literacy standards. Special topics include using technology to improve students' English language learning, to assess student learning, and to differentiate instruction. Candidates also learn to manage their digital activities in ways appropriate for a professional educator; advocate for students without beyond-school access; and teach K-12 students how to use technology safely, ethically, and legally. This is a three-credit (3) course.

## **LDT 1100: Making Learning Fun**

### ***3 Credit Hours***

Students are introduced to the role that intrinsic motivation plays in making learning fun. Framed in the context of games/play, entertainment, and hobbies, this course uncovers how individual motivators such as challenge, curiosity, and self-determination work alongside interpersonal motivators such as cooperation, competition, and social recognition. Students keep a weekly play journal, practice a new hobby, and create an educational microvideo.

## **LDT 2100: Tools & Technologies for Learning**

### ***3 Credit Hours***

Students learn to use tools and technologies for learning. Through hands-on activities to practice how to effectively use tools and technologies for learning, students apply the skills they learn into creating authentic technology-facilitated projects. Topics include using technology to promote their learning and to improve their productivity. Students also learn digital citizenship topics to manage their digital activities in ways appropriate for a 21st-century citizen.

## **LDT 3100: Foundations of Instructional Design**

### ***3 Credit Hours***

This course provides the knowledge of the foundational theories, models, ethical principles, and career options in Learning, Design and Technology (LDT). Students engage in instructional design situations in which they apply the appropriate LDT models, theories, and ethical principles. Students select an LDT career option they are interested in and research the essential competencies of it to develop career goals within the LDT field.

## **LDT 3200: Foundations of Visual Design for Learning**

### ***3 Credit Hours***

This course enables students to develop foundational visual communication design skills related to instructional design. With a focus on visual design, typography, grid structures, and the application of these skills to achieve specific instructional and learner goals, students use industry-standard technologies to demonstrate visual design proficiencies. Students create effective instructional and learner artifacts through sketching, digital rendering, and apply instructional design practices and processes.

## **LDT 3300: Performance Improvement & Needs Assessment**

### **3 Credit Hours**

This course provides an overview of the emerging field of human performance technology (HPT). Performance issues can be found in any setting where individuals work toward a common goal in an organization such as corporate, military, and educational settings. Students complete a semester-long collaborative HPT project in which they conduct a needs assessment, identifying gaps between ideal and actual performance status. Students also analyze the causes of performance gaps, environmental issues, and causal influences to determine appropriate interventions. They recommend appropriate interventions to address identified gaps.

## **LDT 3398: Internship in Learning, Design and Technology**

### **3 Credit Hours**

*Prerequisite: LDT 3100 , LDT 3200 , LDT 3300 , LDT 3400 , and LDT 3500 with a grade of "B" or higher, and approval by LDT program coordinator.*

Practical experience is critical to learning the culture and practice of instructional design. In this course, students engage in a supervised internship while working in instructional design. Such work can include needs analyses, curricular design, multimedia production, project evaluation, or other work defined by the site supervisor. The work is defined by the specific needs and initiatives at the placement site. Placements are available at a range of public and private sector sites.

## **LDT 3400: Instructional Design & Development**

### **3 Credit Hours**

*Prerequisite: LDT 3300*

In this course, students create a complete instructional package by applying instructional design models, principles, and theories. Students engage in a semester-long collaborative project where they determine instructional objectives, design an instructional system to achieve the instructional objectives by applying relevant instructional design principles and theories, and develop an instructional package including instructional materials, supporting materials, assessments, and instructor guides.

## **LDT 3500: Multimedia Design & Development for Learning**

### **3 Credit Hours**

In this course, students take a multimodal approach to uncovering the fundamental theories and practices of designing and developing for multimedia-rich learning environments. This course provides a practical introduction to current industry software suites and technology, including Adobe Creative Cloud and Articulate 360. Students can apply these multimedia and instructional design skills to multiple contexts (e.g., corporate training, online courses, and streaming video) to support diverse learners regardless of their background or experience.

## **LDT 4100: Evaluation of Educational Programs**

### **3 Credit Hours**

*Prerequisite: LDT 3400*

This course examines models and methods of formative and summative evaluation of instructional design products and programs. The effective and efficient evaluation of instructional and training programs is a key task for instructional designers, particularly in the face of demands for greater accountability. As a result, instructional designers are under increased pressure to show how designed instruction works and identify possible improvements. In this course, students learn the theories, processes, and procedures of program evaluation via diverse instructional tasks, including case study analyses and role play.

## **LDT 4200: Interactive Learning Environments**

### **3 Credit Hours**

This course examines the tools and technologies used to design interactive learning environments. apply their instructional design knowledge and technological skills to ILE design projects. Topics include understanding Quality Matters Rubrics, using various Learning Management Systems, designing interactive learning environments using tools like Adobe Captivate, Articulate Storyline, and SCORM, and integrating accessible tools to ensure the accessibility of the interactive learning environments.

## **LDT 4300: Trends & Issues in Instructional Design**

### **3 Credit Hours**

In this course, students examine recent trends and issues associated with the field of instructional design. Topics may include personalized learning, adaptive learning, social learning, mobile learning (mLearning), content curation, interactive video, universal design for learning (UDL), eXtended reality, gamification, rapid development, microlearning, artificial intelligence, and other topics.

## **LDT 4400: Directed Study in Learning, Design, and Technology**

### **3 Credit Hours**

*Prerequisite: Declared Bachelor of Science in Learning, Design, and Technology major and the permission of a supervising professor.*

This course is an individualized and independent scholarly investigation and/or design project of an important topic involving instructional design and development. The focus, content, and expectations for this study are formally established by the student and the supervising professor.

## **LDT 4490: Special Topics in Learning, Design, and Technology**

### **3 Credit Hours**

*Prerequisite: Declared Bachelor of Science in Learning, Design, and Technology major or by permission of the School of Instructional Technology and Innovation director.*

This course covers special topics in instructional design at that are not currently offered in the curriculum. Special topics are selected by the Director of the School of Instructional Technology and Innovation and offered on a demand basis. This course is repeatable as long as the course topic is different from the previously enrolled offering.

## **LDT 4500: Project Management of Instructional Design**

### **3 Credit Hours**

*Prerequisite: LDT 4100*

Project management in instructional design requires the examination and application of core principles of planning, scheduling, resource allocation, budgeting, proposal preparation, cost control, risk assessment, and personnel management. In this course, students design an effective instructional design project management plan focusing on these core principles. Additionally, students develop an active understanding of project management vocabulary and software, stakeholder interactions, and other foundational concepts related to project management for instructional design.

## **LDT 4600: Capstone and Portfolio in Learning, Design, and Technology**

### **3 Credit Hours**

*Prerequisite: Declared Bachelor of Science in Learning, Design, and Technology major. Permission of the LDT program coordinator is required.*

This course represents the capstone and portfolio experience for the BS in LDT. The portfolio documents mastery of instructional design competencies that are grounded in the standards of leading professional organizations within the field (e.g., AECT, ATD, ISPI). The portfolio demonstrates that the candidate is prepared to serve in a professional instructional design role. The capstone project highlights the candidate's ability to develop effective, engaging, efficient, and equitable learning design interventions.

## **INS 4500: Principles of Risk Management and Insurance**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course is an introduction to the identification of risks and their management. Topics will include fundamental life, health, retirement, property and liability exposures and their management through avoidance, control, retention or transfer. The characteristics of life, health, property and liability insuring devices are also covered.

## **ISCI 2001: Life and Earth Science**

### **3 Credit Hours**

*Prerequisite:* Completion of any four-hour laboratory science course at the 1000 or 2000 level.

Life and Earth Science Concepts defines science, examines how science is done, and develops an understanding of fundamental concepts in biology, geology, and meteorology. Laboratories will emphasize experimental design and data analysis. This course is primarily for early grades and middle education majors and cannot be used for credit towards a degree in Biology programs. *Notes:* Not acceptable for use as General Education requirement.

## **ISCI 2002: Physical Science**

### **3 Credit Hours**

*Prerequisite:* Completion of any four-hour laboratory science course at the 1000 or 2000 level.

Physical Science defines science, examines how science is done, and develops an understanding of fundamental concepts in astronomy, chemistry and physics. Laboratory experiences will emphasize experimental design, data analysis, and inquiry methods. This course is intended for early grades education majors. Cannot be used for credit towards a degree in Biology programs. *Notes:* Not acceptable for use as General Education requirement.

## **IAD 2100: Prototyping I**

### **3 Credit Hours**

This course introduces students to all fundamental aspects of prototyping. Additionally, students explore and apply fundamental principles of visual and user interface design knowledge through prototyping projects.

## **IAD 3000: Interaction Design I**

### **3 Credit Hours**

*Prerequisite:* IAD 2100

This course introduces students to a comprehensive interaction design method. Students read about interaction design before using prototyping tools to create their own team-based projects.

## **IAD 3150: Visual Design I**

### **3 Credit Hours**

*Prerequisite:* IAD 2100 and TCID 2002

Building on knowledge and tools learned previously, students further explore principles and theories of visual design. The class sets expectations concerning the necessary visual design skills of interactive design students.

## **IAD 3230: User Interface Design I**

### **3 Credit Hours**

*Prerequisite: IAD 2100 and TCID 2002*

Building on knowledge and tools learned previously, students further explore user interface design. The class sets expectations concerning the principles and theories of screen design that professionals need to know.

## **IAD 3300: Ethnography for Designers**

### **3 Credit Hours**

*Prerequisite: IAD 3000*

This class engages in a qualitative analysis of the relationship between digital technologies and end users. In doing so, this course exposes designers-in-training to ethnographic approaches as a way to understand and empathize with end users, a core feature of user experience design. Students read anthropological texts and apply this knowledge to ethnographies related to understanding end users.

## **IAD 3398: Internship**

### **3 Credit Hours**

*Prerequisite: IAD 3000, at least 24 hours in Area F and Upper Division required classes, and permission from the department.*

This course is an opportunity for students to apply principles and techniques of interactive design in a specific organization. Learning is experiential and must supplement, not duplicate, learning in the classroom. Students are responsible for finding an internship, but the program helps in the effort. Students submit a written proposal describing the internship according to program guidelines. Each internship is monitored by the student's advisor.

## **IAD 4000: Interaction Design II**

### **3 Credit Hours**

*Prerequisite: IAD 3000*

This course expands students' ability in contemporary interaction design theory by incorporating the agile design process. Students read about agile design before understanding how interaction design applies to agile work environments. Students use prototyping tools to create their own projects.

## **IAD 4150: Visual Design II**

### **3 Credit Hours**

*Prerequisite: IAD 3150*

In this project-based class, students continue to grow their visual design skill sets by working on projects. The focus of this class is to expand students' knowledge of principles of visual design through experiential learning.

## **IAD 4200: Prototyping II**

### **3 Credit Hours**

*Prerequisite: IAD 2100*

In this project-based class, students continue to grow their prototyping skill set by learning about advanced techniques related to motion design and file hygiene. Students apply this knowledge to creating a comprehensive design system.

## **IAD 4230: User Interface Design II**

### **3 Credit Hours**

*Prerequisite: IAD 3230*

In this project-based class, students continue to grow their user interface design skill sets by working on projects. The focus of this class is to expand students' knowledge of the principles of user interface design through experiential learning.

## **IAD 4400: Directed Study**

### **3 Credit Hours**

This course focuses on specific topics of an advanced nature not in the regular course offerings that relate to specific student needs.

## **IAD 4490: Special Topics in Interactive Design**

### **3 Credit Hours**

This course consists of selected special topics of interest to faculty and students.

## **IHS 2100: Introduction to Health Sciences and Professions**

### **3 Credit Hours**

This course will introduce students to the current structure of the U.S. healthcare system and the professions supporting it. The description of each healthcare profession will introduce relevant governing bodies for the profession, educational requirements, certification and licensure requirements, work schedules and environment, salary ranges, and job trends/prospects. The course will also introduce students to the importance of interprofessional healthcare practices. Various external healthcare professionals will convey first-hand knowledge and advice concerning their professional experiences and training.

## **IHS 2290: Special Topics**

### **3 Credit Hours**

This lower-division course focuses on current and pertinent topics and content specific to the integrated health science discipline not regularly offered through the HPE Department.

## **IHS 3240: Fundamentals of Behavioral Health Care**

### **3 Credit Hours**

This course introduces students to the basic principles of behavioral health care. Students will examine the fundamentals of mental illness in society and various intervention methods and strategies. The course introduces students to behavioral health care service delivery systems particularly within underserved communities and populations.

## **IHS 3398: Internship in Integrated Health Science**

### **1-6 Credit Hours**

*Prerequisite: Approval of the program coordinator*

The internship is a credit-earning experience of 1 to 6 Credit Hours at an approved internship site. Students work under the direct supervision of a health science professional in the completion of a pre-approved project rooted in health science and featuring activities in design, delivery, evaluation, research, assessment, etc.

## **IHS 4400: Directed Study in Integrated Health Science**

### **1-3 Credit Hours**

*Prerequisite: IHS 2100 and permission of the instructor*

Health science experiences (field, research, lab, etc.) under the supervision of a KSU course instructor will provide students the opportunity to work with internal and external academic partners outside of the traditional classroom setting.

## **IHS 4445: Healthcare Innovation**

### **3 Credit Hours**

*Prerequisite: HPAL 3300*

This course is designed to examine the process of developing and implementing innovative solutions to complex healthcare issues. Emphasis is placed on use of design thinking protocols, principles of social innovation, and development of sustainable solutions for health care delivery systems.

## **IHS 4490: Special Topics in Integrated Health Science**

### **3 Credit Hours**

This upper-division course focuses on current and pertinent topics and content specific to the integrated health science discipline not regularly offered through the HPE Department.

## **IHS 4760: Integrated Health Science Capstone**

### **3 Credit Hours**

*Prerequisite: IPE 4413 and IHS 4445*

This course highlights project management principles and places students within healthcare organizations to work within interdisciplinary teams to address real-world complex health related issues. Students will integrate and synthesize knowledge, skills, attitudes and values from the array of courses taken in the Integrated Health Science major as they engage within interdisciplinary teams.

## **ISD 1198: Introduction to Interdisciplinary Studies**

### **3 Credit Hours**

Through this course, students learn about the field of interdisciplinary studies and make connections between classroom experiences and the broader world. In order to facilitate this exploration, students examine complex contemporary issues in the Humanities, Social Sciences, and Natural Sciences and gain a familiarity with academic and popular forms of writing, media, and research. The interdisciplinary learning process involves research, articulating knowledge, using evidence to draw conclusions, and self-reflection.

## **ISD 2001: Introduction to Diversity and Social Justice**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

This course is required for students pursuing an ISD Certificate. The course introduces students to global theories and practices of diversity and social justice with a focus on 20th century social movements in the US. It addresses the roots of interdisciplinarity through prominent scholars concerned with diversity and social justice. Students learn about social movements that have had a significant impact on our own time, including women's liberation and anti-globalization.

## **ISD 3001: Integrative Approaches to Social Justice and Inclusion**

### **3 Credit Hours**

In this course, learners explore how the power of integrative thinking and methods can be leveraged toward a more socially just and inclusive society. Using the framework of intersectionality, learners examine the interdependent systems of discrimination, disadvantage, and inequity experienced by individuals or groups related to the individual's or groups' interconnected identity characteristics. Using social constructivist pedagogies, learners function as a community in which they explore and share their own interdisciplinary expertise and perspectives to articulate problems and conceptualize solutions related to social justice and inclusion.

## **ISD 3002: Literacy in Interdisciplinary Studies**

### **3 Credit Hours**

In this course, students learn interdisciplinary approaches to studying and shaping literacy in a range of social contexts, including instructional, workplace, and community settings. Based upon the designated topic, students will learn about relevant interdisciplinary literacy studies research, practices, and skills. Course may be repeated with a change in content.

## **ISD 3003: Critical Science Literacy**

### **3 Credit Hours**

In this course, students actively participate in efforts to increase public, democratic, participation in science through critical science literacy. This course allows students to understand science in context. Students become more familiar with understanding how basic scientific research is conducted and are introduced to critical understandings of science in society.

## **ISD 3004: Global Perspectives**

### **3 Credit Hours**

In this course, students increase their interdisciplinary understanding of complex global issues facing our contemporary world. Students explore how significant issues are shaped and perceived by global forces, international institutions, and cultural norms, and how local, regional, and national communities and identities are impacted by and connected to those issues. This course is interdisciplinary in nature, and draws on concepts, sources, and theories from within and beyond the sciences, humanities, and social sciences.

## **ISD 3100: Interdisciplinary Studies Research Methods**

### **3 Credit Hours**

*Prerequisite: ASIA 3001 or BLCK 1101 or BLCK 1102 or ISD 1198*

This is an introductory course on the nature of interdisciplinary academic inquiry. Students acquire a foundational understanding of research methods interdisciplinary scholars and professionals use. Topics may include an introduction to social scientific and/or humanities-based methods and qualitative and quantitative analysis. The class discusses strategies for selecting a framework and analytical approach and engage ethical questions associated with producing research in interdisciplinary studies.

### **ISD 3333: Year of \_\_\_\_\_ in Interdisciplinary Context I**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course helps students develop a holistic understanding of a particular country/region. Offered in conjunction with KSU's "Year of" series, students gain an in-depth appreciation for the country by examining its geography, social structures, histories, philosophies, religions, politics, economics, literatures, films, arts, cultures, etc. It aims to break down stereotypes and promote a richer, more complex sense of place and identity. Important recurring themes in this course include identity formation, social justice and community engagement.

### **ISD 3334: Year of \_\_\_\_\_ in Interdisciplinary Context II**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course helps students develop a holistic understanding of a particular country/region. Offered in conjunction with KSU's "Year of" series, it emphasizes contemporary issues as students examine the country's geography, social structures, histories, philosophies, religions, politics, economics, literatures, films, arts, cultures, etc. It aims to break down stereotypes and promote a richer, more complex sense of place and identity. Important recurring themes in this course include identity formation, social justice and community engagement.

### **ISD 3398: Interdisciplinary Studies Internship**

#### **3-9 Credit Hours**

*Prerequisite: Approval of internship coordinator*

This course provides students the opportunity to apply their theoretical knowledge, communication skills, and emerging professionalism in a particular work environment. The coursework includes class discussions, group and individual activities, class presentations, and documentation of internship experience. The course is designed to provide applied learning experiences that build upon prior coursework and offers opportunities for interdisciplinary and reflective learning.

### **ISD 3399: ISD Certificate Colloquium**

#### **1 Credit Hours**

*Prerequisite: Declaration of the Certificate and ISD 2001. Corequisite: ISD 3398: Internship*

The Interdisciplinary Studies Colloquium course provides a capstone experience for students pursuing an ISD Certificate. The course provides students pursuing a certificate a community forum for discussing civic and community engagement projects developed through their service internships. Students examine interdisciplinary perspectives on knowledge and diversity, engage in activities beyond the classroom, and participate in a discussion forum. The course should be taken concurrently with the ISD Internship.

## **ISD 4400: Directed Study in Interdisciplinary Studies**

### **1-3 Credit Hours**

*Prerequisite:* 3.0 GPA; approval of program director

Course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. Course may include original research projects and/or practicum experiences.

## **ISD 4490: Special Topics in Interdisciplinary Studies**

### **3 Credit Hours**

*Prerequisite:* ENGL 1102

This upper-division course includes special topics of an interdisciplinary nature offered on a rotating basis.

## **ISD 4497: International Virtual Exchange**

### **3 Credit Hours**

*Prerequisite:* Any B2: Cultural Perspectives course

This course engages students via online synchronous interactions using guided prompts to promote intercultural dialogue and understanding of multiple perspectives. Such applied practice helps students understand differences, build bridges, and engage in common problem-solving.

## **ISD 4498: Senior Seminar in Interdisciplinary Studies**

### **3 Credit Hours**

*Prerequisite:* ISD 3100 and completion of at least 90 credit hours

This Capstone course prepares students to understand the methods and advantages of their interdisciplinary education. In this course, students demonstrate the ability to formulate, research, and address complex, interdisciplinary problems through a major creative and/or scholastic work. Additionally, the course helps prepare students for graduation by developing post-graduate and career-oriented skills. These two parts, the academic and applied, once integrated, represent the skills and knowledge students need to successfully transition from university to life after graduation.

## **STS 1101: Science, Technology, and Society**

### **3 Credit Hours**

This course provides students with the knowledge and tools necessary to critically examine the development and integration of science, technology, and society. The course seeks to help students better understand the world in which they live, the broader implications of their major course of study, and the complex social, ethical, and moral choices presented by modern science and technology in human relationships.

### **STS 4000: International Issues in Science and Technology**

#### ***3 Credit Hours***

Examines the technical, social and moral issues raised by current international advances in science and technology. Places emphasis on comparative studies by examining a series of topics, each from the perspectives of a variety of nations.

### **STS 4400: Topical Studies in Science and Technology**

#### ***3 Credit Hours***

Examines the technical, social and moral issues raised by a particular issue of current concern in international science and technology. Students develop technical understanding, historical perspective and current events literacy relevant to the topic explored in a given term.

### **EURO 3234: Introduction to the European Union**

#### ***3 Credit Hours***

The purpose of the course is to introduce students to the European Union (EU). The course traces the development of the EU from its origins in the 1950s to the present day. Student will explore the EU's governing institutions, including their structure and relationship to one another. Students will be introduced EU policy-making processes. Students will use this knowledge of structures and processes to explore current EU policies and issues, including EU-USA relations.

### **EURO 4130: EU Law & Legal Systems**

#### ***3 Credit Hours***

This course focuses on a study of EU legal institutions and processes in the context of international law and in comparison to those of the United States. Topics include the treaties that provide the legal basis of the EU; the body of statutory law enacted by the Parliament, the Council, and the Commission; the judicial decisions adjudicated by the Court of Justice; and finally, the administrative rulings issued by the European Ombudsman.

### **EURO 4160: Federalism & Multilevel Governance**

#### ***3 Credit Hours***

The course exposes students to the political development of political structures in the European Union. The course will address in depth elements and principles of federal political systems. It explores the progressive development of federal type structures in European Union political structures. To emphasize the salience of such developments, the course compares EU-style federalism with federal structures and processes found in the United States.

## **EURO 4230: Doing Business in the EU**

### ***3 Credit Hours***

This course focuses on political institutions and legal environment that impacts the conduct of business in the European Union. It examines the business environment for domestic and international firms and on how political decisions affect the business environment. It will show how some of the differences are born of economic factors relating to the functioning of the single market, while others are associated with the cultural heterogeneity

## **EURO 4260: European Monetary Union**

### ***3 Credit Hours***

This course examines the origins and development of European Monetary Union (EMU). It examines the economic and political reasons for EMU, the key decisions and steps in its creation, and its governing structures. We explore eurozone crises, including major events and developments, key causes and explanations, and the responses of European Union (EU) member states and institutions. The course concludes by exploring the consequences and implications of EMU for the EU and for Transatlantic relations.

## **EURO 4330: EU Science & Technology Policy**

### ***3 Credit Hours***

This class is an examination of EU science and technology policy compared to that of the United States. The course examines how governments can encourage scientific and technological innovation and whether government can (or should) try to limit or control technological innovation. Historical contexts as well as current trends will be examined, with specific emphasis on policy outcomes.

## **EURO 4430: EU Environmental Policy**

### ***3 Credit Hours***

This course examines the politics and policy-making processes associated with environmental policy in the European Union. Students will explore the historical development of EU environmental policy (EEP), identify the principle actors involved, and inquiry into the modes of governance applied. The course uses concrete empirical cases to illustrate core concepts and to provide a historical and developmental perspective. Principal emphasis is given to analyzing and understanding politics and political processes and in evaluating policy effects.

## **EURO 4530: EU Social Policy**

### ***3 Credit Hours***

This course examines the politics and policy-processes associated with social policy in the European Union. Students will trace the historical development of the EU's role in social policy, identify the principle actors involved, and explore the variety of social welfare models found among EU states. The course uses concrete empirical cases to illustrate core concepts. Principal emphasis is given to analyzing and understanding politics and political processes and in evaluating policy effects.

## **EURO 4630: EU Communications Policy**

### ***3 Credit Hours***

This course examines politics and policy-making as it pertains to broadcasting, voice telephony & the internet in the European Union. The course begins by examining the history of EU communications policy. It then explores policy developments and how successive enlargements have impact policies and practices. The course concludes by examining the future of EU policy in this issue domain.

## **EURO 4730: EU Foreign Policy**

### ***3 Credit Hours***

The course explores the challenges facing the European Union as it attempts to pursue a more integrated and coherent common foreign policy. Students will examine the evolution of the EU's role in foreign policy. To do this, students will identify relevant EU governance institutions and explore the manner in which these institutions interact with key foreign policy institutions in member states. Students will explore these relationships with specific reference to economic, security and environmental policy

## **EURO 4760: EU-US Foreign Relations**

### ***3 Credit Hours***

The course examines the relationship between the European Union and the United States. Students explore the breadth and depth of the transatlantic cooperation across an array of issue domains. Students also explore areas where the parties disagree, sometimes significantly. Where differences exist, students examine the sources of transatlantic tensions, what has been done to address them, and consider whether disagreements can be resolved. Issues addressed include trade, regional and global security, terrorism, and the environment.

## **EURO 4830: EU in Comparative Perspective**

### ***3 Credit Hours***

This course examines the European Union in comparative perspective. Students will explore how problems of regional governance are addressed in the EU as well as in other regions. Students will look both at institutional structures and policy processes. Students will make specific comparisons to the African Union, MERCOSUR, NAFTA, and ASEAN. Further, students will explore whether meaningful differences exist between regional organizations found in the developed world and those found in the Global South

## **ITAL 1001: Elementary Italian I**

### ***3 Credit Hours***

Introduction to listening, speaking, reading and writing in Italian and to the culture of Italian-speaking regions.

## **ITAL 1002: Elementary Italian II**

### **3 Credit Hours**

*Prerequisite: ITAL 1001, or by placement, or the equivalent*

Continued listening, speaking, reading and writing in Italian with further study of the culture of Italian-speaking regions.

## **ITAL 2001: Intermediate Italian I**

### **3 Credit Hours**

*Prerequisite: ITAL 1002 or by placement.*

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

## **ITAL 2002: Intermediate Italian II**

### **3 Credit Hours**

*Prerequisite: ITAL 2001 or by placement.*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Course will serve as a transition between intermediate and upper-level courses in the language.

## **ITAL 3200: Critical Reading and Applied Writing**

### **3 Credit Hours**

*Prerequisite: ITAL 2001 or the equivalent.*

This course emphasizes skill development and refinement in the areas of critical reading and writing in Italian. Designed to give students extensive experience in reading and writing in Italian, the course focuses on the relationship between writing and reading, and on ways to improve one through the other.

## **ITAL 3302: Practical Conversation**

### **3 Credit Hours**

*Prerequisite: ITAL 2002 or permission of the instructor.*

Stresses expansion of effective listening comprehension and speaking skills through culturally and linguistically appropriate activities.

## **ITAL 3303: Grammar and Composition**

### **3 Credit Hours**

*Prerequisite: ITAL 2002 or permission of the instructor.*

General review of grammar through composition and other written activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

### **ITAL 3304: Literature and Culture I**

#### **3 Credit Hours**

*Prerequisite: ITAL 3200 or permission of the instructor.*

This course is an introduction to Italian literature and culture from the origins to 1848. Students learn about literary and artistic movements as well as cultural issues. Students also work across the curriculum, focusing on interdisciplinary issues within the Italian literary context and developing their competence in critical analysis of Italian cultural and literary issues from a global perspective. Readings and discussions are in Italian.

### **ITAL 3305: Literature and Culture II**

#### **3 Credit Hours**

*Prerequisite: ITAL 2002 or permission of the instructor.*

Introduction to Italian literature and culture from 1848 to the present. Students examine literary and artistic movements as well as cultural issues. Students also work across the curriculum, focusing on interdisciplinary issues and developing their competence in critical analysis of Italian cultural and literary issues from a global perspective. Readings and discussions are in Italian.

### **ITAL 3390: Upper-division Study Abroad in Italian**

#### **3 Credit Hours**

*Prerequisite: Junior or Senior status and permission of the department chair.*

This course fulfills the study abroad elective for the minor in Italian Studies. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the minor in Italian Studies and/or for the degree in Modern Language & Culture.

### **ITAL 3398: Internship**

#### **1-9 Credit Hours**

*Prerequisite: ITAL 3302 and ITAL 3303 or permission of the instructor.*

Supervised, credit-earning work experience of one semester requiring use of Italian in the work place. Prior approval by department coordinator and internship supervisor is required.

### **ITAL 4400: Directed Study**

#### **1-3 Credit Hours**

*Prerequisite: ITAL 2002 or permission of the instructor.*

Covers special topics and seminars external to course offerings that allow a student to work individually with an instructor. *Notes: Requires prior approval by instructor and department chair.*

## **ITAL 4402: Contemporary Culture**

### **3 Credit Hours**

*Prerequisite: ITAL 3303 and ITAL 3305 or permission of the instructor.*

An examination of the historical, social and political contexts of the contemporary Italian experience through the analysis of different cultural representations such as film, media, plastic arts, music and literature. *Notes: Readings and discussion in Italian.*

## **ITAL 4404: Commercial Italian**

### **3 Credit Hours**

*Prerequisite: ITAL 2002 or permission of the instructor.*

This course is an in-depth study of business practices and the language of business that focuses on verbal and written communication as well as economic, social and political factors that are important to the conduct of business in the Italian-speaking world. Readings and discussion are in Italian and in English.

## **ITAL 4434: Topics in Language Literature and Culture**

### **3 Credit Hours**

*Prerequisite: Completion of 30 credit hours*

This course presents an exploration of a period, movement or genre in literature, a topic in culture, or language-related issues. Topics are chosen for their significance and impact on Italian culture. *Notes: Readings and discussions in Italian.*

## **ITAL 4456: Advanced Grammar and Linguistics**

### **3 Credit Hours**

*Prerequisite: ITAL 3303 or permission of the instructor.*

This course is an advanced study of grammar from a linguistic perspective. It provides an overview of phonetics, phonology, morphology, and syntax. The course exposes students to dialectal variations of the Italian language and stresses development of oral proficiency. The course is taught in Italian.

## **ITAL 4490: Special Topics in Italian**

### **3 Credit Hours**

*Prerequisite: ITAL 3302 and ITAL 3303 or permission of the instructor.*

Special topics relevant to the study of the Italian society.

## **ITAL 4499: Senior Seminar**

### **3 Credit Hours**

*Prerequisite: ITAL 3304 or ITAL 3305 and permission of the instructor.*

This capstone course designed to synthesize and connect the students' prior academic experiences in the major and related fields of study. Students prepare a reflective essay and a research paper to present to the faculty of the Department of Foreign Languages. Papers and presentations are in Italian.

## **JAPN 1001: Elementary Japanese I**

### **3 Credit Hours**

Introduction to Japanese language and culture stressing progressive acquisition of effective communications skills in both the written and spoken language and an understanding of the practices and products of Japanese culture.

## **JAPN 1002: Elementary Japanese II**

### **3 Credit Hours**

*Prerequisite: JAPN 1001, or by placement, or the equivalent*

Introduction to Japanese language and culture, part II, stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Japanese culture.

## **JAPN 2001: Intermediate Japanese I**

### **3 Credit Hours**

*Prerequisite: JAPN 1002 or by placement*

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

## **JAPN 2002: Intermediate Japanese II**

### **3 Credit Hours**

*Prerequisite: JAPN 2001 or by placement*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

## **JAPN 3200: Critical Reading and Applied Writing**

### **3 Credit Hours**

*Prerequisite: JAPN 2002 or the equivalent.*

This course is a study of selected readings of signs, news, and literary and cultural works to increase vocabulary, enhance grammar skills, and develop reading skills. This course is designed to give students extensive experience in reading Japanese.

## **JAPN 3302: Practical Conversation**

### **3 Credit Hours**

*Prerequisite: JAPN 2002 or the equivalent.*

This course emphasizes expansion of effective listening comprehension and speaking skills in Japanese through culturally and linguistically appropriate activities. Communicative tasks are limited to those in uncomplicated and straightforward social situations.

### **JAPN 3303: Grammar and Composition**

#### **3 Credit Hours**

*Prerequisite: JAPN 2002 or the equivalent.*

This course is a general review of grammar and composition and other writing activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

### **JAPN 3304: Readings in Culture I**

#### **3 Credit Hours**

*Prerequisite: JAPN 3200 or the equivalent.*

This course introduces students to selected readings in Japanese culture, through which they expand their vocabulary and learn new grammar. Students also learn about cultural issues within the Japanese context and develop their competence in critical analysis of the issues from a global perspective. Readings are in Japanese and discussions are in Japanese and English.

### **KOR 1001: Introduction to Korean Language and Culture I**

#### **3 Credit Hours**

This course introduces students to Korean language and culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Korean culture.

### **KOR 1002: Elementary Korean II**

#### **3 Credit Hours**

*Prerequisite: KOR 1001, or by placement, or the equivalent*

This course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Korean culture.

### **KOR 2001: Intermediate Korean Language and Culture I**

#### **3 Credit Hours**

*Prerequisite: Two years of high school Korean or KOR 1002 or the equivalent.*

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

### **KOR 2002: Intermediate Korean Language and Culture II**

#### **3 Credit Hours**

*Prerequisite: Three years of high school Korean or KOR 2001 or the equivalent.*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

## **KOR 3200: Critical Reading and Applied Writing**

### **3 Credit Hours**

**Prerequisite:** KOR 2002 or the equivalent.

This course emphasizes skill development and refinement in the areas of critical reading and writing in Korean. This course is designed to give students extensive experience in reading and writing in Korean.

## **KOR 3302: Practical Conversation**

### **3 Credit Hours**

**Prerequisite:** KOR 2002 or the equivalent.

This course emphasizes expansion of effective listening comprehension and speaking skills in Korean through culturally and linguistically appropriate activities. Communicative tasks are limited to those in uncomplicated and straightforward social situations.

## **KOR 3303: Grammar and Composition**

### **3 Credit Hours**

**Prerequisite:** KOR 2002 or the equivalent.

This course is a general review of grammar through composition and other writing activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

## **KOR 3304: Readings in Culture I**

### **3 Credit Hours**

**Prerequisite:** KOR 3200 or the equivalent.

This course introduces students to selected readings in Korean culture, through which they expand their vocabulary and learn new grammar. Students also learn about cultural issues within the Korean context and develop their competence in critical analysis of the issues from a global perspective. Readings are in Korean and discussions are in Korean and English.

## **ICT 2101: Information and Communications Technology**

### **3 Credit Hours**

This course is a digital literacy course that explores how computers and the Internet have revolutionized society and become an integral part of every profession. This course provides the foundation for students to become informed and creative problem-solvers capable of using and envisioning the potential of digital technologies. Students will learn to apply fundamental principles of computing, including but not limited to digitization, digital logic, and algorithmic thought, to enhance their skill in the use of digital applications, create digital resources, and assess digital assets. Other topics include digital security and privacy, the implications of digital disruption, and careers in the digital age.

### **LATN 1001: Elementary Latin I**

#### **3 Credit Hours**

Introduction to the Latin language: pronunciation, fundamentals of grammar, reading, and translation.

### **LATN 1002: Elementary Latin II**

#### **3 Credit Hours**

*Prerequisite: LATN 1001, or by placement, or the equivalent*

Continued study of Latin grammar and syntax begun in LATN 1001, with further reading and translation.

### **LATN 2001: Intermediate Latin I**

#### **3 Credit Hours**

*Prerequisite: LATN 1002 or equivalent.*

Review of Latin grammar and syntax. Prose translations from selected prose authors such as Livy, Caesar, Tacitus, and Sallust.

### **LATN 2002: Intermediate Latin II**

#### **3 Credit Hours**

*Prerequisite: LATN 2001 or equivalent.*

Continued refinement of grammar and reading skills through the study of prose and poetry from the Golden Age of Latin Literature.

### **LATN 3500: Topics in Latin Poetry**

#### **3 Credit Hours**

*Prerequisite: LATN 2002 or permission of the instructor.*

In this course, students analyze Latin poetry, poetic syntax, meter, and style through readings from selected poets. The course content focuses on one or more of the following poets: Catullus, Vergil, Ovid, Horace. Students review Latin grammar and syntax, build vocabulary, and develop a variety of reading strategies. Readings are Latin; instruction is in English. The course may be repeated once for credit with permission of the department chair with different content.

### **LATN 4490: Special Topics in Latin**

#### **3 Credit Hours**

*Prerequisite: LATN 2002 or permission of the instructor.*

Selected topics of special interest to faculty and students.

## **LATN 4500: Topics in Latin Prose**

### **3 Credit Hours**

*Prerequisite: LATN 3500 or permission of the instructor.*

In this course, students read and analyze Latin prose by various writers. The course content focuses on one or more of the following prose writers: Livy, Caesar, Cicero, Tacitus, Propertius, Tibullus, or Seneca. Students review Latin grammar and syntax, build vocabulary, and develop a variety of reading strategies. Readings are in Latin; instruction is in English. The course may be repeated once for credit with permission of department chair when content differs.

## **LALS 1102: Understanding Latin America**

### **3 Credit Hours**

In this course students critically approach Latin America/Latino-US from interdisciplinary perspectives while analyzing texts within a social, political, cultural, economic, historical, artistic, and geographical context. The concept of a global understanding of Latin America within the notion of a hemispheric America is emphasized, as well as how different nations relate to one another in terms of identity formation and statehood. Issues of representation in the context of immigration and multicultural relations are also studied.

## **LALS 3550: U.S. Latinx Communities**

### **3 Credit Hours**

*Prerequisite: Completion of 30+ credit hours.*

This course introduces students to broader conversations surrounding U.S. Latinx communities such as migration trends and scholarly debates in Latinx studies. Historically-established Latinx communities and contemporary Latin American immigrants have taken up residence in U.S. cities and towns due to labor demands, U.S. foreign intervention, and political instability plaguing Latin America. The course examines the impact of such trends on Latinx communities in the U.S.

## **LALS 3770: Latin American Cinema**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course critically examines the representation of social issues and identity formation in films from Latin America, as well as how they are related to the globalization of American popular culture. This course also focuses on the social and political conditions that affect film-making in the region.

### **LALS 3780: Trends in Latin American/Latino Studies**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course focuses on current trends, issues, problems, and strategies in the field of Latin American and Latino Studies. Particular attention is paid to how socio-demographic variables, such as race, gender, class, religion, and/or ethnicity impact the issues facing the Latino/Hispanic populations in Latin America and the United States.

### **LALS 4490: Special Topics in Latin American/Latino Studies**

#### **3 Credit Hours**

*Prerequisite: LALS 1102*

This course is a study of selected special topics of interest that are relevant to the field of Latin American and/or Latino Studies. Course may be repeated with a change in content. Students may use the course as an elective towards the Minor in Latin American/Latino Studies. Depending on the content, the course can also serve as an elective course for Minors in African/African Diaspora Studies, American Studies, or Gender and Women's Studies.

### **LDRS 2000: Finding the Leader Within**

#### **3 Credit Hours**

In this course students are introduced to leadership concepts and practices. Students observe and practice skills and competencies associated with ethical, successful leadership. Students discover and develop their own personal leadership styles and philosophies, learning how to balance tasks and relationships and overcome obstacles. Students identify their leadership strengths and weaknesses and create and implement strategies to improve their leadership skills.

### **LDRS 2100: Leadership & Historic Social Movements**

#### **3 Credit Hours**

Drawing on examples from around the world, this course focuses on an examination of the leadership process: individuals influencing a group to achieve a goal in historic social movements. Students examine leadership within the historical, social, political, and cultural context of select social movements. This course facilitates the development and/or advancement of socially conscious, historically minded, and reflective thinking about leadership in a variety of settings.

## **LDRS 2200: Contemporary Leadership Issues**

### **3 Credit Hours**

In this course students are introduced to critical challenges, key contexts, and emerging trends of leadership. Students observe and practice skills and competencies associated with the dynamics of adaptive change, and the practices of authority and leadership. Students discover and develop how to engage in collective problem-solving, and distinguish leadership from authority. Students identify and reflect upon current leadership practices and work together to create leadership strategies and innovations for future leadership practice.

## **LDRS 2300: Leadership & Intercultural Competence**

### **3 Credit Hours**

Students examine the connection between leadership and intercultural competence. Using theoretical and reflective frameworks, students will explore how cultural contexts impact perceptions and practice of leadership. Students will be able to draw from their own cultural experiences, and those of others, to formulate a leadership practice that is culturally responsive and demonstrates intercultural competence.

## **LDRS 3000: Foundations of Leadership: History, Theory, and Application**

### **3 Credit Hours**

This course serves as an introduction to leadership theory and practice. Learners will examine the history, theories, models, and approaches of leadership in an experiential, self-reflective learning environment that allows learners to apply theoretical leadership concepts to real world applications. In this course, learners also examine some of the major factors that affect leadership, such as situation, context, gender, race, and culture. This study of theory, coupled with real-world investigation and personal reflection, should help learners better understand the ethical and practical issues inherent in the study and practice of leadership in ways they can use in their work, school, and personal lives, as well as prepare them for further leadership courses. No previous exposure to leadership or leadership studies is required.

## **LDRS 3100: Change and Conflict Leadership**

### **3 Credit Hours**

*Prerequisite: LDRS 3000*

In this course, students explore the relationship between leadership and the concepts of change and conflict in organizational and societal contexts. Students study phases of the change process, characteristics of change, and how individual and system level leadership affect change. Students also examine and discuss the behaviors effective leaders demonstrate during change processes as well as strategies to manage conflict. Finally, students examine their response to change and conflict as they develop and refine their personal leadership practice.

## **LDRS 3200: Leadership in a Global Society**

### **3 Credit Hours**

*Prerequisite: LDRS 3000*

In this course, learners examine leadership through a contemporary, interdisciplinary, and global lens. Students will explore how diversity and cultural context affect leadership styles, skills, knowledge, and best practices. Learners will also develop leadership strategies that are critical for effectively and responsibly addressing global issues and trends.

## **LDRS 3201: Leadership and Multiculturalism**

### **3 Credit Hours**

*Prerequisite: LDRS 3000*

Following an introduction to theoretical foundations of leadership, this course emphasizes leadership as a socially and culturally bound process and phenomenon. Anchored by the relational leadership model, learners will identify, investigate, analyze, and reflect on leadership behaviors and competencies critical to the leadership process within multicultural spaces. Students will conduct individual and group inquiry to examine social and contemporary contexts that influence leadership and multiculturalism.

## **LDRS 3300: Leadership and Decision Making**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

In this course, leadership and decision-making are examined from multiple perspectives. Students learn the process of making a decision utilizing the WRAP framework. Other factors involved in the decision making process are explored and identified. The dynamics of the relationship between leadership and decision making are discussed and analyzed. Research of leaders helps students better understand the decision making process and the impact of decisions.

## **LDRS 3400: Leadership and Community Engagement**

### **3 Credit Hours**

In this course, students explore connections between leadership and various forms of community engagement. Differences between civic engagement, civic responsibility, community service, service learning, advocacy, and activism are examined in conjunction with leadership approaches and models aimed at effecting social change. Students apply principles of these engaged leadership models while designing and implementing community-based team projects that influence social change. Students leave the course with an understanding of how engaged leaders can impact their communities.

## **LDRS 3401: Research and Inquiry in Leadership**

### **3 Credit Hours**

*Prerequisite: LDRS 3000*

This course provides a basic introduction to research techniques and methodologies. It is designed to assist learners in their development of skills to be informed consumers of research and research design. Leadership Studies has origins in the social sciences and as such this course will provide an overview of research methodologies commonly employed in the social sciences to include a variety of qualitative and quantitative methodologies. Learners will also learn important concepts necessary for understanding statistics in the context of research. At the conclusion of this course, learners should have the background needed to plan, execute, and evaluate the results of a simple research project.

## **LDRS 3500: How Not to Lead**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

In this course students define and explore unethical and ineffective leadership concepts and practices. Through the use of case studies and current events students identify circumstances and contexts in which bad leadership emerges. Students also identify the roles followers play in perpetuating negative leadership. Finally, students identify their own leadership style strengths and weaknesses to lay the groundwork for personal ethical and effective leadership practices.

## **LDRS 3600: Ethics In Leadership**

### **3 Credit Hours**

*Prerequisite: LDRS 3000*

This course examines leaders' behaviors through an ethical lens and delves into the moral decision-making process and the role of ethics in leadership. By analyzing case studies of current and historical events, students gain an understanding of ethical leadership decision making while touching on the theories of ethics and their application. Students can expect to focus on the importance of understanding ethics in a global environment.

## **LDRS 3700: Leadership and Gender**

### **3 Credit Hours**

*Prerequisite: LDRS 3000*

This course makes connections and draws conclusions about leadership, particularly as it applies to gender and women. Through a review of research on gender and leadership styles and traits, learners will integrate leadership theory and experiences to understand the unique state and current thinking regarding issues pertaining to women and leadership. Issues for interrogation include the impact of stereotypes and discrimination on the representation of women as leaders, the lack of parity between men and women in leadership, and obstacles to women's progress in attaining executive-level roles of leadership. Recent progress toward equal opportunity, remaining challenges, and strategies for securing parity in top level leadership will also be examined in the course.

## **LDRS 3800: Building and Leading Effective Teams**

### **3 Credit Hours**

*Prerequisite: LDRS 3000*

This course examines the creation and leadership of teams in a variety of settings. There will be a major focus on the interpersonal processes and structural characteristics that influence effective teams. The main purpose of this course is to study the theory, processes, and skills necessary to lead and work in teams that will be more effective, enjoyable, and efficient.

## **LDRS 3900: Leadership & Global Issues**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces learners to events, trends, and problems that make up global issues facing citizen-leaders in an interdependent world. In this course, learners work towards becoming educated citizens with the capacity for developing leadership approaches that are critical for effectively and responsibly tackling global issues. Using interdisciplinary resources, learners will design leadership recommendations that creatively address select global issues.

## **LDRS 4400: Directed Study**

### **3 Credit Hours**

*Prerequisite: LDRS 3000, 3.0 GPA, approval of advisor, instructor, and department chair.*

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. An LDRS Directed Study may include original research projects and/or practicum experiences that allow the student to gain in-depth exposure to the topic of leadership.

## **LDRS 4490: Special Topics in Leadership Studies**

### ***variable 1-3 Credit Hours***

*Prerequisite: Approval of the instructor and department chair.*

This course is a study of selected special topics of interest to faculty and students. Course may be repeated with a change in content.

## **MGT 3100: Management and Behavioral Sciences**

### ***3 Credit Hours***

*Prerequisite: [(Grades of "B" or higher in ACCT 2101, ACCT 2102, ECON 2105, and ECON 2106) or Admission to Coles College Undergraduate Professional Program] or [completion of 60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course].*

This course introduces students to the field of management, focusing on basic principles and concepts applicable to all types of organizations. The evolution of functional and behavioral aspects of management and organization theory are presented in the context of political, societal, regulatory, ethical, global, technological and demographic environmental forces.

## **MGT 3190: Business, Ethics, and Society**

### ***3 Credit Hours***

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course examines the relationship between business and society and the role of ethics in employee and managerial decision-making and behavior. Using a stakeholder management approach, the course explores uses and potential abuses of business power on internal and external stakeholders. Models for integrating ethical concerns into business decisions are examined.

## **MGT 3200: Operations Management**

### ***3 Credit Hours***

*Prerequisite: ECON 2300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Generic modeling techniques are applied to the planning, operation and control of the production of goods and services. Topics include: quality control, facility location and layout, material requirements planning and project scheduling.

## **MGT 3397: Internship and Experiential Learning in Management**

### **0-9 Credit Hours**

*Prerequisite: MGT 3100 and admission to the Coles College Undergraduate Professional Program, approval of the Career and Internship Advisor (KSU Career Planning and Development), and a minimum GPA of 2.5*

This course is designed to provide hands-on experiences and challenges to help students develop and improve their skills and problem-solving abilities. Prior to enrolling in this course, students are responsible for working with their Career & Internship Advisor to secure an approved internship position. Current and prior work experience does not qualify for credit. Graded assignments are required to receive credit. *Notes: This course will be graded on an S/U basis. This course may only be used in the Business Electives area of a BBA.*

## **MGT 3600: Introduction to International Business**

### **3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An introduction to the global business environment, this course examines the discrete and interactive effects of the geographic, historical, sociocultural, political/legal, economic and technological forces that shape international commercial activity and its consequences.

## **MGT 4001: Organizational Behavior**

### **3 Credit Hours**

*Prerequisite: MGT 3100 and [Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course.)]*

Everyone in today's organizations, whether they choose the role of senior executive, manager or employee, needs an understanding of how people behave in organizations. Organizational behavior is the study of behavioral science applications in organizations- what people think, feel and do in and around organizations. This course draws on psychology, sociology, anthropology and related disciplines, but its distinction is that the goal for understanding human behavior is to improve individual performance and organizational effectiveness. The study of organizational behavior examines individual characteristics in a richly diverse workplace, group dynamics in task completion, and the profound effects that individual and group behaviors have on an organization's success. *Notes: MGT 4001 and MGT 4160 cannot both be used. MGT 4001 and MGT 4170 cannot both be used.*

## **MGT 4002: Human Resource Management**

### **3 Credit Hours**

*Prerequisite: MGT 3100 and [Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course.)]*

People are an organization's most valuable assets. This course provides students with an understanding and capability to manage these assets (self and others) to support the goals of the organization. It covers the human resource practices and people management skills used to attract, motivate, develop, and retain employees. Students also develop self-management skills and personal career growth strategies to enhance their professionalism and employability. *Notes: MGT 4002 and MGT 4160 cannot both be used. MGT 4002 and MGT 4170 cannot both be used.*

## **MGT 4003: Project Management**

### **3 Credit Hours**

*Prerequisite: MGT 3200 and [Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course.)]*

In this course, students learn to complete organizational projects on time and on budget. This course introduces students to project management (PM) from both a process and project tool standpoint. Students focus on understanding project definition and scope, resource allocation, task dependencies and risk management. Students also learn how to use PM software in the context of managing a team project.

## **MGT 4004: Managing Your Company**

### **3 Credit Hours**

*Prerequisite: MGT 4001, MGT 4002, and [Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course.)]*

In this course, students learn to develop a long-term vision and competitive strategy for a company. Students learn to balance short-term objectives with long-term strategic goals. They learn to recognize interactions among the internal factors (resources and processes) and external environments, and the impact of both on performance. Students also demonstrate their ability to make decisions, and to analyze, justify, and professionally communicate the results of those decisions.

## **MGT 4123: Family Business Management**

### **3 Credit Hours**

*Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course explores the unique challenges and opportunities involved in owning and/or managing a family business. By attending the class, students learn to identify and address challenges related to responsible ownership, succession, corporate governance, family governance, professionalization, and family office. Both family and non-family members' perspectives are explored and addressed.

## **MGT 4124: Franchise Management**

### **3 Credit Hours**

*Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Franchise Management is an introduction to the field of franchising as it concerns the franchiser (the business who grants the business rights to franchisees), and the franchisee (the individual or business who obtains the rights to operate the franchised business in accordance with the chosen method to produce or sell the product or service). It covers the body of knowledge on how to expand an existing business through domestic or international franchising as well as how to analyze and decide how to buy and manage a franchise.

## **MGT 4130: Commercial Real Estate Ventures**

### **3 Credit Hours**

This course addresses the acquisition, development, operation, and disposition of commercial real estate properties, with a special emphasis on shopping centers. Dimensions of inquiry include: ethical decision making, specific legal requirements associated with real estate ventures, and stakeholder (developers, investors, local communities, and public sector) analysis.

## **MGT 4161: Organizational Communications**

### **3 Credit Hours**

*Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course develops student understanding of communication processes within organizations, increases ability to diagnose and deal with organizational communication problems, and enhances skills in using communication to improve individual, group, and organization-wide effectiveness.

## **MGT 4171: Employee and Labor Relations**

### **3 Credit Hours**

*Prerequisite: MGT 4002 and [Admission to the Coles College Undergraduate Professional Program] or [60 credit hours with a minimum GPA of 2.0 student in a Coles College Partner Program that includes this course]*

The study of employee and labor relations includes union organizing, collective bargaining, labor legislation, contract negotiation, grievance resolution, arbitration, and international labor movement issues. Alternative dispute resolution methods, cooperative labor/management policies and practices, and union-free work environments are covered.

## **MGT 4172: Compensation and Reward Systems**

### **3 Credit Hours**

*Prerequisite: MGT 4002 and [Admission to the Coles College Undergraduate Professional Program] or [60 credit hours with a minimum GPA of 2.0 student in a Coles College Partner Program that includes this course]*

Compensation systems and practices that attract, motivate, and retain employees are investigated in this course. Topical areas include wage and hour regulations, job evaluation, pay structure development, incentive systems, merit pay decision making, and strategic benefit systems design.

## **MGT 4173: Human Resource Selection**

### **3 Credit Hours**

*Prerequisite: MGT 4002 and [Admission to the Coles College Undergraduate Professional Program] or [60 credit hours with a minimum GPA of 2.0 student in a Coles College Partner Program that includes this course]*

This course focuses on the acquisition, selection, and placement of human resources to maximize organizational effectiveness. Topics include strategic human resources planning, EEO requirements, labor force forecasting, job analysis methods, recruitment practices, employee selection techniques, and testing procedures that increase employee-job fit.

## **MGT 4174: International Human Resource Management**

### **3 Credit Hours**

*Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program OR student in a Coles College Partner Program that includes this course.*

This course focuses on human resource management functions required to implement international or global strategy. Areas examined include international recruitment and selection, performance management, training and development, compensation, labor relations, management of expatriates and their repatriation, dealing with host country nationals, and career management in the international context. Special topics include human resource law and issues in specific countries outside the U.S. and managing a multicultural labor force in the U.S.

## **MGT 4185: Technology and Innovation Management**

### **3 Credit Hours**

*Prerequisite: MGT 3200 and [60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.]*

This course focuses on the management of technologies within organizations. Specific topics include the management of innovation, technological development, research and development, the justification and strategic implications of new technologies, and the development of a technological strategy. The management of both manufacturing and information technologies will be emphasized.

## **MGT 4190: International Management**

### **3 Credit Hours**

*Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course deals with the basic managerial functions in an international enterprise. It explores the theoretical and practical aspects of managing international business operations, and deals with multi-cultural and global issues of managing the business expansion beyond the domestic market. It portrays the difficulties of managing enterprises that cross national borders and have to deal with cultural diversity, and diversity in socio-political and economic systems.

## **MGT 4199: Strategic Management**

### **3 Credit Hours**

*Prerequisite: BUSA 4150, ECON 3300, FIN 3100, MGT 3100, MGT 3200 and MKTG 3100 and Admission to the Coles College Undergraduate Professional Program. This course is taken in the last or next-to-last semester in the B.B.A. program.*

This course emphasizes an integrative, multifunctional, general management perspective of the organization and its long-term survival in a global economic environment. It builds the knowledge base and analytical skills required for managing a business enterprise. Components include situation analysis, strategy formulation, evaluation, and choice, as well as strategy implementation at different organizational levels, and under different contextual conditions. The course enables the refinement of the student's communication and presentation skills, as well as the interpersonal abilities necessary for accomplishing group tasks. Integrating multiple business disciplines, it serves as the capstone course in the business curriculum.

## **MGT 4200: Family Business Consulting**

### **6 Credit Hours**

*Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course explores both consulting practices and the challenges faced in family business. In addition to introducing the concepts and tools in both these areas, the course provides real-world insights via interaction with family business owners and professionals from local and regional consulting firms. The course includes on-site visits to family businesses where students apply what they have learned in class and analyze problems and develop plans to assist these companies.

## **MGT 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 3.0, ([Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration*

Special topics of an advanced nature not in the regular course offerings.

## **MGT 4476: Contemporary Global Business Practices**

### **3 Credit Hours**

*Prerequisite: MGT 3100, MGT 3600 and [Admission to the Coles College Undergraduate Professional Program or (60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course.)]*

This course deals with current practices in Global Business. It examines the strategies and tactics adopted by Global Companies from both Developed as well as Emerging Markets. Students will obtain insights into how firms in today's global markets need to be skilled in handling virtual teaming, outsourced and offshored projects, and strategic alliances across national boundaries, in order to maintain competitive advantage. *Notes: MGT 4476 and MKTG 4476 cannot both be used.*

## **MGT 4490: Special Topics in Management**

### **1-3 Credit Hours**

*Prerequisite: 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.*

Selected topics of interest to faculty and students.

## **MGT 4800: International Supply Chain Management**

### **3 Credit Hours**

*Prerequisite: MGT 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course examines the key concepts of supply chain management, involving the flows of materials and information among all of the firms that contribute value to a product or service, from the source of raw materials to end customers. The course emphasizes the relationship between a firm and its supply chain partners: primarily the suppliers from whom it purchases its inputs and those who assist in the logistics and distribution of the products. The course has an international emphasis to reflect the trend of increasing partnerships with international suppliers, international transportation providers, and distributors in foreign markets. Supply chain management issues are addressed for both manufacturing and service organizations.

## **MGT 4855: Quality Management and Process Improvement**

### **3 Credit Hours**

*Prerequisite: MGT 3200 and [60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course]*

This course is an in-depth study of the key concepts and practices of modern quality philosophies and techniques and process improvement methods. The student identifies opportunities to add value through quality in all phases of business and product life cycles. Students provide evidence of mastering course concepts by answering thought-provoking discussion questions and submitting a group process improvement project.

## **MGT 4880: Service Operations Management**

### **3 Credit Hours**

*Prerequisite: MGT 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The course will focus on developing a clear understanding of services from multiple perspectives. Students will define, diagnose, design, measure, control, and change services with the objective of improving quality and productivity. The course will address important service design issues, competitive issues unique to services, and the extensive interaction between marketing and operations in service organizations.

## **MGT/MKTG 4476: Contemporary Global Business Practices**

### **3 Credit Hours**

*Prerequisite: MGT 3100 and MGT 3600 , 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course will deal with current practices in Global Business. It will examine the strategies and tactics adopted by Global Companies from both Developed as well as Emerging Markets. Students will obtain insights into how firms in today's global markets need to be skilled in handling virtual teaming, outsourced and offshored projects, and strategic alliances across national boundaries, in order to maintain competitive advantage. *Notes: MGT 4476 and MKTG 4476 cannot both be used.*

## **MKTG 3100: Principles of Marketing**

### **3 Credit Hours**

*Prerequisite: [(Grades of "B" or higher in ACCT 2101, ACCT 2102, ECON 2105, and ECON 2106) or Admission to Coles College Undergraduate Professional Program] or [completion of 60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course].*

An introduction to the principles of marketing. This course examines the term, "marketing," in a broad sense to include all those activities of individuals or organizations which encourage and facilitate exchanges of values. This includes many activities such as research, physical distribution, product planning, pricing and promotional activities. The concepts are examined as they apply to marketing of goods and services in profit and nonprofit sectors in both domestic and global markets.

## **MKTG 3150: Consumer Behavior**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course examines the diverse influences of culture, society and psychological processes on consumer purchase patterns. Implications for marketing activities are also discussed.

## **MKTG 3397: Internship and Experiential Learning in Marketing & Professional Sales**

### **0-9 Credit Hours**

*Prerequisite: Admission to the Coles College Undergraduate Professional Program, MKTG 3100, approval of the Career and Internship Advisor (KSU Career Planning and Development), and a minimum GPA of 2.5.*

This course is designed to provide hands-on experiences and challenges to help students develop and improve their skills and problem-solving abilities. Prior to enrolling in this course, students are responsible for working with their Career & Internship Advisor to secure an approved internship position. Current and prior work experience does not qualify for credit. Graded assignments are required to receive credit. *Notes: This course will be graded on an S/U basis. This course may only be used in the Business Electives area of a BBA.*

## **MKTG 3410: Professional Selling**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course examines the role of personal selling in the firm's marketing strategy, model of communication and specific methods of selling. All students will be required to develop and deliver effective sales presentations.

## **MKTG 3800: Entertainment Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An introduction to the marketing practices of the entertainment industry. Industry terms, marketing strategies and tactics, recent developments and trends will be examined for major sectors of the entertainment industry including movie, music, television, theater, publishing, gaming, hospitality, and sports sectors. The course will also focus on product placement, celebrity source usage, product tie-ins, cross promotion, licensing, and other current marketing practices in the entertainment industry.

## **MKTG 4100: Marketing Research**

### **3 Credit Hours**

*Prerequisite: MKTG 3100 and ECON 2300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An examination of the marketing research process as an information providing activity supporting management decision-making. The course covers definition of the research problem, selecting and planning of a research design, measurement and scaling, questionnaire construction, and data analysis and interpretation. Students are required to use a statistical software package for data management and analysis.

## **MKTG 4300: Basic Retailing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course is an introduction to retailing as a business institution. Retailing involves selling goods and services to the final consumer. Students describe and evaluate activities, procedures and decisions related to the operation of a retail unit.

## **MKTG 4350: Retail Management**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An examination of the practices and methods of retail distribution and merchandising as a rapidly changing part of the total marketing process, involving both large and small firms.

*Notes: MKTG 4300 recommended but not required as a prerequisite*

## **MKTG 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.*

Special topics of an advanced nature not in the regular course offerings.

## **MKTG 4430: Market Analysis**

### **3 Credit Hours**

*Prerequisite: MKTG 3100 and ECON 2300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course develops skills in locating, selecting and using appropriate information sources for making and using market measurements in the planning and management of marketing and sales operations. Students learn tools for estimating demand and forecasting industry and company sales and how to use these measures in selecting market targets, designing sales territories, assigning sales quotas and planning customer contract programs.

## **MKTG 4450: Sales Management**

### **3 Credit Hours**

*Prerequisite: MKTG 3410, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A study of planning, organizing, staffing, directing and controlling of the sales force in developing an effective marketing organization.

## **MKTG 4460: Sales Technology and Analytics**

### **3 Credit Hours**

*Prerequisite: MKTG 3100*

The course will focus on applying sales technology tools and sales analytics to sales and sales management processes in order to improve salesperson and sales manager performance. The course will introduce students to a variety of software applications, including those for CRM, Web Conferencing, Form Builders, Collaboration and Communication, Gamification, Presentation, and Analysis. In addition, the course will cover sales analytics, including how to use spreadsheets to generate key performance indicators and other analyses to improve salesperson performance.

## **MKTG 4476: Contemporary Global Business Practices**

### **3 Credit Hours**

*Prerequisite: MGT 3100 and MGT 3600, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course deals with current practices in Global Business. It examines the strategies and tactics adopted by Global Companies from both Developed as well as Emerging Markets. Students will obtain insights into how firms in today's global markets need to be skilled in handling virtual teaming, outsourced and offshored projects, and strategic alliances across national boundaries, in order to maintain competitive advantage. *Notes: MKTG 4476 and MGT 4476 may not both be taken.*

## **MKTG 4490: Special Topics in Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.*

Selected special topics of interest to faculty and students.

## **MKTG 4500: Internet Marketing and Global Business**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The course focuses on how information technology has created the framework for the emergence of commerce on the Internet. Students will be exposed to the ways that firms are utilizing the Internet to reconstruct their value chains and create/sustain competitive advantage. The impact of this medium on key dimensions of global business operations such as purchasing, manufacturing and marketing will also be addressed.

## **MKTG 4520: Social Media Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Social Media Marketing explores the many realms of social media and includes case studies, discussions, interactive exercises as well as articles from the current literature. The course examines the changing role of social media in the promotional marketing mix, the role of the consumer in social media, online communities and how social media is impacting both marketing and consumer lifestyles, how to measure the ROI of social media, and the metrics of social media.

## **MKTG 4570: Advanced Social Media Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, and MKTG 4520*

This course is an in-depth exploration of inbound marketing, advanced social media, and paid digital tactics and strategies. This class includes basic website construction, paid social media, search engine optimization tactics, social media analytics, and paid search.

## **MKTG 4620: Services Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An examination of the unique characteristics of service organizations and the increasingly vital role they play in the U. S. economy. By focusing upon the marketing of such diverse services as hotels, hospitals, banking and recreation, the course stresses the importance of tailoring marketing strategies to fit the special needs of service marketers, needs quite different from those of manufacturing organizations.

## **MKTG 4630: Direct Response Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A study of the promotional methods that request immediate action or response. Topics include: planning, creating and evaluating of direct response advertising campaigns, introduction to direct mail marketing techniques including lists, catalogs, testing and merchandise selection and the media of direct marketing.

## **MKTG 4650: Advertising**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A study of the various elements of advertising. This course emphasizes the strategic applications of advertising and promotion from the perspective of the marketing manager.

## **MKTG 4666: Marketing for Entrepreneurs**

### **3 Credit Hours**

*Prerequisite: (MKTG 3100 and MGT 3100), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

This course is an introduction to the marketing practices that focus on the needs of entrepreneurs. Industry terms, recent developments, trends, and social networking, and entrepreneur-focused marketing strategies and sales tactics, will be examined.

Requirements for development of an integrated marketing communications plan for supporting an entrepreneur are stressed.

## **MKTG 4670: Promotional Strategy**

### **3 Credit Hours**

*Prerequisite: MKTG 4650, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A study of the various component parts of the promotional mix. Focuses on the development and management of personal selling, public relations, publicity and advertising in implementing marketing strategy.

## **MKTG 4750: Advanced Selling**

### **3 Credit Hours**

*Prerequisite: (MKTG 3100 and MKTG 3410, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

An in-depth examination of current business trends as they impact the professional salesperson. Particular emphasis is placed on negotiating skills and customer relationship management (CRM), as well as general sales related topics including sales automation and time/territory management. Students will be required to spend time in the field with professional salespeople and to prepare and deliver effective informational and persuasive sales presentations.

## **MKTG 4820: International Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A study of the application of the marketing concept in international markets. The course examines how the differences in international environments induced by economic, cultural, legal and other influences necessitate the adaptation of the marketing mix to satisfy consumers. Alternative international market entry strategies, such as exporting and licensing, are discussed.

## **MKTG 4850: Business to Business Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

A study of special problems and requirements of marketing products to organizational buyers. The course examines organizational buyer behavior, business-to-business promotion, business-to-business sales and the development of industrial products.

## **MKTG 4870: Sports Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Sport event marketing is one of the fastest growing career fields in America. The term, "sports marketing" includes the administration, coordination, and evaluation of any type of event related to sport. Examples are from local school and community sport events, not-for-profit and corporate events, intercollegiate sport programs, and amateur and professional league activities such as the Olympic Games and the Super Bowl. The Sports Marketing class is designed to provide the student an opportunity to experience an actual sports event project. The project will be selected by the class, after which a strategic plan will be developed and carried out. This class will be interactive and require the student's complete participation to be successful.

## **MKTG 4880: Hospitality and Tourism Marketing**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The hospitality and tourism market is considered to be the world's largest and most international in nature. The philosophical foundation and structure for the hospitality and tourism industry are based on marketing concepts. This course assimilates all of the marketing theories, concepts, activities and requirements necessary to succeed in global Hospitality and Tourism commerce.

## **MKTG 4990: Marketing Strategy**

### **3 Credit Hours**

*Prerequisite: MKTG 3100, MKTG 3150 and MKTG 4100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

The Marketing Strategy course at Kennesaw State University is the "capstone" marketing course that teaches how to integrate all of the different marketing elements, learned in the other marketing courses, into a unified marketing strategy. It teaches all the steps involved in creating a marketing strategy from the analysis of the situation, selection of a sustainable competitive advantage, identification of a target market, and managing of the marketing mix (product, price, place, and promotion).

## **MATH 0989: Foundations for College Algebra (MATH 1111)**

### **3 Credit Hours**

This course prepares students for entry into MATH 1111 College Algebra or MATH 1101 Mathematical Modeling. This course provides a detailed review of the fundamental and essential mathematical concepts required for success in those courses.

## **MATH 0997: Support for Quantitative Reasoning**

### **1 Credit Hours**

*Corequisite: MATH 1001*

This Learning Support course provides corequisite support in mathematics for students enrolled in MATH 1001 – Quantitative Reasoning. Topics will parallel topics being studied in MATH 1001 and the course will provide support for the essential quantitative skills needed to be successful in MATH 1001. Taken with MATH 1001, topics to be covered will include logic, basic probability, data analysis and modeling from data.

## **MATH 0999: Support for College Algebra (MATH 1111)**

### **1 Credit Hours**

*Corequisite: MATH 1111*

This course provides corequisite skills and additional instruction for topics and concepts covered in MATH 1111 College Algebra.

## **MATH 1001: Quantitative Reasoning**

### **3 Credit Hours**

This course emphasizes quantitative reasoning skills needed for informed citizens to understand the world around them. Topics include logic, basic probability, data analysis and modeling from data.

## **MATH 1101: Introduction to Mathematical Modeling**

### **3 Credit Hours**

This course is an introduction to mathematical modeling using graphical, numerical, symbolic, and verbal techniques to describe and explore real-world data and phenomena. Emphasis is on the use of elementary functions to investigate and analyze applied problems and questions, supported by the use of appropriate technology, and on effective communication of quantitative concepts and results.

## **MATH 1111: College Algebra**

### **3 Credit Hours**

This course provides an in-depth study of the properties of algebraic, exponential and logarithmic functions as needed for calculus. Emphasis is on using algebraic and graphical techniques for solving problems involving linear, quadratic, piece-wise defined, rational, polynomial, exponential, and logarithmic functions.

## **MATH 1113: Precalculus**

### **3 Credit Hours**

*Prerequisite: MATH 1111 or By Placement*

This course is an intensive study of the basic functions needed for the study of calculus. Topics include algebraic, functional, and graphical techniques for solving problems with algebraic, exponential, logarithmic, and trigonometric functions and their inverses.

## **MATH 1160: Elementary Applied Calculus**

### **3 Credit Hours**

*Prerequisite: MATH 1111, MATH 1113 or by Placement*

Uses techniques of college algebra and elementary calculus to analyze and model real world phenomena. The emphasis will be on applications using an intuitive approach to the mathematics rather than formal development. Topics include graphs, derivatives, and integrals of functions. The course incorporates collaborative learning, oral and written reports, and technology. *Notes: This course is not intended for majors within the College of Science and Mathematics or the Southern Polytechnic College of Engineering.*

## **MATH 1179: Calculus for Life Sciences**

### **4 Credit Hours**

*Prerequisite: MATH 1113, or By Placement*

This course introduces the central concepts of single variable calculus including limits, derivatives, and integrals of algebraic and transcendental functions with particular motivations from and application to the Biological Sciences. Special emphasis will be given to using the tools of calculus to build and analyze mathematical models, especially those arising in the life sciences. *Notes: Students completing this course may not also receive credit for MATH 1190.*

## **MATH 1189: Bridge to Calculus II**

### **1 Credit Hours**

*Prerequisite: MATH 1179*

This 1-hour course is for students who have completed Calculus for Life Sciences and will prepare them to be successful in Calculus II. A brief review of Calculus I is provided with special emphasis on select topics that are not covered in MATH 1179. These include Continuity, Limits involving infinity, Calculus of Inverse Trigonometric functions, The Mean Value Theorem, and L'Hôpital's rule.

## **MATH 1190: Calculus I**

### **4 Credit Hours**

*Prerequisite: MATH 1113, or By Placement*

This course is the first in the calculus curriculum and introduces the central concepts of calculus. Topics include limits, continuity, derivatives of algebraic and transcendental functions of one variable, applications of these concepts and a brief introduction to the integral of a function.

## **MATH 1501: Calculus I**

### **4 Credit Hours**

*Prerequisite:* MATH 1113

This course is a four (4) credit hour course and includes material on functions, limits, continuity, the derivative, anti-differentiation, the definite integral, and techniques of integration. This course is managed through the cooperative academic agreement known as eCore.

## **MATH 2008: Foundations of Numbers and Operations**

### **3 Credit Hours**

*Prerequisite:* The completion of Areas A2 and D1 courses with a C or higher, and one of the following majors: ECE, ECE (Interest), Early Childhood Birth to Kindergarten Traditional, Early Childhood Birth to Kindergarten Traditional (Interest).

This course is an Area F introductory mathematics course for early childhood education majors. The course emphasizes the understanding and use of the major concepts of number and operations. As a general theme, strategies of problem solving are used and discussed in the context of various topics.

## **MATH 2202: Calculus II**

### **4 Credit Hours**

*Prerequisite:* MATH 1190 or (MATH 1179 and MATH 1189)

This course is the second in the calculus curriculum and consists of two parts. The first part is concerned with the techniques of integration and applications of the integral. The second part is concerned with infinite sequences and series.

## **MATH 2203: Calculus III**

### **4 Credit Hours**

*Prerequisite:* A grade of "C" or better in MATH 2202

This course is the third in the calculus curriculum and is concerned with functions defined on regions in two or three dimensional space and that have values in one, two, or three dimensional space. Topics include partial derivatives, vector fields, multiple integrals, and applications of these topics.

## **MATH 2306: Ordinary Differential Equations**

### **3 Credit Hours**

*Prerequisite:* A grade of "C" or better in MATH 2202

An introduction to the theory of ordinary differential equations (ODEs), methods of solving first and higher order linear differential equations and linear systems, some applications in the sciences and engineering, the Laplace transform and its application in solving differential equations and linear systems, stability analysis and Euler's numerical algorithm.

## **MATH 2335: Numerical Methods for Engineers**

### **3 Credit Hours**

*Prerequisite:* A grade of 'C' or higher in MATH 2202, and ((CSE 1321 and CSE 1321L), or ECET 3710 or ME 1311)

This course is an introduction to numerical approximation techniques in the solution of problems encountered in engineering and science. Topics include Taylor polynomials, iterative methods for root finding, interpolation, numerical quadrature and differentiation. Error analysis, effective application, and limitations of methods are emphasized. Notes: Not intended for mathematics or mathematics education majors. Notes: *Not intended for mathematics or mathematics education majors.*

## **MATH 2345: Discrete Mathematics**

### **3 Credit Hours**

*Prerequisite:* MATH 1113 or MATH 1190 or MATH 1179

An introduction to the fundamentals of discrete mathematics. Topics include sets, formal logic, methods of proof, counting relations, functions, graphs and trees, and finite state automata. Notes: *Not intended for mathematics or mathematics education majors.*

## **MATH 2390: Introduction to Logic, Set Theory, and Proofs**

### **3 Credit Hours**

*Prerequisite:* MATH 2202

This course introduces to students the foundations of logic, set theory, and basic proof techniques. The course serves as a bridge from the procedural and computational understanding of mathematics to a broad understanding encompassing logical reasoning, generalization, abstraction, axiomatic approach, and formal proof.

## **MATH 3000: Software of Mathematics**

### **3 Credit Hours**

*Prerequisite:* Grades of "C" or better in MATH 2202 and (CSE 1321 and CSE 1321L)

This course is designed to introduce students to numerical/symbolic computation using specialized mathematical software packages. The professional software to be taught may be MATLAB, MAPLE, Scientific Notebook or their equivalent. At the end of the course, students will be able to solve complex mathematical problems with the use of software and to write and present scientific or mathematical work professionally.

## **MATH 3204: Calculus IV**

### **3 Credit Hours**

*Prerequisite:* MATH 2203

This course is the fourth in the calculus curriculum and is concerned with the change of variables for integrals on two and three dimensional regions, line integrals, surface integrals, Green's theorem, and Stokes theorem. The analogue of Stokes' theorem (the theorem of Gauss) for integrals of functions on three-dimensional parametric regions will also be studied.

## **MATH 3260: Linear Algebra I**

### **3 Credit Hours**

*Prerequisite: MATH 1190 or (MATH 1179 and MATH 1189)*

An introduction to linear algebra and some of its classical and modern applications. Among topics to be included will be systems of linear equations, matrices, determinants of matrices and applications, vector spaces, and inner product spaces. Significant use of technology will be employed in performing matrix computations.

## **MATH 3261: Numerical Methods I**

### **3 Credit Hours**

*Prerequisite: MATH 3260 and (CSE 1321 and CSE 1321L)*

This course provides an introduction to the fundamental numerical methods to solve nonlinear equations, systems of linear equations, and interpolation and approximation. Extensive use of computing will be incorporated. *Notes: Extensive computer use will be incorporated*

## **MATH 3262: Mathematical Modeling**

### **3 Credit Hours**

*Prerequisite: MATH 2306*

This course is designed to introduce students to fundamental concepts and methods of mathematical modeling, through a project-oriented approach. This course will involve applications of mathematical techniques to solve problems in areas such as ecology, biology, finance, social sciences, life sciences, physical sciences and engineering. The emphasis will be on the building of mathematical models and on interpreting the solutions of these models in terms of real-life applications. The course will emphasize skills in constructing and analyzing models.

## **MATH 3272: Introduction to Linear Programming**

### **3 Credit Hours**

*Prerequisite: MATH 3260*

The simplex method, dual simplex method, dual-primal two phase method, and several interior-point methods for linear programming problems will be introduced. *Notes: Selected applications will be discussed.*

## **MATH 3318: Algebra for Elementary Teachers**

### **3 Credit Hours**

*Prerequisite:* MAED 3317 and admission to the Teacher Education program.

A continuation of Mathematics 3317 designed for preparing the P-5 teacher. Topics will emphasize understanding and use of the major concepts and techniques of algebra for grades P-5, including expressing, transforming, and generalizing patterns and quantitative relationships through a variety of representations, including tables, graphs, algebraic symbols, verbal descriptions, manipulatives, and geometric figures. Solving problems using multiple strategies, manipulatives, and technological tools will also be a focus.

*Notes:* Not for mathematics or mathematics education majors.

## **MATH 3322: Graph Theory**

### **3 Credit Hours**

*Prerequisite:* MATH 2345 or MATH 2390

This course serves as an introduction to the basic principles of graph theory. Topics include but are not limited to graph representations, isomorphisms, paths, cycles, colorings, trees, matchings, planarity, graph algorithms, and optimization.

## **MATH 3323: Computer Applications of Discrete Modeling**

### **1 Credit Hours**

*Prerequisite:* MATH 3322 and CS 3305

This course will give students the opportunity to apply the theoretical work of Discrete Modeling I to concrete problems. The computer will be used to support working with large examples. Examples will cover combinatorics, discrete functions, and graph theory.

## **MATH 3324: Enumerative Combinatorics**

### **3 Credit Hours**

*Prerequisite:* MATH 2345 or MATH 2390

This course is an introduction to classical combinatorics and the theory of counting. Topics include the twelvefold way, combinatorial proof, the principle of inclusion/exclusion, and generating functions.

## **MATH 3332: Probability Theory**

### **3 Credit Hours**

*Prerequisite:* MATH 2203

This course is an introduction to probability theory. Topics include counting techniques, discrete and continuous univariate and multivariate random variables, expectation, moment generating functions, and the Central Limit Theorem. *Notes:* The MINITAB statistical software package is used.

## **MATH 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the coordinator of cooperative education/internship.

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

## **MATH 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite:* Approval of major area committee and department chair.

This course is a supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency.

## **MATH 3405: Probabilistic Foundations of Actuarial Science**

### **3 Credit Hours**

*Prerequisite:* MATH 2203 and MATH 3332

This course serves as a preparation for Exam P of the Society of Actuaries. Emphasis is on joint continuous distributions, moment generating function, transformations and probability tools to assess risk.

## **MATH 3496: Elementary Number Theory**

### **3 Credit Hours**

*Prerequisite:* MATH 2390

The course is an introduction to the basic principles of number theory. Topics include properties of integers, congruences, divisibility, the Euclidean algorithm, prime number theorems, multiplicative functions, Diophantine equations, and applications in cryptography.

## **MATH 3696: College Geometry**

### **3 Credit Hours**

*Prerequisite:* A grade of C or better in MATH 2202

This is a rigorous development of geometry that starts with a close reading of Book I of Euclid's Elements, moves on to geometry developed during the Arabic period and the Renaissance, then to non-euclidean geometries discovered during the 19th century. The course includes a treatment of Hilbert's approach to Euclidean geometry and a brief treatment of real projective geometry. Students taking this course should have a serious interest in abstract mathematics.

## **MATH 4260: Linear Algebra II**

### **3 Credit Hours**

*Prerequisite: MATH 3260*

Topics in this course include real vector spaces and their subspaces; inner product spaces, orthogonal subspaces, Gram - Schmidt process; best approximation; eigenvalues and eigenvectors; special matrices; matrices of general transformations, and various applications including matrix functions.

## **MATH 4310: Partial Differential Equations**

### **3 Credit Hours**

*Prerequisite: MATH 2203 and MATH 2306*

This course is an introduction to partial differential equations (PDEs), their applications in the sciences and the techniques that have proved useful in analyzing them. The techniques include separation of variables, Fourier series and Fourier transforms, orthogonal functions and eigenfunction expansions, Bessel functions, and Legendre polynomials. The student will see how the sciences motivate the formulation of partial differential equations as well as the formulation of boundary conditions and initial conditions. Parabolic, hyperbolic, and elliptic PDEs will be studied.

## **MATH 4345: Numerical Methods II**

### **3 Credit Hours**

*Prerequisite: MATH 2306 and (CSE 1321 and CSE 1321L)*

This course provides an introduction to numerical differentiation and integration, numerical methods for linear integral equations, initial and boundary value problems for ordinary differential equations, eigenvalues and eigenvectors, and partial differential equations. Notes: Extensive use of computing will be incorporated. *Notes: Extensive use of computing will be incorporated.*

## **MATH 4361: Modern Algebra I**

### **3 Credit Hours**

*Prerequisite: MATH 2390 and MATH 3260*

An introduction to the fundamental structures of abstract algebra (groups, rings, and fields), the connections of these structures with the algebra studied at the elementary level, and the historical development of modern algebra. The emphasis in this course is on groups.

## **MATH 4362: Modern Algebra II**

### **3 Credit Hours**

*Prerequisite: MATH 4361*

A continuation of Modern Algebra I with an emphasis on rings and fields.

## **MATH 4381: Real Analysis I**

### **3 Credit Hours**

*Prerequisite: MATH 2390*

This course provides a rigorous introduction to the calculus of a single real variable and a deeper awareness of the theory of calculus than can be achieved in the elementary calculus courses. Among the topics covered in the course are completeness of the number system, elementary topology of the real line, limits of sequences, and limits and continuity of functions. The aim of this course is two-fold, to provide an understanding of the nature of the real number system and its role in the theory of calculus, and to provide a training in the discovery and writing of rigorous mathematical proofs.

## **MATH 4382: Real Analysis II**

### **3 Credit Hours**

*Prerequisite: MATH 4381*

This course is a continuation of the study of functions of a real variable (Real Analysis I). Topics include the Riemann/Darboux integral, differentiability, sequences and series of functions. The aim of the course is to provide the students with a deeper understanding of the notions of sequences/series, integrability, and differentiability of functions of a real variable, as well as their properties and interconnections. While developing these concepts, we will focus on understanding and writing formal proofs, as well as emphasize their applications.

## **MATH 4391: Complex Analysis**

### **3 Credit Hours**

*Prerequisite: MATH 2203*

This course is an introduction to the basic concepts of complex analysis, its beautiful theory and powerful applications. Topics covered will include: the algebra and geometry of the complex plane, properties of elementary functions of a complex variable, analytic and harmonic functions, conformal mappings, continuity, differentiation, integration (Cauchy integral theory), singularities, Taylor and Laurent series, residues and, time permitting, their applications.

## **MATH 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor, major area committee, and department chair.*

Special advanced topics external to regular course offerings.

## **MATH 4490: Special Topics in Mathematics**

### **1-6 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

This course is comprised of special selected topics of interest to faculty and students.

## **MATH 4491: Advanced Topics in Mathematics**

### **3 Credit Hours**

*Prerequisite: Permission of Department Chair*

This course is offered occasionally on topics proposed by the instructor. Students will be able to apply for admission to the course and the department chair will evaluate the application based on the sufficient measures and criteria for admission that have been determined by the instructor.

## **MATH 4596: Topology**

### **3 Credit Hours**

*Prerequisite: MATH 2390*

This course is an introduction to the study of topology. Topics include topological spaces, subspaces, basis, continuity, separation and countability axioms, connectedness, and compactness.

## **MATH 4699: Undergraduate Research**

### **3 Credit Hours**

*Prerequisite: Approval of the instructor.*

The student conducts original research in mathematics under the supervision of a faculty member. This research is the result of sustained effort on a problem in mathematics, either theoretical or applied. Making an original contribution to the field of mathematics is the focus of the course rather than a survey of existing work. Results are disseminated by on campus presentations, conference presentations and/or peer-reviewed journal publications.

## **MAED 1190: Calculus for Middle Grades Teachers**

### **3 Credit Hours**

*Prerequisite: The successful completion of two 1000 or 2000 level MATH or STAT courses.*

This course is a study of real numbers, functions, and calculus with the dual objectives of developing understanding of these topics and the pedagogy of teaching mathematics in contemporary middle schools. Concepts and definitions, proofs, precision and rigor of language, accurate representations and connections within/between mathematics and other subjects as applied to pedagogy and teaching in the middle school will be emphasized. This course does not count as credit for Secondary Education or Mathematics Majors.

## **MAED 2390: Introduction to Mathematical Systems**

### **3 Credit Hours**

*Prerequisite:* The successful completion of two 1000 or 2000 level MATH or STAT courses.

This course is specifically designed to introduce students to the study of mathematics from a mathematical systems approach. A mathematical system consisting of undefined terms, axioms and theorems will be studied. The major emphasis of this class will be on the development of skills in communicating and justifying mathematical ideas and conclusions. Mathematical systems studied will vary according to the instructor and may be chosen from sets, number systems and/or geometry.

## **MAED 3295: Mathematics for Middle Grades and Secondary Teachers**

### **3 Credit Hours**

*Prerequisite:* MATH 1190 or MAED 1190 or (MATH 1179 and MATH 1189)

This course is designed for the preservice teacher of mathematics for adolescents. Content strands to be explored include number and operation, algebra, and measurement. The process standards of communication, connections, problem solving, reasoning and proof, and representation will be emphasized. Appropriate use of manipulatives, calculators, and software will be integrated in course materials.

## **MAED 3316: Rational Numbers and Proportional Reasoning for Elementary Teachers**

### **3 Credit Hours**

*Prerequisite:* MATH 2008

A continuation of Mathematics 2008 designed for the P-5 teacher. Topics include the conceptual development of the rational numbers and extension to the real numbers, operations and problem solving with real numbers, patterns and relationships, and proportional reasoning. Experience and exploration with appropriate technology and physical models will be an integral part of the study of these ideas. *Notes:* Not for mathematics or mathematics education majors.

## **MAED 3317: Geometry and Measurement for Elementary Teachers**

### **3 Credit Hours**

*Prerequisite:* MAED 3316 and admission to the Teacher Education program.

This course is designed for the P-5 teacher as a continuation of MAED 3316. Topics will emphasize the critical content and conceptual development of measurement; transformational geometry; symmetry in the plane; and constructions. Geometric concepts will be explored and developed using physical models, visual models and educational software. *Notes:* Not for mathematics or mathematics education majors.

### **MAED 3395: Geometric Proofs and Applications**

#### **3 Credit Hours**

*Prerequisite: MATH 2390 or MAED 2390*

This course is designed to prepare prospective 5-8 teachers and 6-12 teachers to become effective facilitators in teaching geometry. This course develops geometry as an axiomatic mathematical system and approaches it from synthetic, transformational, and algebraic perspectives (including higher dimensions). Various geometries are studied including finite, infinite, projective, Euclidean and Non-Euclidean.

### **MAED 3475: Historical and Modern Approaches to Mathematics**

#### **3 Credit Hours**

*Prerequisite: Admission to the Teacher Education program.*

Students will investigate classical and modern mathematics through problem-solving and mathematics-specific technologies. Students will have opportunities to connect course content with the middle and secondary school curriculum.

### **MAED 3495: Advanced Perspectives on School Mathematics I**

#### **3 Credit Hours**

*Prerequisite: MAED 3295 and (MATH 2390 or MAED 2390)*

Students' understanding of the mathematics taught in middle school and the first few years of high school will be deepened and broadened through the study of key topics including algebra, linear functions, exponential functions, quadratic functions, number theory, discrete mathematics, and mathematical modeling. This course is designed so that students can revisit key ideas in school mathematics, bringing with them the skills and understandings of college course work in mathematics, deepening and broadening their understanding, and connecting more advanced ideas to the topics they will teach in middle school and high school.

### **MAED 4000: Service Learning in Mathematics Education**

#### **1-3 Credit Hours**

*Prerequisite: 60 hours and permission of the instructor and department chair/program director.*

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

### **MAED 4400: Directed Study in Mathematics Education**

#### **1-5 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

A concentrated investigation of a particular aspect of a topic within mathematics education. The content of the directed study will be determined jointly by the instructor and the student.

## **MAED 4414: Pedagogical Content Knowledge for Mathematics I**

### **2 Credit Hours**

*Prerequisite:* Admission to Teacher Education, EDUC 2120, MATH 2203, and two of the following three: STAT 2332, MATH 2390 or MATH 3260 *Corequisite:* EDSM 4414

This is the first of three courses in a professional sequence toward becoming a well-prepared beginning secondary mathematics teacher. Topics include introductory ideas about mathematics education, including current mathematics standards and policy documents, cognitive learning theories, and teaching frameworks. Students will explore how secondary students think about and learn mathematics, examine how to select and modify tasks, use appropriate manipulatives and technology, differentiate instruction, and apply their learning in an accompanying field experience.

## **MAED 4416: Pedagogical Content Knowledge for Mathematics II**

### **2 Credit Hours**

*Prerequisite:* MAED 4414, *Corequisite:* MAED 4426

This is the second of three courses in a professional sequence toward becoming a well-prepared beginning secondary mathematics teacher. Topics include social learning theories, equity issues, and specific teaching strategies. Students will explore how to support discourse in the secondary mathematics classroom, develop questioning techniques, examine how to plan for learning sequences, and apply their learning in an accompanying field experience.

## **MAED 4418: Pedagogical Content Knowledge for Mathematics III**

### **2 Credit Hours**

*Prerequisite:* MAED 4416, MAED 3395, and MAED 3495 *Concurrent:* MAED 4650

This is the third of three courses in a professional sequence toward becoming a well-prepared beginning secondary mathematics teacher. Topics include enhanced assessment and feedback strategies, developing classroom culture, and refining notions of learning, teaching, and equity. Students will apply their learning in an accompanying clinical experience.

## **MAED 4424: Teaching Secondary Mathematics- Practicum I**

### **1 Credit Hours**

*Prerequisite:* Admission to the Teacher Education Program. *Corequisite:* MAED 4414

## **MAED 4426: Teaching Secondary Mathematics- Practicum II**

### **1 Credit Hours**

*Prerequisite:* MAED 4424 *Concurrent:* MAED 4416

Under the guidance of a collaborating teaching and a university instructor, the teacher candidate will complete a field experience in a designated school. This experience requires working in a co-teaching environment with diverse learners and focuses on supporting learners' mathematical discourse. Proof of professional liability insurance and a pre-service teaching certificate is required.

## **MAED 4475: Student Teaching: Mathematics (6-12)**

### **12 Credit Hours**

*Prerequisite: Admission to Student Teaching.*

Full-time teaching experience in mathematics under the supervision of a public school cooperating teacher and a specialist in mathematics education. Includes a regularly scheduled seminar. Proof of professional liability insurance is required prior to placement in a school.

## **MAED 4490: Special Topics in Mathematics Education**

### **1-6 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected topics of interest to faculty and students.

## **MAED 4495: Advanced Perspectives on School Mathematics Part II**

### **3 Credit Hours**

*Prerequisite: MAED 3495*

Students understanding of secondary mathematics will be deepened and broadened through the study of algebraic structures, analytic geometry, and trigonometry, including conic sections, complex numbers, polynomials and functions. This course is designed so that students can revisit key ideas in high school mathematics, bringing with them the skills and understandings of college course work in mathematics, deepening and broadening their understanding, and connecting more advanced ideas to the topics they will teach in high school.

## **MAED 4498: Internship in Teaching Mathematics (6-12)**

### **12 Credit Hours**

*Prerequisite: Provisional teaching license issued by the state of Georgia; full-time employment teaching mathematics.*

Student Teaching experience in mathematics for provisionally certified teachers. Supervision will be in collaboration with a mentor or teacher in the local school and a specialist in mathematics education. *Notes: Successful completion of one semester of MAED 4495 at the same school will substitute for MAED 4475. Proof of professional liability insurance is required. Student must be employed in a secondary school to qualify. Repeatable.*

## **MAED 4650: Yearlong Clinical Experience I**

### **3 Credit Hours**

*Prerequisite: Admission to Teacher Education Program. Corequisite: MAED 4418 and EDUC 4610*

This course is the first semester of an intensive and extensive co-teaching yearlong clinical practice in mathematics education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars. Note: Proof of professional liability insurance and a pre-service teaching certificate is required.

## **MAED 4660: Yearlong Clinical Experience II**

### **8 Credit Hours**

*Prerequisite: MAED 4650 and eligibility to take GACE*

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in mathematics education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment.

Note: Proof of liability insurance is required as well as a background check.

## **ENGR 3804: Introduction to Aerospace Structural Analysis**

### **3 Credit Hours**

*Prerequisite: ENGR 3801*

An introductory course for analyzing aircraft structures. It bridges together the basic solid mechanics with applications to aerospace structures. This course covers an overview of aircraft analysis, design, and certification criteria, followed by an in-depth discussion on material selection, determination of material allowables, and stress-strain approximation allowable curves are covered.

## **ME 1001: Introduction to Mechanical Engineering**

### **2 Credit Hours**

This course is an introduction to Engineering, with a focus on Mechanical Engineering. A strong emphasis will be placed on techniques for undergraduate student success, and preparation for careers in engineering and/or graduate studies. Students will be introduced to engineering faculty and student organizations. Kennesaw State University and Mechanical Engineering Program policies and curricula will be discussed.

## **ME 1001L: Introduction to Mechanical Engineering Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 1000*

This course is an introduction to the discipline of mechanical engineering. Students will receive a flavor of what to expect in the Mechanical Engineering curriculum and careers in mechanical engineering. This includes a preview of key mechanical engineering topics with an emphasis on their use within the profession. Students will also have the opportunity to work on teams completing reverse and forward mechanical engineering design projects.

## **ME 1311: MATLAB for Engineers with Applications**

### **3 Credit Hours**

*Prerequisite: MATH 1190 Concurrent: ME 1001L*

This course will provide an introduction to fundamental computing principles and programming concepts. Students will use the high-level programming language, MATLAB to develop and implement programs to solve engineering problems. Basic programming concepts covered include: algorithm design, data types, flow control, functions, sorting, plotting, simulation, and numerical methods.

## **ME 2290: Special Topics in Mechanical Engineering**

### **1-4 Credit Hours**

This course covers special topics at the intermediate level that are not in the regular course offerings. This course may be taken more than once.

## **ME 3101: Materials Science and Engineering**

### **3 Credit Hours**

*Prerequisite: CHEM 1211 and PHYS 2211*

A study of metals, ceramics, polymers, and composites as related to material selection for design and manufacturing. Areas include atomic structure and bonding, crystal structure and defects, mechanical properties and failure, diffusion, dislocation and strengthening, alloying, phase diagrams and transformations/heat treatment, polymers, ceramics and glasses, and composites.

## **ME 3133: Composite Mechanics**

### **3 Credit Hours**

*Prerequisite: ENGR 3131*

To provide a broad introduction to the technology and mechanics of advanced composites (polymer, metal and ceramic matrix), with a particular emphasis on mechanical design using fiber reinforced composites. Micromechanics of composites, as well as effective properties such as lamination theory will be introduced. Design considerations, applications and composite fabrication will also be introduced.

## **ME 3201: Product Realization**

### **2 Credit Hours**

*Prerequisite: ENGR 2214 and EDG 1211 and Engineering Standing*

This course will introduce students to a rigorous design process. From needs assessment to implementation, an emphasis will be placed on the need for a formal process. Case studies will be used extensively, as well as a real-world ME design project.

## **ME 3398: Internship**

### **1-4 Credit Hours**

*Prerequisite: 90 credit hours and permission of the instructor*

A structured out of the classroom experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of faculty and the internship supervisor. Internship sites must be secured in advance of the semester of the placement and must be approved by the student's advisor and internship coordinator. Note: Students may enroll multiple times in this course for a total of four credit hours.

## **ME 3410: Thermodynamics**

### **3 Credit Hours**

*Prerequisite: ENGR 2214 and Engineering Standing*

Fundamentals of Thermodynamics including the concept of energy and the laws governing the transfers and transformations of energy. Emphasis on thermodynamic properties and the first and second law analysis of systems and control volumes. Integration of these concepts into the analysis of basic power cycles is introduced.

## **ME 3440: Heat Transfer**

### **3 Credit Hours**

*Prerequisite: ME 3410 and ENGR 3343 and Engineering Standing*

Fundamentals and applications of heat transfer including conduction, convection and radiation. Steady state and transient conduction in one and multi dimensions. Forced and free convection with boundary layer theory. Radiation properties and radiative heat transfer among black and non-black bodies. Calculation of heat transfer rates, heating/cooling times and design of heat exchangers.

## **ME 3501: Dynamic Systems & Control Theory**

### **3 Credit Hours**

*Prerequisite: ENGR 3125, MATH 2306 and Engineering Standing*

Introduction to a unified approach to lumped-element modeling and analysis of mechanical, electrical, hydraulic, and multi-energy domain systems. Topics include: graphical and computer modeling; formulation of state-space equations; analysis of linear systems; determination of time and frequency domain response of such systems to transient and periodic inputs; block diagram representation of dynamic systems using Laplace Transform. Feedback control systems, including PID control, root locus, stability analysis, and computer modeling.

## **ME 3701: Manufacturing Engineering**

### **3 Credit Hours**

*Prerequisite: ENGR 3131, ME 3101, and Engineering Standing*

This course introduces the fundamentals and applications of major manufacturing processes and engineering along with their capabilities, analyses, selection and economics. It establishes the technical knowledge for processes such as casting, deformation, material removal and polymer processes. Modern rapid prototyping processes such as 3D printing are also covered.

## **ME 3705: Internal Combustion Engines**

### **3 Credit Hours**

*Prerequisite: ME 3440 and Engineering Standing*

This course will provide an introduction to internal combustion engines from Thermodynamics and Heat Transfer viewpoints. Students will learn the classification of internal combustion engines, engine performance parameters, gas power cycles on which the engines work on will be discussed. Various engine components and their functions will be introduced. Engine performance calculation will be taught in detail followed by the discussion on the formation of exhaust emission and various control methods to meet the emission norms.

## **ME 4141: Machine Design I**

### **3 Credit Hours**

*Prerequisite: ENGR 3131 and Engineering Standing*

The fundamentals of mechanical engineering design to analyze, design and /or select components which are commonly used in the design of complete mechanical systems for structural integrity, reliability, and cost considerations are detailed. The course focuses on static loading and fatigue failure of mechanical elements, including shafts and rolling-element bearings, bolted and permanent connections, springs, brakes, cylinders, gears and flexible elements.

## **ME 4201: Senior Design I**

### **1 Credit Hours**

*Prerequisite: ME 3201, ME 3440, ME 4250 and Engineering Standing*

Part 1 of a two-course senior design capstone project for mechanical engineering. Students will form teams, define design projects, and write a proposal. Students will also begin preparation for FE Exam.

## **ME 4202: Senior Design II**

### **3 Credit Hours**

*Prerequisite: ME 4201, and ME 4141, and Engineering Standing*

Part 2 of a two-course senior design capstone project for mechanical engineering. Synthesis and analysis of an open-ended mechanical engineering design project, including written and oral communication. Students will also be prepared to take the FE exam.

## **ME 4250: Computer Aided Engineering**

### **3 Credit Hours**

*Prerequisite: EDG 1211, ENGR 3343, ENGR 3131 and Engineering Standing*

This course introduces engineering software tools and techniques for computer modeling and simulation of mechanical components, products and systems. It introduces students to techniques common to various industries including biomedical, aviation, automobile, HVAC, etc. such as meshing and computer simulations based on finite element and computational fluid dynamics (finite volume) analyses.

## **ME 4260: Plastic Product and Mold Design**

### **3 Credit Hours**

*Prerequisite: ME 3101, ENGR 3131, and ENGR 3343*

A study of the various complexities involved in design of plastic parts, and design of the dies and molds required for manufacturing of plastic parts. The course teaches design of plastic parts taking into account non-linear and time-dependent mechanical behavior of plastics, general guidelines for design of plastic parts, design of dies for polymer extrusion and design of molds for injection molding of plastic parts.

## **ME 4303: Failure Analysis**

### **3 Credit Hours**

*Prerequisite: ME 3101 and ENGR 3131*

This course focuses on understanding the mechanisms responsible for failure of engineering materials and design for failure prevention. Topics may include procedures for conducting failure analyses, linear elastic fracture mechanics, elastic-plastic fracture mechanics, fatigue, corrosion and environmental factors, failure of metals, ceramics, polymers and composites. The course will involve examination of numerous case studies that involve the use of principles of metallurgy and failure analysis in a wide variety of real-world applications.

## **ME 4304: Applied Fracture Mechanics**

### **3 Credit Hours**

*Prerequisite: ME 3101 and ENGR 3131*

The fundamentals of Fracture Mechanics (FM) with applications are covered in this course. Concepts include linear elastic and elastic plastic FM, stress intensity, fracture toughness, fatigue crack growth, J integral, and experimental and software-based methods. Applications such as damage tolerance and leak before burst are examined and relevant software used for evaluation. *Notes: This course may be cross-leveled with ME 6304*

## **ME 4400: Directed Study**

### **1-4 Credit Hours**

*Prerequisite: Approval of instructor and department chair*

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. A Directed Study may include original research projects and/or practicum experiences.

## **ME 4403: Heat Transfer and Thermodynamics Lab**

### **1 Credit Hours**

*Prerequisite: ME 3440 and Engineering Standing*

This is a laboratory course designed to complement the thermodynamics and heat transfer lecture courses. The lab experiments are set up to provide practical experience in thermal sciences area including heat transfer modes, thermodynamics power and refrigeration cycles. Emphasis will also be placed on thermal measurements, data interpretation and report writing.

## **ME 4490: Special Topics in Mechanical Engineering**

### **1-4 Credit Hours**

*Prerequisite: Engineering Standing and approval of the instructor and department chair. Non-Engineering majors: Permission of instructor and the department chair.*

This course covers advanced level special topics of interest to faculty and students that are not in the regular course offerings. This course may be taken more than once.

## **ME 4501: Vibrations & Controls Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 3125 and ME 3501 (can be taken concurrently) and Engineering Standing*

This is a laboratory course designed to complement the vibrations and controls topics also covered in lecture courses. Experimental study of one, two, and more degrees of freedom vibration, including effects of damping, free and forced vibrations, translational and torsional vibrations. Implementation of proportional, integral, and/or derivative control of dynamic systems.

## **ME 4520: Acoustics & Noise Control**

### **3 Credit Hours**

*Prerequisite: ENGR 3125, MATH 2306, and Engineering Standing*

This course provides an introduction to acoustics with an emphasis on the engineering application of noise control. Students will learn the acoustic wave equation and apply it to spherical and plan wave sources; such as the reflection, absorption, and transmission of sound waves through barriers, as well as reverberation and HVAC noise standards within indoor spaces. Applications of acoustics to noise control are evaluated.

## **MET 1000: Mechanical Engineering Technology Orientation**

### **1 Credit Hours**

An introduction to career opportunities in the Mechanical Engineering Technologies; familiarization with college and departmental policies, curriculum, and facilities.

## **MET 1001L: Introduction to Mechanical Engineering Technology Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 1000*

A continuation of ENGR 1000, MET 1001L actively introduces the student to an exciting career of applied engineering within the context of Mechanical Engineering Technology. The class/lab blends real-world workplace content, engineering tools/processes, critical engineering skills/competencies, and hands-on input-culminating in an exciting class competition that demonstrates an engineered solution to defined problem.

## **MET 1311: Manufacturing Processes**

### **3 Credit Hours**

An introduction to industrial manufacturing processes used for converting raw materials into finished products. Various processes, machinery, and operations will be examined with emphasis placed on understanding engineering materials and processing parameters that influence design considerations, product quality, and production costs.

## **MET 1400: Welding & Fabrication for Engineers**

### **2 Credit Hours**

*Concurrent: MET 1311*

This course is an introduction to the use and operation of selected welding and fabrication processes. Weld joints and weld types are discussed as they relate to weld design. Weld evaluation and testing methods are covered. Laboratory projects will emphasize safety and apply selected welding processes, various inspection processes, fixturing and engineering materials.

## **MET 1800: CNC and Machining**

### **2 Credit Hours**

*Prerequisite: MET 1311 and EDG 1211*

This course is an introduction to the use and operation of selected industrial machinery, machining operations, CNC, and precision measuring instruments. Laboratory projects will emphasize safety, tooling identification, workholding setup, CNC operation, and engineering materials.

## **MET 2124: Statics with Applications**

### **3 Credit Hours**

*Prerequisite: (MATH 1190 or (MATH 1179 and MATH 1189)) and (PHYS 1111 and PHYS 1111L) or (PHYS 2211 and PHYS 2211L)*

2D and 3D forces and moments acting on components, machine parts, frames, and structures are analyzed. Static rigid body force systems in equilibrium, including friction applications are included. Distributed load calculations using centroids and centers of gravity located by composite and CAD methods are practiced. An introduction to calculating the moments of inertia of machines and structures is also included. Real 2D and 3D design applications are emphasized. Assumptions considering safety, economics, quality and function are discussed. Not equivalent to ENGR 2214,

## **MET 2290: Special Topics for MET**

### **1-3 Credit Hours**

*Prerequisite: Consent of the Department Chair*

Special topics selected by the program. Offered on a demand basis.

## **MET 2301: Metrology and Geometric Dimensioning & Tolerancing**

### **3 Credit Hours**

*Prerequisite: EDG 1212, MET 1000, and MET 1400, or the consent of the instructor.*

Principles of metrology and the relationship of accurate measurement to design practice and production processes are studied. The principles and applications of geometric dimensioning and tolerancing (GD&T) are thoroughly covered. The use of standards, nondestructive testing (NDT), statistics, and utilization and calibration of various precision measurement instruments are addressed. The laboratory illustrates repeatability, reproducibility, and applications of precision measurement devices and nondestructive testing methods.

## **MET 2501: Engineering Computation using Matlab**

### **3 Credit Hours**

*Prerequisite: MATH 1111 or MATH 1113*

This course provides an introduction to computation in the context of engineering problem solving. In this course, the fundamental tenets of computer programming will be placed into the context of MATLAB, a user-friendly language for engineers. It employs hands on exercises, examples from the world of engineering, and a variety core tools to increase general proficiency and capability in the computer programming, preparing students to fluidly adapt learned programming concepts to other languages. After teaching the linear, algebra, an introduction to computer programming with MATLAB, including flow charts, loops, condition statements, and functions, is given. Basic numerical methods, including numerical integration, differentiation, and root finding are also covered. Emphasis is placed on using MATLAB to solve engineering problems, and using user-defined functions and toolboxes within MATLAB to create computer programs and GUI's. A brief introduction to Simulink is also given.

## **MET 2800: CNC Programming**

### **3 Credit Hours**

*Prerequisite: MET 1800 and EDG 1212*

This course is an introduction to CNC programming, process identification, process optimization, and automation. Tooling and workholding selection will be incorporated into the manufacturing design process. Laboratory projects will emphasize safety, CNC programming techniques, engineering documentation, design considerations, and in process inspection.

## **MET 3101: Fluid Mechanics Principles and Applications**

### **4 Credit Hours**

*Prerequisite: MET 2124 or ENGR 2214*

The objective of this course is to present fluid mechanics concepts and their applications to practical problems. The main areas are fluid properties, fluid statics, flow in conduits, pump selection and operation, fluid power systems, momentum transfer, external flow, and open channel flow. Principles will be related to industrial applications. Hands-on laboratory exercises will demonstrate principles and applications.

## **MET 3124: Strength of Materials with Applications**

### **3 Credit Hours**

*Prerequisite: ENGR 2214 or MET 2124 Concurrent: MET 3124L*

A study of stress and strain of deformable bodies in tension, compression, bending, and torsion. Topics include: axial stress and strain, thermal stress and strain, statically indeterminate systems, torsional stress and strain, power transmission in shafts, bending stresses in beams, beam deflections, combined stresses, elastic buckling in columns, and finite element analysis methods. *Notes: Not equivalent to ENGR 3131*

## **MET 3124L: Strength of Materials Lab**

### **1 Credit Hours**

*Prerequisite: ENGR 2214 or MET 2124 Concurrent: MET 3124*

The application of laboratory testing and analysis of results to determine the mechanical behavior of materials under load.

## **MET 3126: Engineering Dynamics with Applications**

### **3 Credit Hours**

*Prerequisite: ENGR 2214 or MET 2124*

A study of the mechanics of particles and rigid bodies, considering practical examples. Topics covered include: kinematics and kinetics of particles; work and kinetic energy; impulse and momentum; rigid body motions; relative motion and moving coordinate systems. Machinery applications will be considered for majority of course materials.

## **MET 3132: Engineering Materials**

### **3 Credit Hours**

*Prerequisite: CHEM 1211 Concurrent: MET 3124 or ENGR 3131*

A study of metals, ceramics, polymers, and composites as related to design. Areas include corrosion, atomic structure, mechanical properties, failure theories, fatigue, creep, cold working, heat treating, alloying, and non-destructive testing. The lab work includes tensile testing, heat treating, impact testing, hardness testing, and corrosion.

## **MET 3132L: Engineering Materials Lab**

### **1 Credit Hours**

*Concurrent: MET 3132*

In this course/laboratory students will gain practical experience in testing of materials including metals, polymers, and composites. Tests include tensile testing, heat treating, impact testing, hardness testing, and corrosion.

## **MET 3331: Tool Design**

### **3 Credit Hours**

*Prerequisite: MET 2301 and MET 2800 and (ENGR 3131 or MET 3124)*

Jigs and fixtures for production machining processes are covered. Specific subjects include methods of gauging work pieces, ease and simplicity of operation, assembly methods, capital evaluation, techniques for locating and holding work pieces, time studies, tool steels, bending allowances, and reverse engineering techniques. The course is design project oriented. Projects include calculations of tooling forces and costs as well as complete production drawings of the tool design.

## **MET 3332: Rapid Design and Manufacture**

### **3 Credit Hours**

*Prerequisite:* MET Majors and EDG 1212, or department approval

This course is focused on bringing products to market as quickly as possible primarily through the use of 3D scanning and additive manufacturing technologies. Product Design, reverse engineering, and rapid tooling are topics covered and applied in this course.

## **MET 3398: Internship in Mechanical Engineering Technology**

### **3 Credit Hours**

*Prerequisite:* Department Chair approval

This course allows students to enhance their classroom knowledge through practical application of theories to real-world issues in a real-world work environment. Students explore specific interests within their academic discipline and refine their post-graduation goals.

## **MET 3401: Thermodynamics I**

### **3 Credit Hours**

*Prerequisite:* (MATH 1190 or (MATH 1179 and MATH 1189)) and (PHYS 1111 or PHYS 2211)

Covers the fundamentals of thermodynamics. Use of steam and gas tables is introduced. Property relations for ideal gases and incompressible liquids are introduced. Applications of the First and Second Laws to closed and open systems are studied. Heat engines, refrigerators, heat pumps, availability and irreversibility are studied.

## **MET 3402: Thermodynamics II**

### **3 Credit Hours**

*Prerequisite:* (ENGR 3343 or MET 3101) and (MET 3401 or ME 3410)

Continuation of Thermodynamics I with emphasis on applications. Transient flow analysis, combustion, internal and external combustion cycles, gas turbines, compressors, refrigeration and air conditioning processes are studied. Fundamentals of heat transfer are also covered.

## **MET 4112: Computer Aided Engineering & Analysis**

### **3 Credit Hours**

*Prerequisite:* (ENGR 3131 or MET 3124 and (MET 3101 or ENGR 3343) and EDG 1212

Introduces the student to advanced geometry creation as the necessary input for engineering design and analysis using modern computer aided engineering tools such as finite element stress analysis (FEA) and computation fluid dynamics CFD. Emphasis is placed on the interdependency of geometry creation and engineering analysis.

## **MET 4141: Machine Design I**

### **4 Credit Hours**

*Prerequisite: EDG 1212 and (ENGR 3122 or MET 3126) and MET 3132*

The design of machines and machine elements, and cost considerations. The course focuses on power transmission in machines including gears, belts, pulleys, bearings, lubrication, clutches, brakes, chains, power screws, and gear trains. Stress calculations and material selection are discussed. Broad design issues such as safety, ethics, patents, product liability, time value of money, return on investment, and breakeven analysis are covered. Students work in design teams on a major design project.

## **MET 4342: Numerical Control of Machines**

### **3 Credit Hours**

*Prerequisite: MET 2800*

A course in tooling and programming for Computer Numerical Control (CNC) machines. The course includes G-Code, conversational, and Computer Aided Manufacturing (CAM) programming languages and systems. Considerable emphasis on the integration of NC planning and programming into automated manufacturing systems. Topics in communications and computer networking for Direct Numerical Control (DNC) are discussed.

## **MET 4400: Directed Study for MET**

### **1-5 Credit Hours**

*Prerequisite: Consent of the Department Chair*

Independent study on topics of mutual interest to faculty and students. Assignments depend upon the specific background of the student, equipment availability, software availability, etc. Projects require a proposal presentation, scheduling, implementation and both written and oral presentations of study results.

## **MET 4401: Heat Transfer**

### **3 Credit Hours**

*Prerequisite: MET 3401*

This course encompasses the study of Steady-State Conduction (One Dimensional, Multiple Dimensions), Principles of Convection (Forced Convection, Natural Convection), Condensation and Boiling, Radiation Heat Transfer and Heat Exchangers.

## **MET 4411: Refrigeration**

### **3 Credit Hours**

*Prerequisite: MET 3402 (or concurrently)*

The theory and applications of commercial refrigeration systems are studied. The thermodynamic analysis of the refrigeration cycle, load calculations and selection of components for refrigeration systems are covered.

## **MET 4431: Plant and Power Applications**

### **3 Credit Hours**

*Prerequisite:* MET 3401 or ME 3410

A study of the applications of fluid mechanics, thermodynamics and heat transfer to industrial process plants. Fundamentals of piping design, selection of fans, heat exchangers and other components commonly used in industrial processes are covered.

## **MET 4490: Special Topics for MET**

### **1-5 Credit Hours**

*Prerequisite:* Consent of the Department Chair

Special topics selected by the program. Offered on a demand basis.

## **MET 4501: Machine Design**

### **3 Credit Hours**

*Prerequisite:* EDG 1212 and (ENGR 3122 or MET 3126) and MET 3132

The design of machines and machine elements, and cost considerations. The course focuses on power transmission in machines including gears, belts, pulleys, bearings, lubrication, clutches, brakes, chains, power screws, and gear trains. Stress calculations and material selection are discussed. Broad design issues such as safety, ethics, patents, product liability, time value of money, return on investment, and break even analysis are covered. Students start design teams for the capstone senior design project.

## **MET 4502: Senior Design**

### **2 Credit Hours**

*Prerequisite:* MET 4501

Senior design capstone project for mechanical engineering technology. In teams students will define design projects and write a proposal for the synthesis and analysis of an open-ended mechanical engineering design project, including written and oral communication. Students will also be prepared to take the FE exam.

## **MTRE 1001L: Introduction to Mechatronics Engineering Laboratory**

### **1 Credit Hours**

*Prerequisite:* ENGR 1000

This course provides an introduction to robot hardware and software design through VEX Robotics team projects.

## **MTRE 2110: Electric Circuits and Machines**

### **3 Credit Hours**

*Prerequisite: PHYS 2212*

This course covers the basics of circuitry including resistors, capacitors, and inductors in DC and AC circuits. AC power is examined so that devices that generate, transform, switch, and protect electrical power can be covered. Basic circuit analysis includes resistive circuits, voltage and current sources, analysis methods, network theorems, energy storage elements, and AC steady state analysis. DC and Stepper Motors construction with proper sizing and gearing concepts will be studied to select them based on application.

## **MTRE 2110L: Electric Circuits and Machines Laboratory**

### **1 Credit Hours**

*Concurrent: MTRE 2110*

This course covers the basics of circuitry including resistors, capacitors, and inductors in DC and AC circuits. AC power is examined so that devices that generate, transform, switch, and protect electrical power can be covered. Basic circuit analysis includes resistive circuits, voltage and current sources, analysis methods, network theorems, energy storage elements, and AC steady state analysis. DC and Stepper Motors construction with proper sizing and gearing concepts will be studied to select them based on application. Laboratory exercises reinforce the theoretical concepts presented in class and provide various opportunities to become proficient with standard instrumentation used in electrical engineering.

## **MTRE 2290: Special Topics - Mechatronics**

### **1-6 Credit Hours**

Special Topics course for Mechatronics

## **MTRE 2610: Intermediate Programming for Mechatronics**

### **3 Credit Hours**

*Prerequisite: (MATH 1190 or (MATH 1179 and MATH 1189)) and ((CSE 1321 or ME 1311) and CSE 1321L)*

This intermediate programming course covers programming topics relevant for Mechatronics Engineering, using tools such as C++, Arduino, and Python. Object-oriented programming techniques are introduced such as encapsulation, classes, inheritance, and operator overloading. Other course components include basic numerical methods and visualization of data in two and three dimensions. Laboratory exercises focus on programming relevant to mechatronics such as acquiring analog, digital, and camera sensor data, motor control, pneumatics, etc.

## **MTRE 2710: Intermediate Programming for Mechatronics**

### **2 Credit Hours**

*Prerequisite: MATH 1190 and ((CSE 1321 or ME 1311) and CSE 1321L)*

This intermediate programming course covers programming topics relevant for Mechatronics Engineering, using tools such as C++, MATLAB, Arduino, and Python. Object-oriented programming techniques are introduced such as encapsulation, classes, inheritance, and operator overloading. Other course components include basic numerical methods and visualization of data in two and three dimensions.

## **MTRE 2710L: Intermediate Programming for Mechatronics Laboratory**

### **1 Credit Hours**

*Concurrent: MTRE 2710*

This is a laboratory course designed to complement the intermediate programming for mechatronics also covered in MTRE 2710. This intermediate programming course covers programming topics relevant for Mechatronics Engineering, using tools such as C++, MATLAB, Arduino, and Python. Object-oriented programming techniques are introduced such as encapsulation, classes, inheritance, and operator overloading. Other course components include basic numerical methods and visualization of data in two and three dimensions. Laboratory exercises focus on programming relevant to mechatronics such as acquiring analog, digital, and camera sensor data, motor control, pneumatics, etc.

## **MTRE 3110: Fluid Power**

### **2 Credit Hours**

*Prerequisite: ENGR 2214, MATH 2306, and Engineering Standing*

This course provides a fundamental understanding of the physical principles of fluid power, along with practical working knowledge of the components utilized in designing, installing, operating, and maintaining hydraulic and pneumatic power systems.

## **MTRE 3110L: Fluid Power Laboratory**

### **1 Credit Hours**

*Concurrent: MTRE 3110*

This is a laboratory course designed to complement the Fluid Power fundamental topics also covered in MTRE 3110. The hands-on practice of pneumatics and hydraulic circuit design and analysis are covered.

## **MTRE 3398: Internship in Mechatronics Engineering**

### **1-4 Credit Hours**

*Prerequisite: Engineering Standing and Department Chair approval.*

This course provides workplace experience related to mechatronics engineering under the management of the employer supervisor and an academic instructor. The goal is for students to enhance their academic classroom skills with practical experiences in a real-world environment.

## **MTRE 3610: Modeling and Feedback Control of Dynamic Systems**

### **3 Credit Hours**

*Prerequisite: MATH 2202 and (MTRE 2110 or EE 2301 or EE 2305 or CS 3503) and PHYS 2211 and Engineering Standing*

This is a control system course tailored for mechatronics engineering students. While it covers all topics in a traditional control system course, some additional topics, such as modeling of mechatronics systems, controller design of mechatronics systems, and vibration control, are covered as well.

## **MTRE 3610L: Modeling and Feedback Control of Dynamic Systems Laboratory**

### **1 Credit Hours**

*Concurrent: MTRE 3610*

This is a laboratory course designed to complement the modeling and feedback controls topics also covered in MTRE 3610. Feedback Control (PID Control), Model Identification, MATLAB/Simulink Modeling, and Process Control are studied and analyzed using simulations and physical experiments.

## **MTRE 3720: Introduction to PLCs and Microcontrollers**

### **2 Credit Hours**

*Prerequisite: ((CSE 1322 and CSE 1322L) or MTRE 2710) and Engineering Standing Concurrent: MATH 3260 and (EE 2301 or EE 2305 or MTRE 2110 or CS 3503)*

This course covers semiconductor electronics as the basic foundation. Further topics covered are Industry, automation, control, a basic sensing scheme, the PLC software environment, and the creation of RLL diagrams. Additionally, detailed communication protocols and interfaces with the AVR microcontroller will be carried out.

## **MTRE 3720L: Introduction to PLCs and Microcontrollers Laboratory**

### **1 Credit Hours**

*Concurrent: MTRE 3720*

The lab sessions are designed to have hands-on experience in 3 areas (i) semiconductor electronics, ii) AVR Microcontroller with interfacing, iii) the PLC software environment, and the creation of RLL diagrams. Additionally, detailed communication protocols and interfaces will be carried out.

## **MTRE 3800: Fluid Power**

### **3 Credit Hours**

*Prerequisite: ENGR 2214 and MATH 2306 and Engineering Standing*

Course provides a fundamental understanding of the physical principles of fluid mechanics and fluid power, along with a practical working knowledge of the components utilized in designing, installing, operating and maintaining hydraulic and pneumatic power systems.

## **MTRE 3810: Device Control and Simulation of Mobile Robots**

### **3 Credit Hours**

*Prerequisite: ((CSE 1322 and CSE 1322L) or MTRE 2710) and Engineering Standing Concurrent: MATH 3260*

This course covers the Robot operating systems (ROS) from basic to advance level to program and build robots in the simulation world, learn algorithmic approaches, mathematical models, and computational and motion control methods applicable to mobile robotic systems. Students will also learn different motion planning and navigation schemes associated with wheeled mobile robots. Finally, students will recognize and analyze the basic mechanical and electrical systems concerning robots' locomotion.

## **MTRE 3810L: Device Control and Simulation of Mobile Robots Laboratory**

### **1 Credit Hours**

*Concurrent: MTRE 3810*

This Lab covers the hands-on skillset development for Robot operating systems (ROS) from basic to advance level to program and build wheeled robots in simulation world using Gazebo and Rviz. It will further expand to advance industry tool set using MoveIT.

## **MTRE 4001: Modeling and Feedback Control of Dynamic Systems**

### **3 Credit Hours**

*Prerequisite: MATH 2202 and (EE 2301 or EE 2305 or CS 3503) and PHYS 2211 and Engineering Standing*  
This is a control system course tailored for Mechatronics Engineering students. While it covers all topics in a traditional control system course, some additional topics, such as modeling of mechatronics systems, controller design of mechatronics system, and vibration control, are covered as well.

## **MTRE 4002L: Feedback Control Laboratory**

### **1 Credit Hours**

*Prerequisite: (ME 1311 or (CSE 1321 and CSE 1321L)) and Engineering Standing Concurrent: MTRE 4001*

This is a laboratory course designed to complement the modeling and feedback controls topics. Feedback Control, MATLAB/Simulink Modeling are studied and analyzed using simulations and physical experiments.

## **MTRE 4010: Advanced Controls**

### **3 Credit Hours**

*Prerequisite: ((MTRE 4001 and MTRE 4002L) or EE 4201 or (ME 3501 and ME 4501)) and MATH 3260 and Engineering Standing*

This course is an advanced study of modern control systems focused on control theories and system applications. It covers the basic theoretical methods and mathematical tools for analysis and design of control systems.

## **MTRE 4100: Instruments and Controls**

### **4 Credit Hours**

*Prerequisite: EE 2501 and (MTRE 3800 (may be concurrently), or ENGR 3343 or EE 3701 or CPE 4010) and (MTRE 4001 and MTRE 4002L) or EE 4201 or (ME 3501 and ME 4501)) and MATH 2306 and Engineering Standing*

Characteristics of instruments used in mechanical systems for determining parameters such as temperature, pressure and flow are studied. The use of these devices in automated systems is covered both using feedback control and programmable logic controllers. Laboratory exercises illustrating the use of pertinent instrumentation for determining the performance of mechanical equipment are conducted.

## **MTRE 4200: Robotics Analysis and Synthesis**

### **4 Credit Hours**

*Prerequisite: ((MTRE 4001 and MTRE 4002L) or EE 4201 or (ME 3501 and ME 4501 and ME 1311)) and (MATH 2203 or MATH 3260) and Engineering Standing*

This course introduces the basic principles of robotic manipulators. Students will learn how to derive the mathematical models, plan trajectories, and design controllers for robot applications. Software tools, such as MATLAB, are employed to analyze and simulate the robot system.

## **MTRE 4300: Machine Learning for Robot Perception**

### **4 Credit Hours**

*Prerequisite: MTRE 2610 and MATH 2202 and MATH 3260 and Engineering Standing*

This course introduces the most important topics in the areas of machine learning and computer vision and their specific applications in robotics and mechatronics. The machine learning and computer vision algorithms are extensively verified with simulated and physical robots in the mechatronics lab. Students are trained for developing physical or virtual intelligent robot systems through integrating robot control and machine learning algorithms. Significant programming effort and lab hardware experience are expected.

## **MTRE 4400: Directed Research - Mechatronics**

### **1-6 Credit Hours**

*Prerequisite: Set by instructor of each individual section*

Directed research course for Mechatronics.

## **MTRE 4490: Special Topics - Mechatronics**

### **1-6 Credit Hours**

Special Topics course for Mechatronics

## **MTRE 4610: Advanced Controls**

### **3 Credit Hours**

*Prerequisite:* ((MTRE 3610 and MTRE 3610L) or EE 4201 or (ME 3501 and ME 4501)) and MATH 3260 and Engineering Standing

This course is an advanced study of modern control systems focused on control theories and system applications. It covers the basic theoretical methods and mathematical tools for the analysis and design of control systems. Topics that will be included are a state-space variable method, system transfer function, discrete-time systems, z-transforms, digital control, fundamentals of modern control systems, analysis and design techniques such as controllability, observability, Ackerman's formula, and pole placement.

## **MTRE 4610L: Advanced Controls Laboratory**

### **1 Credit Hours**

*Concurrent:* MTRE 4610

This is a laboratory course designed to complement the advanced control system topics covered in MTRE 4610. Several topics such as the state-space representation of dynamic systems, controllability, observability, Ackerman's formula, pole placement, Integral control design, and design of digital control systems are studied and analyzed using simulations and experimental setups.

## **MTRE 4710: Instruments and Controls**

### **3 Credit Hours**

*Prerequisite:* EE 2501 and ((MTRE 3610 and MTRE 3610L) or EE 4201 or (ME 3501 and ME 4501)) and MATH 2306 and Engineering Standing *Concurrent:* (MTRE 3110 or ENGR 3343 or EE 3701 or CPE 4010)

Characteristics of instruments used in mechanical systems for determining parameters such as temperature, pressure, and flow are studied. The use of these devices in automated systems is covered. Furthermore, the elements of control theory, selection of control modes, and application to mechanical systems are studied. Exercises illustrating the use of pertinent instrumentation for determining the performance of mechanical equipment are conducted.

## **MTRE 4710L: Instruments and Controls Laboratory**

### **1 Credit Hours**

*Concurrent:* MTRE 4710

This is a laboratory course designed to complement the instruments and controls topics also covered in MTRE 4710. Laboratory exercises illustrating the use of pertinent instrumentation for determining the performance of mechanical equipment are conducted. Hands-on instruments are used in mechanical systems for determining parameters such as temperature, pressure, and flow. The use of these devices in automated systems is covered

## **MTRE 4810: Robotics Analysis and Synthesis**

### **3 Credit Hours**

*Prerequisite:* ((MTRE 3610 and MTRE 3610L) or EE 4201 or (ME 3501 and ME 4501 and ME 1311)) and (MATH 2203 or MATH 3260) and Engineering Standing

This course introduces the basic principles of robotic manipulators. Students will learn how to derive mathematical models, plan trajectories, and design controllers for robot applications. Software tools, such as MATLAB, are employed to analyze and simulate the robot system.

## **MTRE 4810L: Robotics Analysis and Synthesis Laboratory**

### **1 Credit Hours**

*Concurrent:* MTRE 4810

This is a laboratory course designed to complement the modeling and feedback controls topics also covered in MTRE4810.

## **MTRE 4820: Machine Learning for Robot Perception**

### **3 Credit Hours**

*Prerequisite:* MTRE 2710 and MATH 2202 and MATH 3260 and Engineering Standing

This course introduces the most important topics in the areas of machine learning and computer vision and their specific applications in robotics and mechatronics. The machine learning and computer vision algorithms are extensively verified with simulated and physical robots in the mechatronics lab. Students are trained for developing physical or virtual intelligent robot systems through integrating robot control and machine learning algorithms. Significant programming effort and lab hardware experience are expected.

## **MTRE 4820L: Machine Learning for Robot Perception Laboratory**

### **1 Credit Hours**

*Concurrent:* MTRE 4820

This is a laboratory course designed to complement the machine learning and computer vision topics also covered in MTRE4820.

## **MTRE 4911: Design and Integration of Mechatronic Systems**

### **2 Credit Hours**

*Prerequisite: EDG 1211 and MTRE 2710 and MTRE 3610 and MTRE 3610L and MTRE 4710 and MTRE 4710L and ((MTRE 4610 and MTRE 4610L or (MTRE 4810 and MTRE 4810L) or (MTRE 4820 and MTRE 4820L) or MTRE 4400 or MTRE 4490) and Engineering Standing*

The design of mechanical and electrical devices and systems, and cost considerations are covered. The course focuses on reliability, safety, energy and environmental issues, ethics, patents, product liability, time value of money, return on investment, and break-even analysis. The design project is a capstone for the Mechatronics Engineering program. Projects are assigned based on interest, equipment and software availability, and the specific background of the student. Projects require planning, proposal presentation, scheduling, engineering, implementation, and written and oral presentations of project results. Students are encouraged to "design and build" and utilize concepts learned from courses throughout the program

## **MTRE 4912: Mechatronic Prototype Development**

### **2 Credit Hours**

*Prerequisite: MTRE 4911*

This is a laboratory course designed to complement the mechatronics system design aspects also covered in MTRE 4911. Some aspects covered in this lab are the next. The implementations of mechanical and electrical devices and systems, and cost considerations are covered. The course focuses on reliability, safety, energy and environmental issues, ethics, patents, product liability, time value of money, return on investment, and break-even analysis. The design project is a capstone for the Mechatronics Engineering program. Project proposals are completed and approved prior to the developments. Project implementations require planning, presentation, scheduling, engineering, and written and oral presentations of project results. Students are encouraged to utilize concepts learned from courses throughout the program.

## **MILS 1021: Leadership & Personal Development**

### **3 Credit Hours**

General introduction of cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as time management, physical fitness, and stress management relate to leadership, Officer-ship, and Army operations. Focus is placed on developing basic knowledge and comprehension of Army Leadership Dimensions while gaining a big picture understanding of the ROTC program, its purpose in the Army, and its advantages for the student.

## **MILS 1022: Introduction to Tactical Leadership**

### **3 Credit Hours**

This course overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback, and using elective writing skills. Cadets explore dimensions of leadership values; emphasis is placed on recruitment and retention of cadets. The building of stronger relationships among the cadets through common experiences and practical interaction are critical aspects of the course experience.

## **MILS 2021: Innovative Team Leadership**

### **3 Credit Hours**

*Prerequisite: MILS 1021, MILS 1022, prior military service or permission of the instructor.*

This course explores the dimensions of creative and innovative tactical leadership, strategies, and styles by examining team dynamics of two historical leadership theories that form the basis of the Army leadership framework -- trait and behavior theories. Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs. Focus is on continued development of the knowledge of leadership values and attributes through an understanding of Army rank structure, duties, and basic aspects of land navigation and squad tactics. Case studies provide tangible context for learning the Soldier's Creed and Warrior Ethos as they apply in the contemporary operating environment (COE).

## **MILS 2022: Found Tactical Leadership**

### **3 Credit Hours**

*Prerequisite: MILS 1021, MILS 1022, and MILS 2021, prior military service or permission of the instructor.*

This course examines the challenges of leading tactical teams in the complex contemporary operation environment (COE). The course highlights include dimensions of terrain analysis, patrolling, and operation orders. The course furthers study of the theoretical basis of the Army leadership framework and explores the dynamics of adaptive leadership in the context of military operations. This course provides a smooth transition into MILS 3011. Cadets develop greater self awareness as they assess their own leadership styles and practice communication and team building skills. COE case studies give insight into the importance and practice of teamwork and tactics in real-world scenarios.

## **MILS 2031: Army Physical Fitness Training**

### **2 Credit Hours**

*Prerequisite: Must have a Department of the Army (DA) Form 3425-R signed by a Physician and be enrolled in the Military Science Levels 1-4.*

Develops skills needed to participate in, instruct, develop, and assess the Army Physical Fitness Test. Classes will meet Monday, Wednesday, and Friday from 6: 00 am to 7: 00 am in or near the gymnasium for training and lecture period.

## **MILS 3011: Adaptive Tactical Leadership**

### **4 Credit Hours**

*Prerequisite: Advanced ROTC standing or permission of the department.*

This course challenges cadets to study and practice adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback, as well as their own self evaluations. Cadets continue to develop their leadership and critical thinking abilities. The focus is developing cadets' tactical leadership abilities to enable them to succeed at ROTC's summer Leadership Development and Assessment Course (LDAC).

## **MILS 3012: Leadership Change Environment**

### **4 Credit Hours**

*Prerequisite: Advanced ROTC standing or permission of department.*

This course uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Cadets review aspects of combat, stability, and support operations. They also conduct military briefings and develop proficiency in garrison operation orders. The focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in contemporary operation environment (COE). Cadets are evaluated on what they know and do as leaders as they prepare to attend the ROTC summer Leadership Development Assessment Course (LDAC).

## **MILS 4011: Developing Adaptive Leadership**

### **4 Credit Hours**

*Prerequisite: MILS 3011, and MILS 3012*

This course develops cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing performance feedback to subordinates. Cadets assess risk, make ethical decisions, and lead fellow ROTC cadets. Lessons on military justice and personnel processes prepare cadets to make the transition to Army officers. MS IV cadets analyze, evaluate and instruct cadets at lower levels. Both their classroom and battalion leadership experiences are designed to prepare cadets for their first unit of assignment. They identify responsibilities of key staff roles, and use situational opportunities to teach, train, and develop subordinates.

## **MILS 4012: Leaders Complex World**

### **4 Credit Hours**

*Prerequisite: MILS 4011 or Advanced Course Standing.*

This course identifies and resolves ethical dilemmas. This course explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment (COE). Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. They also explore aspects of interacting with non-governmental organizations, civilians on the battlefield, and host national support. The course places significant emphasis on preparing cadets for their first unit assignment. It uses case studies, scenarios, and "What Now, Lieutenant?" exercises to prepare cadets to face the complex ethical and practical demands of leading as commissioned officers in the United States Army.

## **MILS 4090: Special Topics in Military Science**

### **1-5 Credit Hours**

*Prerequisite: Must be enrolled in, or have successfully completed both MSIII and MSIV-level ROTC classes or obtain permission from the Professor of Military Science.*

This course allows for independent study with a faculty member. Topics and research will pursue topics of military science not extensively treated in any other Military Science course.

## **MILS 4400: Directed Study in Military Science**

### **1-10 Credit Hours**

*Prerequisite: Permission of the instructor.*

This course is offered to military science students interested in investigating special topics external to regular course offerings. This course is primarily offered as a completion course. Its secondary intent is to afford the Military Science Department the flexibility to offer course work to students who have special circumstances in their academic and commissioning requirements such as nursing and accelerated commissioning program cadets.

## **NS 1000: Naval Science Leadership Lab**

### **1 Credit Hours**

Leadership Laboratory is an engaging and interactive professional development course required every semester for Navy and Marine option Midshipmen in the NROTC program.

## **NS 1321: Introduction to Naval Science**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

This course is an introduction and orientation class designed to give students a broad overview of the roles of the U.S. Navy and Marine Corps. This course also provides an introduction to the structure, terminology, customs, and uniforms of the Navy and Marine Corps.

## **NS 1323: Naval Maritime History**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only*

This course surveys U.S. Naval history from its European origin to the present with emphasis on major developments and the geographical forces shaping these developments. The course also covers present day concerns on sea power and maritime affairs, including the economic and political issues of maritime commerce, the law of the sea, and the rise and decline of the Soviet Navy.

## **NS 2321: Naval Leadership and Management**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

This course provides the basis for the development of effective leadership and managerial competence. It stresses learner-centered processes, such as collaboration, experiential exercises, reflective writing, and group discussion over lecture and presentations. Case study discussions are sequenced throughout the course to illustrate the relevance of key concepts presented in preceding class sessions and relate these ideas to the Fleet. Student participation is critical to this course.

## **NS 2323: Navigation**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

This course is Marine navigation which blends both science and art. Students are taught how information from every available source is evaluated and compared. Navigators constantly evaluate a ship's position, anticipates dangerous situations well before they arise, and always keeps "ahead of the vessel." The modern navigator must also understand the basic concepts of the many navigation systems used today, evaluate the accuracy of output, and arrive at the best possible navigational decisions.

## **NS 3323: Evolution of Warfare**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

A historical exploration of warfare practiced by great nations. Selected campaigns are studied with emphasis on leadership, evolution of tactics, weaponry, and principles of war.

## **NS 3325: Naval Weapon Systems**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

This course is designed to give students an in-depth understanding of naval weapons, their associated systems, and the integration of these weapon systems into the overall battle plan of the U.S. Navy while also reviewing Navy and Marine Corps platforms and their associated capabilities.

## **NS 3326: Naval Systems Engineering**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

This course is designed to develop and broaden the student's understanding of basic engineering concepts and principles as applied to naval engineering plants. The course will provide students with an understanding of naval engineering concepts that will be applied first-hand while on summer cruise in preparation for their division officer tours. It is not the intend of this course to cover each area in great detail, but rather to stimulate the interest of students for study and investigation in the future.

## **NS 4320: Naval Operations**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

This course is an in-depth study of numerous aspects relating to the efficient and professional manner of U.S. Navy ships' operations.

## **NS 4322: Naval Leadership and Ethics**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

Study of Naval values and ethics to include core values, Navy regulations, and military law. Duties and responsibilities of a junior naval officer.

## **NS 4333: Fundamentals of Maneuver Warfare**

### **3 Credit Hours**

*Prerequisite: Naval Science Minors only.*

This course analyzes the United States Marine Corps as the overarching case study for the advent of maneuver warfare. This is a history and doctrine-based course. The object is to educate students in the characteristics, requirements, and problems of maneuver warfare. Although this course focuses on maneuver warfare, it is worthwhile to point out that maneuver warfare is merely a subset of warfare in general. While it exhibits certain unique characteristics, it also shares many characteristics with the broader field.

## **MUSC 1100: Music Appreciation**

### **3 Credit Hours**

Introduction to Music History and Literature.

## **MUSI 1020: Fundamentals of Music Theory**

### **3 Credit Hours**

The fundamentals of music theory including music reading, rhythm and pitch orientation, accidentals, key and time signatures, rhythmic organization, intervals, scale formation, triad construction and chord spelling, elementary ear training and sight singing, and an introduction to the keyboard. Open to all university students. May not be counted for credit towards a music degree.

## **MUSI 1107: Music in Society**

### **3 Credit Hours**

This course examines the role of music in society through a study of musical works within their cultural and historical contexts. Course assignments develop skills in critical analysis and global perspectives as well as an understanding of the creative process. Required attendance at live performances provides the experiential component so crucial to the understanding and enjoyment of music. (Most events require paid admission.)

## **MUSI 1110: Introduction to World Music**

### **2 Credit Hours**

*Prerequisite: MUSI 1121*

Introduction to music of the world's cultures. *Notes: Required laboratory component.*

## **MUSI 1111: Aural Skills I**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major or minor; placement determined by proficiency test.*

For music majors and minors. Foundation work in sight singing including rhythmic and melodic dictation. Practical application includes some composition and improvisation.

## **MUSI 1120: Music Theory I Intensive**

### **3 Credit Hours**

*Prerequisite: Must be a fully admitted music major or minor; placement determined by a proficiency test.*

For music majors and minors. A correlated study of rhythmic, melodic, and harmonic aspects of music common practice. Development of basic skills in music theory and harmony including practical application through part-writing. Components include composition, improvisation, and practical keyboard applications. Contains a separate keyboard lab to increase proficiency.

## **MUSI 1121: Music Theory I**

### **3 Credit Hours**

*Prerequisite:* Must be a fully admitted music major or minor; placement determined by proficiency test.

For music majors and minors. A correlated study of rhythmic, melodic and harmonic aspects of music common practice. Development of basic skills in music theory and harmony including practical application through part-writing. Components include composition, improvisation and practical keyboard applications.

## **MUSI 1141: University Band**

### **1 Credit Hours**

The University Band is a wind band that performs collegiate repertoire twice each semester. Non-music major wind and percussionists are strongly encouraged to enroll in this ensemble. No audition is required for the University Band.

## **MUSI 1142: Marching Band**

### **1 Credit Hours**

*Prerequisite:* Audition required and prior high school or college instrumental or colorguard experience required.

This course develops the instrumental and visual performance skills of students within the college marching band setting. Objectives are to combine high-level musical/visual performance with uniform marching style to create entertaining shows suitable for football games. This course is open to students in all majors. Auditions are required for participation and occur the week before fall classes begin. This course is offered every fall semester; max. 300 members.

## **MUSI 1143: Jazz Ensemble**

### **1 Credit Hours**

*Prerequisite:* Audition and permission of the instructor.

This course may be repeated for lower-division credit. The School of Music offers two large Jazz Ensembles that perform both on- and off-campus in concert. The ensembles perform a variety of styles within the jazz idiom including traditional swing, bop, Latin, Afro-Cuban, and funk.

## **MUSI 1144: University Philharmonic Orchestra**

### **1 Credit Hours**

*Prerequisite:* Membership is open to all students with previous experience playing an instrument.

May be repeated for lower-division credit. Study, rehearsal, and concert performance of literature for orchestra. No audition is required and non-music majors with previous orchestral experience are encouraged to play in the group.

## **MUSI 1145: Wind Symphony**

### **1 Credit Hours**

*Prerequisite: Audition*

This course offers music majors, minors, and non-music majors the opportunity to study, rehearse, and perform literature for the wind band medium. This course may be repeated for lower-division credit. Membership in the Wind Symphony is by audition only.

## **MUSI 1146: Chamber Singers**

### **1 Credit Hours**

*Prerequisite: Audition.*

May be repeated for lower-division credit. Study, rehearsal, and concert performance of choral literature. Membership in Chamber Singers is by audition only.

## **MUSI 1147: Wind Ensemble**

### **1 Credit Hours**

*Prerequisite: Audition.*

May be repeated for lower-division credit. Study, rehearsal and concert performance of literature for wind ensemble. Membership in Wind Ensemble is by audition only.

## **MUSI 1148: Symphony Orchestra**

### **1 Credit Hours**

*Prerequisite: Audition.*

May be repeated for lower-division credit. Study, rehearsal and concert performance of literature for orchestra. Membership in the Orchestra is by audition only.

## **MUSI 1149: Chorale**

### **1 Credit Hours**

May be repeated for lower-division credit. Study, rehearsal and concert performance of literature for choir.

## **MUSI 1165: Class Piano I**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major; placement determined by proficiency test.*

The purpose of class piano instruction is to equip non-piano majors with the keyboard proficiencies needed to be reasonably fluent in basic technical and reading skills for practical use as a professional musician.

## **MUSI 2122: Music Theory II**

### **3 Credit Hours**

*Prerequisite:* MUSI 1121

For music majors. A continuation of correlated study of rhythmic, melodic and harmonic aspects of music common practice. Continuation of keyboard harmony is included with application at the keyboard. Components include composition, improvisation and practical keyboard applications.

## **MUSI 2165: Class Piano II**

### **1 Credit Hours**

*Prerequisite:* MUSI 1165

Continuation of Class Piano I.

## **MUSI 2212: Aural Skills II**

### **1 Credit Hours**

*Prerequisite:* MUSI 1111

For music majors. Continuation of skill development in sight singing including rhythmic and melodic dictation. Practical application includes some composition and improvisation.

## **MUSI 2311: History of Music I**

### **3 Credit Hours**

*Prerequisite:* MUSI 2122

A survey of Western music history and literature from the Ancient Greece to 1800.

## **MUSI 2312: History of Music II**

### **3 Credit Hours**

*Prerequisite:* MUSI 2311

A survey of Western music history and literature from 1800 to the present.

## **MUSI 3000: Technology in Music**

### **3 Credit Hours**

*Prerequisite:* MUSI 2122

The development of practical experience with current computer applications and current technology specifically associated with music instruction and music performance. The course exposes students to current capabilities of technology as they relate to composition, instrumentation, performance and teaching.

## **MUSI 3007: Scoring for Media**

### **3 Credit Hours**

*Prerequisite:* MUSI 2122 and MUSI 3000

This course provides background, training and experience for the student in the area of scoring for media including film, television and gaming.

### **MUSI 3111: Aural Skills III**

#### **1 Credit Hours**

*Prerequisite:* MUSI 2212

For music majors. Advanced skill development in ear training and sight singing. Includes rhythmic and melodic dictation. Practical application includes some composition and improvisation.

### **MUSI 3112: Aural Skills IV**

#### **1 Credit Hours**

*Prerequisite:* MUSI 3111

For music majors. Continuation of advanced skill development in ear training and sight singing. Includes rhythmic and melodic dictation. Practical application includes some composition and improvisation.

### **MUSI 3121: Music Theory III**

#### **3 Credit Hours**

*Prerequisite:* MUSI 2122

For music majors. Advanced correlated study of music theory and harmony of common practice including chromatic harmony and 20th century harmonic techniques. Components include composition, improvisation, literature analysis and practical keyboard application.

### **MUSI 3122: Music Theory IV**

#### **3 Credit Hours**

*Prerequisite:* MUSI 3121

For music majors. Continuation of advanced correlated study of music theory and harmony in common practice including analytical study of 20th century music. Components include composition, improvisation, literature analysis and practical keyboard application.

### **MUSI 3165: Class Piano III**

#### **1 Credit Hours**

*Prerequisite:* MUSI 2165

Continuation of MUSI 1166.

### **MUSI 3166: Class Piano IV**

#### **1 Credit Hours**

*Prerequisite:* MUSI 3165

Continuation of MUSI 3165.

## **MUSI 3167: Class Piano V**

### **1 Credit Hours**

*Prerequisite:* MUSI 1165, MUSI 2165, MUSI 3165, and MUSI 3166

This course will allow students to continue their piano training and apply specific accompanying and instructional techniques to choral literature for the classroom.

## **MUSI 3168: Advanced Keyboard Harmony**

### **2 Credit Hours**

*Prerequisite:* MUSI 3121

This course trains music majors in advanced keyboard harmony to prepare them for graduate-level music programs. Component skills may include the performance of harmonic progressions in all keys, memorized intermediate-level repertoire, score reading, figured bass realization, and improvisation.

## **MUSI 3200: Gospel Choir**

### **0-1 Credit Hours**

The Gospel Choir is open to all students campus-wide. No audition is required to participate in this ensemble. The Gospel Choir performs twice each semester. Non-music majors are highly encouraged to enroll in this ensemble.

## **MUSI 3201: Men's Ensemble**

### **0-1 Credit Hours**

The Men's Ensemble is open to all students campus-wide. No audition is required to participate in this ensemble. The Men's Ensemble performs twice each semester on collegiate level literature. Non-music majors are highly encouraged to enroll in this ensemble.

## **MUSI 3202: Women's Choir**

### **0-1 Credit Hours**

The KSU Women's Choir is open to all students campus-wide. No audition is required to participate in this ensemble. The Women's Choir performs twice each semester on collegiate level literature. Non-music majors are highly encouraged to enroll in this ensemble.

## **MUSI 3210: Classical Guitar Ensemble**

### **0-1 Credit Hours**

This course is designed to introduce classical ensemble playing to guitarists. The weekly class sessions and performances will help the student develop skills in sight reading, classical guitar styles, and ensemble playing.

### **MUSI 3211: Jazz Guitar Ensemble**

#### ***0-1 Credit Hours***

This course is designed to introduce jazz ensemble playing to guitarists. The weekly class sessions and performances will help the student develop skills in the following areas: Sight Reading, jazz styles, chord comping, and ensemble playing.

### **MUSI 3212: Jazz Combo**

#### ***0-1 Credit Hours***

This course introduces jazz improvisation to students for instrumental performance. Students will perform jazz standards from the Real Book and other sources while applying concepts and patterns studied in class.

### **MUSI 3220: Percussion Ensemble**

#### ***0-1 Credit Hours***

The Percussion Ensemble provides students with the opportunity to study, rehearse, and perform literature for group percussion.

### **MUSI 3221: String Ensemble**

#### ***0-1 Credit Hours***

The String Ensemble will allow students to improve ensemble-playing skills in a chamber setting on like stringed instruments. Students will rehearse standard ensemble pieces as well as new compositions and arrangements.

### **MUSI 3222: Woodwind Ensemble**

#### ***0-1 Credit Hours***

The KSU Woodwind Ensemble provides students rehearsal and performance experience in chamber music settings. Students will experience literature in both classical and jazz idioms.

### **MUSI 3223: Brass Ensemble**

#### ***0-1 Credit Hours***

The Brass Ensemble is designed to improve ensemble playing in a chamber setting. Brass ensemble members will work on standards ensemble pieces as well as new compositions and arrangements.

### **MUSI 3224: Piano Ensemble**

#### ***0-1 Credit Hours***

The Piano Ensemble provides students with the opportunity to perform piano works written for four or more hands in a variety of genres and styles.

### **MUSI 3225: Mixed Chamber**

#### **0-1 Credit Hours**

The Mixed Chamber Ensemble allows students to learn literature in a small group setting with the assistance of faculty coaches. The Mixed Chamber Ensemble focuses on intonation, blend, stylistic awareness, ensemble precision, and knowledge of repertoire.

### **MUSI 3302: Vocal Literature: Musical Theater**

#### **2 Credit Hours**

*Prerequisite: ENGL 1101 and permission of the instructor.*

Vocal literature, vocal techniques, and performance for the musical theater. This course will survey the musical repertory of standard major musical theater works. Students will prepare and perform songs, duets and group numbers from several musicals.

### **MUSI 3313: Jazz Theory**

#### **2 Credit Hours**

*Prerequisite: MUSI 2122*

This course introduces students to the language of jazz, including chord nomenclature and spelling, chord/scale relationships, chord function, and reharmonization techniques.

### **MUSI 3314: History of Rock and Roll**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is an in-depth study of the history and evolution of rock music, including the roots of rock and roll as well as rock styles and historical periods. Students will develop critical listening skills and will be able to identify important artists as well as artistic styles and song forms.

### **MUSI 3315: Vocal Literature**

#### **2 Credit Hours**

*Prerequisite: MUSI 3122*

Solo vocal literature from 1600 to the present.

### **MUSI 3316: Music and the Holocaust**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

An examination of the music and musicians of oppressed groups during the Holocaust provides an example of musical marginalization and oppression in the past to foster global understanding and tolerance in the present. Classical, folk, and popular styles of music will be included, as will Holocaust memorial music.

### **MUSI 3317: History of Opera**

#### **3 Credit Hours**

*Prerequisite: MUSI 3122*

This course surveys the development of European Operatic literature from the Florentine Camerata to the present.

### **MUSI 3318: Introduction to Symphonic Music**

#### **2 Credit Hours**

*Prerequisite: MUSI 2122*

Orchestral literature from Classical Era to present including symphony, concerto, concert overture, incidental music, program symphony, and tone poem. Emphasis on standard literature.

### **MUSI 3319: History of Jazz**

#### **3 Credit Hours**

*Prerequisite: MUSI 2122 or permission of the instructor.*

This course is an in-depth study of jazz styles, historical periods, and innovative artists in the jazz idiom.

### **MUSI 3320: Form and Analysis**

#### **2 Credit Hours**

*Prerequisite: MUSI 3122*

Techniques of structural analysis of musical compositions in a variety of styles and periods with emphasis on harmony and form. The analysis of contrapuntal form is included.

### **MUSI 3321: Advanced Ear Training**

#### **2 Credit Hours**

*Prerequisite: MUSI 3122 and MUSI 3112*

Extended training in harmonic dictation, sight singing, aural analysis and rhythm.

### **MUSI 3322: Jazz Theory and Composition**

#### **2 Credit Hours**

*Prerequisite: MUSI 3122*

This course introduces the language of jazz and its application to jazz performance, improvisation, analysis and composition.

### **MUSI 3323: Jazz Arranging**

#### **2 Credit Hours**

*Prerequisite: MUSI 3313, or permission of the instructor.*

A study of jazz arranging techniques for jazz ensembles. Students will arrange works for big band and jazz combos.

## **MUSI 3324: Instrumentation/Arranging**

### **2 Credit Hours**

*Prerequisite:* MUSI 3122

A study of the characteristics of orchestral instruments, including scoring principals and techniques. In addition the course includes the arranging of musical works for a variety of large and small vocal and instrumental ensembles.

## **MUSI 3325: Jazz Forms and Composition**

### **2 Credit Hours**

*Prerequisite:* MUSI 3313 or permission of the instructor

This course will introduce common song forms and compositional techniques in the jazz idiom in addition to analysis of lead sheets and large ensemble scores.

## **MUSI 3326: Class Composition I**

### **2 Credit Hours**

*Prerequisite:* MUSI 2122 or (MUSI 1121 with a "B" or higher") or (MUSI 1120 with a "B" or higher)

Students develop music composition skills by exploring basic techniques necessary for coherent creative expression. By writing original compositions for various instrumentations, students gain skills in the artistic use of pitch, rhythm, melody, timbre and harmony. 20th and 21st century styles and techniques are utilized, and students acquire skill in music improvisation. Students gain competency in the basics of music notation utilizing both calligraphy and composition software.

## **MUSI 3327: Class Composition II**

### **2 Credit Hours**

*Prerequisite:* MUSI 3326 or MUSI 3371

Students develop further music composition skill by exploring techniques necessary for coherent creative expression. By writing original compositions for various instrumentations, students gain abilities in the artistic use of pitch, rhythm, melody, timbre and harmony. 20th and 21st century styles and techniques are utilized. Students gain technology competency in the use of composition software and by learning the basics of digital audio and video editing of recorded performances.

## **MUSI 3328: Introduction to Musical Multimedia Theory**

### **3 Credit Hours**

*Prerequisite:* MUSI 3121

For music majors. A seminar on the current music theory and musicology writings on multimedia music. Students will trace the progression of multimedia music from its 19th-Century precedents through current music. Students will analyze correlations between music and other media signifiers and how they generate structure and meaning. Components include research, presentations, and writing.

### **MUSI 3331: Choral Conducting**

#### **2 Credit Hours**

*Prerequisite: MUSI 3121*

Fundamental elements of conducting including baton technique, score reading, cueing, expression, interpretation and rehearsal skills with an emphasis on applying these techniques in practical conducting experiences involving vocal and instrumental ensembles.

### **MUSI 3332: Instrumental Conducting**

#### **2 Credit Hours**

*Prerequisite: MUSI 3121*

Fundamental elements of conducting including baton technique, score reading, cueing, expression, interpretation and rehearsal skills with an emphasis on applying these techniques in practical conducting experiences involving vocal and instrumental ensembles.

### **MUSI 3333: Accompanying**

#### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major; and permission of the instructor.*

May be repeated for upper-division credit. For music majors. The practical application of accompaniment techniques.

### **MUSI 3334: Italian and English Diction**

#### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Designed for the vocal music major. The study of the pronunciation, enunciation, and expression of the Italian and English language in singing.

### **MUSI 3335: German and French Diction**

#### **1 Credit Hours**

*Prerequisite: MUSI 3334*

Designed for the vocal music majors. An applied performance laboratory for the study of the pronunciation, enunciation, and expression of the German and French language in singing.

### **MUSI 3336: Diction for Singers**

#### **1 Credit Hours**

*Prerequisite: Must be a fully-admitted music major.*

This course will focus on applying the International Phonetic Alphabet to the transliteration of French, German, Italian, and English languages.

## **MUSI 3341: University Band**

### **0-1 Credit Hours**

The University Band is a wind band that performs collegiate repertoire twice each semester. Non-music major wind and percussionists are strongly encouraged to enroll in this ensemble. No audition is required for the University Band.

## **MUSI 3342: Marching Band**

### **(0-1) Credit Hours**

*Prerequisite: Audition required and prior high school or college instrumental or color guard experience required.*

This course develops the instrumental and visual performance skills of students within the college marching band setting. Objectives are to combine high-level musical/visual performance with uniform marching style to create entertaining shows for football games. This course is open to all students in all majors. Auditions are required for participation and occur the week before fall classes begin. This course is offered every fall semester; max 300 members.

## **MUSI 3343: Jazz Ensemble**

### **0-1 Credit Hours**

*Prerequisite: Audition and permission of the instructor.*

This course may be repeated for upper-division credit. The School of Music offers two large Jazz Ensembles that perform both on- and off-campus in concert. The ensembles perform a variety of styles within the jazz idiom including traditional swing, bop, Latin, Afro-Cuban, and funk.

## **MUSI 3344: University Philharmonic Orchestra**

### **0-1 Credit Hours**

*Prerequisite: Membership is open to all students with previous experience playing an instrument.*

May be repeated for upper-division credit. Study, rehearsal, and concert performance of literature for orchestra. No audition is required and non-music majors with previous orchestral experience are encouraged to play in the group.

## **MUSI 3345: Wind Symphony**

### **0-1 Credit Hours**

*Prerequisite: Audition*

This course offers music majors, minors, and non-music majors the opportunity to study, rehearse, and perform literature for the wind band medium. This course may be repeated for upper-division credit or zero credit. Membership in the Wind Symphony is by audition only.

### **MUSI 3346: Chamber Singers**

#### **0-1 Credit Hours**

*Prerequisite: Audition.*

May be repeated for upper-division credit. Study, rehearsal and performance of choral literature. Membership in Chamber Singers is by audition only.

### **MUSI 3347: Wind Ensemble**

#### **0-1 Credit Hours**

*Prerequisite: Audition.*

May be repeated for upper-division credit. Study, rehearsal and concert performance of literature for wind ensemble. Membership in the Wind Ensemble is by audition only.

### **MUSI 3348: Symphony Orchestra**

#### **0-1 Credit Hours**

*Prerequisite: Audition.*

May be repeated for upper-division credit. Study, rehearsal and concert performance of literature for orchestra. *Notes: Membership in the orchestra is by audition only.*

### **MUSI 3349: Chorale**

#### **0-1 Credit Hours**

May be repeated for upper-division credit. Study, rehearsal and concert performance of literature for choir.

### **MUSI 3350: Advanced Choral Conducting/Literature**

#### **2 Credit Hours**

*Prerequisite: MUSI 3112, MUSI 3122, and MUSI 3331*

Advanced elements of conducting including baton technique, score reading, cueing, expression, interpretation and rehearsal skills with an emphasis on applying these techniques through choral literature in practical conducting experiences involving choral ensembles. Required laboratory component.

### **MUSI 3351: Advanced Instrumental Conducting/Literature**

#### **2 Credit Hours**

*Prerequisite: MUSI 3122, MUSI 3112, and MUSI 3332*

Advanced elements of conducting including baton technique, score reading, cueing, expression, interpretation and rehearsal skills with an emphasis on applying these techniques through band and orchestra literature in practical conducting experiences involving instrumental ensembles. Required laboratory component.

## **MUSI 3352: Opera Theater**

### **0-1 Credit Hours**

*Prerequisite:* Audition.

May be repeated for upper-division credit. Techniques for the singing actor studied through the production of scenes from the dramatic repertory.

## **MUSI 3353: Jazz Improvisation I**

### **1 Credit Hours**

*Prerequisite:* MUSI 2122

An introduction to jazz improvisation for any instrument and application of jazz improvisation techniques to jazz repertoire including modal compositions, blues, minor blues, and compositions with major cadences.

## **MUSI 3354: Jazz Improvisation II**

### **1 Credit Hours**

*Prerequisite:* MUSI 3122 and MUSI 3353, or permission of Jazz Studies Director

A continuing methodology designed to improve jazz improvisation, for any instrument and application in jazz, that focuses on rhythm changes form, altered dominants, bebop concepts, and unconventional harmonies.

## **MUSI 3355: Jazz Improvisation III**

### **1 Credit Hours**

*Prerequisite:* MUSI 3122 and MUSI 3354, or permission of Jazz Studies Director

A continuing methodology designed to improve jazz improvisation, for any instrument and application in jazz, that focuses on melodic minor derivations, cycling altered dominants, pentatonic concepts, and non-traditional harmonies.

## **MUSI 3360: Jazz Piano**

### **1 Credit Hours**

*Prerequisite:* MUSI 1165

An introduction to jazz piano skills for the non-pianist including interpreting chord symbols and sophisticated harmonies, learning functional voicings, and performance competency.

## **MUSI 3361: Piano Accompaniment for Jazz Vocalists**

### **1 Credit Hours**

*Prerequisite:* MUSI 3360

The purpose of this course is to train jazz vocalists to perform basic- to intermediate-level accompaniment on the piano while singing.

## **MUSI 3367: Vocal Skills I**

### **1 Credit Hours**

*Prerequisite:* All developmental studies courses if required. Non-music majors require permission of the instructor.

Vocal proficiency for music majors and non-majors. Emphasis on tone production, diction, performing skills and the physiology of the voice.

## **MUSI 3368: Vocal Skills II**

### **1 Credit Hours**

*Prerequisite:* MUSI 3367

Continuation of MUSI 3367.

## **MUSI 3371: Composition I**

### **2 Credit Hours**

*Prerequisite:* MUSI 2122, or MUSI 1121, or MUSI 1120 with a "B" or higher

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and contemporary styles in both small and large forms and for a variety of media.

## **MUSI 3372: Composition II**

### **2 Credit Hours**

*Prerequisite:* MUSI 3371 and permission of the instructor.

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and contemporary styles in both small and large forms and for a variety of media.

## **MUSI 3390: Music Entrepreneurship**

### **3 Credit Hours**

*Prerequisite:* Acceptance into the Music Entertainment and Business program or completion of MUSI 3122

Students will work on a series of projects to understand aspects of what is required to have a successful career in the music industry in the 21<sup>st</sup> century and build the skills beyond musicianship that will aid in attaining musical goals.

## **MUSI 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the coordinator of cooperative education/internship (Career Services).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore-, junior, or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

## **MUSI 3398: Internship**

### **1-12 Credit Hours**

*Prerequisite: Approval of School Director.*

A supervised, credit earning work experience of one academic semester with a previously approved business firm, private agency or government agency. *Notes: Credit is allowed only in elective areas.*

## **MUSI 3411: Survey of African-American Music**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

An examination of the development of African-American music from its roots in Africa to the present time in America. The course examines the various genres of African-American music created by Africans including: spirituals, work songs, blues, gospel, jazz, rhythm and blues, and art music. The course also examines the development of the black church, minstrels, black classical music artists, and black classical music composers and their compositions.

## **MUSI 3412: The Blues**

### **3 Credit Hours**

*Prerequisite: MUSI 1020 or MUSI 1120 or MUSI 1121*

This course is an in-depth study of the history and evolution of Blues music, including the roots of West African field hollers and work songs, as well as European influences. Students will develop critical listening skills and will be able to identify important artists along with artistic styles and song forms.

## **MUSI 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor, major area committee and department chair prior to registration.*

Selected topics of an advanced nature, which may include original research projects.

## **MUSI 4410: Contemporary Music Literature**

### **2 Credit Hours**

*Prerequisite: MUSI 3122*

Music literature from Impressionism to the present.

## **MUSI 4412: Survey of American Music**

### **3 Credit Hours**

*Prerequisite: MUSI 1120 or MUSI 1121*

Through an examination of the role of music in American society, and a study of American musical works from the Native Americans to the present day, this course provides a context-based understanding of the cultural history of the United States and develops skills in critical analysis.

### **MUSI 4413: Piano Literature I**

#### **2 Credit Hours**

*Prerequisite:* MUSI 2122 and permission of the instructor

Keyboard literature from 1600 to the present.

### **MUSI 4414: Piano Literature II**

#### **2 Credit Hours**

*Prerequisite:* MUSI 4413 or permission of the instructor.

Continuation of keyboard literature from 1600 to the present.

### **MUSI 4419: Introduction to Schenker**

#### **3 Credit Hours**

*Prerequisite:* MUSI 3122

A study of tonal, common-practice music in the Western art music tradition from the perspective of Schenkerian (reductive) analysis. Activities include investigations of harmony, voice leading, form, and implications for performance. Encourages students to debate the merits of different analyzes of the same work. Culminates in scholarly research by the student that builds upon previous Schenkerian analyzes. A writing-intensive course.

### **MUSI 4420: Counterpoint**

#### **2 Credit Hours**

*Prerequisite:* MUSI 3122

Analysis and principles of writing in the contrapuntal styles of the common practice period to the present.

### **MUSI 4421: Contemporary Analytical and Compositional Techniques**

#### **3 Credit Hours**

*Prerequisite:* MUSI 3122

This course surveys 20th- and 21st-century musical styles and theoretical systems, teaching students how to analyze a variety of works in which Common-Practice Period norms of tonality, rhythm, form, timbre, and texture have been superseded by new developments. Corresponding compositional exercises deepen student understanding of these new approaches. Topics include free atonality, serialism, neoclassicism, minimalism, allusions, chance, and electronic composition. The course prepares students to analyze music, write model compositions, and develop analytical papers.

## **MUSI 4422: Music Theory Pedagogy**

### **3 Credit Hours**

*Prerequisite: MUSI 3122 and MUSI 3112*

This course introduces music majors to the field of music theory pedagogy and enables students to teach written theory and aural skills at the undergraduate level. Students team-teach lessons in undergraduate courses in the School of Music and prepare materials for potential graduate school applications.

## **MUSI 4423: Current Directions in Musicology**

### **3 Credit Hours**

*Prerequisite: MUSI 2312*

This course offers an introduction to musicology including its origins, development and methodologies. Students will develop skills necessary for critical enquiry in music through engagement with theories of historiography, aesthetics, and performance practice, as well as critical assessment of current issues in the field.

## **MUSI 4430: Piano Pedagogy I**

### **2 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Beginning-, elementary, and intermediate level teaching materials and methods for piano.

## **MUSI 4431: Piano Pedagogy II**

### **2 Credit Hours**

*Prerequisite: MUSI 4430 and permission of the instructor.*

Continuation of beginning-, elementary-, and intermediate-level teaching materials and methods for piano.

## **MUSI 4433: Voice Pedagogy**

### **2 Credit Hours**

*Prerequisite: MUAP 2222*

Pedagogical methods, vocal physiology and literature for training voices from beginning to advanced levels.

## **MUSI 4434: Vocal Pedagogy for Ensemble Singing**

### **1 Credit Hours**

*Prerequisite: MUSI 3336 or MUED 3355*

Pedagogical methods for voice and vocal ensembles, vocal physiology and literature for training voices from beginning to advanced levels.

## **MUSI 4435: (Name of Instrument) Pedagogy and Literature**

### **3 Credit Hours**

*Prerequisite: MUSI 3122*

Pedagogical methods, techniques, physiology and literature in the principal performance concentration area.

## **MUSI 4436: Jazz Pedagogy**

### **3 Credit Hours**

*Prerequisite: (MUSI 1143 or MUSI 3343)*

This course introduces students to the methodologies and resources of jazz pedagogy. Students will learn appropriate literature for a variety of age levels as well as rehearsal techniques for both the large and small jazz ensemble.

## **MUSI 4471: Composition III**

### **2 Credit Hours**

*Prerequisite: MUSI 3327 or MUSI 3372 and permission of the instructor.*

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and contemporary styles in both small and large forms and for a variety of media.

## **MUSI 4472: Composition IV**

### **2 Credit Hours**

*Prerequisite: MUSI 4471 and permission of the instructor.*

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and contemporary styles in both small and large forms and for a variety of media.

## **MUSI 4473: Composition V**

### **2 Credit Hours**

*Prerequisite: MUSI 4472*

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and contemporary styles in both small and large forms and for a variety of media.

## **MUSI 4480: Research for Senior Recital**

### **1 Credit Hours**

*Prerequisite: Senior standing in applied performance.*

A research project based on the literature to be presented in the senior recital. Analysis of the literature. Program notes to be drawn from research and analysis.

## **MUSI 4490: Special Topics in Music**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the instructor and department chair.

Selected special topics of interest to faculty and students.

## **MUSI 4495: Senior Seminar in Music**

### **1 Credit Hours**

*Prerequisite:* Completion of applied studies and completion of 90 hours of course work and permission of the instructor and capstone committee one semester prior to registration.

A capstone course designed to complete the major by integrating the student's prior academic, theoretical and applied experiences in music. Students fulfill projects in areas of musical performance, lecture presentations, creative work, scholarly documents, pedagogy or arts advocacy.

## **MUSI 4496: Senior Capstone Music Project**

### **2 Credit Hours**

*Prerequisite:* Completion of 90 hours of course work and admitted music major.

A senior-level research course designed to provide a learning experience that integrates the student's prior academic, theoretical, research, and applied experiences in music. Students fulfill projects that synthesize and disseminate their work through a lecture, lecture-performance, or scholarly paper.

## **MUAP 1101: Music Symposium**

### **0 Credit Hours**

All music majors are required to take this course in conjunction with private studio instruction. Through lecture, master classes, recitals, and performances, they will broaden understanding and appreciation of a variety of styles of music and pedagogy.

## **MUAP 1111: Applied Lessons**

### **1 Credit Hours**

*Prerequisite:* Must be a fully admitted music major or minor *Concurrent:* MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349

Applied music encompasses the areas of instrumental and vocal performance. It is offered for one credit hour in the form of private lessons for music majors and minors.

## **MUAP 1112: Applied Lessons**

### **1 Credit Hours**

*Prerequisite:* MUAP 1111 *Concurrent:* MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349

Applied music encompasses the areas of instrumental and vocal performance. It is offered for one credit hour in the form of private lessons for music majors and minors.

### **MUAP 1113: Applied Lessons**

**1 Credit Hours**

### **MUAP 1121: Applied Lessons**

**2 Credit Hours**

*Prerequisite: Must be a fully admitted music major. Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for two hours of credit in the form of private lessons for music majors. A minimum of 250 minutes per week of individual practice outside of class time is required.

### **MUAP 1122: Applied Lessons**

**2 Credit Hours**

*Prerequisite: MUAP 1121 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for two hours of credit in the form of private lessons for music majors. A minimum of 250 minutes per week of individual work outside of class time is required.

### **MUAP 1123: Applied Lessons**

**2 Credit Hours**

### **MUAP 2211: Applied Lessons**

**1 Credit Hours**

*Prerequisite: MUAP 1112 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for one credit hour in the form of private lessons for music majors and minors.

### **MUAP 2212: Applied Lessons**

**1 Credit Hours**

*Prerequisite: MUAP 2211 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for one credit hour in the form of private lessons for music majors and minors.

### **MUAP 2213: Applied Lessons**

**1 Credit Hours**

## **MUAP 2221: Applied Lessons**

### **2 Credit Hours**

*Prerequisite: MUAP 1122 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for two hours of credit in the form of private lessons for music majors. A minimum of 250 minutes per week of individual work outside of class time is required.

## **MUAP 2222: Applied Lessons**

### **2 Credit Hours**

*Prerequisite: MUAP 2221 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for two hours of credit in the form of private lessons for music majors. A minimum of 250 minutes per week of individual work outside of class time is required.

## **MUAP 2223: Applied Lessons**

### **2 Credit Hours**

## **MUAP 3311: Applied Lessons**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted in one of the music programs or music minor. Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance as well as conducting and composition. It is offered for one credit hour in the form of private lessons for music majors and minors.

## **MUAP 3312: Applied Lessons**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted to one of the music programs or music minor. Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for one credit hour in the form of private lessons for music majors and minors.

## **MUAP 3313: Applied Lessons**

### **1 Credit Hours**

## **MUAP 3320: Applied Lessons**

### **1 Credit Hours**

### **MUAP 3321: Applied Lessons**

#### **2 Credit Hours**

*Prerequisite: MUAP 2222 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for two hours credit in the form of private lessons for music majors. A minimum of 250 minutes per week of individual work outside of class time is required.

### **MUAP 3322: Applied Lessons**

#### **2 Credit Hours**

*Prerequisite: MUAP 3321 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for two hours credit in the form of private lessons for music majors. A minimum of 250 minutes per week of individual work outside of class time is required. 30-minute recital required. *Notes: Recital component*

### **MUAP 3323: Applied Lessons**

#### **2 Credit Hours**

### **MUAP 4411: Applied Lessons**

#### **1 Credit Hours**

*Prerequisite: MUAP 3312 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for one credit hour in the form of private lessons for music majors and minors. 30-minute senior recital required for Music Education, B.M. students. *Notes: Recital component*

### **MUAP 4412: Applied Lessons**

#### **1 Credit Hours**

*Prerequisite: MUAP 4411 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for one credit hour in the form of private lessons for music majors and minors.

### **MUAP 4413: Applied Lessons**

#### **1 Credit Hours**

*Prerequisite: Recital component*

### **MUAP 4421: Applied Lessons**

#### **2 Credit Hours**

*Prerequisite: MUAP 3322 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for two hours credit in the form of private lessons for music majors. A minimum of 250 minutes per week of individual work outside of class time is required.

### **MUAP 4422: Applied Lessons**

#### **2 Credit Hours**

*Prerequisite: MUAP 4421 Concurrent: MUSI 3343, MUSI 3344, MUSI 3345, MUSI 3346, MUSI 3347, MUSI 3348, or MUSI 3349*

Applied music encompasses the areas of instrumental and vocal performance. It is offered for two hours credit in the form of private lessons for music majors. A minimum of 250 minutes per week of individual work outside of class time is required. 60-minute recital required.

### **MUAP 4423: Applied Lessons**

#### **2 Credit Hours**

*Prerequisite: Recital component*

### **MUAP 4521: Applied Lessons**

#### **2 Credit Hours**

### **MUAP 4522: Applied Lessons**

#### **2 Credit Hours**

### **MUAP 4523: Applied Lessons**

#### **2 Credit Hours**

### **MUAP 4621: Applied Lessons**

#### **2 Credit Hours**

### **MUAP 4622: Applied Lessons**

#### **2 Credit Hours**

### **MUAP 4623: Applied Lessons**

#### **2 Credit Hours**

## **MEBU 1101: Introduction to the Music and Entertainment Business**

### **1 Credit Hours**

An introduction to the fundamental concepts of the business practices related to the music and entertainment industry. The course will focus on skills necessary for beginning and maintaining a professional career in the music and entertainment industry. The course will have an emphasis on practical applications of classroom knowledge to the music business and entertainment environment.

## **MEBU 2270: Entertainment Media Production**

### **3 Credit Hours**

*Prerequisite: Permission of MEBU Director and class instructor*

This course is designed to equip students with the skills to gain a basic working knowledge of media production as it applies to the entertainment industry. Specifically, students are introduced to audio and video production techniques through hands-on learning modules, relevant lectures, and real world technology project development and implementation. This course will establish a solid foundation for both immediate student application and further specialized media production studies.

## **MEBU 3100: Fundamentals of the Music and Entertainment Business**

### **3 Credit Hours**

*Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, and permission of the MEBU director.*

This course is a survey of the music and entertainment industry, its various prominent commercial and regulatory organizations, and its developmental history and future directions. Specific topics covered in this course include music and entertainment company operations, income generation, distribution models, publishing technologies, film, television, new media, and emerging trends.

## **MEBU 3280: Fundamentals of Creative Adaptability (Video Production)**

### **3 Credit Hours**

*Concurrent: MEBU 2270*

This course is designed to equip students with the skills to gain a basic working knowledge of video production as it applies to the entertainment industry. Specifically, students are introduced to video production techniques through hands-on learning modules, relevant lectures, and real-world technology project development and implementation.

## **MEBU 3370: Fundamentals of Audio Production and Technology**

### **3 Credit Hours**

*Prerequisite: MEBU 2270*

This course provides students with fundamental learning opportunities focused specifically on the field of audio production & technology. Students will gain specialized knowledge, vocabulary, and skills related to audio recording techniques, the principles of sound and hearing, computer software/hardware, live sound production, studio equipment, and a broad range of audio production competencies. Students learn through a balance of relevant lectures, hands-on workshops, and real-world recording, mixing, and mastering projects.

## **MEBU 3380: Principles of Creative Adaptability (Video Production)**

### **3 Credit Hours**

*Prerequisite: MEBU 3280*

This course is the subsequent level course in video production and is designed for students to develop intermediate to advanced skills in camera operations content creation, shooting video, pre-production, production, storyboard, editing in Adobe Premiere and audio production. Students will develop and present pre-production and production packets for an intermediate level video project.

## **MEBU 3398: Internship in the Music and Entertainment Business**

### **1-3 Credit Hours**

*Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, successful completion of MEBU 3100, and permission of the MEBU director.*

This internship is intended for music and entertainment business program students who show interest in an area of study and wish to pursue a discipline of practical and applied experience in greater depth. Student must be directed by the program director and sponsored by an approved music or entertainment business.

## **MEBU 4100: Emerging Trends of the Music and Entertainment Business**

### **3 Credit Hours**

*Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, successful completion of MEBU 3100, and permission of the MEBU director.*

This course is an in-depth study of topics of specific relevance to the music and entertainment industry, with a strong emphasis on experiential learning and practical application of classroom knowledge to the music and entertainment business environment. In-depth focus on entrepreneurship, business plans, practical experiences, on-the-job training, resume-building and exploration of career opportunities in the music and entertainment industry.

## **MEBU 4200: Current Topics in the Music and Entertainment Business**

### **3 Credit Hours**

*Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, successful completion of MEBU 3100, and permission of the MEBU director.*

Selected current topics of interest to faculty and students that focus on the Music and Entertainment Business. In-depth focus on ethics and ideologies, convergence, sponsorships, endorsements, technologies, brands, licensing and applications of copyright law, business plans, intellectual property rights and the future of the music and entertainment industry.

## **MEBU 4470: Advanced Audio Production and Technology**

### **3 Credit Hours**

*Prerequisite: MEBU 3370*

This course is an advanced exploration into audio recording techniques and studio production. This course is taught in the classroom and a professional studio environment providing students with an immersive experience to learn, practice, and implement real-world audio production techniques. Students will gain up-to-the-minute skills by utilizing state-of-the-art recording equipment and shadowing audio industry professionals. Students will gain practical audio project management and implementation experience by overseeing a large-scale recording studio project.

## **MEBU 4480: Advanced Creative Adaptability (Video Production)**

### **3 Credit Hours**

*Prerequisite: MEBU 3380*

This course is the advanced level course in video production and is designed for students to develop advanced skills in camera operations content creation, storyboard, shooting video, pre-production, production, post-production, editing in Adobe Premiere and audio production. Students will develop and present post-production and delivery packets for an advanced level video project.

## **MEBU 4490: Special Topics in the Music and Entertainment Business**

### **3 Credit Hours**

*Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, successful completion of MEBU 3100, and permission of the MEBU director.*

Selected special topics of interest to faculty and students that focus on the Music and Entertainment Business.

## **MUED 2210: Music Education Colloquium**

### **0-1 Credit Hours**

*Prerequisite: Formal admission to the School of Music.*

Music Education Colloquium is an introduction to the development of instructional materials and professional artifacts through observations, peer teaching, and the application of technological resources.

## **MUED 3301: General Methods, Materials and Curriculum**

### **3 Credit Hours**

*Prerequisite: MUSI 3122, EDUC 2110, and admission to the Teacher Education program.*

The development of specific teaching skills, techniques and materials to support the role of the elementary/general music teacher. The course prepares prospective general track music specialists for all aspects of the role including curriculum design and the incorporation of a wide variety of methodologies into classroom instruction. Field component and peer teaching required. This course is a requirement for all music education majors.

## **MUED 3302: Choral Methods, Materials, and Curriculum**

### **3 Credit Hours**

*Prerequisite: MUSI 3122, MUSI 4434, EDUC 2110, and admission to the Teacher Education program.*

The development of the specific teaching skills, techniques and materials to support the role of the choir director and vocal music teacher. The course prepares prospective choral/vocal track music specialists for all aspects of the role including curriculum design, rehearsal procedures, methodologies, and the study of appropriate choral literature. Field component, peer teaching and laboratory conducting are required. This course is a requirement for all choral/vocal music education majors.

## **MUED 3303: Instrumental Methods, Materials and Curriculum**

### **3 Credit Hours**

*Prerequisite: MUSI 3122, EDUC 2110, and admission to the Teacher Education program.*

The development of specific teaching skills, techniques and materials to support the role of band director and instrumental music teacher. The course prepares prospective instrumental track music specialists for all aspects of the role including curriculum design, rehearsal procedures, methodologies and the study of appropriate band literature. Field component, peer teaching and laboratory conducting are required.

## **MUED 3305: Educational Literature and Technology**

### **2 Credit Hours**

*Prerequisite: MUSI 3122, EDUC 2110, and admission to the Teacher Education program.*

This course will examine musical literature appropriate for P-12 music classrooms and assist in developing teaching strategies appropriate to a wide range of skill levels. In addition, students will learn to utilize various technology programs in the classroom to assist with course development, ensemble performance, and overall student achievement.

## **MUED 3308: Music Education for Exceptional Students**

### **3 Credit Hours**

*Prerequisite: MUSI 3122; admission to the Teacher Education program.*

Focus on characteristics and abilities of individuals with disabilities and the effect upon musical learning and performance. Students will develop materials and teaching strategies in music appropriate to students with special needs. Content includes current legal, educational, and therapeutic issues as they relate to the teaching of music. This course requires field experiences.

## **MUED 3314: Choral Literature**

### **2 Credit Hours**

*Prerequisite: MUSI 1110 and MUSI 3122*

A survey of large and small choral works from the Renaissance to the present with emphasis on practical performing editions and special attention to contemporary literature.

## **MUED 3334: Foundations of Music Education**

### **2 Credit Hours**

*Prerequisite: MUSI 2122*

An exploration of the interaction of historical, social, and philosophical forces and the development of music education, and the justification of a music education program in schools. Issues of career opportunities in music education are included. This course is required for all music education majors.

## **MUED 3340: Music for Early and Middle Grades**

### **2 Credit Hours**

*Prerequisite: Admission to the Teacher Education program.*

A course designed for preparing elementary school educators to integrate meaningful musical experiences into the classroom. Prospective elementary classroom educators will develop basic concepts, skills, methods of instruction, and teaching competencies in the specific areas of music.

## **MUED 3351: String Techniques**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

This course provides basic teaching and playing competencies on violin, viola, cello and bass. Students learn technical skills on the instrument and a variety of pedagogical strategies to be used while teaching in a group or individual setting. Students gain the ability to correctly sequence teaching episodes and diagnose and correct common problems in upper-level string playing.

## **MUED 3352: String Techniques Class II**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

This course provides basic teaching and playing competencies on cello and/or double bass. Students learn technical skills on the instrument and a variety of pedagogical strategies to be used while teaching in a group or individual setting. Students gain the ability to correctly sequence teaching episodes and will be able to diagnose and correct common problems in lower string playing.

## **MUED 3353: Guitar Techniques Class**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrument Techniques are REQUIRED for all music education majors. They are taken by advisement according to track and concentration. Guitar Techniques Class provides for basic teaching and playing competencies on guitar.

## **MUED 3355: Voice Techniques Class**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major*

Instrument Techniques are REQUIRED for all music education majors. They are taken by advisement according to track and concentration. Voice Techniques Class provides for basic teaching competency and basic vocal technique in the area of voice.

## **MUED 3357: Percussion Techniques Class**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrument Techniques are required for all music education majors. They are taken by advisement according to track and concentration. Percussion Techniques Class provides for basic teaching competency in the area of percussion instruments.

## **MUED 3360: (Name of Instrument) Techniques**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrument Techniques are required for all music education majors. They are taken by advisement and provide for the necessary competencies in each of the music education track specializations.

### **MUED 3361: Brass Techniques**

#### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrumental techniques are required for all music education majors, and taken by advisement according to concentration. Brass Techniques Class provides basic teaching and playing competency on trumpet, horn, trombone, euphonium, and tuba.

### **MUED 3362: Brass Techniques Class II**

#### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrument techniques are required for all music education majors. They are taken by advisement according to concentration. Brass Techniques Class II provides for basic teaching and playing competency on trombone, euphonium and tuba.

### **MUED 3363: Brass Techniques Class III**

#### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major and have the permission of the instructor.*

Advanced Techniques in Brass Instrumental pedagogy and performance competency.

### **MUED 3365: Woodwind Techniques Class I**

#### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrument Techniques are required for all music education majors. They are taken by advisement according to concentration. Woodwind Techniques Class I provides for basic teaching and playing competency on clarinet and saxophone.

### **MUED 3366: Woodwind Techniques Class II**

#### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrument Techniques are required for all music education majors. They are taken by advisement according to concentration. Woodwind Techniques Class II provides for basic teaching and playing competency on flute and oboe.

### **MUED 3367: Woodwind Techniques Class III**

#### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major and have the permission of the instructor.*

Advanced Techniques in Woodwind instrumental pedagogy and performance competency.

## **MUED 3370: Marching Band Techniques**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

This course provides a practicum in budgeting, organizing, parent groups, rehearsing, planning, and performance of a marching band program at the high school level. Drill software will be used to facilitate the creation of formations, transitions, and overall design of marching band shows.

## **MUED 3371: Brass/Woodwind/Percussion Techniques**

### **2 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrument Techniques are required by all music education majors and taken by advisement according to concentration. Brass/Woodwind/Percussion Techniques provides a semester overview, including pedagogical principles designed for Choral, General, Guitar, and Piano Majors.

## **MUED 3372: Strings/Guitar Techniques**

### **1 Credit Hours**

*Prerequisite: Must be a fully admitted music major.*

Instrument Techniques are required by all music education majors. They are taken by advisement according to track and concentration. Strings/Guitar Techniques provides a split-semester overview, including pedagogical principals designed for Choral, General, and Piano Concentration (not Instrumental, Guitar or String.)

## **MUED 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the coordinator of cooperative education/internship (Career Services).*

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore-, junior-, or senior-level students who wish to obtain successive on the job experience in conjunction with their academic training.

## **MUED 3398: Internship**

### **1-12 Credit Hours**

*Prerequisite: Previous baccalaureate degree, acceptance into the Teacher Education program, and approval of music education program coordinator.*

Full-time teaching experience in a work setting, supervised by music education faculty. Student must comply with requirements indicated by the Center for Education Placements and Partnerships of the Bagwell College of Education. The student attends regularly scheduled team-taught music education seminars.

## **MUED 4000: Advanced Pedagogy and Arranging**

### **2 Credit Hours**

*Prerequisite: Acceptance into the Teacher Education program.*

Students will gain advanced skills in diagnosing and correcting pedagogical issues appropriate for secondary music students. Students will learn to utilize appropriate technology and skills to arrange music for developmental students.

## **MUED 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor, major area committee, and director of the School of Music prior to registration.*

Selected topics of an advanced nature, which may include original research topics.

## **MUED 4470: Student Teaching/Seminar**

### **12 Credit Hours**

*Prerequisite: Admission to Student Teaching and successful completion of senior recital.*

Full-time teaching experience in music education with a designated school district, under the supervision of a cooperating teacher in the field, and a university supervisor. The student must have approval from the School of Music and the Center for Education Placements and Partnerships. The student attends a regularly scheduled team-taught music education seminar.

## **MUED 4490: Special Topics in Music Education**

### **1-3 Credit Hours**

*Prerequisite: Approval of instructor and Director of School of Music prior to registration.*

Selected special topics in music education, which are consistent with research, curriculum, and/or creative practices.

## **MUED 4650: Yearlong Clinical Experience I**

### **1 Credit Hours**

*Prerequisite: Admission to Music Education Admission to Teacher Education Admission to Yearlong Clinical Experience Issued Pre-service Certificate Corequisite: EDUC 4610*

This course is the first semester of an intensive and extensive coteaching yearlong clinical experience in music education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

## **MUED 4660: Yearlong Clinical Experience II**

### **10 Credit Hours**

*Prerequisite: MUED 4650, Educator Ethics Assessment 360 Eligibility, and GACE Eligibility*

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in music education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

## **NURS 3209: Theoretical Basis for Holistic Nursing & Health**

### **6 Credit Hours**

*Prerequisite: Admission to BSN Program Concurrent: NURS 3304 and NURS 3309*

This course is designed to introduce the student to the philosophical and theoretical basis for professional nursing across the lifespan. Emphasis is on the six processes of nursing, self-care requisites, and holistic health. Learning experiences are provided in the Nursing Learning Resource Center and diverse healthcare settings.

## **NURS 3302: Professionalism and Ethics in Nursing**

### **3 Credit Hours**

*Prerequisite: NURS 3209, NURS 3304, and NURS 3309*

Students analyze historical, contemporary, and global perspectives on the role of nursing in society, and on professional nursing roles within the context of contemporary health care delivery systems. Primary emphasis is on the ethical and legal foundations of nursing, including exploration of common ethical and legal dilemmas encountered at the beginning and end of life, as well as in everyday nursing encounters. In addition, students develop communication skills essential to collegial nursing practice and to collaborative roles within interdisciplinary health care teams. Students apply and critique selected models of ethical decision-making, and explore their utility for nursing practice and for assuming responsibility and accountability for nursing's ethic of care and commitment to client advocacy.

## **NURS 3303: Clinical Pharmacology for Nurses**

### **3 Credit Hours**

*Prerequisite: NURS 3209 and NURS 3304*

An introduction to fundamental nursing pharmacologic principles and their application. The nursing process approach will be utilized in providing the theoretical base for the knowledge and skills needed to safely administer medications to patients. An in-depth review of current and evidence-based practice will be discussed when applying responsible and accountable knowledge regarding medication administration.

## **NURS 3304: Clinical Pathophysiology for Nurses**

### **3 Credit Hours**

*Prerequisite:* Admission to BSN Program

This course relates the physiologic manifestations of disease and the pathology underlying illness to nursing practice. Emphasis is placed on applying knowledge of pathophysiology using the nursing process to guide clinical practice. Students learn the underlying physiology of disease states and how such knowledge informs nursing care.

## **NURS 3309: Health Assessment**

### **3 Credit Hours**

*Prerequisite:* Admission to BSN Program Concurrent: NURS 3304

Introduction to basic interviewing and physical assessment techniques involved in the process of health assessment of clients. Emphasis is placed on recognition of normal findings, and common deviations association with pathologies.

## **NURS 3313: Adult Health Nursing**

### **6 Credit Hours**

*Prerequisite:* NURS 3304, NURS 3209, NURS 3309 Concurrent: NURS 3303

This course is designed to build the fundamental nursing knowledge framework and skill set necessary to safely care for adults in acute care settings using concepts of holistic nursing. Adult health nursing assists individuals and their families in promotion, maintenance, and restoration of optimal health. Learning experiences are provided in the Nursing Learning Resource Center and diverse healthcare settings.

## **NURS 3314: Mental Health Nursing**

### **4 Credit Hours**

*Prerequisite:* NURS 3303 and NURS 3313

In this course, we will apply the nursing processes to commonly encountered mental health problems across the lifespan. Note: Students in the accelerated program will have different prerequisite and concurrent prerequisite requirements. Please consult with the Assistant Director of Nursing Student Success before registration.

## **NURS 3318: Parent-Child Nursing**

### **6 Credit Hours**

*Prerequisite:* NURS 3302, NURS 3313, and NURS 3303

Application of the processes of nursing to commonly encountered problems of young adults in the childbearing years, and newborns, children, and adolescents.

## **NURS 3330: Health Systems and Health Policy**

### **3 Credit Hours**

*Prerequisite:* PHE 2100 or IHS 2100 or NURS 3209

This course provides an overview of the basic structures and operations of the U.S. health system, including its major characteristics, foundations, components, finance, and future; health policy development process; and the impact of health policy on health systems and population health. *Notes:* This course is crosslisted with PHE 3330

## **NURS 4400: Directed Study in Nursing**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the instructor and department chair.

Selected topics external to regular course offerings, which may include original research projects.

## **NURS 4402: Nursing Research for Evidence-based Practice**

### **3 Credit Hours**

*Prerequisite:* NURS 3209

This course prepares students to understand the role of research in evidence-based practice in nursing and healthcare. Students learn to locate, appraise, and integrate reliable sources of evidence based on models of evidence-based practice as a scholarly endeavor. Note: Students in the accelerated program will have a different prerequisite requirement. Please consult with the Assistant Director of Nursing Student Success before registration.

## **NURS 4404: Pediatric Specialty Nursing**

### **3 Credit Hours**

*Prerequisite:* NURS 3313 and NURS 3303

This elective course is designed to provide opportunities for students to better understand the multiple specialty roles of pediatric nursing in the acute and ambulatory settings. Through didactic material and clinical experiences, the student has the opportunity to learn and demonstrate the clinical skills needed for providing safe, family centered care in a variety of pediatric specialty sites.

## **NURS 4406: Improving Quality & Safety in Patient Care**

### **3 Credit Hours**

*Prerequisite:* NURS 3209

This elective course is designed to provide opportunities for students to better understand quality and patient safety terminologies, definitions, practices, and processes within healthcare systems. Topics to be examined include errors in the healthcare system, root cause analysis of errors, and variables that contribute to error-making. The student will analyze concepts of evidence-based practice to prevent errors, promote quality and patient safety, and will examine the nurse's responsibilities for quality and safety.

## **NURS 4412: Community Health Nursing**

### **6 Credit Hours**

*Prerequisite: NURS 3314 and NURS 3318*

This course applies the nursing process to population-focused practice and commonly encountered health problems of families and aggregates in the community.

## **NURS 4414: Complex Health Nursing**

### **4 Credit Hours**

*Prerequisite: NURS 3314 and NURS 3318*

This course applies the processes of nursing to individual clients experiencing complex health problems and their families. The goal of this course is to equip the student to care for complicated patients and ensure the student is prepared to enter the final practicum experience. Note: Students in the accelerated program will have different prerequisite and concurrent prerequisite requirements. Please consult with the Assistant Director of Nursing Student Success before registration.

## **NURS 4416: Leadership in Nursing**

### **3 Credit Hours**

*Prerequisite: NURS 4414*

Designed to develop the leadership skills necessary for the beginning practice as a registered nurse. Focuses on the role of the nurse as part of the larger health care delivery system, with emphasis on the development of leadership and management skills useful in delivery of high quality, client focused care. Topics include client care/case management, budgetary management, development of teamwork, roles of health care providers and health care coordinators, integration of community health care systems, and health program development and evaluation.

## **NURS 4417: Advanced Clinical Practicum**

### **4 Credit Hours**

*Prerequisite: NURS 4412 and NURS 4414*

Designed to provide a precepted clinical experience for the non-licensed and registered nurse student. Provides an opportunity to practice under the guidance and supervision of a preceptor, and assume the role of the professional nurse in a variety of settings. For the registered nurse student it provides an opportunity to practice in a new area or develop new clinical skills. The course focuses on the role of the professional nurse as care provider, communicator, teacher, leader and manager of care for a group of clients, and as a consumer of research that is applicable to individual clients and groups of clients. An appropriate clinical project demonstrates application of principles of nursing care and/or organizational development.

## **NURS 4419: Nursing Leadership Practicum: Transition to Practice**

### **7 Credit Hours**

*Prerequisite: NURS 4412 and NURS 4414*

This course is designed to develop leadership competencies for beginning practice as a registered nurse with a focus on the role of the nurse as part of larger healthcare and social systems. The student synthesizes knowledge from all previous nursing and supportive courses to manage evidence-based care and develop leadership skills in a precepted experience and in a variety of settings. The course focuses on the role of the professional nurse as a care provider, communicator, teacher, leader, and manager of quality and safe care. Note: Students in the accelerated program will have different prerequisite and concurrent prerequisite requirements. Please consult with the Assistant Director of Nursing Student Success before registration.

## **NURS 4421: Acute Patient Deterioration**

### **3 Credit Hours**

*Prerequisite: Junior or senior status with successful completion of NURS 3313 or Registered Nurse status.*

This course is designed to enhance students' abilities to recognize and respond appropriately to common acute patient deterioration situations in a medical-surgical setting. Through delivery of didactic material, video vignettes, case studies, concept mapping, pattern recognition exercises, online web site tutorials, clinical narratives, simulation scenarios, and fieldwork, students will have the opportunity to learn and demonstrate the necessary actions to effectively and efficiently manage a crisis situation.

## **NURS 4422: Women and Health**

### **3 Credit Hours**

*Prerequisite: Permission of the instructor.*

This course is designed to introduce students to a wide range of health issues affecting women across the life span. Women's health issues and problems as they are influenced by physiological, psychological, economic, cultural, emotional and social factors will be reviewed. The course will focus on topics such as the politics of women's health care, the reproductive system and its relation to the allopathic treatment of women, fertility control and reproductive alternatives. Issues of mental health, substance use and abuse, violence and aging will be examined.

## **NURS 4423: International Health Policy**

### **3 Credit Hours**

*Prerequisite: Completion of 60 hours or permission of the instructor.*

Designed to serve a variety of students who are interested in international or global health policy issues. Beginning with an historical overview of global health, the course progresses through the developmental levels of countries and people, incorporating a macro and microanalysis, and considering cultural, social, economic, political, environmental, demographic, biological, technological and ethical issues which impact international health policy.

## **NURS 4424: Advances in Cardiovascular Nursing**

### **3 Credit Hours**

*Prerequisite: NURS 3313 or Registered Nurse status.*

The purpose of the course is to provide students with an in depth knowledge of cardiovascular nursing, including, assessment, diagnostic tests, complications and medical and nursing management. Students will be given an opportunity to participate in selective observational and simulated experiences related to cardiovascular problems.

## **NURS 4425: Nursing as Caring**

### **3 Credit Hours**

*Prerequisite: Junior level or permission of the instructor.*

Designed to explore the multiple perspectives of caring as the foundational science of nursing. Developing a personal meaning of caring will be emphasized as it relates to caring for self, caring for others, and caring as a member of the nursing profession.

## **NURS 4427: Laying the Foundations for Technological Competence**

### **3 Credit Hours**

*Prerequisite: NURS 3313*

Designed to promote technological familiarity in nursing with emphasis placed on the nursing management of clients with specialized equipment. Detailed in-services will be conducted at selected agencies.

## **NURS 4428: Survivorship: The Cancer Model**

### **3 Credit Hours**

*Prerequisite: NURS 3209*

This course will introduce students to the principles of cancer survivorship. Issues related to interprofessional care, quality of life, economics, political influences, genetic implications, access to health care, and adaptation for the cancer survivor and family will be explored. This is an elective course, which augments and enhances the basic oncology concepts of the curriculum and exposes the student to new ways of thinking about cancer survivors.

## **NURS 4429: Disaster/Emergency Preparedness**

### **3 Credit Hours**

*Prerequisite:* NURS 3313 or Registered Nurse status.

This course is designed to enhance emergency and disaster preparedness for students by providing knowledge and training in preparedness, mitigation, response, and recovery.

## **NURS 4430: Gerontological Nursing**

### **3 Credit Hours**

*Prerequisite:* NURS 3309

This course is designed to serve nursing students who are interested in the health care of the aging adult. The course, within the context of cultural perspectives, addresses the healthy aging process and health promotion strategies; pathophysiological aspects of aging and treatment regimes; and end of life issues.

## **NURS 4431: Psychoneuroimmunology: Mind Body Pathways**

### **3 Credit Hours**

*Prerequisite:* One 3000-level Nursing course or permission of the instructor.

This course takes a novel approach to the interdisciplinary field of psychoneuroimmunology (PNI) by exploring research and providing practical applications that illustrate how stress over time may impact psychological and physical well-being. Students will be exposed to current PNI literature, experientially explore effects of stress and coping strategies, and participate in a PNI laboratory assignment. Topics will include, but are not limited to: Mind-Body Pathways; Stress and Illness; Metabolism, Growth, and Stress; Sleep and Stress; Coping and Stress Management.

## **NURS 4432: Nursing in Faith Communities**

### **3 Credit Hours**

*Prerequisite:* NURS 3313 or Registered Nurse status.

This nursing elective provides a basic overview of the role and responsibilities of the nurse working in faith communities. The student will gain an understanding of meeting, managing, and promoting the health of persons in faith communities that address models of faith community nursing, diverse faith traditions, persons with special health care needs, legal and ethical issues, strategies and techniques to meet health and spiritual needs across the life span, and developing inter-collegial support systems.

## **NURS 4434: Vulnerable Populations**

### **3 Credit Hours**

This elective nursing course focuses on aspects of providing health-related care and programs to vulnerable or at-risk populations. The course is a lecture-seminar with fieldwork activities designed to provide the student with in-depth knowledge of a specific vulnerable population of the student's choice as well as a broad overview of many vulnerable populations.

## **NURS 4435: Nursing Practicum in Italy**

### **3 Credit Hours**

*Prerequisite:* NURS 3209

This study abroad course takes place in Montepulciano, Italy. Students learn about Italian culture and healthcare. Teaching and learning strategies may include observational experiences in acute care hospitals and outpatient settings, Italian conversational language lessons, and guided tours of cultural sites.

## **NURS 4436: Foundations for Perioperative Practice**

### **3 Credit Hours**

*Prerequisite:* NURS 3313

This course is designed to provide the student with a dynamic learning experience in a perioperative environment to enhance the knowledge, cognitive, and psychomotor skills to care for one or more patients undergoing operative or invasive procedures. The course addresses patient-centered care, patient safety, physiologic responses, and behavioral responses of the surgical patient and family. This course involves classroom didactic and clinical hours (simulation, skills, and clinical experience) in the perioperative setting.

## **NURS 4438: Transforming Nursing Leadership**

### **3 Credit Hours**

*Prerequisite:* NURS 3209

This course focuses on the use and understanding of nursing personal influence and power within organizational dynamics from environmental, psychological and relational perspectives. The dynamic relationship between nursing leadership, gender, power, knowledge, social forces and individual healthcare agency are explored. Students learn ways to create a shared collaborative nursing leadership vision within organizational culture.

## **NURS 4440: Palliative and End of Life Care**

### **3 Credit Hours**

*Prerequisite:* NURS 3313 or Registered Nurse status.

This course is an exploration of the physical, psychological, social, spiritual, and ethical issues surrounding care of persons in need of comfort, palliation, and excellent end-of-life care. The course employs the End of Life Nursing Education Consortium standards and guidelines as a framework for learning.

## **NURS 4490: Special Topics in Nursing**

### **1-3 Credit Hours**

*Prerequisite:* Permission of the instructor.

Selected special or current topics of general interest to nursing faculty and students

## **PAX 1102: Understanding Peace and Conflict**

### **3 Credit Hours**

This course explores conceptions and practices of peace and justice. Examining peace and justice from western and non-western perspectives, and through a variety of disciplinary frameworks, this course focuses on the diverse forms of peace and justice, as well as the social and cultural contexts that have been shaped by these perspectives.

## **PAX 3100: Peace and Religion**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 or PAX 1102*

This course examines selected world religions and peace through an interdisciplinary lens. Drawing primarily on religious and philosophical resources and other cultural texts, the course analyzes the conduct of religions in peace work and religious ideas about peace and peacebuilding.

## **PAX 3220: Peace and Film**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 or PAX 1102*

This course offers an interdisciplinary survey of international cinema's use of film in peace work and the depiction of peace in film.

## **PAX 3300: Peace and the Environment**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 or PAX 1102*

This course is a survey of some of the major figures, traditions and texts on the relationship between peace and the environment from Western and non-Western perspectives. The course also poses important questions such as "How can we make peace with the environment?" "What are the most challenging threats to the environment today?" and "How can we live harmoniously with the non-human world?"

## **PAX 3600: Theories of Non-violence**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 or PAX 1102*

This course is a survey of the major figures and texts on the topic of non-violence from both Western and non-Western perspectives.

## **PAX 3780: Trends in Peace Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

This course focuses on current issues, trends, and activism in the field of Peace Studies. The course is interdisciplinary and includes international content in English. Course may be repeated with a change in content.

### **PAX 4000: Peacebuilding Methods**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102 or PAX 1102*

This course covers the basic skills, tools, processes and frameworks required for effective peacebuilding across cultures. Students apply theoretical and practical knowledge of peace and peacebuilding to real life peacebuilding campaigns as they identify and execute fundamental techniques of non-violent activism.

### **PAX 4400: Directed Study in Peace Studies**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Directed Study in Peace Studies. Covers special topics and seminars of an advanced nature and external to regular course offerings.

### **PAX 4490: Special Topics in Peace Studies**

#### **3 Credit Hours**

*Prerequisite: ENGL 1101*

A study of selected special topics of interest to faculty and students. Course may be repeated with a change in content.

### **PAX 4499: Seminar in Peace Studies**

#### **3 Credit Hours**

*Prerequisite: PHIL 3120 and completion of 60 credit hours.*

A seminar course for the Peace Studies Minor that integrates students' prior coursework with the field of peace studies. Working in a collaborative manner, students design their own capstone learning projects in consultation with faculty.

### **PERS 2700: Perspectives on the World of Work**

#### **3 Credit Hours**

This course will examine trends in the workplace as they pertain to today's undergraduates. Students will examine how "work" has evolved to become interdisciplinary, regionally and globally interconnected, technology-driven, and collaborative.

### **PHIL 2010: Introduction to Philosophy**

#### **3 Credit Hours**

This course is part of the General Education Program at Kennesaw State University. Drawing on texts from Western and non-Western philosophy, this course explores enduring questions such as the nature of the self, the existence of God, how we should live our lives, the nature of justice and a good society, the nature of reality, whether we are free or determined, and the meaning of life.

## **PHIL 2100: Values and Society**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

The course is a philosophical examination of contemporary values and their place within society from a global perspective, focusing on issues of global inequality, cultural relativism, and the question of a global ethic.

## **PHIL 2110: Religions of the World**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

The course is a study of selected world religions with concentration on the origin and major periods of the conceptual, scriptural, and doctrinal development of these religions. Some topics include the nature and identity of religious experience, hermeneutics, mysticism, religious practice, and the place of religion in contemporary society.

## **PHIL 2500: Logic**

### **3 Credit Hours**

The course is an introduction to deductive logic with focus on the theoretical and practical aspects of categorical propositions and syllogisms, truth function logic, the method of natural deduction, and predicate logic.

## **PHIL 2700: Methods and Themes in Comparative Philosophy**

### **3 Credit Hours**

*Prerequisite: ENGL 1101*

This course focuses on differing methods and conceptions of philosophical thought and practice articulated primarily in Non-Western traditions. Students develop skills in close reading of texts, analyzing concepts orally and in writing, and understanding the significance of historical/social contexts in the formation of philosophical traditions. Themes may address topics such as conceptions of reality, self, and society. Philosophies considered may include East Asian, South Asian, Latin American, African, Middle Eastern, and Indigenous.

## **PHIL 3000: Ancient and Medieval Philosophy**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a study of the topics, problems, and doctrines of ancient and medieval western philosophers including the pre-Socratics, Plato, Aristotle, Augustine, and Aquinas.

## **PHIL 3010: Modern Western Philosophy**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a study of the topics, problems, and doctrines of modern western philosophers beginning with Descartes and concluding with Kant.

## **PHIL 3020: American Philosophy**

### **3 Credit Hours**

**Prerequisite:** ENGL 1102

The course is a study of major topics and philosophers in the United States from the colonial period through the twentieth century including Jefferson, Emerson, Royce, DuBois, James, and Dewey.

## **PHIL 3030: Existentialism**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

A study of Existentialism and Phenomenology including their historical roots in the nineteenth century, their major exponents of the late nineteenth and early twentieth centuries, and their impact on philosophy, literature, and other academic disciplines.

## **PHIL 3100: Ethics**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a study of the major approaches to ethical thought and the applicability of these approaches to selected issues in the humanities, sciences, and professional areas including business, medicine, and education.

## **PHIL 3110: Social and Political Philosophy**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a survey of the foundational figures and texts in the history of social and political philosophy, with focus on the concepts of freedom, obligation, authority, power, legitimacy, and social differences in the formulation of the purpose and foundation of political society.

## **PHIL 3120: Philosophies of Peace**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Philosophies of Peace introduces students to the texts, figures, movements, theories, and practices in the study of peace from western and non-western perspectives. Figures may include Tolstoy, Gandhi, and Thoreau. Selected topics include just war theory, positive and negative peace, nonviolence, and art and peace.

### **PHIL 3130: Feminist Philosophy**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a study of the main currents of feminist philosophy, including criticisms of traditional philosophical paradigms and new frameworks for approaching the diversity of human experience.

### **PHIL 3200: Asian Philosophy**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a survey of the major texts, figures, and schools in the philosophies of India, China, and Japan. Texts include the *Vedas*, *Upanishands*, *Analects*, and *Zhuangzi*. Major figures include Shankara, Patanjali, Confucius, Mencius, Dogen, and Nishida.

### **PHIL 3210: Latin American and Caribbean Philosophy**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a survey of the central concepts, themes, and figures of Latin American and Caribbean philosophy. Some of these figures may include: Enrique Dussel, Lewis Gordon, Frantz Fanon, Sylvia Wynter, Maria Lugones, and Jose Marti.

### **PHIL 4000: Nineteenth Century Western Philosophy**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a survey of post-Kantian thought in continental Europe and/or the Anglo-American world with focus on the concepts of critique, history, modernity, idealism, and the significance of the human sciences. Figures may include Mill, Hegel, and Marx.

### **PHIL 4030: Phenomenology**

#### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces students to a selection of major themes in phenomenology. Students reflect on the phenomenological method and critically examine the justifications phenomenologists give for their claims. The course also takes a comparative approach insofar as students will be encouraged to identify and explore parallels between different positions and practices (East and West) within a broadly speaking phenomenological framework.

## **PHIL 4200: Indian Philosophy**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a study of important texts, schools, and figures of the Indian philosophical and cultural tradition. Texts include the *Vedsa*, *Upanishads*, *Bhagavad-Gita*, and *Yoga Sutras*. Figures include Buddha, Mahavira, Patanjali, Sankara, Ramakrishna, Aurobindo, and Gandhi.

## **PHIL 4210: Chinese Philosophy**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a study of the representative thinkers and schools in the Chinese philosophical and cultural tradition starting in the classical period. Important figures include Confucius, Zhuangzi, Mencius, Sunzi, and Huananzi.

## **PHIL 4220: Japanese Philosophy**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

The course is a survey of Japanese philosophical thought from ancient times to the present, including its cultural, religious, ethical, and aesthetic dimensions. While providing a broad overview of the development of Shinto, Confucianism, and Buddhism in the Japanese context, the course also examines the contributions of contemporary Japanese thinkers to world thought.

## **PHIL 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair prior to registration.*

Special topics of an advanced nature not in the regular course offerings.

## **PHIL 4450: Major Figures in Philosophy**

### **3 Credit Hours**

*Prerequisite: At least 60 earned credit hours*

An in-depth examination of a major figure in western or non-western philosophy from the ancient to contemporary periods. Figures may include Plato, Aristotle, Confucius, Patanjali, Dogen, Spinoza, Irigaray, Heidegger, and James. Course may be repeated if the course content is different.

## **PHIL 4460: Major Themes in Philosophy**

### **3 Credit Hours**

*Prerequisite: At least 60 earned credit hours*

An in-depth examination of a major theme in the history of philosophy. Topics may include time, justice, love and friendship, beauty, materialism, aesthetics, epistemology, and metaphysics.

## **PHIL 4490: Special Topics in Philosophy**

### **1-3 Credit Hours**

*Prerequisite:* ENGL 1102

A study of selected topics within philosophy.

## **PHIL 4499: Senior Seminar**

### **3 Credit Hours**

*Prerequisite:* Departmental Approval; PHIL 4450 or PHIL 4460

The course is a combined tutorial and seminar in which students research and write a senior thesis in addition to making a computer-based presentation in class.

## **PHYS 1111: Introductory Physics I**

### **3 Credit Hours**

*Prerequisite:* MATH 1113 or MATH 1190 or MATH 1179

This is an introductory algebra and trigonometry-based course on classical mechanics, thermodynamics, and waves. The student will be able to apply Newton's laws and conservation of energy and momentum to various problems in kinematics and dynamics, use the law of universal gravitation to falling objects and orbital motion, describe simple harmonic motion, oscillations, and waves, and explain temperature, heat, and entropy.

## **PHYS 1111L: Introductory Physics Laboratory I**

### **1 Credit Hours**

*Corequisite:* PHYS 1111

PHYS 1111L is an introductory laboratory for the trigonometry-based course on classical mechanics, thermodynamics, and waves. The student will be able to apply Newton's laws and conservation of energy and momentum to various problems in the laboratory, and perform measurements of simple harmonic motion, oscillations, waves, temperature, and basic fluid dynamics. The analysis of sources of error and formal propagation of uncertainties will also be developed.

## **PHYS 1112: Introductory Physics II**

### **3 Credit Hours**

*Prerequisite:* (PHYS 1111 or PHYS 2211) and (MATH 1113 or MATH 1190 or MATH 1179)

This course is an introductory algebra and trigonometry-based course on electromagnetism, optics, and modern physics. The student will be able to apply the concepts of electric field and electric potential to problems in electrostatics and with electric currents, describe the motion of charged particles in magnetic fields and induction, explain the origin of electromagnetic waves and properties of light, and understand elementary principles of special relativity and quantum physics.

## **PHYS 1112L: Introductory Physics Laboratory II**

### **1 Credit Hours**

*Corequisite: PHYS 1112*

PHYS 1112L is an introductory laboratory for the trigonometry-based course on electromagnetism, optics, and modern physics. The student will be able to apply the concepts of electric field and electric currents to problems in the laboratory, and perform measurements on magnetic fields and induction, optics, and elementary quantum physics phenomena. The analysis of sources of error and formal propagation of uncertainties will also be developed, along with graphical techniques and least-squares fits.

## **PHYS 221I: Principles of Physics I**

### **3 Credit Hours**

*Prerequisite: MATH 1190 or (MATH 1179 and MATH 1189)*

This course is an introductory calculus-based course on classical mechanics, waves, and special relativity. The student will be able to apply Newton's laws and conservation of energy and momentum to various problems in kinematics and dynamics, use the law of universal gravitation to analyze the behavior of falling objects and objects in orbital motion, describe simple harmonic motion, oscillations, and waves, and explain the basic ideas of special relativity.

## **PHYS 221IK: Principles of Physics and Lab I**

### **4 Credit Hours**

*Prerequisite: A grade of "C" or higher in MATH 1190*

An introductory course which will include mechanics (kinematics, dynamics, work and energy, momentum and collisions, and rotational motion and statics), and may also include thermodynamics and waves. Elementary calculus will be used. This course is managed through the cooperative academic agreement known as eCore.

## **PHYS 221IL: Principles of Physics Laboratory I**

### **1 Credit Hours**

*Corequisite: PHYS 221I*

PHYS 221IL is an introductory laboratory for the calculus-based course on classical mechanics, and waves. The student will be able to apply Newton's laws and conservation of energy and momentum to various problems in the laboratory, and perform measurements of simple harmonic motion, oscillations, and waves. The analysis of sources of error and formal propagation of uncertainties will also be developed, as well as graphical techniques and the method of least-squares fits.

## **PHYS 2212: Principles of Physics II**

### **3 Credit Hours**

*Prerequisite:* MATH 2202 and PHYS 2211

This course is an introductory calculus-based course on electromagnetism, physical optics, and quantum physics. The student will be able to apply the concepts of electric field and electric potential to problems in electrostatics and with electric currents, describe the motion of charged particles in magnetic fields and induction, explain the origin of electromagnetic waves and properties of light, determine the behavior of light waves passing through single or multiple slits, and understand elementary principles of quantum physics.

## **PHYS 2212K: Principles of Physics and Lab II**

### **4 Credit Hours**

*Prerequisite:* Grades of "C" or higher in MATH 2202 and (PHYS 2211 or PHYS 2211K)

An introductory course which will include electrostatics, electric current and circuits, and electromagnetism, and may also include optics and modern physics. Elementary calculus will be used. This course is managed through the cooperative academic agreement known as eCore.

## **PHYS 2212L: Principles of Physics Laboratory II**

### **1 Credit Hours**

*Corequisite:* PHYS 2212

This is an introductory laboratory for the calculus-based course on electromagnetism, optics, and modern physics. The student will be able to apply the concepts of electric field and electric currents to problems in the laboratory, and perform measurements on magnetic fields and induction, optics, and elementary quantum physics phenomena. The analysis of sources of error and formal propagation of uncertainties will also be developed, along with graphical techniques and least-squares fits.

## **PHYS 2213: Principles of Physics III**

### **2 Credit Hours**

*Prerequisite:* Grades of "C" or better in MATH 2202, and PHYS 2211

This is the third course in the 3-semester introductory sequence. Students will learn about pressures produced by fluids and fluid flow. They will also learn the laws of thermodynamics and their applications to physical systems. Students will also examine the behavior of light interacting with lenses and mirrors, and will understand the behavior of sound in air.

## **PHYS 2900: Undergraduate Research Experience in Physics**

### **3 Credit Hours**

*Prerequisite: MATH 1113*

This is a course-based undergraduate research experience (CURE). Students will learn to perform research, including how to conduct background research, write a review, data analysis, and interpretation. Students will also engage in scientific discussion and draw conclusions. Students will disseminate their findings via an oral or poster presentation at a conference. Students will learn about ethics and biases in science and how to convey science to a broader audience.

## **PHYS 3011: Introduction to Heat, Light, Sound, and Fluid**

### **2 Credit Hours**

*Prerequisite: Grades of "C" or higher in MATH 2202 and PHYS 2211*

This course is a survey of topics that includes heat, geometric optics, fluid flow, and sound. Students will develop conceptual understandings and solve real-world problems using special functions. Students will apply laws of conservation to fluid flow and heat flow using mathematical analysis. Students will study the behavior of light in interaction with lenses and mirrors and discuss the physical description of sound and resonant systems using special functions.

## **PHYS 3110: Directed Methods**

### **1-4 Credit Hours**

*Prerequisite: Grades of "C" or better in PHYS 2211 and PHYS 2211L and permission of instructor*

This course will allow students to gain in-depth skills with a specific set of research methodologies through direct involvement in faculty-led research or scholarship. Course content and instructional methodologies will be identified by the faculty's needs and expectations.

## **PHYS 3210: Mechanics I**

### **3 Credit Hours**

*Prerequisite: Grades of "C" or higher in MATH 2203, MATH 2306, PHYS 2211, PHYS 2211L, and PHYS 3260*

This course is a survey of Newtonian, Lagrangian, and Hamiltonian Mechanics as well as mechanics of central force systems and oscillations. Students will learn how to apply Newtonian mechanics to dynamics of particles and systems of particles, and calculus of variations using Lagrange and Hamilton equations.

## **PHYS 3220: Electromagnetism I**

### **3 Credit Hours**

*Prerequisite: Grades of "C" or better in MATH 2203, MATH 2306, PHYS 2212 and PHYS 2212L*

This course is a survey of fundamental principles of electricity and magnetism. Students will learn and solve problems in electrostatic fields, magnetic fields of steady currents, and time-dependent electromagnetic fields.

## **PHYS 3230: Optics**

### **3 Credit Hours**

*Prerequisite: Grades of "C" or better in PHYS 2212, PHYS 2212L*

PHYS 3230 will present fundamentals and applications of geometric and physical optics. Students will study electromagnetic waves as formulated by Maxwell's equations. The laws of refraction of reflection along with the theories of interference and diffraction will be presented. Students will also learn how some optical devices and lasers work.

## **PHYS 3260: Mathematical Physics**

### **3 Credit Hours**

*Prerequisite: Grade of 'C' or better in MATH 2202, and PHYS 2212*

This course students will review mathematical techniques that are often used in upper-level physics courses. Students will learn to apply linear algebra, differential equations, vector calculus, Fourier series, Fourier transforms, Bessel functions, Legendre polynomials, and complex analysis to solve problems in physics.

## **PHYS 3410K: Electronics Laboratory**

### **2 Credit Hours**

*Prerequisite: Grades of "C" or better in PHYS 2212 and PHYS 2212L*

Students will learn how to design, build, and analyze basic discrete and integrated circuits. They will also learn how to represent circuits and to predict the output of analog and digital circuits commonly found in physics laboratories.

## **PHYS 3500K: Computational Physics I**

### **3 Credit Hours**

*Prerequisite: Grades of "C" or higher in PHYS 2212 and PHYS 2212L*

This course utilizes introductory computer programming to analyze situations that are unique to physics. Students will enhance their computational thinking by using these methods and learn to obtain high accuracy approximate solutions to physics problems that are not solvable by analytic means. No prior programming knowledge will be assumed and the basics of one or more of the standard programming languages C/C++, Fortran, Python will be included in the course instruction.

## **PHYS 3710: Modern Physics**

### **3 Credit Hours**

*Prerequisite:* Grade of "C" or higher in PHYS 2212 and PHYS 2212L

The topics covered in this course constitute the most fundamental background in modern physics. The main objective of this course is to provide the student with a basic understanding of the physical laws and phenomena that constitute the framework leading to quantum mechanics. Students will strengthen their knowledge of special relativity and explore aspects of the quantum theory of wave/particle duality and the probabilistic interpretation. Students will learn the Schrödinger's equation, its solutions for simple potentials, and properties of the one-electron atom. Students will also study applications of quantum principles to atomic, molecular and nuclear structures.

## **PHYS 3720L: Modern Physics Laboratory**

### **1 Credit Hours**

*Concurrent:* PHYS 3710

This course, complements the material in Modern Physics. Students will gather data in x-ray diffraction, photoelectric effect and beta decay. They will also estimate the  $e/m$  ratio and study the spectra of hydrogen, helium and mercury.

## **PHYS 3730: Relativity**

### **3 Credit Hours**

*Prerequisite:* A grade of "C" or better in PHYS 2212 and PHYS 2212L

PHYS 3730 is a thorough presentation of the principles of Special Relativity, and an introduction to the General Theory of Relativity. Students learn the underlying basis for the equations of relativity and also how to apply these equations to problem-solving. During this course, students will also learn specific mathematical methods that are particularly appropriate for this subject.

## **PHYS 4200: Mechanics II**

### **3 Credit Hours**

*Prerequisite:* PHYS 3210

This course is a survey of more complex problems in mechanics. Student will study the motion of non-inertial frames, nonlinear and coupled oscillations as well as chaotic motion. Students will learn the dynamics of rigid bodies, continuous systems and fundamentals of fluid mechanics

## **PHYS 4210: Quantum Mechanics I**

### **3 Credit Hours**

*Prerequisite: PHYS 3710, PHYS 3260, MATH 2203, and MATH 2306*

This course presents a systematic development of quantum mechanical laws. Students will be introduced to Dirac's notation and will learn about the theory of angular momentum quantization and will use the operator formalism to solve the Schrödinger's equation in 3-dimensions for a particle in a central force field, and the simple harmonic oscillator.

## **PHYS 4220: Electromagnetism II**

### **3 Credit Hours**

*Prerequisite: PHYS 3220 and MATH 2306*

This course completes the presentation of electromagnetic theory by building on the start contained in other courses. In this course students will learn about electric and magnetic fields in matter, they will study both the propagation and the generation of electromagnetic waves in space and time, and come to understand the connection between relativity and electromagnetic theory.

## **PHYS 4230: Thermal Physics**

### **4 Credit Hours**

*Prerequisite: PHYS 3710*

This course is a study of the principles of thermal equilibrium, physical statistics, irreversible processes, and the approach to equilibrium. Students will learn how to apply the statistical nature of thermodynamics using Boltzmann, Bose-Einstein, and Fermi-Dirac statistics.

## **PHYS 4240: Solid State Physics**

### **3 Credit Hours**

*Prerequisite: PHYS 3710*

In this course students will apply quantum mechanics to solid materials. Students will study the binding forces and bonding theory in solids along with the mechanical, thermal, and electrical properties of solids. If time permits, an application to solid-state devices will also be presented.

## **PHYS 4260: Quantum Mechanics II**

### **3 Credit Hours**

*Prerequisite: PHYS 4210*

This course is a continuation of Quantum Mechanics I, PHYS4210. Students will learn time-independent and time-dependent perturbation theory, the variational principle, and scattering theory. This course also introduces techniques of field quantization and their applications. Students will revisit perturbation theory in the context of interacting quantum fields. Students will be exposed to applications of quantum mechanics and field theory techniques that are used in many areas of modern physics (e.g., particle physics, quantum optics, and condensed matter physics).

## **PHYS 4270K: Computational Physics II**

### **3 Credit Hours**

*Prerequisite: PHYS 3500K*

This course is a continuation of Computational Physics I. Advanced mathematical methods and numerical algorithms are applied to the solution of a variety of problems in physics. Emphasis is on the mathematical methods used to model physical systems. Students will learn a variety of numerical methods which they will implement using computer programs, and they will also learn how to use modern technical computing software to model physical systems with both numeric and symbolic calculations.

## **PHYS 4400: Directed Study**

### **1-4 Credit Hours**

*Prerequisite: Approval of the instructor, major area committee and department chair.*

Special topics of an advanced nature that are not in the regular course offerings.

## **PHYS 4410K: Advanced Physics Laboratory**

### **2 Credit Hours**

*Prerequisite: PHYS 3410K and PHYS 3720L*

An introduction to instrument control, data acquisition, and data analysis of the type used in the research labs. The student will then incorporate these techniques in the design of experiments important to classical and/or contemporary physics. This course will be writing intensive and will require extensive formal reports.

## **PHYS 4430: Capstone Physics Project**

### **1 Credit Hours**

*Prerequisite: Senior standing.*

Students will complete a research project in physics or a related field during the last year on campus. The content and subject of this project will be negotiated between the student and the faculty supervisor of the project.

## **PHYS 4490: Special Topics in Physics**

### **1-4 Credit Hours**

Special topics selected by the department of interest to the Physics faculty and students.

## **PHYS 4500: Relativistic Quantum Fields and Particles**

### **3 Credit Hours**

*Prerequisite: PHYS 3710 and MATH 2203*

This course is an introduction to relativistic quantum mechanics, quantum field theory, elementary particle physics, and gauge theory. Students will learn how the combination of the two revolutionary physics theories of the first half of the 20th century, relativity and quantum mechanics, leads us to the concept of quantum fields and the description of the fundamental forces and particles in the universe. Students will see how electromagnetism, the strong and weak nuclear interactions, and even gravity, can be described in a unified way as gauge theories.

## **PHED 3372: Physics Education Research Methods**

### **3 Credit Hours**

*Prerequisite: Grades of "C" or better in (PHYS 2212 or PHYS 1112) and EDSM 2010*

Students begin this course with a general investigation into various qualitative and quantitative research studies as well as key articles from physics education. Next, students will select a topic and conduct a literature review in that area. Finally, students will design, conduct and disseminate the results of a small scale study they conducted. The goal of this course is to help students learn how to conduct research in their own classroom to gauge instructional effectiveness.

## **PHED 3421: Classroom Interactions**

### **2 Credit Hours**

*Prerequisite: EDSM 1102 and PHYS 2212 and Admission to Teacher Education. Corequisite: SCED 3010, ITEC 3300, INED 3305, and INED 4435*

This course examines teachers, students, content, and interactions that lead students to develop conceptual understandings of physics. Science teacher candidates design and implement instructional activities informed by their understanding of science learning, then assess student learning. This course includes a 29 hour field experience as introduction to the adolescent learner, the equity imperative and science education reform. This course is restricted to participants in the UTeach program.

## **PHED 4422: Project-based Instruction**

### **3 Credit Hours**

*Prerequisite: SCED 2421, Preservice Certification and Admission to Year-long Clinical Experience*

*Corequisite: INED 3305 and INED 4435*

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based physics lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course is restricted to participants in the UTeach program. This course includes a 45-hour high school teaching experience.

## **PHED 4423: Pedagogical Content Knowledge for Physics**

### **2 Credit Hours**

*Prerequisite: PHED 4422, INED 3305, and INED 4435 Corequisite: INED 3306, INED 4436*

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based physics lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course is restricted to participants in the UTeach program.

## **POLS 1101: American Government**

### **3 Credit Hours**

This course examines the institutions and processes of American government and Georgia State government. Global comparisons are made between the governments of the U.S. and other modern nation-states.

## **POLS 2101: Introduction to Political Science**

### **3 Credit Hours**

Political science seeks to describe and understand political phenomena, and to explore their ethical and normative dimensions. The purpose of this course is to provide a broad overview of the substantive areas of interest and skills one needs to study politics and government. As such, this course is a survey of the substantive content areas, theoretical perspectives, and major questions in political science. Topics include-but may not be limited to-political theory, comparative politics, international relations, and American politics.

## **POLS 2212: State and Local Government**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course is a general survey of state and local government; recent and current trends.

## **POLS 2220: Careers in Political Science**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Careers in Political Science introduces students to the specialties within political science and focuses on career planning, outlines the academic emphases within the major and associated requirements, and explores public and private sector opportunities in the field of political science. Using a combination of lecture, readings, and guest lectures, students are exposed to information designed to assist in the clarification and pursuit of a career in politics, government, academia, and related fields. Particular emphasis is placed upon connecting students with on-campus resources designed to aid in course planning, internships, interviewing skills, and cultivation of job skills.

## **POLS 2230: Careers in International Affairs**

### **3 Credit Hours**

*Prerequisite: Declared International Affairs major*

This course focuses on academic and career planning and development issues for International Affairs majors.

## **POLS 2238: Introduction to International Political Economy**

### **3 Credit Hours**

*Prerequisite: POLS 2250*

This course is an introduction to the exploration of the fundamental questions about government and policies, market systems, and relations between the two.

## **POLS 2240: Introduction to Comparative Politics**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

An introduction to the comparative approaches for the study of politics, focusing on patterns of development and change in contemporary political systems.

## **POLS 2250: Introduction to International Relations**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course provides an introduction to the study of international relations. Sources of international order, conflict and war, determinants of foreign policy, global actors and the dynamics of political interaction between nation-states are examined.

## **POLS 2260: Current Political Issues**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course exposes students to critical contemporary political and government related issues and provides some context and background. It ties the various issues to subfields of political science. Domestic-international linkage is emphasized.

## **POLS 2270: Political Ideologies**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Emphasizes the political development and application of contemporary ideologies such as nationalism, capitalism, socialism, democracy, Marxism, conservatism, liberalism, feminism, communitarianism, fascism, liberation movements, and others.

## **POLS 2280: Research Methods**

### **3 Credit Hours**

*Prerequisite: POLS 1101 Concurrent: DATA 1501*

An introduction to the empirical methods in social science research. It provides the student with a working knowledge of the design, implementation and evaluation of social science research.

## **POLS 2285: Applied Research Design in International Affairs**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course is an introduction to the essential components of research design and data literacy required to understand and conduct both qualitative and quantitative research. Students learn to identify, design, critically analyze, synthesize, and interpret social scientific research using a variety of methodologies as they relate to the understanding of international politics.

## **POLS 2401: Global Issues**

### **3 Credit Hours**

Global Issues is an introductory survey course designed to introduce the students to numerous current issues confronting the globe's policy-makers and populations. Specifically, the course provides an opportunity for diversity in the students' educational program and provides information that fosters global understanding and engagement.

## **POLS 3300: U.S. Constitution and Courts**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course provides an overview of American law. The course covers the basic design and structures of the United States court system, trial and appellate legal process, and Constitutional law basics including governmental powers and civil rights and liberties.

## **POLS 3310: Foundations of Public Policy**

### **3 Credit Hours**

*Prerequisite: POLS 1101 or permission of instructor.*

This course serves as a general survey of public policy, beginning with efforts to define public policy through the most modern efforts to explain how public policy is made. Key themes include a comparative look at the development of public policy in democracies, including the stages of policymaking, punctuated equilibrium, issue networks, institutionalism, symbolism, and theories designed to explain the link between policy alternatives and the problems they are designed to solve.

## **POLS 3312: Concepts in State and Local Government**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

State and local governments are increasingly important arenas of policymaking and political conflict in the United States. Around the country states are in the forefront of public policymaking and political controversy on issues ranging from economic development, education, labor relations, health care, environmental protection and marijuana laws, to social issues such as abortion, contraception, same-sex marriage and LGBT rights. Even when the federal government sets agendas and policies, state and local governments are often where implementation actually comes into contact with real people like you and me.

## **POLS 3313: Public Policy Analysis**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Introduction to public policy analysis using data and methodological approaches as well as political and social inputs into the policy process. Analysis of policy outcomes.

## **POLS 3315: American Constitutional Law: Federalism**

### **3 Credit Hours**

*Prerequisite: POLS 1101 and POLS 3300*

The constitutional powers and limitations of national legislative, executive and judicial branches are examined. The course includes analyses of the constitutional relationship of these political institutions to each other and to the states.

### **POLS 3320: Legal Research**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

An introduction to legal resources for law-related courses and to problems that demonstrate the effective utilization of legal research and reference tools in a manner designed to meet the needs of the student in both law and non-law fields. An understanding of legal rules is necessary for scientists, archaeologists and other professionals.

### **POLS 3328: African American Politics**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course is an intensive introduction to ideologies, theories, and empirical research on the role of African Americans in the American political process. The course emphasizes black voting behavior, elite policymaking, public opinion, and the relationship of black information networks with mainstream media.

### **POLS 3340: Legal Analysis**

#### **3 Credit Hours**

*Prerequisite: POLS 3300*

This course involves students in the processes of reasoning objectively and arguing persuasively within a socio-legal framework. Set against a background of formal and informal logic that guides reasoning in general, the course is primarily concerned with the reasoning underlying the construction of legal arguments from judicial, legislative, and scholarly points of view. Theoretical analysis is illustrated by investigating and writing about the law, with an emphasis on topics related to crime.

### **POLS 3343: Principles of Public Administration**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

The methods and procedures of governmental administration and the control of public bureaucracies in democratic societies.

### **POLS 3350: American Foreign Policy**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course explores the conduct, substantive policy issues and problems associated with American foreign policy. The contemporary aspects and problems evolving out of and confronted by America's foreign policy are emphasized.

## **POLS 3356: U.S. Environmental Policy & Politics**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Explores U.S. environmental policy and politics from the implicit early efforts (conservationist and preservationist) to the explicit policy that emerged out of postwar environmental movements and culminated in the 1970 with the creation of the US Environmental Protection Agency. Emphasis is on the politics of making and implementing of environmental policy and on the effectiveness of environmental protection.

## **POLS 3360: The United States Congress**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Presents an in-depth treatment of the origins, development, operation of the U.S. Senate and House of Representatives.

## **POLS 3365: United States Judiciary**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This class examines courts in the United States from an institutional perspective. Accordingly, most of the focus is on federal courts as the co-equal third branch of the U.S. government. Court structures, the role of courts, the legal process, and interactions between the judiciary and other institutions are all covered.

## **POLS 3370: The United States Presidency**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Examines the historical development of the presidency, the constitutional powers, the personalities, the roles and the relationship with other governmental entities.

## **POLS 3375: Political Psychology**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course explores how individual-level psychological processes relate to aggregate-level political behavior. This course examines various aspects of human psychology including personality, motivation, information processing, emotions, and intergroup dynamics and consider their influence on political attitudes and decision making. The format of this class primarily reflects that of a seminar, as it devotes a significant amount of time to discussing and understanding current political events in the context of psychological phenomena. Critical thinking and a vibrant class discussion are essential to the structure of this course.

## **POLS 3380: Mass Media and Politics**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Examines the role of the mass media in society. Emphasis is placed on the media's role in the social, legal and political processes in the United States, as well as other democratic and nondemocratic countries.

## **POLS 3385: Campaigns and Elections**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

An in-depth look at the process of selecting governmental leaders in the United States. Includes a segment on foreign elections.

## **POLS 3387: Political Parties, Interest Groups, and Lobbying**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This class examines political parties, interest groups, and lobbying in the American political system. Accordingly, most of the focus is on political party and interest group dynamics from historical and modern perspectives, and implications in terms of the current political climate and for the future. In addition, the course addresses the ways in which groups and individuals leverage their influence to impact political outcomes.

## **POLS 3388: Lobbying and Interest Groups**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course familiarizes students with public sector lobbying and the role of interest groups in a democratic society. The processes, procedures, and techniques of lobbying government entities will be examined in depth, as well as the issue concerns and persuasion strategies of interest groups. The course will focus on applied learning, and will help prepare students for employment in professional political environments.

## **POLS 3390: Political Research On-Line**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course will help students become familiar with and adept at using on-line resources to perform political and governmental research. Students will be coached on using Internet tools and processes to improve their ability to find and use political and governmental information. Students will be assessed on their proficiency in on-line political research.

## **POLS 3394: Public Polling and Survey Techniques**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course introduces students to the techniques and uses of polls and surveys in political science and public policy. Students will learn the art of questionnaire design, questionnaire construction, sampling, data collection, coding, and analysis. Students will learn the basics of telephone survey techniques and focus group moderation for the purposes of collecting information. Class projects may include the construction and implementation of a survey, reading and critiquing existing surveys and questionnaires. Quantitative and qualitative approaches will be examined.

## **POLS 3396: Cooperative Study**

### **1-3 Credit Hours**

*Prerequisite: POLS 1101; approval of the department chair and coordinator of cooperative education/internship (Career Services).*

A supervised work experience program in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

## **POLS 3398: Internship**

### **1-12 Credit Hours**

*Prerequisite: POLS 1101; approval of department chair and department internship coordinator.*

A supervised, credit-earning work experience with a previously approved business firm, private agency or government agency. Students must make application with the Internship Coordinator before the end of the semester prior to the semester in which the internship is planned.

## **POLS 3850: Introduction to Nongovernmental Organizations and Development**

### **3 Credit Hours**

Students critically examine types, challenges, strategies and activities of international nonprofit organizations (i.e., nongovernmental organizations). This course provides a forum for students to analyze NGOs and their relationships to governments, civil societies, donors, and other stakeholders. International development serves as the unifying theme of exploration. *Note: This course may be cross-listed with HS 3850.*

## **POLS 4000: Practicum in Political Science and International Affairs**

### **1-9 Credit Hours**

*Prerequisite: POLS 1101; 60 hours and permission of the instructor and department chair/program director.*

A pre-approved service and/or experiential activity that occurs domestically or internationally and links meaningful community service or cultural immersion with academic learning, personal growth, and civic or global responsibility. The activity may be part of a preexisting volunteer program, NGO project, or international exchange or it may be individually designed with the instructor and approved by the chair. Students will be expected to keep a reflective journal and prepare a presentation that demonstrates learning objectives.

## **POLS 4100: Directed Applied Research**

### **1-3 Credit Hours**

*Prerequisite: Consent of the instructor and department chair, and POLS 2280 or ACCT 2101 or ECON 2300.*

This course will offer students an opportunity to investigate political science-oriented concepts and issues by participating in faculty-supervised research or scholarship. Course content and instructional methodologies will be determined by the student and faculty member. The amount of work expected per student will be based on the number of assigned credit hours.

## **POLS 4200: Homeland Security Administration**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines the anatomy and response cycle of emergencies as they are managed by the Department of Homeland Security and the Federal Emergency Management Agency (FEMA). A study of pertinent laws, executive orders, and preparedness and response activities at the national, state, and local levels enables each student to understand the nature of crisis management, appropriate responses, and the resulting impact on society.

## **POLS 4201: International Relations in the Americas**

### **3 Credit Hours**

*Prerequisite: POLS 2401*

This course examines the relations among the countries of the Americas. It will explore the development of relations in the context of United States regional hegemony. The course will also examine current issues relevant to the region such as trade, drug trafficking, and migration.

## **POLS 4202: Politics of the U.S. Intelligence Community**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines the history, structure, procedures, and functions of the US intelligence community and how all of these affect policy decisions. A particular emphasis is placed upon lessons learned from past historical failures of the US intelligence community.

## **POLS 4280: Political Data Analysis**

### **3 Credit Hours**

*Prerequisite: POLS 2280*

This course teaches students advanced techniques in political and social research methods. The course covers both qualitative and quantitative methods, including hands-on training in computer-based analysis of large datasets and social science statistical methods.

## **POLS 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: POLS 1101; approval of instructor, advisor and department chair prior to registration.*

Covers special topics and seminars external to regular course offerings.

## **POLS 4402: Political Parties**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Examines the nature, structure and functions of political parties in differing national cultural contexts with particular attention to the electoral activity of political parties in the United States.

## **POLS 4405: Comparative Legal Systems**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

An examination of the ways in which the courts and the law in different countries affect public policy. The source and methods utilized in different legal systems (both democratic and nondemocratic) as transforming agents of society and/or means for maintaining order within it are explored.

## **POLS 4410: American Legal System**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

POLS 4410 is designed to be a capstone to the political science legal studies concentration. Potential topics include the structure and function of the U.S. legal system, as well as criminal justice and alternative dispute resolution, judicial behavior, and the connection between law and society.

### **POLS 4411: Criminal Law**

#### **3 Credit Hours**

*Prerequisite: POLS 1101 and POLS 3300*

An examination of those areas in which the U.S. Constitution affects criminal justice. Emphasis on understanding the role of the Supreme Court of the United States in interpreting provisions of the Constitution that affect criminal justice. An attempt to understand the content of important decisions in this area as well as the reason given by the Court for decisions.

### **POLS 4412: Urban Politics**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

Emphasis on the changing patterns of local and municipal governments and politics, impact of reapportionment and other problems generated by an urbanized society.

### **POLS 4415: Civil Liberties**

#### **3 Credit Hours**

*Prerequisite: POLS 1101 and POLS 3300*

An intensive study of the rights of Americans as guaranteed by the Constitution. The changing character of civil liberties problems in the United States will be stressed with attention given to the legal, historical and political context of the cases studied.

### **POLS 4416: Law and Gender**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

POLS 4416 examines the relationship between law and gender in the United States, from the New Deal Era to the present day. Topics include how gender impacts the legal regulation of employment, education, reproduction, family life, and constitutional rights. Additionally, the course examines how women participate in the legal system as attorneys, judges, and mediators.

### **POLS 4420: Judicial Process**

#### **3 Credit Hours**

*Prerequisite: POLS 1101 and POLS 3300*

Courts and judges as agents in the political system; focus is on the judicial decision-making process, with attention to psychological and other variables in that process. Relation of judicial process to legislative, administrative and electoral processes emphasized.

### **POLS 4423: Great Political Thinkers**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

A survey of classical, medieval, and modern political thinkers and their political thoughts. It discusses their impacts on the development of political processes and institutions.

## **POLS 4427: American Political Thought**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course explores the diverse spectrum of American political thinking from the pre-revolutionary period to the present. Beginning with colonial discourse, this comprehensive review captures the depth and distinctiveness of American thought as expressed by and through the writings and actions of philosophers, politicians, radicals, and revolutionaries.

## **POLS 4428: Race, Gender, and the Politics of Difference**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines contemporary theories and politics of "difference," broadly understood as institutionalized hierarchies which marginalize and oppress certain groups and inhibit their political power. Students use race, gender, sexuality, and class as intersecting analytical frameworks to understand how multiple hierarchies of difference are structured and reproduced in the political process. Using critical race, feminist, queer, and political theory, students explore how political dynamics are shaped by difference.

## **POLS 4429: Legal Theory & Philosophy**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines different theories of jurisprudence and great thinkers of law. Students will learn about legal procedures, the stages of a trial, the appeals process. Students will also analyze core legal concepts such as habeas corpus, judicial power, judicial review, originalism, stare decisis, positivism, consequentialism, strict construction, judicial activism, judicial nominalism, and judicial restraint.

## **POLS 4430: International Law and Organization**

### **3 Credit Hours**

*Prerequisite: POLS 2250*

This course examines the system of law governing relations between nation-states, and the roles and functions of international organizations. It explores the conventional international law in the areas of diplomacy, territorial questions and armed conflicts, as well as the developing regimes in trade and human rights. In addition, the course examines the structures and functions of some contemporary organizations in the security and economic areas and evaluates their performance and contribution.

## **POLS 4431: Politics of International Terrorism**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

A study of the history and tactics of modern terrorism as well as efforts by modern government to counteract them.

### **POLS 4433: European Union Politics**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course explores the politics and policy-making processes of the European Union (EU). It is divided into three parts. The first part addresses the history of European integration and the major theories utilized to explain its origins, evolution and operation. The second part of the course examines the structures and processes that constitute the machinery of EU policymaking. The third part of the course examines the politics of policy-making in an array of issue areas, including the single market, the Euro, and external trade policy. We also examine various noneconomic policy areas such as foreign and security policy.

### **POLS 4435: Comparative Foreign Policy**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

A study of governmental formulation and conduct of foreign policy, focusing on major foreign policy issues that dominate the contemporary world.

### **POLS 4436: Politics of Developing Areas**

#### **3 Credit Hours**

*Prerequisite: POLS 2240 or POLS 2250*

This course confronts the patterns of development of governmental institutions and use of political processes in meeting the problems of the emerging nations of Asia, Africa, Latin America and the Middle East.

### **POLS 4437: Global Security**

#### **3 Credit Hours**

*Prerequisite: POLS 2250*

This course explores the primary threats to international security in the 21st century and examines the response of national governments, the United Nations, and regional international organizations in meeting the challenges posed by those threats.

### **POLS 4438: International Political Economy**

#### **3 Credit Hours**

*Prerequisite: POLS 2250 and ECON 2105*

In International Political Economy students learn about the political influences that shape the global economic system. Particular attention is devoted to the international organizations and trade agreements which shape the behavior of countries, corporations, and other participants in the global economy. Students also gain insights into the political and social consequences of the various economic approaches, and of the impacts of the global exchange of goods and financial assets on societies.

### **POLS 4439: Political Economy of Russia and Central Asia in Transition**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines the political and economic processes of reform in a variety of post-communist societies, including Russia, Kazakhstan, Ukraine, and Mongolia. A significant portion of the course involves a discussion of the impediments to development in either domain, as well as the significant barriers to economic competition in the world marketplace.

### **POLS 4440: Comparative Democratization**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines the process of democratization from a cross-national comparative perspective, with significant emphasis placed on the relationship between economic and political development. It begins with an examination of Western conceptions of democracy and the paths to democratic governance that Western states have taken. It then examines the concept of democracy through the lenses of non-Western cultures and values, and compares the distinct paths that states in each region of the world have taken toward democratization. In so doing, students critically analyze the merits of many controversial arguments put forth by political development scholars.

### **POLS 4444: Administrative Practices and Organization**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

Problems of personnel, finance, administrative law, and the growth and significance of administrative legislation and adjudication.

### **POLS 4446: Governmental Budgeting**

#### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course is designed to introduce undergraduate students to the role of budgeting in the governmental process. Budgetary actors, their motivations, their stakes and their behaviors are investigated. Students examine the legislative process of the budget and budgetary implementation. Students are introduced to cutback management, funding mandates and other current issues in governmental budgeting.

## **POLS 4447: Arctic Politics, Policy, and Security in a Changing Environment**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

As the Arctic region warms, new issues are confronting the region and states that border it. This course examines human, environmental, energy, and traditional security challenges facing the Arctic states and the world. Such challenges include the consequences of renewed Great Power competition, territorial disputes, apparent militarization, rapid environmental change, and significant new investments in energy development and transit/shipping routes. The course evaluates existing multinational legal and political architecture that may help ameliorate such problems.

## **POLS 4448: Russian Politics and Culture**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines the unique political traditions and governing institutions of Russia by examining the pre-communist, communist, and post-communist periods.

## **POLS 4449: Russian Foreign Policy**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines the international relations of Eurasian states, with particular reference to the Russian Federation's position in the global security, political, and economic realms, past and present. It covers both intra-Eurasian relations, as well as Russia's relations with the outside world. The course focuses upon major foreign policy issues that resonate within the region and beyond.

## **POLS 4450: Canada & North America**

### **3 Credit Hours**

*Prerequisite: POLS 1101 or permission of the instructor.*

This course focuses on the commonalities and differences in the political systems and public policies of Canada and the United States, with emphasis on Canada. Issues such as political culture and value systems, electoral politics, federalism and regionalism including the status of Quebec, public opinion, NAFTA, health care, immigration, political integration, the treatment of indigenous peoples, ethnic and gender representation are explored.

## **POLS 4451: Politics and Government in Post-Communist Europe**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course explains the collapse of communist rule in the former Soviet Union and in Eastern Europe. It introduces the contemporary political institutions and processes of Russia, Ukraine, Belarus, Poland, Hungary, the Czech Republic and other key countries of the region. The course uses a comparative approach and develops country profiles to assess the varied degrees of success in achieving stable multiparty democracy. It examines the widely divergent strategies for meeting the severe economic, environmental, social and political challenges confronting these countries during this difficult and volatile transitional era.

## **POLS 4452: Politics of East Asia**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Due primarily to the rise of China, East Asia is rapidly becoming the region with the most influence on the world. This course introduces students to the political institutions and processes of China, Japan, and South Korea. Additional consideration is given to Hong Kong, Taiwan, Mongolia, and North Korea. We further examine the interrelations of these states through their political economy, security, and foreign policy.

## **POLS 4453: Latin America: Democracy and Development**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

Examines contemporary socio-political and economic characteristics as well as political institutions needed to understand the countries of Latin America. Two important themes (democracy building and development) will form the central focus of this course. Driving forces which facilitate and/or hinder the Latin American quest for political stability and economic development will also be examined. These include political parties, labor and peasant movements, economic elites, religious organizations and the military. The role and influence of the United States on Latin American politics will also be examined.

## **POLS 4454: Politics of the Middle East**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines contemporary socio-political and economic characteristics needed to understand the many countries of the Middle East/North Africa. The role of Islam, the Gulf war, the quest for development, the Palestine issue, and democracy versus authoritarianism are themes which will be covered in the course. In addition, a "country profile" approach will also be used. This course examines key countries and studies their political structures in detail.

## **POLS 4455: International Relations of Africa**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course examines the international relations of African states within a conceptual context, with particular reference to Africa's position in the global political economy. It covers both intra-African relations and African relations with the outside world. The main purpose is an attempt to understand African external politics in order to deal with them, by analyzing past practices and projecting new trends.

## **POLS 4456: International Environmental Policy**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

An examination of the basic elements of environmental policy making in the international arena. The course highlights current issues such as tropical rain forests, the "Global Commons" concept, biodiversity and endangered species. Policy approaches will draw upon examples from specific countries as well as policy developed within international organizations such as the United Nations.

## **POLS 4457: South Asian Politics: A Comparative Perspective**

### **3 Credit Hours**

*Prerequisite: POLS 2240*

This course is an overview of the main issues that overlay politics in Sri Lanka, Bangladesh, India, and Pakistan. It covers the common historical background and the development of political institutions across the region. The course highlights the main cleavages along which politics are organized and related political, social, and economic outcomes, including the political party system, economic development, social movements, and ethnic conflict.

## **POLS 4460: Politics of NATO**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

This course explores the past, present, and future of the Atlantic Alliance, tracing its development from its creation in 1949 to its post-Cold War expansion, to the Libya Conflict of 2011 to the ongoing Resolute Support Mission in Afghanistan. It also traces the internal politics of the NATO Alliance and the struggle to address the new security challenges of the 21st century from terrorism to nuclear proliferation, and from missile defense to humanitarian intervention.

## **POLS 4465: Mock Trial**

### **1 Credit Hours**

*Prerequisite: POLS 1101*

An examination of the American trial process. The overall purpose of the course is to enhance knowledge of the American adversarial process. Students who take the course may qualify for selection to teams for state, regional and national competition. Course may be taken three times for credit with permission of the instructor.

## **POLS 4466: Trial Procedure and Evidence**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

POLS 4466 enhances students' knowledge of the adversary process. Students learn and apply the basics of trial procedure and evidence through an in-depth trial simulation. Students who complete this course are eligible to compete on KSU's intercollegiate mock trial team.

## **POLS 4470: Alternative Dispute Resolution**

### **3 Credit Hours**

*Prerequisite: POLS 1101*

A survey of the theory and methods of alternative dispute resolution and conflict management, with simulation in facilitation, mediation and negotiation. Basic skills will be taught.

## **POLS 4480: Practicum in Alternative Dispute Resolution**

### **3 Credit Hours**

*Prerequisite: POLS 4470; permission of the program coordinator.*

A capstone course designed to meet the Alternative Dispute Resolution Certificate Program by integrating the students' prior training in alternative dispute resolution in on-site applied settings and in on-campus seminars. Students will be given applied experiences in selected public or private organizations in the community or in campus-related programs to make use of their ADR training.

## **POLS 4490: Special Topics in Political Science**

### **3 Credit Hours**

*Prerequisite: POLS 1101; approval of the instructor and department chair.*

Selected special topics of interest to faculty and students.

## **POLS 4499: Senior Seminar**

### **3 Credit Hours**

*Prerequisite: Satisfactory completion of 18 hours of upper-division major requirements; POLS 2280*

This capstone course is designed to complete the major by integrating the problems, research and theories from the divergent specialty areas of the Political Science curriculum. The course focuses on both the theoretical and empirical concerns, as well as the interconnectedness among the various Political Science specialty areas.

## **PORT 1001: Elementary Portuguese I**

### **3 Credit Hours**

Introduction to listening, speaking, reading and writing Portuguese and to the culture of Portuguese-speaking regions.

## **PORT 1002: Elementary Portuguese II**

### **3 Credit Hours**

*Prerequisite: PORT 1001, or by placement, or the equivalent*

Continued listening, speaking, reading and writing in Portuguese with further study of the culture of Portuguese-speaking regions.

## **PORT 2001: Intermediate Portuguese I**

### **3 Credit Hours**

*Prerequisite: PORT 1002 or equivalent*

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

## **PORT 2002: Intermediate Portuguese II**

### **3 Credit Hours**

*Prerequisite: PORT 2001 or equivalent.*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

## **PORT 3200: Advanced Reading and Writing in Portuguese**

### **3 Credit Hours**

*Prerequisite: PORT 2002 or permission of the instructor.*

This course emphasizes skill development and refinement in the areas of critical reading and writing in Portuguese. It is designed to give students extensive experience in reading and writing in Portuguese and on Lusophone Linguistic and Cultural issues.

## **PORT 3302: Conversation in Portuguese**

### **3 Credit Hours**

*Prerequisite:* PORT 2002 or permission of the instructor.

This course emphasizes skill development and refinement in the areas of critical thinking through discussion in Portuguese. It is designed to give students experience in conversation in Portuguese and on Lusophone Linguistic and Cultural issues.

## **PORT 3304: Introduction to Lusophone Literatures and Cultures**

### **3 Credit Hours**

*Prerequisite:* PORT 3200 or permission of the instructor.

This course introduces literary and cultural texts to the Advanced-level student in Portuguese. It is designed to give students extensive experience in reading and writing in Portuguese and on Lusophone Linguistics and Cultural issues as they appear in literature of the Lusophone world.

## **PSYC 1101: Introduction to General Psychology**

### **3 Credit Hours**

A broad survey of the major topics in psychology including, but not limited to, research methodology, biological and social factors influencing behavior, development, learning, memory, personality, and abnormal.

## **PSYC 2000: The Science of Psychology**

### **3 Credit Hours**

*Prerequisite:* PSYC 1101 and declared minor in Psychology.

This course provides a survey of the skills needed to read, understand, and evaluate various claims related to the prediction and shaping of behavior. Topics include key components of scientific methodology; systematic comparison, contrast, and evaluation of sources of information about psychology; the roles of the American Psychological Association and Association for Psychological Science in research; techniques for exploring psychological topics; and application of research findings. Emphasis is placed on becoming critical consumers of research.

## **PSYC 2103: Introduction to Human Development**

### **3 Credit Hours**

*Prerequisite:* PSYC 1101

This class introduces students to human development, from conception to death, emphasizing biological, cognitive, emotional, social and personality development. Scientific approaches for studying developmental psychology stress the importance of research methodology and research findings across the life-span. Theories of development and applications to real-world problems provide a context for understanding how humans change during the life-cycle.

## **PSYC 2210: Careers in Psychology**

### **3 Credit Hours**

*Prerequisite:* PSYC 1101; Declared Psychology major

This course focuses on career planning and development issues for psychology majors. Using a combination of lecture, readings, and exercises, students will be exposed to information designed to assist in the clarification, selection, and pursuit of a career in psychology or a related field. Topics will include an overview of the undergraduate major in psychology, career options in psychology and related fields, preparation for employment with a bachelor's degree, preparing for and succeeding in graduate school, and applying for a job or to a graduate school.

## **PSYC 2258: Psychology of Adjustment**

### **3 Credit Hours**

The dynamics of normal and maladaptive adjustment, including the study of appropriate and inappropriate reactions to frustration and stress; resolution of conflicts, fears and anxiety; building emotional stability and preventing mental illness.

## **PSYC 2300: Research Methods and Statistics**

### **4 Credit Hours**

*Prerequisite:* ENGL 1101, and (MATH 1101, MATH 1111, or MATH 1113) *Concurrent:* PSYC 2210

In this course, students are introduced to methods and statistics used in psychological research. Emphasis is placed on non-experimental methodologies such as observation, correlational research, surveys, archival research, and quasi-experimental and ex post facto designs. Topics include an introduction to the scientific method, an overview of experimental design, measurement and error, experimental control, descriptive statistics, statistical inference, scientific writing, and ethical issues in research. Laboratory work is designed to enable students to apply course topics.

## **PSYC 2500: Research Methods in Psychological Science**

### **3 Credit Hours**

*Prerequisite:* ENGL 1101 *Concurrent:* PSYC 2210

In this course, students are introduced to psychological research methods, exploration and critical evaluation of professional literature, and scientific writing. Topics include the scientific method, ethical issues in research, and research design. Coverage encompasses descriptive, correlational, quasi-experimental, and experimental research and data collection strategies. Laboratory work is designed to enable students to apply course topics.

## **PSYC 3000: Statistical Applications in Psychological Science**

### **3 Credit Hours**

*Prerequisite:* Any 1000-level MATH course, or MATH 2202, or STAT 1401, or DATA 1501; and ENGL 1101

*Concurrent:* PSYC 2210

In this course, students are introduced to descriptive and inferential statistical techniques for analyzing psychological research. Coverage encompasses selection of appropriate statistics for differing research questions and designs, and the interpretation and reporting of results. Laboratory work is designed to enable students to apply course topics.

## **PSYC 3010: Educational Psychology**

### **3 Credit Hours**

*Prerequisite:* PSYC 1101

This course is designed to examine the application of psychological concepts, principles, theories, and methodologies related to issues of teaching and learning in the school setting. This course also examines how individuals develop and learn, with particular emphasis upon the classroom environment, including motivation, student interests, creating a healthy learning climate, language development, testing, and individual differences.

## **PSYC 3130: Psychology of Aging**

### **3 Credit Hours**

*Prerequisite:* PSYC 1101

This course provides both a general introduction to the multi-disciplinary field of gerontology and a specific emphasis on those aspects of aging behavior that are of particular interest to psychologists, namely, learning and memory, intellectual behaviors, attitudes, personality, psychopathology, perception, and clinical intervention. The primary purpose of the course is to provide a theoretical and empirical basis for understanding the aging process. Aging from a multicultural perspective is considered.

## **PSYC 3205: Psychology of Child Development**

### **3 Credit Hours**

*Prerequisite:* PSYC 1101

In this course students examine the developmental time period from conception through early adolescence with a major focus on ages 36 months to 15 years. The course covers the biological, emotional, social, language, and motor changes children experience as they develop. Using contemporary theory, research, and methods relevant to developmental psychology, the class emphasizes individual differences, the influence and importance of the environment and relationships for healthy development, and the sociocultural context of development.

## **PSYC 3273: Forensic Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

This course provides the student with an overview of the theories that support the utilization of psychology in the legal system and how those theories and psychological research are applied in law enforcement, the courts, and in corrections. Although the focus in the course is primarily on the United States, some attention is devoted to an international view of forensic psychology.

## **PSYC 3301: Experimental Design and Analysis**

### **4 Credit Hours**

*Prerequisite: PSYC 2210 and PSYC 2300*

In this course, students examine experimental designs used in psychological research. Topics include the selection of appropriate experimental designs for different research questions, hypothesis testing, independent-groups and within-subjects designs, complex designs, data collection strategies, statistical analysis using t-tests and analysis of variance, the interpretation of results, and the writing of research reports. Laboratory work is designed to enable students to apply course topics.

## **PSYC 3310: Psychopharmacology**

### **3 Credit Hours**

*Prerequisite: One 3000-level psychology course*

This course addresses how psychoactive drugs work in the central nervous system to affect behavior. Different classes of drugs will be discussed on their pharmacological profile. Substance use disorders will be addressed from a biological perspective.

## **PSYC 3315: Psychology of Infant Development**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

This course examines the developmental time period from conception up to 36 months. The course covers the biological, emotional, social, language, and motor changes infants progress through during the first three years of life. Using contemporary theory, research, and methods relevant to developmental psychology, the class emphasizes the uniqueness of each infant and toddler, the influence and importance of environment and relationships for healthy development, and the sociocultural context of development.

## **PSYC 3320: Leadership and Group Dynamics**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

Theory and application of psychological knowledge regarding group formation, group process, and leadership. Issues are examined in the context of ongoing intensive group discussion. Experiential activities will be included in the course to provide students with opportunities to apply and observe the group process.

## **PSYC 3325: Social Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 2500*

This course examines how people's thoughts, feelings, and behaviors are shaped by the social environment. Topics include interpersonal attraction, affiliation, aggression, prejudice, conformity, attitudes, persuasion, social cognition, altruism, self-presentation, social perception, and group behavior. Experimental research findings are emphasized.

## **PSYC 3335: Theories of Personality**

### **3 Credit Hours**

*Prerequisite: PSYC 2500*

This course surveys classic and current theories of personality that represent several of the major perspectives in psychology (e.g., psychoanalytic, biological, developmental, behavioral, humanistic, cognitive, sociocultural), highlighting the contributions of each theory to personality description, assessment, research, therapy, and application.

## **PSYC 3340: The Psychology of Family Interaction: A Developmental Perspective**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

An in-depth coverage of the psychological dynamics involved in parent/child relationships. A developmental approach will be employed to explore the changing needs and demands of the child and the parents as each progress in their own development. Current research and theory concerning parenting techniques, the psychological atmosphere of the home and the interaction of the child's temperament with the parents will be discussed. Contemporary family issues such as daycare, domestic violence, single parenting and children with special needs will be presented.

## **PSYC 3355: Cross-Cultural Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

An overview of the study and application of psychological principles from a global cultural perspective, including Asian, African, European and North and South American cultures. Topics such as cognition, attitude structure and change, interpersonal communication, personality and mental health will be discussed in the contexts of different cultural orientations in the world, and both between and within-group differences and similarities will be discussed.

## **PSYC 3365: Human Sexuality**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

An examination of the biological, personal, interpersonal and social aspects of human sexual behavior. Topics include: sexual values, sex and gender, sex and love, sexual behavior over the life span, reproduction, sex and health, sexual dysfunction and treatment, and social problems/issues related to sexual behavior.

## **PSYC 3370: Industrial-Organizational Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

The application of research and psychological principles to human behavior in the workplace. Course topics will include the psychological aspects of employment selection and assessment, performance appraisal, employee and work team development, reorganization and downsizing, work stress, employee violence, work/family conflict, and the changing nature of the workplace.

## **PSYC 3375: Psychology of Career Development**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

The application of research and psychological principles with respect to how people formulate and make career decisions. The course explores career development across the life-span, focusing on theories of career decision making, work adjustment, adult career crises and transitions, and career counseling interview and assessment techniques.

## **PSYC 3380: Principles of Psychological Testing**

### **3 Credit Hours**

*Prerequisite: PSYC 2500*

This course introduces the principles that underlie the development, use, and interpretation of psychological assessment tools. Topics include test construction, survey development, scaling, norming, assessment interpretation issues and psychological assessment applications in industrial, vocational, clinical, and research settings. Additionally, psychological assessment is discussed in terms of social, legal, and ethical concerns.

## **PSYC 3385: Ethnic Minority Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

This course will provide an overview of the study and application of ethnic minority psychology. We will examine concepts and issues that pertain to ethnic minority groups in the United States, particularly the following four groups: African Americans, Asian Americans, Hispanic Americans, and Native Americans. Topics for discussions are: multicultural theory and research, history, cultural values, identity, developmental and family issues, mental health and other relevant issues that are pertinent to the experiences of the above-mentioned four ethnic minority groups in the United States. The course will be conducted with a combination of lectures, class discussion, guest speakers, group activities, student presentations, videos, etc.

## **PSYC 3395: Psychology of Prejudice and Privilege**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

This course focuses on psychological theory and research as mechanisms of understanding prejudice and discrimination. Close attention is paid to how privilege (e.g., racial, gender, sexuality, and/or class privilege) can influence how we perceive ourselves and others within and outside our social/cultural group(s). Coursework may involve readings from both psychology and literature, viewing of relevant films, and participation in experiential learning exercises and dialogues.

## **PSYC 3398: Internship in Psychology**

### **(2-6) Credit Hours**

*Prerequisite: PSYC 2500, PSYC 3000, declared major in psychology, permission of the instructor, and any two additional PSYC 3000 level courses.*

The Internship in Psychology course is a structured off-campus experience in a supervised setting that is chosen in relation to the student's major and interests. Practical experience is combined with a research approach that investigates issues relevant to the internship. Students meet with the internship coordinator to develop an appropriate plan that leads to the writing of a research-oriented paper or research project, a required part of the internship.

## **PSYC 3410: Health Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

Through the use of theoretical and empirical approaches, this course focuses on a biopsychological approach to health psychology including psychological and physiological aspects of U.S. and global health issues. Students will develop knowledge of the psychological aspects of a variety of health topics. Potential topics include body management systems, disease prevention, chronic illnesses, pain, stress and coping, substance use disorder, nutrition, and alternative models of health behavior change.

## **PSYC 3425: Psychology of Gender**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

This course examines gender issues from a psychological perspective. Topics include the social construction of gender, gender and personality development, sex role socialization, and a critical examination of the research on gender differences. The ways in which gender intersects with other aspects of identity (e.g., race, ethnicity, class, sexual orientation) are examined. Scientific research findings are emphasized.

## **PSYC 3505: The Psychology of the Emerging Adult: Late Adolescence through Early Adulthood**

### **3 Credit Hours**

*Prerequisite: PSYC 1101*

This course focuses on development from late adolescence through early adulthood and the unique physiological, cognitive, and psychosocial issues occurring during this transitional period that are not well explained by traditional conceptualizations of standard development periods. Familiarity with the major physical transitions associated with pubescence, the cognitive changes necessary for the abstract reasoning associated with this time period, and the increased complexities inherent in the social experience typical of this age group.

## **PSYC 3510: Psychoneuroimmunology: Mind Body Pathways**

### **3 Credit Hours**

*Prerequisite: One 3000-level psychology course or permission of the instructor*

This course takes a novel approach to the interdisciplinary field of psychoneuroimmunology (PNI) by exploring research and providing practical applications that illustrate how stress over time may impact psychological and physical well-being. Students will be exposed to current PNI literature, experientially explore effects of stress and coping strategies, and participate in a PNI laboratory assignment. Topics will include, but are not limited to: Mind-Body Pathways; Stress and Illness; Metabolism, Growth, and Stress; Sleep and Stress; Coping and Stress Management.

## **PSYC 3775: The Psychology of Religion: An Empirical Approach**

### **3 Credit Hours**

*Prerequisite:* (PSYC 1101 or SOCI 1101) and any 3000-level PSYC course

This course focuses on the study of the influence of religion and spirituality on human behavior. Empirical findings are presented and discussed that allow for the critical evaluation of the role of religion and spirituality in understanding human motivation, cognition, behavior, and individual differences in personality. Students will examine findings on contemporary psychobiological thinking and religion; varieties of religious experience; religion/spirituality in childhood; and the role of religion in morality, psychopathology, and coping.

## **PSYC 3800: Death & Dying**

### **3 Credit Hours**

*Prerequisite:* PSYC 1101 and (PSYC 2500 or PSYC 2000)

This course provides an overview of the range of psychological concepts surrounding the issue of death and dying, with a specific emphasis on end of life issues, suicide, death attitudes, death and childhood, death rituals, grief and mourning, cross-cultural perspectives, and psychological responses to traumatic and mass death. The course prepares students to engage in death education and communication, and to be comfortable addressing the psychological impact of death and dying in diverse settings.

## **PSYC 4100: Advanced Laboratory in Psychological Science**

### **3 Credit Hours**

*Prerequisite:* PSYC 2500 and PSYC 3000

In this course, students integrate research design and statistical concepts to develop an understanding of how research is conducted within the field of psychological science. Students learn the importance of the scientific method and gain hands-on experience with conducting and analyzing scientific research. Topics include selecting appropriate experimental and non-experimental designs to address different research questions, selecting appropriate statistical analyses based on the chosen research design, and practicing written and oral communication of the scientific process. These concepts will be applied to areas within psychological science with a focus on cognitive psychology, learning and behavior, perception, and physiological psychology.

## **PSYC 4345: Learning and Behavior**

### **3 Credit Hours**

*Prerequisite:* PSYC 2500 and PSYC 3000

This course offers an introduction to the various learning mechanisms that influence the establishment, maintenance, and/or reduction of behaviors in both humans and nonhuman animals. The course focuses on linking processes and theories of classical and operant conditioning to everyday behaviors.

## **PSYC 4400: Directed Study in Psychology**

### **1-3 Credit Hours**

*Prerequisite:* PSYC 2500; approval of the instructor and department chair; minimum of 3.0 GPA.

This course is offered to students interested in investigating special topics and seminars external to regular course offerings. May include original research projects. A maximum of 6 hours of PSYC 4400 may be used towards satisfying the upper division major requirements. A maximum of 9 hours of PSYC 4400 is permitted overall.

## **PSYC 4410: Physiological Psychology**

### **3 Credit Hours**

*Prerequisite:* PSYC 2500

This course addresses the relationship between our underlying physiological systems and behavior. The topics investigated include neural communication, the anatomy of the nervous system, and the biological bases of sleep, reproductive behavior, stress, learning and memory, and mental disorders.

## **PSYC 4415: Perception**

### **3 Credit Hours**

*Prerequisite:* PSYC 2500

The subject matter of the course includes the physical properties of stimuli, the psychological methods of investigating perception, the anatomy and physiology of the sense organs, the central processing of stimuli, and demonstrations or laboratory investigations of sensory phenomena.

## **PSYC 4420: Ethics and Professional Issues in Applied Psychology**

### **3 Credit Hours**

*Prerequisite:* One 3000-level psychology course

A critical analysis of professional issues and the ethical standards in the practice of psychology. Traditional and emerging practice areas will be discussed. Topics such as licensure, prescription drug privileges, managed care, and treatment efficacy research will be explored. Ethical standards and decision-making will be studied in the context of professional practice.

## **PSYC 4430: Psychopathology**

### **3 Credit Hours**

*Prerequisite:* One 3000-level psychology course

This course provides an overview of the study of mental disorders, including the major types of distress and dysfunction that occur in human cognition, emotion, behavior, and personality. Students examine current research and applications focused on the classification, features, etiology, course, and treatment of mental disorders. This course prepares students to think critically about topics in psychopathology while considering the philosophical, theoretical, practical, and ethical issues that are involved.

## **PSYC 4440: Clinical and Counseling Psychology: Science and Practice**

### **3 Credit Hours**

*Prerequisite: One 3000-level psychology course*

The course provides an introduction to the science and practice of clinical and counseling psychology from integrated perspectives. History, major theories, and scientific underpinnings are covered, as well as current developments in practice and research. Major topics include research design, theoretical models, diagnostic and assessment methods, psychotherapeutic interventions, treatment effectiveness, specialization, and training. The course may emphasize clinical or counseling psychology at the discretion of the instructor.

## **PSYC 4445: History and Systems of Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 2500 and PSYC 3000*

This course examines the historical development of psychology, focusing on antecedents in philosophy and physiology, major early systems, major historical figures, and the historical/cultural context in which the field developed.

## **PSYC 4455: Cognitive Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 2500 and PSYC 3000*

In this course, students are introduced to the experimental investigation of complex cognitive processes. Topics include attention, perception, memory, concept formation, reasoning, problem solving, and decision-making. Assignments are designed to enable students to relate course material to their own experiences.

## **PSYC 4460: Child Psychopathology**

### **3 Credit Hours**

*Prerequisite: PSYC 1101 and Completion of one of the following Developmental Area courses: PSYC 2103, PSYC 3130, PSYC 3205, or PSYC 3315*

This course is an advanced level course focusing on the etiology, classification, assessment, and treatment of a select group of child and adolescent psychological disorders that are most frequently encountered by professionals in mental health and educational settings. The primary task of the child clinician is to identify and treat those children who suffer from emotional and/or behavioral problems that significantly interfere with their development and functioning.

## **PSYC 4475: Psychology of Workplace Motivation and Leadership**

### **3 Credit Hours**

*Prerequisite: One 3000-level psychology course*

This course examines topics of motivation and leadership in the workplace by addressing theoretical formulations, major research findings and real-world applications. Issues related to these topics will include gender, corporate culture, job attitudes, cross-cultural influences and organizational reward systems.

## **PSYC 4490: Special Topics in Psychology**

### **Variable 1-3 Credit Hours**

*Prerequisite: One 3000-level psychology course*

This course will address selected topics of special interest to faculty and students.

## **PSYC 4498: Capstone Internship in Psychology**

### **(3-6) Credit Hours**

*Prerequisite: PSYC 4100 and one course from each of the four psychology course areas (any one of the four psychology course areas can be completed concurrently with PSYC 4498), and permission of the instructor (via departmental application). Concurrent: Any one of the four psychology course areas can be completed concurrently with PSYC 4498.*

The Capstone Internship in Psychology course is a structured off-campus experience in a supervised setting that is chosen in relation to the student's major and interests. Practical experience is combined with a research approach that investigates issues relevant to the internship. Students meet with the internship coordinator to develop an appropriate plan that leads to writing and presenting a research-oriented paper that integrates prior academic experiences in psychology, a requirement of the capstone experience.

## **PSYC 4499: Capstone Seminar in Psychology**

### **3 Credit Hours**

*Prerequisite: PSYC 4100 and one course from each of the four psychology course areas (any one of the four psychology course areas can be completed concurrently with PSYC 4499) Concurrent: Any one of the four psychology course areas can be completed concurrently with PSYC 4499.*

This capstone course is designed to complete the major by integrating prior academic experiences in psychology. The course focuses on applying academic knowledge and skills to the examination of contemporary issues, problems, research, and theories from the different areas identified in the psychology curriculum. Discussions include potential interconnections among areas of study, as well as connections between academic knowledge and skills to employment opportunities. Connections made are communicated through scientific writing and oral presentation(s).

## **PSYC 4500: Capstone Integrative Project**

### **3 Credit Hours**

*Prerequisite: PSYC 4100, a minimum institutional GPA of 3.00, and permission of the instructor (via departmental application). One course from each of the psychology curriculum areas must be completed (one grouping may be taken concurrently with PSYC 4500).*

This capstone course is designed to complete the major by integrating the student's prior academic experiences in psychology. The course focuses on applying research methods and statistics knowledge through project-based experiences. Discussion focuses on both substantive and methodological concerns, as well as developing and applying research skills. Results of project-based experiences are communicated through scientific writing and presentation(s).

## **RE 3400: Principles of Real Estate**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Students are introduced to the principles of real estate analysis and utilization. Subjects include the nature of real property; the legal instruments involved in real property transactions; market analysis and the determinants of real estate values; the appraisal process; investment and financial analysis; and the public policy aspects of real estate planning and utilization.

## **RE 4500: Real Estate Finance**

### **3 Credit Hours**

*Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.*

Examines the principles and procedures of real estate appraisal, the transfer process for property, and financing methods for residential and commercial real estate. Studies the income and cost of developing and managing real property and analyzes real estate as an investment.

## **RELS 1102: Introduction to Religion**

### **3 Credit Hours**

This course is an interdisciplinary overview of religion in human culture. Students explore how religion provides meaning and structure to human life by addressing basic questions about the body, nature, spirit, community, and time, and how religious concepts and practices are expressed in texts, ceremonies, rituals, and festivals. The course provides a survey of the conceptual and experiential aspects of religion that enables students to engage in informed, critical, and dispassionate conversations about religion.

## **RELS 3200: Religion and Gender**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 or RELS 1102*

This course focuses on gender as a category of analysis for the study of religion, the relationship between religion and sexuality, and how religion informs gender and how gender informs religion. Some topics covered may include the construction of male and female roles in religious texts and rituals, feminist critique of religion and/or the uses and abuses of gendered imagery and language in religious discourse.

## **RELS 3300: Ethical Issues in Religion**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 or RELS 1102*

This interdisciplinary course introduces students to the ways that various religious traditions address moral questions and issues. The students study how ethical moral responses are both researched by scholars of religion and addressed by practitioners of specific religious traditions.

## **RELS 3500: Religion and Popular Culture**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 and RELS 1102*

This course is an interdisciplinary course that examines the ways that religious themes, symbols, icons, artifacts and language are used in expressions of popular culture(s) and also how religion is itself influenced by popular culture(s). The interaction between religion and pop culture(s) is studied from a critical perspective with a range of diverse cultural and religious examples across both media platforms and forms of pop culture(s).

## **RELS 3780: Trends in Religious Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 or RELS 1102*

This course focuses on current issues and trends in the field of Religious Studies. This course is interdisciplinary includes international content in English. Notes: Course may be repeated with a change in content. *Notes: Course may be repeated with a change in content.*

## **RELS 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of instructor and department chair prior to registration.*

In this course the selected topic of an advanced nature not serve by the existing curriculum is investigated by a student working with a supervising faculty member.

## **RELS 4490: Special Topics in Religious Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102 or RELS 1102*

This course is a study of selected special topics of interest to faculty and students. *Notes: This course may be repeated with a change in content.*

## **RES 4000: Vertically Integrated Projects**

### **1-4 Credit Hours**

Multidisciplinary course supporting faculty research. Can participate multiple semesters. Students will have strong foundations within discipline, pursue further knowledge/skills, make meaningful contributions, and assume significant technical/leadership responsibilities.

## **RES 4100: Responsible Conduct of Research**

### **0 Credit Hours**

The responsible conduct of research is an underpinning of the research enterprise. All researchers need to operate within a set of professional ethics that guide their decision-making. The purpose of this course is to provide researchers the opportunities to read about, consider, and discuss the responsible conduct of their own research. The course is intended to meet the current NIH and NSF requirements for training in the responsible conduct of research. This course may be cross-leveled with RES 6100.

## **RUSS 1001: Elementary Russian I**

### **3 Credit Hours**

Introduction to the Russian language and culture, stressing progressive acquisition of effective communications skills in both the written and spoken language and an understanding of the practices and products of the culture being studied.

## **RUSS 1002: Elementary Russian II**

### **3 Credit Hours**

*Prerequisite: RUSS 1001, or by placement, or the equivalent*

This course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Russian culture.

## **RUSS 2001: Intermediate Russian I**

### **3 Credit Hours**

*Prerequisite: RUSS 1002*

Builds upon acquisition of communication skills begun in high school. The student will continue to develop proficiency in listening, speaking, reading and writing and learn to communicate in culturally appropriate ways.

## **RUSS 2002: Intermediate Russian II**

### **3 Credit Hours**

*Prerequisite: RUSS 2001*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

## **RUSS 2290: Special Topics in Russian**

### **1-3 Credit Hours**

*Prerequisite: Permission of the department chair.*

This course covers special topics of interest at the beginning or intermediate levels. It is primarily for studies abroad in Russian language and culture.

## **SCI 1101: Science, Society, and the Environment I**

### **4 Credit Hours**

This course is the first in a two part sequence that fulfills the general education science requirement. Using the context of environmental issues it introduces students to the basic nature of matter, energy, and living systems and to the nature of science. Emphasis is placed on making decisions about scientific issues. Science 1101 is not designed for science majors and is not a prerequisite for introductory courses in biology, chemistry, or physics.

## **SCI 1102: Science, Society and the Environment II**

### **3 Credit Hours**

*Prerequisite: SCI 1101 or its equivalent.*

This course is the second in a two part sequence that fulfills the general education science requirement. Using the context of environmental issues, it introduces students to the basic skills and scientific understandings needed by educated citizens to make informed decisions about scientific issues.

## **SCI 3360: Earth Science**

### **4 Credit Hours**

*Prerequisite: A grade of 'C' or better in any two 1000-level or 2000-level science courses*

An introduction to basic earth science concepts and methodology (including geology, meteorology, and oceanography) will be covered. Special emphasis will be placed on dynamic Earth processes (plate tectonics, earthquakes, volcanism, climate, etc.) and their effects on the structure and composition of the landforms, oceans, atmosphere, and organisms. The lab component includes hands-on evaluation of a collection of Igneous, Metamorphic and Sedimentary rocks, topographic map analyses, spectral imaging and remote sensing, and modeling weather related phenomena.

### **SCI 3365: Earth Watch: Examining Global Environmental Issues**

#### **3 Credit Hours**

*Prerequisite: SCI 1102*

An examination of the integrative nature of environmental sciences; emphasis on human interactions with world environments. Discussions will focus on case studies, environmental problem-solving, and the development of a personal ecological ethic. Ecological principles of population, community, ecosystem and biosphere will be integrated in the case studies.

### **SCI 4700L: Applied Environmental Studies**

#### **3 Credit Hours**

*Prerequisite: SCI 1101 and SCI 1102*

An interdisciplinary, field-based, capstone course. Students will apply skills learned in previous courses in a team-based project. The experience will be documented in an environmental assessment report describing the land and aquatic systems in terms of use, conditions (chemical, biological, physical), economic impact, environmental policy and management.

### **SCM 2000: Culture and Success in Science and Mathematics**

#### **3 Credit Hours**

*Prerequisite: A declared major within the College of Science and Mathematics.*

In this course, students will develop the skills and mindset of a scientist or mathematician through metacognitive exploration, reflection, and guided inquiry. In addition, students will apply appropriate social methods to build scientific and mathematical collaborations, emulating the modern STEM enterprise. Finally, students will learn to value an inclusive STEM environment and support measures that expand access for all students to STEM.

### **EDSM 2010: Knowing and Learning in Science**

#### **3 Credit Hours**

*Prerequisite: EDSM 1102*

Students construct a model of knowing and learning that will guide their future classroom practice. Issues of what it means to learn and know science, how what we know changes and develops, and the standards used to measure what science is known inform this model. Students will also explore the connections between kinds of assessments and theories of knowing. This course is restricted to participants in the UTeach program.

## **SCED 2421: Classroom Interactions**

### **3 Credit Hours**

*Prerequisite: EDSM 2010 and Admission to Teacher Education*

This course examines teachers, students, content, and interactions that lead students who are culturally, linguistically, or academically diverse to develop conceptual understandings of science. Science teacher candidates design and implement instructional activities informed by their understanding of science learning, then assess student learning of science. This course includes a 45 hour middle school science teaching experience as introduction to the adolescent learner, the equity imperative and science education reform.

## **SCED 3010: Perspectives in Teaching Science**

### **3 Credit Hours**

*Prerequisite: EDSM 2010 and Admission to Teacher Education*

Students apply and extend their understanding of knowing and learning in science by surveying the history of science and science education reform for application to teaching practice. Students deepen their ability to relate practices of modern science to their developing perspective on learning and teaching science as they analyze curricula and design reform-based science instruction. Lab component includes tutoring of secondary or tertiary science learners.

## **SCED 4000: Service Learning in Science Education**

### **1-3 Credit Hours**

*Prerequisite: 60 hours and permission of the instructor and department chair/program director.*

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

## **SCED 4414: Methods of Teaching Secondary Science I**

### **2 Credit Hours**

*Prerequisite: EDUC 2130 and admission to Teacher Education Program Corequisite: SCED 4424*

This course examines teachers, students, content, and interactions that lead students to develop conceptual understandings of science. Science teacher candidates design and implement instructional activities informed by understanding of science learning, then assess student learning. The co-requisite for this course is a 60 hour field experience as introduction to the adolescent learner, the equity imperative and science education reform.

## **SCED 4416: Methods of Teaching Secondary Science II**

### **3 Credit Hours**

*Prerequisite: SCED 4414 Corequisite: SCED 4426*

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based science lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice using videos, journals, and discussions. This course is restricted to participants in the secondary science education program.

## **SCED 4424: Teaching Secondary Science- Practicum I**

### **1 Credit Hours**

*Prerequisite: Admission to the Teacher Preparation program; obtain pre-service certificate. Corequisite: SCED 4414*

This course is a one credit-hour, school-based field experience in a secondary science classroom. The specific schedule will be determined collaboratively between the collaborating mentor teacher, the teacher candidate, and the KSU supervisor. Candidates must have a satisfactory field experience to continue on to student teaching. Proof of professional liability insurance and a criminal background check are required prior to receiving a school placement.

## **SCED 4426: Teaching Secondary Science- Practicum II**

### **1 Credit Hours**

*Prerequisite: SCED 4424 Corequisite: SCED 4416*

This course is a one credit-hour, school-based field experience in a secondary science classroom. The specific schedule will be determined collaboratively between the collaborating mentor teacher, the teacher candidate, and the KSU supervisor. Candidates must have a satisfactory field experience to continue on to student teaching. Proof of professional liability insurance and a criminal background check are required prior to receiving a school placement.

## **SCED 4498: Internship in Teaching Science (6-12)**

### **12 Credit Hours**

*Prerequisite: Provisional teaching license issued by State of Georgia, full-time employment teaching science, and permission of science education advisor.*

Student Teaching experience in science for provisionally certified teachers. Supervision will be in collaboration with a mentor-teacher in the local school and a specialist in science education. This internship will automatically substitute for SCED 4475. Proof of professional liability insurance is required. Student is responsible for their own school placement.

## **SCED 4650: Yearlong Clinical Experience I**

### **4 Credit Hours**

*Prerequisite: SCED 4416, Admission to Yearlong Clinical Experience and Pre-Service Certificate*

*Corequisite: EDUC 4610 and INED 3300*

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based science lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice using videos, journals, and discussions. This course is restricted to participants in the secondary science education program. This course includes a one credit seminar.

## **SCED 4660: Yearlong Clinical Experience II**

### **9 Credit Hours**

*Prerequisite: SCED 4650, eligibility to take GACE Concurrent: INED 4431*

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based science lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice using videos, journals, and discussions. This course is restricted to participants in the secondary science education program. This course includes a one credit seminar.

## **EDSM 3000K: Survey of Life Science**

### **4 Credit Hours**

*Prerequisite: Any science course from General Education Core Curriculum Area D2*

This course is a survey of life science topics designed to support middle grades education candidates in achieving the NSTA Middle Grades Content Standards for Life Science. Inquiry laboratory experiences are included in the course. This course is not appropriate for majors other than middle grades education with a science concentration.

## **EDSM 4416: Teaching Secondary Math & Science Practicum II**

### **1 Credit Hours**

*Prerequisite: EDSM 4414 Concurrent: SCED 4416 or MAED 4416*

Under the guidance of a collaborating teaching and a university instructor, the teacher candidate will complete a field experience in a designated school. This experience requires working in a co-teaching environment with diverse learners and focuses on supporting learners' mathematical or scientific discourse. Proof of professional liability insurance and a pre-service teaching certificate is required.

### **SED 2220: Internship**

#### **3 Credit Hours**

*Prerequisite: Permission of the director of the Center for Education Placement and Partnerships and advisor.*

A practicum in a classroom during which the student will be actively involved in the teaching-learning process under the guidance of a professional teacher.

### **SED 3398: Internship**

#### **1-12 Credit Hours**

*Prerequisite: Permission of the director of the Center for Education Placements and Partnerships and advisor.*

A supervised teaching experience for teachers seeking certification renewal credit.

### **SED 4400: Directed Study**

#### **1-3 Credit Hours**

*Prerequisite: Permission of the instructor and department chair prior to registration.*

A concentrated investigation of a particular aspect of education as a topic within a teaching field concentration or degree major. The content of the directed study will be determined jointly by the instructor and the student.

### **SED 4490: Special Topics in Education**

#### **1-3 Credit Hours**

*Prerequisite: Permission of the instructor and department chair.*

Selected special topics of interest to faculty and students.

### **SOCI 1101: Introduction to Sociology**

#### **3 Credit Hours**

This course is an overview of sociology, which emphasizes the social nature of human behavior, including an introduction to culture, social structure, socialization, deviance, stratification, family, gender, religion, demography, and complex organization.

### **SOCI 2000: Introduction to Gender Studies**

#### **3 Credit Hours**

*Prerequisite: A grade of "C" or better in ENGL 1101*

This course examines the ways that women's and men's gender roles are shaped by social interaction. Using materials and learning approaches from multiple disciplines, students will explore questions about how individual and group expectations about gender behavior are created and sustained.

## **SOCI 2210: Professional Development for Sociology Students**

### **3 Credit Hours**

*Prerequisite: SOCI 1101*

This course is designed to introduce students to research skills, concepts, and strategies essential for academic success in an undergraduate Sociology program. Included is an introduction to the ethical questions of social science methods and theory. The primary objective of this course is to assist students in being successful student sociologists and their transition to professionally relevant fields and/or graduate school.

## **SOCI 2251: Social Problems**

### **3 Credit Hours**

This course includes an overview of current social problems facing American society with attention to developing insights into the conceptual analysis of meaningful solutions.

## **SOCI 3300: Foundations of Social Theory**

### **3 Credit Hours**

*Prerequisite: SOCI 1101*

This course surveys the historical development of social theory. It emphasizes the major theories and theoreticians of sociology and their importance for understanding contemporary sociology.

## **SOCI 3303: Statistics for Sociology**

### **3 Credit Hours**

This course introduces a wide range of statistical concepts and techniques used in sociology. Students learn how to summarize data, generalize from a sample to a population, and determine the relationships between two or more variables. The course emphasizes the application, interpretation, and critique of various statistical techniques, including means tests, cross tabulation, ANOVA, correlation, and regression. Students use computer software to analyze sociological data.

## **SOCI 3304: Social Organization**

### **3 Credit Hours**

This course is an introduction to large scale social organizations, with an emphasis on bureaucracy. It examines both the formal and informal aspects of bureaucracy, including topics ranging from power and authority, to centralization and decentralization, red tape, and professionalism.

## **SOCI 3305: Research Methods in Sociology**

### **3 Credit Hours**

*Prerequisite: SOCI 1101 and SOCI 2210*

This course provides an introduction to concepts and techniques used in social science research. Students acquire a foundational understanding of research methods in sociology, learn how to link theory and data, and examine the ethical considerations required for social research. *Notes: Offered as an online course.*

## **SOCI 3310: Introduction to Gerontology**

### **3 Credit Hours**

This course provides an introduction to the multi-disciplinary field of gerontology which provides an overview of the sociology, psychology, and the physiology of aging. Students will consider research and theories of aging as well as participate in field trip experiences in gerontological settings. A key goal is to develop a more realistic perception of the aging process.

## **SOCI 3314: Race and Ethnicity**

### **3 Credit Hours**

This course addresses the social construction of racial and ethnic categories and inequalities between various groups. Topics of study include immigration, prejudice, discrimination, segregation, and racism, as well as ways to address current problems of racial and ethnic conflict.

## **SOCI 3315: Transnational Sociology**

### **3 Credit Hours**

Conventional sociological perspectives address social life and social interaction through the context of the nation-state system. The increasing movement of ideas, capital, and people across national borders challenges the ability of conventional sociological approaches to assess the social transformation occurring within these trans-local and transcontinental contexts. Through a systematic examination of comparative and transnational sociological approaches, the course provides students with the critical skills to understand and address the complexity of the contemporary global world.

## **SOCI 3320: Exploring the Aging Network**

### **3 Credit Hours**

This class explores the range of services, programs, and employment opportunities related to aging. The goal is to familiarize students with the gerontology field so that they can develop interests, contacts, resources, and knowledge about the aging network to use both personally and professionally. Students further develop and refine academic plans, career paths, and personal and professional goals related to working with older adults.

### **SOCI 3324: Sociology of Gender**

#### ***3 Credit Hours***

This course examines gender as a major organizing principle in society and explores the ways in which gender intersects with other types of social differentiation including race, sexuality, social class, and nationality. The course also explores the implications of changes in family, economic, and political structures related to gender and their impact on equality in contemporary society.

### **SOCI 3333: Technology and Society**

#### ***3 Credit Hours***

This course examines the interaction between scientific and technological development and social development, social structure and social issues.

### **SOCI 3334: Religion and Society**

#### ***3 Credit Hours***

This course examines religion as a social institution in historical, comparative, and contemporary terms. World religions and new religious movements are studied as sociocultural processes involving the need to know, to deal with problems and to adapt to change.

### **SOCI 3344: Biotechnology and Social Change**

#### ***3 Credit Hours***

This course is designed to examine the multiple manifestations of biotechnology and their social change implications. The course locates the biotechnology revolution in the broader socio-historical context within which it is emerging. The course focuses on the examination of the ways in which the development and deployment of biotechnology are transforming the cultural and institutional character of modern societies. This includes an examination of social, ethical/moral and legal/legislative issues and their impact on policy.

### **SOCI 3350: Intersections of Race, Class, and Gender**

#### ***3 Credit Hours***

The primary objective of this course is to understand how race, class, and gender intersect to fundamentally shape social interaction, conditions, and institutions in American society. This course examines the ways in which race, class, and gender are socially constructed and how they interconnect to create and maintain systems of privilege and inequality.

### **SOCI 3354: Social Class and Mobility**

#### ***3 Credit Hours***

This course examines social class and hierarchy in America. Issues in empowerment, equality, styles of life, and the nature of poverty and social mobility will be highlighted.

### **SOCI 3360: Sociology of Violence**

#### **3 Credit Hours**

This course examines the root causes and consequences of violent behavior exhibited by individuals in our society. Topics covered include the social and cultural contexts that breed violence, society's influence on specific crimes, and human social behavior.

### **SOCI 3364: Sociology of the Family**

#### **3 Credit Hours**

This course presents the institution of the family in historical and cross-cultural perspective, including an analysis of the American family system, its social structure and alteration, and its relation to other social institutions.

### **SOCI 3370: Strategies for Conflict Transformation: Theories and Tools**

#### **4 Credit Hours**

This course covers theories that explain the origins of conflict, escalation and de-escalation, and the theories and practices of conflict transformation between individuals and groups.

### **SOCI 3374: Sociology of Work and Occupations**

#### **3 Credit Hours**

This course examines the world of work, the changing nature of work, and the implications of these changes for individuals and families. Key themes include theories of work and labor process, intersections of race, ethnicity, and gender, job satisfaction and motivation, labor unions, technological and global challenges, and the structure of professions and occupations.

### **SOCI 3380: Society, Community, & Health**

#### **3 Credit Hours**

This course explores the connections between society, communities, and the health of individuals. Topics include sociological approaches to global health inequalities, tensions between medicine and culture and the ethics of public health and biomedical research. Students critically analyze major issues of health and illness confronting selected subpopulations. The course introduces students to selected theoretical frameworks that address social determinants of health.

### **SOCI 3396: Cooperative Study**

#### **1-3 Credit Hours**

*Prerequisite: Approval of the coordinator of cooperative education (CAPS) and department chair.*

A supervised work experience program for a minimum of two academic semesters at a previously approved site in business, industry, government or private agency. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

## **SOCI 3398: Internship**

### **1-12 Credit Hours**

*Prerequisite:* 90 hours

This course is a structured off-campus experience in a supervised setting which is related to the student's major and career interests. Practical experience is combined with scholarly research in the topical area of the internship. Sites must be approved in advance of the semester of the internship. A departmental internship orientation session is scheduled at least once a semester.

## **SOCI 4200: Drugs, Alcohol, and Society**

### **3 Credit Hours**

This course examines drug use and abuse, including alcohol. Specifically, it examines how different drugs affect the body, theories of drug use, the sociological context of drug use, the impact of drug use and abuse on society, drug treatment, drug use policies, drugs and the law, and the extent of drug use in our society and globally.

## **SOCI 4400: Directed Study in Sociology**

### **1-3 Credit Hours**

*Prerequisite:* Approval of the instructor and department chair.

Covers special topics and seminars external to regular course offerings. May include original research projects and practicum experiences.

## **SOCI 4410: Advanced Qualitative Research Methods in Sociology**

### **3 Credit Hours**

*Prerequisite:* SOCI 3305

Students learn the qualitative strategies used in sociology research methods, including ethnographic techniques applied in sociology, participant observation, in-depth interviewing, and content analysis. Students learn ethical implications of social research, and how to design a qualitative research study, develop interview guides, construct content analysis templates, conduct observations on the field, conduct interviews, code data, and analyze qualitative data. Students learn skills using software applications for data management and analysis and write a research proposal.

## **SOCI 4420: Advanced Quantitative Research Methods in Sociology**

### **3 Credit Hours**

*Prerequisite:* SOCI 3305

This course examines the concepts and techniques used for quantitative research in sociology. Students learn to interpret, calculate, and critique the basic statistics used in quantitative methods in sociology. Students acquire the skills to use Statistical Package for Social Sciences (SPSS) computer program for managing and analyzing numerical data. Students learn the ethical implications of social science research and write a research proposal for a quantitative study.

## **SOCI 4432: Criminology**

### **3 Credit Hours**

*Prerequisite: SOCI 1101 or CRJU 1101*

This course examines the nature and extent of crime and the causes and correlates of criminal behavior. This course also examines the major criminological theories, including biological, psychological, sociological, rational choice, and developmental theories.

## **SOCI 4434: Emerging Social Issues in Africa**

### **3 Credit Hours**

This course examines current social, political and economic trends and issues in Africa, including a critical analysis of transformations in contemporary African societies. This course frames Africa's sociopolitical history around the notion of "contact" in the eras of pre-European "contact", European "contact and domination" (trade, slavery, colonialism, and imperialism), and post-colonial political formations, including military adventurism. This course also examines social movements and other forms of resistance, including an examination of Pan-Africanism and anti-colonial nationalisms.

## **SOCI 4435: Sociology of South Asia**

### **3 Credit Hours**

This course examines social change and development in the South Asian societies through a historically informed analysis of social institutions in the region. Some of the key themes explored include contested histories, identity politics and nationalism, democratization, growth, poverty, and inequality. The course includes case studies from Afghanistan, Bangladesh, Bhutan, Nepal, Pakistan, and Sri Lanka, but its main focus is on India.

## **SOCI 4442: Deviance and Social Control**

### **3 Credit Hours**

This course presents a survey of the nature, causes, and consequences of deviant behavior. It provides an analysis of the problems of definition, identification, explanation, and social reaction to violations of institutional expectations and presents techniques of social control.

## **SOCI 4443: Medical Sociology**

### **3 Credit Hours**

This course provides an analysis of (1) the social processes affecting conditions of health and illness and (2) the cluster of social relationships and organizations that comprise the social institution of health. It emphasizes the sociocultural factors that influence definitions of health and illness, causes, preventions and treatments, cross-cultural and interclass comparisons of stress, delivery of health care, mental illness, death and dying, and health care professionals.

## **SOCI 4444: Social Movements and Social Change**

### **3 Credit Hours**

This course examines theories and empirical research on social movements, why, how, and when they emerge, develop, and effect social change, along with technological, economic, organizational, and political forces for social change.

## **SOCI 4445: Sociology of Mental Illness**

### **3 Credit Hours**

This course examines the social aspects of mental illness. Topics include the history of mental illness, definitions, diagnoses, treatment institutions, and social factors that influence severity and course. The course will consider the characterization of "mental disorders" as "diseases," the applicability of a resocialization model, and ethical issues.

## **SOCI 4464: Population and Demography**

### **3 Credit Hours**

This course is concerned with virtually everything that influences, or can be influenced, by population size, distribution, processes, structure, or characteristics. This course addresses the causes and consequences of population change, such as fertility, mortality, migration, technology, lifestyle and culture. Changes in population affect health and illness, the environment and its capacity, urbanization, family and household formation, aging, the labor force, poverty, government policies and business marketing strategies.

## **SOCI 4490: Special Topics in Sociology**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected topics of interest to faculty and students.

## **SOCI 4499: Senior Seminar in Sociology**

### **3 Credit Hours**

*Prerequisite: SOCI 3300 and SOCI 3305*

This capstone course is designed to complete the major by integrating theory, research, and sociological issues from divergent specialty areas of the sociology curriculum. Students synthesize the material from previous sociology courses, highlighting the central importance of the intersecting impact of race, class, and gender. Students submit and present a final report.

## **SWE 3313: Introduction to Software Engineering**

### **3 Credit Hours**

*Prerequisite:* (CSE 1322 and CSE 1322L)

This course provides an overview of the software engineering discipline, introducing the student to the fundamental principles and processes of software engineering. This course highlights the need for an engineering approach (both personal and team) to software with understanding of the activities performed at each stage in the development cycle. In this course, students will perform requirements analysis, design, implementation and testing. The course presents software development processes at the various degrees of granularity. Students will become aware of libraries of standards (IEEE, ACM, SWEBOK, etc.).

## **SWE 3623: Software Systems Requirements**

### **3 Credit Hours**

*Prerequisite:* (SWE 3313 and (CSE 2300 or MATH 2345)) or CPE 3000

This course covers engineering activities related to the definition and representation of software system requirements. Topics include the elicitation, analysis, specification and validation of software system requirements. Emphasis is on the application of processes and techniques of requirements engineering. Projects focus on current analysis methods and supporting tools for specification, organization, change management, traceability, prototyping, and validating requirements.

## **SWE 3633: Software Architecture and Design**

### **3 Credit Hours**

*Prerequisite:* SWE 3313 or CPE 3000

This course covers the fundamental design principles and strategy for software architecture and design. Architectural styles, quality attributes, design notations and documents, reference architecture, domain specific architecture in architecture process and pattern-oriented design, component-oriented design, and interface design in detailed design process are discussed.

## **SWE 3643: Software Testing & Quality Assurance**

### **3 Credit Hours**

*Prerequisite:* SWE 3313 or CPE 3000

This course will show how software quality assurance and configuration management are performed and how software process improvement is maintained in order to assure the highest possible quality. Topics include software process metrics and their use in QA, testing approaches, methods and techniques. Development of QA plans, reviews, inspections and audits will be done.

## **SWE 3683: Embedded Systems Analysis and Design**

### **3 Credit Hours**

*Prerequisite:* CS 3305

The analysis and design course focuses on using modern methods, techniques, and tools for specification and design of embedded systems. Topics include analytical methods such as RMA, development methods such as HOOD, and notations like UML, Petri-nets, etc. are covered. Performance evaluation based on modeling and simulation techniques is also covered. This is a project based course.

## **SWE 4324: User-Centered Design**

### **3 Credit Hours**

*Prerequisite:* SWE 3313

This course presents the fundamental knowledge, processes, skills, and practices leading to the user-centered design (UCD) of (computer) systems and applications. UCD is not limited to the design of software systems but applies to the plan and development of any objects. This course will define the important concepts in UCD, cognition and its relationship with UCD, and two views of human-centered design. Usability engineering techniques are covered leading to improved system effectiveness in supporting use of computers, user learning, diversity in interaction styles, and individual versus group work.

## **SWE 4490: Special Topics**

### **3 Credit Hours**

This course offers advanced topics in Software Engineering selected by the Department. The course covers special topics at the senior level that are not covered in the regular course offerings.

## **SWE 4633: Cloud Software Development**

### **3 Credit Hours**

*Prerequisite:* CS 3305

This course discusses the fundamental concepts and tools of cloud-based application development. Students will learn how to develop apps on top of the cloud with an understanding of various contemporary cloud providers (e.g., Amazon Web Services, Google Cloud, or Microsoft Azure). Students will do hands-on projects focused on building cloud-run applications using their platform of choice.

## **SWE 4663: Software Project Management**

### **3 Credit Hours**

*Prerequisite: SWE 3313 and STAT 2332*

This course focuses on organizational and technical roles in software engineering. Models of software engineering life cycle, software maturity framework, strategies of implementing software, software process assessment, project planning principles and tools, software configuration management, managing software quality and usability, leadership principles and legal issues will be covered. A required team project combines technical and managerial techniques of software design and development.

## **SWE 4713: SWE Application Domain**

### **3 Credit Hours**

*Prerequisite: SWE 3623 Concurrent: SWE 3643 and SWE 4663*

Students work as part of a team to develop solutions to problems posed by either internal or external customers in a specific SWE Application Domain. The purpose of the course is for students to gain an understanding of the selected application domain and its use of software to support functions/operations within that domain. Application domain selection is done every term from a variety of industrial domains including Security, Gaming, Automotive, Aerospace, Military, Finance and Commerce. Problems may require considerable software development or evolution and maintenance of existing software products. The course culminates with the completion and presentation of an increment of the project solution.

## **SWE 4723: Undergraduate Research Methods**

### **3 Credit Hours**

*Prerequisite: SWE 3313 or instructor permission.*

High Impact Practices (HIPs) are recognized as an important tool that can transform the educational experience of a student. Among the different possible HIPs, undergraduate research is an important activity that allows for training creativity and critical thinking. Being a good researcher depends on many factors and requires discipline and the knowledge of the research process and related methodologies. This course will provide a comprehensive introduction to give students the tools to create a research project, including research methodologies and foundational research theories and protocols. This course will also teach students how to write the results of their research and how to present them.

## **SWE 4724: Software Engineering Capstone Project**

### **4 Credit Hours**

*Prerequisite: SWE 3623 Concurrent: SWE 3643 and SWE 4663*

This is the capstone project course and constitutes a major design experience. The course focuses on a team project comprising the development of a realistic software system during all phases of the software development life cycle. Topics include software project management, design, verification and validation, development, evolution and quality assurance. Current methods, techniques, and software tools are utilized in the development of the project.

## **SWE 4743: Object-Oriented Development**

### **3 Credit Hours**

*Prerequisite: CS 3305*

This course involves engineering activities related to the analysis, design, and implementation of object-oriented software systems. Topics include modeling foundations, requirements specification and documentation, design concepts and strategies, and OOAD methodologies with an emphasis on UML. The course includes a major project utilizing current analysis and design methods and tools implemented in a contemporary IDE.

## **SWE 4783: User Interaction Engineering**

### **3 Credit Hours**

*Prerequisite: SWE 3313 or SWE 4324*

This course covers the basic theories and principles applied to the design of human-computer interfaces. It introduces students to the basic concepts used in designing interactions. It will cover the basic theory and methods that exist in the field. Case studies are used throughout the readings to exemplify the methods presented and to lend a context to the issues discussed. This course will focus on the semiotic engineering approach to human-computer interaction, in which the interaction is analyzed in terms of communication between the designers of the artifact and the user.

## **SWE 4803: Independent Study**

### **3 Credit Hours**

*Prerequisite: Program Coordinator and Faculty approval*

Independent study/project under the direction of a member of the graduate faculty. Course description will vary.

## **SWE 4994: Agile Development and Prototyping**

### **3 Credit Hours**

*Prerequisite: ENTR 3001*

This course introduces the essentials of software engineering processes for the engineering and building of a minimum viable product (MVP). The emphasis is on the applicability of Agile processes in the software life cycle and high-fidelity prototyping. Students gain an understanding of the commonly used Agile Scrum, as well as its working mechanics. They will put into practice their knowledge by building MVPs using Agile in the course for scale.

## **SPAN 1001: Elementary Spanish I**

### **3 Credit Hours**

Introduction to listening, speaking, reading and writing in Spanish and to the culture of Spanish-speaking regions.

## **SPAN 1002: Elementary Spanish II**

### **3 Credit Hours**

*Prerequisite: SPAN 1001, or by placement, or the equivalent*

Continued listening, speaking, reading and writing in Spanish with further study of the culture of Spanish-speaking regions.

## **SPAN 2001: Intermediate Spanish I**

### **3 Credit Hours**

*Prerequisite: SPAN 1002 or by placement.*

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

## **SPAN 2002: Intermediate Spanish II**

### **3 Credit Hours**

*Prerequisite: SPAN 2001 or by placement.*

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Course will serve as a transition between intermediate and upper-level courses in Spanish.

## **SPAN 2003: Accelerated Intermediate Spanish Language and Culture**

### **6 Credit Hours**

*Prerequisite: Two years of high school Spanish or SPAN 1002*

This accelerated intermediate level course in Spanish language and culture covers in one semester the materials presented in SPAN 2001 and SPAN 2002. The course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Hispanic cultures.

### **SPAN 2032: Spanish for Health Professionals**

#### **3 Credit Hours**

This course focuses on Spanish language and culture appropriate for working with Hispanics in the medical field.

### **SPAN 2034: Spanish for Criminal Justice**

#### **3 Credit Hours**

*Prerequisite: One year of high school Spanish or SPAN 1001 or the equivalent.*

This course focuses on Spanish language and culture appropriate for working in the fields of Criminal Justice with Hispanics. Not open to native speakers of Spanish.

### **SPAN 2290: Special Topics**

#### **3 Credit Hours**

*Prerequisite: Permission of the department chair.*

Special topics of interest at the intermediate level. Used primarily for studies abroad.

### **SPAN 3200: Critical Reading and Applied Writing**

#### **3 Credit Hours**

*Prerequisite: SPAN 2002 or SPAN 2003*

This course emphasizes skill development and refinement in the areas of critical reading and writing in Spanish. Designed to give students extensive experience in reading and writing in Spanish, the course focuses on the relationship between writing and reading, and on ways to improve one through the other.

### **SPAN 3302: Practical Conversation**

#### **3 Credit Hours**

*Prerequisite: SPAN 2002 or SPAN 2003*

This course stresses expansion of effective listening comprehension and speaking skills through culturally and linguistically appropriate activities.

### **SPAN 3303: Grammar and Composition**

#### **3 Credit Hours**

*Prerequisite: SPAN 2002 or SPAN 2003*

This course provides a general review of grammar through composition and other written activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

## **SPAN 3304: Literature and Culture I**

### **3 Credit Hours**

*Prerequisite: SPAN 3200 and SPAN 3303*

An introduction to Hispanic literature and culture from the Middle Ages to 1850. Students examine literary and artistic movements as well as cultural issues of the period. Readings and discussion in Spanish.

## **SPAN 3305: Literature and Culture II**

### **3 Credit Hours**

*Prerequisite: SPAN 3200 and SPAN 3303*

An introduction to Hispanic literature and culture from 1850 to the present. Students examine literary and artistic movements as well as cultural issues of the period. Readings and discussion in Spanish.

## **SPAN 3390: Upper-division Study Abroad in Spanish**

### **3 Credit Hours**

*Prerequisite: Junior or Senior status and permission of the department chair.*

This course fulfills the study abroad requirement for the B.A. in Modern Language & Culture with a primary language of Spanish. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the degree in Modern Language & Culture.

## **SPAN 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite: SPAN 3302 and SPAN 3303 or permission of the instructor.*

Supervised, credit earning work experience of one semester requiring use of Spanish in the work place. Prior approval by department coordinator and internship supervisor is required. No more than three semester hours may be applied toward the major.

## **SPAN 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: SPAN 3302 and SPAN 3303 or permission of the instructor.*

Covers special topics and seminars external to course offerings that allow a student to work individually with an instructor. Requires prior approval by instructor and department chair.

## **SPAN 4402: Contemporary Culture**

### **3 Credit Hours**

*Prerequisite: SPAN 3304 or SPAN 3305*

An examination of the historical, social, and political contexts of the contemporary Hispanic experience through the analysis of different cultural representations such as film, media, plastic arts, music and literature. Readings and discussion in Spanish.

### **SPAN 4404: Commercial Spanish**

#### **3 Credit Hours**

*Prerequisite: SPAN 3302 and SPAN 3303 or permission of the instructor.*

An in-depth study of business practices and the language of business that focuses on verbal and written communication as well as economic, social and political factors that are important to the conduct of business in the Spanish-speaking world.

### **SPAN 4434: Topics in Language, Literature, and Culture**

#### **3 Credit Hours**

*Prerequisite: SPAN 3304 and SPAN 3305*

An exploration of a period, movement or genre in literature, a topic in culture, or language-related issues. Topics are chosen for their significance and impact on Hispanic cultures. Course taught in Spanish.

### **SPAN 4456: Advanced Grammar and Linguistics**

#### **3 Credit Hours**

*Prerequisite: SPAN 3302 and SPAN 3303*

Advanced study of grammar from a linguistic perspective. Provides an overview of phonetics, phonology, morphology, and syntax. Exposes students to dialectical variations of the Spanish-speaking world. Stresses development of oral proficiency. Course taught in Spanish.

### **SPAN 4490: Special Topics in Spanish**

#### **3 Credit Hours**

*Prerequisite: SPAN 3302 and SPAN 3303 or permission of the instructor.*

Special topics relevant to the study of Spanish-speaking societies.

### **SPAN 4499: Senior Seminar**

#### **3 Credit Hours**

*Prerequisite: SPAN 3304 and SPAN 3305 and senior status.*

This is a capstone course designed to synthesize and connect the student's prior academic experiences in the major and related fields of study. Students will prepare a reflective essay and a research paper to present to the faculty. Papers and presentation in Spanish.

### **SM 2100: Introduction to Sport Management**

#### **3 Credit Hours**

This course provides an introduction to sport management. Topics include historical development of the discipline, overview of the profession, professional organizations, current issues, future trends, and career opportunities.

## **SM 2200: History and Contemporary Aspects of Sport**

### **3 Credit Hours**

*Prerequisite: Sport Management Interest*

This course focuses on the evolution of sport within the United States and how it compares and contrasts with the development of sport around the world. Topics include youth sport, collegiate athletics, professional sports leagues, international competition, culture, race, and gender.

## **SM 2300: Legal Aspects of Sports**

### **3 Credit Hours**

*Prerequisite: SM 2100, minimum 2.5 Institutional GPA, Admission to the Sport Management Program or Instructor's consent*

This course focuses on the application of legal principles to the sport, recreation, and fitness industries. Topics covered include agency law, tort liability, contract law, antitrust law, Constitutional law, labor law, and criminal law.

## **SM 2400: Sports Information and Media**

### **3 Credit Hours**

*Prerequisite: Sport Management Interest and SM 2100*

This class is designed to familiarize students with the field of sport information including mass communication, print media, broadcast media, sports news releases, interviewing, and public relations. Emphasis is placed upon the gathering, managing, and delivering of information about sport organizations, teams, players, and coaches to the public.

## **SM 3000: Practicum in Sport Management**

### **2 Credit Hours**

*Prerequisite: Admission to the Sport Management Program and SM 2400*

The course is designed to provide the student with practical experience in a sport-related business, industry, or organization. Practicum students participate in various components and functions of the management and operation of a sport or fitness facility or sport organization or business. Students must complete a minimum of 60 hours in the field.

## **SM 3050: Legal Aspects of Sports**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program and SM 2400*

This course focuses on the application of legal principles to the sport, recreation, and fitness industries. Topics covered include agency law, tort liability, contract law, antitrust law, Constitutional law, labor law, and criminal law.

## **SM 3100: Sport Sociology**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program and SM 2400*

This course provides a study of sociological theories and principles applied to understanding sport management. This class analyzes sport from a sociological perspective through the study of values, norms, and behavior of sport in society.

## **SM 3200: Leadership and Management of Sport Organizations**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program and SM 2400*

Students explore the theoretical frameworks of the body of knowledge of Sport Management, the practical applications of those frameworks, and the ethical issues confronting today's sport managers. This course also provides application for the development of skills necessary to be an effective and efficient leader regarding communication, motivation, and decision-making. The role of human resources and leadership theory in an atmosphere of complexity and diversity is also explored.

## **SM 3398: Internship**

### **1-6 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course is a supervised, credit-earning experience of one academic semester with a previously approved business firm, sport organization, private agency or governmental agency. The course is repeatable for up to 6 Credit Hours.

## **SM 3500: Sponsorship and Fundraising in Sport**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program and SM 3200*

This course focuses on the role of sponsorship and fundraising in sport. Students are exposed to sport-specific fundraising challenges and goals for events, facilities, and organizations in the sports industry. The roles of media and public relations are also addressed. This course stresses practical applications in unique situations faced by sport management practitioners.

## **SM 3600: Sports Broadcasting**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course focuses on the many disciplines in the art of sports broadcasting. The course emphasizes current techniques and applications. Students are required to produce and present sports broadcasting materials encompassing studio and remote applications.

## **SM 3650: Sport and Film**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course utilizes films to explore historical and social context of sport. The course pays particular attention to debates surrounding social issues in sport. Students will identify ways sport films reproduce and challenge dominant social ideologies, including those related to race, nation, masculinity, gender, violence, and fan culture. Students will cultivate a critical perspective and analyze sport films, developing critical thinking skills and becoming savvy media consumers.

## **SM 3700: Sport Governance**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course examines governance and policy development in sport management in the U.S. and internationally. More specifically, the course looks at how sport organizations interact and coordinate with policy actors within the organization and those outside of sport.

## **SM 3750: Inclusive Recreation Opportunities and Development**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course provides a foundation for the study of inclusive recreation and organizations delivering inclusive services. Students receive an overview of the philosophical, historical, social, cultural, and political factors that influence inclusive recreation. The role of the professional in the delivery of inclusive recreation is also emphasized to the student.

## **SM 3800: Youth Sport**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

The course will consist of the application of principles related to youth sports and recreation. Areas include child psychology, coaching principals, youth sport structures and the elite athlete. The course will focus on identifying trends and issues as they pertain to children, parents, educators, coaches, program directors, and recreational administrators.

## **SM 3850: Technology and Innovation in Sport**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This class is designed to familiarize students with innovations and technological advances in the world of sport. The class will emphasize that innovation is not just a technology or set of technologies but also a way of thinking. The aim of the course is to use examples of innovations and technologies past and present to prepare students to think innovatively and identify opportunities for innovations yet to come that will drive the future of sport.

## **SM 3900: Foundations of Recreation and Leisure**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course provides a foundation for the study of recreation and leisure and the organizations that deliver recreational services. It includes an overview of the philosophical, historical, social, cultural, and political factors which influence recreation and leisure. The course emphasizes the role of the professional in the delivery of recreational services.

## **SM 3950: Sport Ethics**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course requires students to explore major ethical issues that impact the operation of the sport industry. It is designed to assist students in identifying their own personal and professional values. The class examines concepts of morality and applies theories of ethics to sport and to the sport management profession. The course assists the future sport manager to engage in the ethical decision-making process.

## **SM 4100: International Sport Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

The course focuses on sports and culture throughout North America, Latin America, Europe, Asia, Africa, the Middle East, and Oceania. Students will be able to gain an in-depth understanding of the differences between the U.S. sport model in comparison to other international sport models.

## **SM 4150: Diversity, Equity, and Inclusion in Sport Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course examines the effect diversity has in the modern sport management workplace. This course will provide students with the tools and methodologies they need to effectively navigate the multiple dynamics that emerge from difference and to appropriately respond to issues of marginalization in sport industry workplaces. Students explore a variety of topics including identity, bias, culture, gender, sexual orientation, ethnicity, race, physical appearance, ability, and spirituality.

## **SM 4200: Recreation Programming**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course provides students with an overview of recreation programming across the age spectrum and diverse populations. Leisure programming trends and niche marketing are examined as well. This course also facilitates the understanding and application of the recreation program process for leisure delivery systems including an introduction to activity plans, program design, delivery, and evaluation.

## **SM 4300: Commercial Recreation and Tourism**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course introduces students to historical and contemporary perspectives of the field of commercial recreation and tourism. The course stresses the necessary writing, technical, business management, and people skills needed to compete in the current recreation and tourism marketplace.

## **SM 4400: Directed Study**

### **1-6 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course covers topics of an advanced nature external to regular course offerings and requires independent instruction according to an agreement with a faculty supervisor.

## **SM 4490: Special Topics in Sport Management**

### **1-6 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course covers selected topics of interest in sport management that are not regularly offered by the Department of Exercise Science and Sport Management.

## **SM 4600: Research Methods in Sport Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program*

This course provides students with an overview of the research process applied in the study of sport management. Students are introduced to experimental design, data gathering techniques, and statistical concepts and methods applicable to the sport management discipline. Students are expected to produce and critique academic research.

## **SM 4650: Sports Analytics**

### **3 Credit Hours**

*Prerequisite: Admission to the Sports Management Program*

This course focuses on statistical applications in the field of sport management. Students will be introduced to analytical methods used to explain current trends in the sports marketplace. Students will learn how to formulate a research hypothesis and analyze that hypothesis using statistical software and statistical techniques including correlation, hypothesis testing, analysis of variance, nonparametric techniques, and regression. Students will also learn how to write a report based on the findings of their research.

## **SM 4700: Sports Economics**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program and SM 3200*

This course applies economic principles to sports. Economic models from industrial organization, public finance, labor economics, game theory, macroeconomics, and other fields of economics are used to gain a better understanding of sports and the modern sports industry.

## **SM 4800: Sports Finance**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program, and SM 3200*

This course covers basic principles of finance as they relate to sports. Emphasis is placed current practices and issues relating to funding, budgeting, and revenue acquisition in sports through private and public means. Topics include taxing and borrowing, ticket sales, concessions, broadcast sales, and sponsorship. The course includes an introduction to collection and analysis of sports business data.

## **SM 4850: Sport Event Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management Program, SM 3000, SM 3050, SM 4700 and SM 4800*

This course focuses upon how to successfully plan and execute sport events. Topics addressed include the determination of objectives, developing a budget, marketing, recruiting attendees, and safety topics.

## **SM 4875: Sport Facility Design and Management**

### **3 Credit Hours**

*Prerequisite: Admission to the Sport Management program, SM 3000, SM 3050, SM 4700, and SM 4800*

This course focuses upon the principles and theories involving the overall design and management of events in indoor and outdoor facilities for sport and physical activity. Topics covered include facility design, planning, management, operations, and maintenance.

## **SM 4900: Senior Seminar in Sport Management**

### **3 Credit Hours**

*Prerequisite: Completion of all 2000-level and 3000-level non-elective Sport Management courses, minimum 2.5 Institutional GPA, Admission to the Sport Management Program and Instructor's consent*

This capstone course for the Sport Management major integrates the major coursework with field-based experience. Two-thirds of the course is devoted to a practicum field experiences at a site, which is located by the student and pre-approved by the instructor prior to the beginning of the semester. Contemporary issues, problems, research and theories are discussed. Additional course content includes: strategies for seeking internship and entry-level employment, long-term career planning, and post graduate study options.

## **SM 4925: Senior Seminar**

### **1 Credit Hours**

*Prerequisite: (SM 3050, SM 4700, and SM 4800) or Instructor Permission*

This capstone course for the Sport Management major integrates professional preparation along with strategies for seeking internship and entry-level employment, long-term career planning, and post graduate study options.

## **SM 4950: Senior Internship in Sport Management**

### **3-12 Credit Hours**

*Prerequisite: SM 4925 or Instructor Permission*

This course provides students with an opportunity for an in-depth work experience at an approved sport management internship site. Students are expected to acquire relevant skills and develop a professional network in order to prepare for entry-level employment in the sport marketplace.

## **STAT 0996: Support for Elementary Statistics**

### **1 Credit Hours**

*Corequisite: STAT 1401*

This Learning Support course provides co-requisite support for students enrolled in STAT 1401 - Elementary Statistics. Topics will parallel topics being studied in STAT 1401 and the course will provide support for the essential skills needed to be successful in STAT 1401. Taken with STAT 1401, topics to be covered will include descriptive statistics, probability theory, confidence intervals, hypothesis testing, and other selected statistics topics.

## **STAT 1401: Elementary Statistics**

### **3 Credit Hours**

This is a non-calculus based introduction to statistics. Course content includes descriptive statistics, probability theory, confidence intervals, hypothesis testing, and other selected statistical topics.

## **STAT 2332: Probability and Data Analysis**

### **3 Credit Hours**

*Prerequisite: MATH 1190 or MATH 1179*

This course is a foundational, calculus-based introduction to statistics and probability. The following conceptual themes will be developed through the process of statistical investigation: exploratory data analysis (univariate and bivariate), fundamentals of experiment design and sampling, planning and conducting a study, exploring random phenomenon using probability and simulation, and the fundamentals of statistical inference. Technology is integrated into each theme, and the statistical software package used will be chosen by the instructor.

## **STAT 3120: Statistical Methods I**

### **3 Credit Hours**

*Prerequisite: DATA 3010*

This course is designed to provide students with a foundation in statistical methods, including confidence intervals for population parameters, correlation, simple linear regression and hypothesis testing (F and T-tests for regression, chi-square for independence, 2 group and paired sample T-tests). These concepts are taught with heavy emphasis on statistical coding software and real-world datasets from a variety of disciplines.

## **STAT 3125: Biostatistics**

### **3 Credit Hours**

*Prerequisite: BIOL 1107 or BIOL 1108 or CHEM 1212 or permission of the instructor*

In this course students use descriptive statistics and visual displays to describe biological and medical data. They perform and analyze results of statistical analyses which may include confidence intervals, correlation, linear regression, odds/risk ratios, and hypothesis testing (Chi-square for independence, 2 group and paired sample t-tests). Analyses are performed using the statistical software R.

## **STAT 3130: Statistical Methods II**

### **3 Credit Hours**

*Prerequisite: DATA 3010 and (STAT 3120 or STAT 3125 or STAT 2332 or PSYC 3000)*

Students continue to build their foundation in statistical methods in this course. They will conduct non-parametric methods (Wilcoxon Signed Rank, Rank Sum, and Kruskal Wallis tests), ANOVA and multiple regression. These concepts are taught with heavy emphasis on statistical coding software and real-world datasets.

## **STAT 4025: Clinical Trial Design**

### **3 Credit Hours**

*Prerequisite:* STAT 3125 or STAT 3120

The course introduces students to statistical concepts used to design clinical trials, or randomized studies of humans. Students will be able to design, conduct, and analyze clinical trials in the format required by the Food and Drug Administration. The topics include endpoint definition, sources of bias, randomization schemes, types of blindness, phases of clinical studies (I-IV), hypothesis formation, sample size determination, patient recruitment, adverse events, and protocol development.

## **STAT 4120: Applied Experimental Design**

### **3 Credit Hours**

*Prerequisite:* STAT 3130

Methods for constructing and analyzing designed experiments are the focus of this course. The concepts of experimental unit, randomization, blocking, replication, error reduction, and treatment structure are introduced. The design and analysis of completely randomized, randomized complete block, incomplete block, Latin square, split-plot, repeated measures, factorial, and fractional factorial designs will be covered. Statistical software will be utilized.

## **STAT 4125: Analysis of Human Studies**

### **3 Credit Hours**

*Prerequisite:* STAT 3130

Real-world human-subject data will be used as students conduct official clinical research in a secure computer lab. Students will complete required institutionally approved training for research on human subjects and information privacy and security. Using statistical software, students will apply statistical analysis and modeling techniques to answer questions posed by clinicians. Students will document research for reproducibility and potential publication, as well as present results in various forms.

## **STAT 4210: Applied Regression Analysis**

### **3 Credit Hours**

*Prerequisite:* STAT 3130

This course is designed to provide students with various regression procedural methods, including simple linear and multiple regression models. Students will diagnose multicollinearity, identify outliers and influential observations, and assess assumptions to create and validate models. Other topics will include parameters inferences, variable transformations, and qualitative predictors.

## **SA 2290: Lower-division Study Abroad**

### **0-9 Credit Hours**

*Prerequisite: Varies with discipline and subject.*

Lower division study abroad course denoting freshman, sophomore level work.

## **SA 4400: Study Abroad Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair prior to registration.*

Available for all disciplines.

## **SA 4490: Upper-division Study Abroad**

### **0-12 Credit Hours**

*Prerequisite: Varies with discipline and subject.*

Upper division study abroad course denoting junior, senior level work.

## **SURV 2110: Introduction to Mapping**

### **4 Credit Hours**

*Prerequisite: MATH 1113*

Introductory class in basic surveying and mapping skills including geographic information systems (GIS). Topics include scales, leveling, horizontal measurements, GPS mapping, topography, map projections, GIS analytical tools, data sources, raster and vector data and software applications. Emphasis will be on small scale mapping.

## **SURV 2200: Construction Measurements**

### **4 Credit Hours**

*Prerequisite: MATH 1113*

Use and care of engineers level, transit and tape; leveling, traversing, stadia, contours, horizontal and vertical field layouts for buildings; reading and interpretation of site survey maps. (No credit for CET or Surveying and Mapping majors.)

## **SURV 2221: Surveying I**

### **3 Credit Hours**

*Prerequisite: EDG 2160 and MATH 1113 Corequisite: SURV 2221L*

This course deals with the determination of angles, distances, elevations and horizontal and vertical location using total station and level. Simple horizontal and vertical curves and contouring are covered in this course. This course also introduces the Global Positioning System and coordinate computations.

## **SURV 2221L: Surveying I Lab**

### **1 Credit Hours**

*Prerequisite: EDG 2160 and MATH 1113 Corequisite: SURV 2221*

This course deals with the measurement of angles, distances, elevations, horizontal and vertical location using total station and level in the field. This course also covers a topographic survey project.

## **SURV 3222: Surveying II**

### **3 Credit Hours**

*Prerequisite: SURV 2221 and SURV 2221L Corequisite: SURV 3222L*

This course focuses on the analysis and interpretation of route geometry computations and field techniques. To accomplish this, students demonstrate proficiency in: automated data collection; reduction for topographic surveys; coordinate computations for intersections; and route design projects.

## **SURV 3222L: Surveying II Lab**

### **1 Credit Hours**

*Prerequisite: SURV 2221 and SURV 2221L Corequisite: SURV 3222*

Continuation of SURV 2221L. Topics include DTM, as-built and design surveys. GPS field methods for land surveyors is introduced.

## **SURV 3320: Photogrammetry and Drone Analysis**

### **3 Credit Hours**

*Prerequisite: GEOG 3315*

The course will focus on the analysis and interpretation of manned and unmanned aerial systems (UAS) that include: drones; kites; blimps; powered paragliders; and fixed wing and copter small-format aerial photography (SFAP). Furthermore, the course will examine digital image processing and interpretation of data, in addition to travel and setup for best results in evaluating SFAP and UAS imagery.

## **SURV 3330: Construction Surveying**

### **4 Credit Hours**

*Prerequisite: SURV 3222*

Layout of designed structures from land boundaries, right of way parcels, applications of coordinate geometry, hydrographic surveying.

## **SURV 3421: Geographic Information Systems I**

### **3 Credit Hours**

*Prerequisite: SURV 2221*

This course provides students with an introduction to the fundamental concepts of: Geographic Information Systems (GIS); spatial data analysis; digital elevation models; and the surveying and mapping components of GIS development. GIS is used in a diverse number of fields, including civil engineering, surveying and city planning. Lectures introduce the theory and framework of GIS, while the labs introduce: the applications; processing; and presentation of geographic and spatial data.

## **SURV 3441: Vector & Raster Analysis**

### **3 Credit Hours**

*Prerequisite: SURV 3421*

Manipulation of vector and raster data. Use of local, focal, block and zonal statistical functions. Use of coordinates, datums, projections. Development of map topology. Overlay and proximity analysis. Spatial joins and queries. Data storage models

## **SURV 3451: Terrain Analysis**

### **3 Credit Hours**

*Prerequisite: SURV 3320*

This course examines the theory and methods of the generation, compilation, analysis, and applications of digital elevation data. Specific topics include GIS, terrain data models, photogrammetry and LiDAR DEM processing, terrain surface modeling, digital terrain analysis, terrain visualization, and watershed delineation. Computer exercises in the generation and processing of DEM using GIS and image processing software packages.

## **SURV 3500: Applied Hydrology and Hydraulics**

### **4 Credit Hours**

*Prerequisite: PHYS 1111 & PHYS 1111L*

This course deals with the application of hydrology and hydraulics in small site design. An emphasis is on residential subdivision and small commercial tract design. Note: This course is not available for credit for Engineering majors.

## **SURV 4110: Geospatial Sciences Practice**

### **3 Credit Hours**

*Prerequisite: SURV 3451 and GEOG 4410*

A capstone course in the applications of geospatial science technology. Course requires a project developed with an industry partner in applying geospatial science analytical skill, analysis, and mapping.

## **SURV 4410: Surveying Computations and Adjustments**

### **4 Credit Hours**

*Prerequisite:* SURV 3222 and MATH 2202

Advanced surveying computations; matrix algebra; computer methods; statistical analysis of error propagation; variance and co-variance; least squares adjustments.

## **SURV 4415: Geodetic Surveying Methods**

### **4 Credit Hours**

*Prerequisite:* SURV 3421

Topics in Geodetic Surveying Methods including traversing, leveling and GPS. Coordinate systems and projects are utilized.

## **SURV 4420: Remote Sensing**

### **4 Credit Hours**

*Prerequisite:* SURV 3320

This course evaluates remote sensing systems; ground truthing; mapping applications; satellite imagery integration into GIS.

## **SURV 4422: Geographic Information Systems II**

### **4 Credit Hours**

*Prerequisite:* SURV 3421

Continuation of GIS I; data collection techniques; advanced systems and macro programming.

## **SURV 4423: Advanced Field Operations**

### **4 Credit Hours**

*Prerequisite:* SURV 3222

Emphasis placed on production surveying; use of codes to develop maps; extensive data collection; computer drafting and plotting.

## **SURV 4465: Legal Aspects of Land Surveying**

### **4 Credit Hours**

*Prerequisite:* SURV 3222

Cadastral systems; Georgia laws on surveying and property; boundary survey legal research; writing of legal descriptions; evidence evaluation; US Public Land System.

## **SURV 4470: Land Development Design**

### **3 Credit Hours**

*Prerequisite:* SURV 2221 and SURV 2221L and (CE 4703 or SURV 4465)

This course deals with site analysis, subdivision design, drainage design, sewer design and discusses the legal requirements, platting, and CAD computer methods.

## **SURV 4475: Land Surveying Practice**

### **3 Credit Hours**

*Prerequisite: SURV 4465*

Legal research, boundary analysis, office procedures and business practice as found in a professional land surveying environment. Special emphasis on title surveys and state of Georgia technical and plat requirements.

## **SURV 4490: Special Topics in Surveying**

### **1-4 Credit Hours**

*Prerequisite: Junior or Senior Standing, Consent of the Department Chair*

Special Topics offered by the program on a demand basis.

## **TCID 2002: Productivity Tools and Technologies**

### **3 Credit Hours**

This course introduces students to productivity tools and technologies for Technical Communication and Interactive Design students. In this course, students learn the Adobe design tools in addition to examining workflow tools, online workspaces, and project management tools.

## **TCID 2170: Introduction to Digital Media and Culture**

### **3 Credit Hours**

This course provides an introduction to the Technical Communication & Interactive Design department by surveying contemporary digital media-aesthetics, technology, politics, economics--and related cultural formations. This approach provides an introduction to key concepts and critical methodologies that are essential to understanding digital media as both technological tool and cultural artifact. Additionally, this course discusses how professional development in technical communication and interactive design relates to digital media and culture.

## **TCID 3100: Professional Development**

### **3 Credit Hours**

*Prerequisite: IAD 3000 or TCOM 3431*

This course improves students' abilities to describe their accomplishments in professional networking situations, company meetings, and interviews. This course also explains how to set up a personal portfolio and prepare a career development roadmap for students in Technical Communication and Interactive Design.

## **TCID 3400: Front-End Development I**

### **3 Credit Hours**

This course introduces students to front-end web development with an emphasis on learning to code websites without relying on content management systems or templates. This course focuses primarily on HTML and CSS in addition to covering basic user interface design principles.

## **TCID 3800: Front-End Development II**

### **3 Credit Hours**

*Prerequisite:* TCID 3400

This course allows students to build upon their knowledge of front-end development for websites and apps to produce complex, creative, and responsive designs. In addition to developing an advanced understanding of CSS and HTML, students are introduced to the concept of APIs and JavaScript, another front-end programming language.

## **TCID 4500: Front-End Development III**

### **3 Credit Hours**

*Prerequisite:* TCID 3800

In this project-based class, students continue their growth as front-end web developers through experiential learning. The focus of this class is to allow advanced students to pair aesthetic skills with an expanded knowledge and engagement with JavaScript.

## **TCID 4700: Capstone Project and Portfolio Showcase**

### **3 Credit Hours**

*Prerequisite:* 90+ credit hours *Concurrent:* TCID 3100

This is the final senior course for the Technical Communication and Interactive Design department. Students work on a capstone project for their portfolio. Additionally, students prepare for a portfolio showcase at the end of the semester.

## **TCOM 2010: Technical Writing**

### **3 Credit Hours**

*Prerequisite:* ENGL 1102

The course is an introduction to organization, style, and mechanics of technical writing. It includes practice in writing such typical documents as technical descriptions, instructions, proposals, and recommendation reports. Emphasis is placed on incorporating rhetorical theory into planning, organizing, and writing reports; designing visual aids; and editing. Among other assignments, at least one complete technical report is required.

## **TCOM 2030: Research in Technical Communication**

### **3 Credit Hours**

*Prerequisite: TCOM 2010*

This course is an introduction to research methods used by practitioners and scholars in technical communication. Students explore the relationship between theory and research and learn how to design and carry out empirical studies using both quantitative and qualitative methods. Emphasis is placed on the research methods used in workplace settings to design user-centered information products and to test their usefulness and usability.

## **TCOM 2050: Issues in Digital Accessibility**

### **3 Credit Hours**

This class focuses on disability issues relevant to both the development and use of web and other technologies, mandatory compliance (Section 508) and the ways in which technologies can be made compliant through captioning, proper deployment of HTML code, and more. Students gain an overview of the technological needs and the laws for accommodating persons with disabilities including the assistive technologies available for persons with disabilities (blindness/visual impairments, audiological disabilities, physical disabilities, and cognitive disabilities).

## **TCOM 3011: Technical Writing II**

### **3 Credit Hours**

*Prerequisite: TCOM 2010*

The course allows students to build on their knowledge of technical writing and explore advanced styles, techniques, and genres used by technical communication practitioners. Topics covered may include writing style in technical communication, and common technical communication genres not covered in TCOM 2010; these genres may include but are not limited to white papers, technical descriptions, technical specifications, professional posters, laboratory reports, and policies and procedures.

## **TCOM 3020: Grants and Proposals**

### **3 Credit Hours**

*Prerequisite: TCOM 2010. Non-majors: by permission of the Department.*

This course covers the theory and practice of writing proposals for business, industry, and non-profit organizations, with emphasis on in-house planning and external grant-seeking proposals. Course covers persuasion theory and strategies while leading students step-by-step through the proposal development process. Students develop skills in gathering and evaluating information, analyzing audiences, collaborating with peers and clients, building arguments, writing clearly and cogently, and designing visually effective documents.

## **TCOM 3030: Instructional Design**

### **3 Credit Hours**

*Prerequisite: TCOM 2010; non-major: by permission of the Department.*

This course introduces and applies systematic instructional design and instructor-led training. Students study a major model of instructional design and apply it to develop and refine a unit of instruction. Students prepare and deliver a training lesson, participate in team instructional design activities, and evaluate the training developed and presented by other students.

## **TCOM 3046: Information Architecture**

### **3 Credit Hours**

*Prerequisite: TCOM 2010; Non-majors: by permission of the Department*

Students learn about the art and science of structuring information for the web and other devices. This class defines what an information architect (IA) does and what role this individual has as part of a development team. The principles of information architecture are covered, including information-seeking behavior, organizing and labeling models, navigation, search strategies, and other areas critical to a successful architecture. Students learn how to develop wireframe prototypes for testing and review.

## **TCOM 3070: User Assistance**

### **3 Credit Hours**

*Prerequisite: TCOM 2010; TCID 3400; Non-majors: by permission from the Department*

This course explores the concepts and strategies necessary for designing effective user assistance in its many forms. The course emphasizes effective task-oriented design while introducing important industry trends like topic-based authoring, single sourcing, project planning, structured authoring, and DITA basics.

## **TCOM 3130: Technical Communication: Theory, Ethics, and Practice**

### **3 Credit Hours**

*Prerequisite: TCOM 2010. Non-major: by permission of the Department.*

This course examines a range of theories that have shaped technical communication thought and practice in the twenty-first century. This course also focuses on ethical issues in technical communication through case studies and other readings. This course exposes students to the evolving body of knowledge, including key theorists and practitioners that help form the foundation of the technical communication profession.

## **TCOM 3145: Social Media Infrastructure**

### **3 Credit Hours**

*Prerequisite: TCOM 2010. Non-major: by permission of the Department.*

This course prepares technical communicators to assess and develop governance/oversight procedures, policies, employee training, monitoring and measurement protocols, risk and compliance guidelines, and audit processes for social media. Students select a company and conduct a semester-long case study where they develop critical infrastructure documents for social media.

## **TCOM 3245: Search Engine Optimization and Analytics**

### **3 Credit Hours**

*Prerequisite: TCOM 2010, and TCID 3400. Non-majors: by permission of the Department.*

This course introduces students to the concepts, practices, and implementation of Search Engine Optimization (SEO) for digital assets (websites, images, files). Working with an existing website, students enhance existing code to leverage SEO and deploy both analytics and webmaster tools to measure and refine SEO tactics and strategies for maximum SERP presence. This course also covers fundamentals of best practices for Section 508 (ADA) compliance with online documents and website coding.

## **TCOM 3398: Internship**

### **3 Credit Hours**

*Prerequisite: At least 24 hours in Area F and Upper Division TCOM/TCID classes, and permission of department.*

This course is an opportunity for students to apply principles and techniques of technical communication in a specific organization. Learning is experiential and must supplement, not duplicate, learning in the classroom. The student is responsible for finding an internship, but this program helps in the effort. The student submits a written proposal describing the internship according to program guidelines. Each internship is monitored by the student's advisor.

## **TCOM 3431: Information Design I**

### **3 Credit Hours**

*Prerequisite: TCOM 2010, TCID 2002. Non-majors: by permission of the Department*

The course introduces students to the principles and best practices of effective information design for both print and electronic media. Students apply rhetorical and gestalt principles to an analysis of information products. Students also redesign products to reflect good principles of information design, and they report on the rationale for these redesigns, showing the ways in which design principles have been effectively applied.

## **TCOM 4000: Technical Editing**

### **3 Credit Hours**

*Prerequisite: TCOM 2010. Non-majors: by permission of the Department*

This course examines the responsibilities of an editor including the methods and skills needed to edit various types of technical and scientific products (print and digital) with an emphasis on comprehensive editing. The course also teaches students how to prepare content that clearly and effectively communicates technical information to a wide range of end users. This course prepares students for writing and editing careers in technical communication.

## **TCOM 4045: Multi-Media for Technical Communicators**

### **3 Credit Hours**

*Prerequisite: TCOM 2010. Non-majors: by permission of the Department*

This course is a study of the foundations of multi-media including theory, planning, scripting, storyboarding, and production for technical communicators. Projects in the class include developing multimedia-based process/mechanical descriptions, instructions and interactive graphics for product end users and customers. Students submit research work on the theory of multi-media.

## **TCOM 4050: Instructional Video**

### **3 Credit Hours**

*Prerequisite: TCOM 2010. Non-major: by permission of the Department.*

This course addresses the theory and practice of developing "how-to" videos for product end users and customers. Fundamentals of instructional design, including audience analysis, goal analysis, formative and summative evaluation, are applied. Contemporary video technologies are used to generate products that instruct and inform end users/customers. Evaluation of technologies, content transfer, aesthetics and cultural considerations are addressed. Students assess commercially prepared videos and plan for incorporating them in training.

## **TCOM 4120: Usability**

### **3 Credit Hours**

*Prerequisite: TCOM 2010. Non-major: by permission of the Department.*

This course introduces students to UX (User Experience) and usability testing. Included in the course is a review of the relevant research and practical applications of usability testing. Students learn how to develop strategies for planning, conducting, and analyzing a test. In teams, students perform tests using online testing tools, low-fidelity in-person methods, and formal usability lab settings. A final testing report with qualitative and quantitative results is required.

## **TCOM 4400: Directed Study**

### **3 Credit Hours**

*Prerequisite: To be determined by the faculty member teaching the course*

This course addresses specific student needs for a specific technical communication topic not covered in the technical communication curriculum.

## **TCOM 4431: Information Design II**

### **3 Credit Hours**

*Prerequisite: TCOM 3431. Non-major. by permission of the Department*

Students apply principles and best practices of effective information design in the context of infographics and the visualization of data in analog, print, and digital media. Students create an analog journal of data visualizations and select one visualization of data to illustrate digitally. Additionally, they create graphs and charts in digital documents, produce an information graphic poster, and analyze their effectiveness

## **TCOM 4490: Special Topics in Technical Communication**

### **3 Credit Hours**

*Prerequisite: Approval of the Technical Communication Coordinator and The DWMA Department Chair*

This course is used by faculty to offer topics that are relevant to the study of technical communication not currently in the technical communication curriculum.

## **TPS 1107: Theatre in Society**

### **3 Credit Hours**

This interactive course examines the role of theatre in society through the study of dramatic works and performance events within their cultural and historical contexts. Course assignments promote understanding of the creative process and develop skills in critical analysis, global perspectives, and collaboration. Attendance is required at live performances, including some events with paid admission.

## **TPS 1500: Introduction to Theatre Studies**

### **3 Credit Hours**

*Prerequisite: TPS interest.*

An introduction to theatre as a field of study and as an art form.

## **TPS 1600: Introduction to Performance Studies**

### **3 Credit Hours**

*Prerequisite: TPS interest.*

An introduction to performance as a field of study and as an art form.

## **TPS 1713: Stagecraft**

### **2 Credit Hours**

*Prerequisite: TPS interest.*

Theoretical and practical work in theatre crafts including carpentry, properties, costumes, scene painting, stage lighting, and sound. Special attention will be given to safety precautions in each area.

## **TPS 2202: Introduction to Acting**

### **3 Credit Hours**

*Prerequisite: Not available to declared TPS majors.*

This course is an introduction to basic acting techniques. It is designed for non-Theatre and Performance Studies majors or those students who are considering a Theatre and Performance Studies major but are currently undeclared.

## **TPS 2203: Acting I: Principles of Acting**

### **3 Credit Hours**

*Prerequisite: TPS interest.*

The theory and practice of the actor's craft.

## **TPS 2290: Special Topics**

### **1-12 Variable Credit Hours**

Students will explore special topics relevant to the Department of Theatre and Performance Studies.

## **TPS 2713: Theatre Production**

### **2 Credit Hours**

*Prerequisite: TPS 1713*

A study of the creative process of theatrical production from concept to performance. This course features the analysis of selected scripts as well as individually-designed production and/or performance assignments. Theatre and Performance Studies majors must complete TPS 2713 two times for a total of four hours credit.

## **TPS 2813: Visual Imagination**

### **3 Credit Hours**

*Prerequisite: Declared Theatre and Performance Studies Major*

This course is a course in the visual aspects of the art of theatre that focuses on the principles, the elements and the history and current practice of visual design for the theatre.

### **TPS 3000: Performing Literature**

#### **3 Credit Hours**

*Prerequisite:* TPS Major. TPS 1600

The study of a variety of literary texts through solo and group performance. Students engage course topics through critical reading, written analysis, and embodied performance.

### **TPS 3015: Musical Theatre Techniques I**

#### **2 Credit Hours**

*Prerequisite:* Declared Theatre and Performance Studies Major

This course focuses on basic skills in musical theatre singing styles and vocal health.

### **TPS 3050: Applied Performance and Production**

#### **1 Credit Hours**

This laboratory course focuses on the study, rehearsal, and performance or production for a Department of Theatre and Performance Studies production. This course may be repeated for upper division credit and can be used for applied professional sequence (APS) credit.

### **TPS 3093: Performing Folktales and Fairy Tales**

#### **3 Credit Hours**

*Prerequisite:* TPS 1600

The study of folktales and fairy tales from world oral traditions through storytelling performance.

### **TPS 3094: Performing Classical Myth**

#### **3 Credit Hours**

*Prerequisite:* TPS 1600

The study of Greek and Roman mythology through storytelling performance.

### **TPS 3095: Performing Irish Myth**

#### **3 Credit Hours**

*Prerequisite:* TPS 1600

The study of Irish mythology through storytelling performance.

### **TPS 3193: Performing World Myth**

#### **3 Credit Hours**

*Prerequisite:* TPS 1600

The study of world mythology through storytelling performance.

### **TPS 3194: Performing Personal Narrative**

#### **3 Credit Hours**

*Prerequisite:* TPS 1600

The study of personal narratives through performance.

## **TPS 3200: The Actor's Voice**

### **3 Credit Hours**

*Prerequisite:* TPS 2203 or permission of the instructor.

This course is designed to help performers develop a healthy, expressive and flexible vocal technique equal to the demands of dramatic performance. Students learn to free their natural voices through physical exercises and by mastering the vocabulary of vocal mechanics. Breathing, posture, relaxation, and articulation are examined as key elements of voice and speech production.

## **TPS 3210: Movement for the Actor**

### **3 Credit Hours**

*Prerequisite:* TPS 2203

Movement for the Actor is a studio course dedicated to bringing awareness to the body as an essential part of the actor's training. In this course, the student actor will explore the expressive capacity of the physical and emotional body in the context of acting.

## **TPS 3213: Acting for the Camera**

### **3 Credit Hours**

*Prerequisite:* TPS Major. TPS 3223

An intermediate acting course applying acting techniques to the special demands of film and television.

## **TPS 3223: Acting II: Intermediate Acting**

### **3 Credit Hours**

*Prerequisite:* TPS Major, a grade of "B" or better in TPS 2203

An intermediate acting course applying and advancing the principles of Acting I to intermediate level stage challenges.

## **TPS 3243: Acting III: Acting Styles**

### **3 Credit Hours**

*Prerequisite:* TPS Major and TPS 2203 or TPS 3223

This course explores advanced topics in the art of stage acting. Emphasis is on period and genre styles. Theoretical studies will be combined with the performance of selected scenes and critical evaluations of peer and professional work. \*This course may be repeated more than once for credit provided that the course content differs entirely from the previous offering.

## **TPS 3320: Musical Theatre Performance: Applied Voice**

### **1 Credit Hours**

*Prerequisite:* TPS 3015 and entrance by application

Advanced practice and study in the craft and theory of musical theatre vocal performance. Work will culminate each semester in a recital or showcase. May be repeated for credit up to six times.

## **TPS 3398: Internship**

### **1-9 Credit Hours**

*Prerequisite:* Approval of the department chair.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency.

## **TPS 3400: Performance Composition**

### **3 Credit Hours**

*Prerequisite:* TPS Major. TPS 1600 or permission of the instructor.

Course examines and applies various approaches for composing live performance events. Additionally, students research and analyze a wide range of performance texts as inspiration for composing and mounting their own performances. Finally, the course culminates in a final presentation of student works.

## **TPS 3403: Play Analysis for Production**

### **3 Credit Hours**

*Prerequisite:* TPS Major. TPS 1500

Textual analysis of playscripts, with an emphasis on the perspective of the practitioner of theatre. A preparatory course for the history of theatre and drama sequence.

## **TPS 3493: Performance Art**

### **3 Credit Hours**

*Prerequisite:* TPS 1600

History, theories, and practice of performance art from futurism to the present. Emphasis is on the creation and performance of image, auteur approaches to literary, mythic, visual art, and personal sources, and the writing and staging of performance pieces.

## **TPS 3500: Dramaturgy**

### **3 Credit Hours**

*Prerequisite:* TPS Major. TPS 3403

Close study of performance texts and source material, with an emphasis on dramaturgical praxis, including an overview of the history/theory of the dramaturg.

## **TPS 3600: Performing Culture**

### **3 Credit Hours**

*Prerequisite:* TPS Major. TPS 1600

The study of the forms and functions of cultural performance practices. Students engage course topics through critical reading, written analysis, original fieldwork, and embodied performance.

## **TPS 3700: Music Theory for Musical Theatre**

### **2 Credit Hours**

*Corequisite:* TPS 1500

Music sight-reading skills and aural techniques specifically tailored for the musical theatre performer are the focus of this course. Students will apply these skills through practical application using examples from musical theatre literature.

## **TPS 3703: Musical Theatre History and Literature**

### **3 Credit Hours**

*Prerequisite:* TPS Major and ENGL 1102

This course is an introduction to musical theatre which surveys the major shows in musical theatre literature, through the study of the plots, scores, characters, and songs of the shows. Students explore the genre's place and function in theatre history as both an art form and popular entertainment and its influence on culture in general.

## **TPS 3710: Musical Theatre Voice**

### **1 Credit Hours**

*Prerequisite:* TPS 3015

An intermediate study of healthy vocal production for musical theatre singers. Focuses on building musical theatre repertoire and audition preparation. Study occurs through a weekly group studio class and weekly private sessions with instructor.

## **TPS 3713: Acting in Musical Theatre**

### **3 Credit Hours**

*Prerequisite:* TPS 2203 and TPS 3015

This course provides students the opportunity to develop an effective acting technique for the musical stage. Through in-class exercises and the study of the scores and libretti from major shows in the repertoire, students will develop performance techniques particular to the musical theatre genre and an appreciation of its diverse styles.

## **TPS 3740: Musical Theatre Dance Workshop**

### **2 Credit Hours**

*Prerequisite: DANC 3100 or DANC 3200*

This course provides an understanding of technical dance terms, relevant to the varied styles of Musical Theatre, through study and application in the studio. Students will learn various dance numbers from musical theatre repertoire, study the history of musical theatre dance, and prepare for professional theatre dance auditions. Students will also increase performance stamina by integrating dance technique, style, character development, and vocals.

## **TPS 3815: Makeup Design and Application for the Performer**

### **3 Credit Hours**

*Prerequisite: TPS 2813*

This course introduces the student to two-dimensional stage makeup, focusing on an understanding of facial structure, a proficiency in basic makeup concepts and application procedures, and a knowledge of the role of makeup as a critical component in a complete performance.

## **TPS 3820: Scene Painting**

### **3 Credit Hours**

*Prerequisite: TPS Major*

This course provides students with fundamentals in painting for the theatre, which includes scene painting material, tools, methods, processes, and techniques. It consists of instructional talks, demonstrations, hands-on experience and rationalization.

## **TPS 3823: Design Skills**

### **3 Credit Hours**

*Prerequisite: TPS 2813*

Basic design skills including drafting, sketching and rendering. Offered in versions oriented specifically toward set design or costume design in alternating years.

## **TPS 3833: Fundamentals of Drawing for Theatre**

### **3 Credit Hours**

*Prerequisite: TPS Major or TPS Interest*

Fundamentals of Drawing for Theatre introduces materials, tools, methods, processes, and techniques of drawing through lectures, exercises, projects, homework, and critique. Structured around five class projects, this course aims to develop a skill base in drawing that is essential in the training of theatrical designers.

### **TPS 3853: Period Styles**

#### **3 Credit Hours**

*Prerequisite:* TPS 2813

An examination of the history and interrelationships between dress, architecture and the visual arts as they relate to the field of theatrical design.

### **TPS 4010: Storytelling Practicum**

#### **2 Credit Hours**

*Prerequisite:* TPS 1600 and permission of the instructor. Audition required.

Advanced study of the methods and practice of storytelling as a performing art. Students develop a repertoire of stories suitable for various audiences and occasions. Off-campus and out-of-class performances comprise a major required component of the course. *Notes:* May be taken three times for a total of 6 Credit Hours.

### **TPS 4015: Musical Theatre Techniques II**

#### **1 Credit Hours**

*Prerequisite:* TPS 3015

This course focuses on skills in musical theatre singing styles for intermediate-level students.

### **TPS 4020: Musical Theatre Ensemble**

#### **1 Credit Hours**

*Prerequisite:* TPS 3015 or TPS 4015; Entrance by audition or application and acceptance into Musical Theatre Ensemble.

Advanced practice and study in the craft and theory of musical theatre performance. Work will culminate each semester in either a production or a juried recital. May be repeated for credit up to six times.

### **TPS 4030: Actor's Studio**

#### **3 Credit Hours**

*Prerequisite:* Audition and/or the approval of the instructor.

This practical-based course focuses on advanced practice and study in the craft and theory of acting. Students explore a variety of acting styles through intensive scene work and exercises. Actor's Studio may be repeated for credit up to four times; students who have taken the course twice may elect to take the course for 0 credit hours.

### **TPS 4040: Stage Combat**

#### **3 Credit Hours**

*Prerequisite:* TPS 2203

This is an introductory course in Stage Combat. Students will learn the skills necessary to safely and dynamically create the illusion of violence on stage.

## **TPS 4050: Advanced Applied Performance and Production**

### **2 Credit Hours**

This laboratory course focuses on advanced study, rehearsal, and performance or production for a Department of Theatre and Performance Studies production. This course may be repeated for upper-division credit and may be used for applied professional sequence credit.

## **TPS 4243: Audition Practicum**

### **3 Credit Hours**

*Prerequisite: TPS 3223*

This course prepares students for the major forms of auditions they will encounter in the field of acting.

## **TPS 4313: Principles of Directing**

### **3 Credit Hours**

*Prerequisite: TPS Major. TPS 3403*

Students will learn the fundamentals of directing for the stage. Theoretical studies will be combined with the direction of selected scenes and observation of working directors. Emphasis is on 20th century realism.

## **TPS 4323: Directing Styles**

### **3 Credit Hours**

*Prerequisite: TPS Major. TPS 3403*

Students will learn the fundamentals of directing for the stage. Emphasis is on non-realistic period and genre styles. Theoretical studies will be combined with the direction of selected scenes and observation of working directors. \*This course may be repeated more than once for credit provided that the course content differs entirely from the previous offering.

## **TPS 4333: Adapting and Staging Literary Texts**

### **3 Credit Hours**

*Prerequisite: TPS 3000 or permission of the instructor/department.*

Aesthetics, methods, and practice in presentational modes of group performance. Emphasis on the selection, adaptation, and staging of poetic, narrative, and nonfiction texts.

## **TPS 4400: Directed Study**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and department chair.*

Selected topics of an advanced nature, which may include original research projects.

## **TPS 4490: Special Topics**

### **1-3 Credit Hours**

*Prerequisite: Approval of the instructor and departmental chair.*

Topics of special interest to students and faculty. *Notes: This course may be repeated more than once for credit provided that the course content differs entirely from the previous offering.*

## **TPS 4513: History and Theory I: Ancient through Renaissance Theatre and Performance**

### **3 Credit Hours**

*Prerequisite: TPS 3403*

This course focuses on studies in the history, theory, and literature of world theatre and performance traditions from ancient times through the Renaissance.

## **TPS 4523: History and Theory II: Neoclassical through Romantic Theatre and Performance**

### **3 Credit Hours**

*Prerequisite: TPS 4513*

This course focuses on studies in the history, theory, and literature of world theatre and performance traditions from the Neoclassical Age through early Modernism.

## **TPS 4533: History and Theory III: Victorian through Contemporary Theatre and Performance**

### **3 Credit Hours**

*Prerequisite: TPS 4513*

This course centers on studies in the history, theory, and literature of world theatre and performance traditions from the Victorian period through the contemporary era.

## **TPS 4543: American Performance Traditions**

### **3 Credit Hours**

*Prerequisite: TPS 4513*

Studies in the history of American solo performance and popular entertainment traditions.

## **TPS 4813: Scene Design**

### **3 Credit Hours**

*Prerequisite: TPS 2813*

Building blocks for scene design with an emphasis on transforming written text into three-dimensional visual language, and working through fundamental scene design problems.

## **TPS 4823: Lighting Design for the Stage**

### **3 Credit Hours**

*Prerequisite: TPS 2813*

Study of lighting design for the stage, including study of lighting instruments and control.

### **TPS 4833: Costume Design**

#### **3 Credit Hours**

*Prerequisite:* TPS 2813

Study of principles, methods and processes for costume design for the stage.

### **TPS 4999: Senior Seminar: The Scholar Artist**

#### **3 Credit Hours**

*Prerequisite:* TPS 4513

This capstone course investigates the roles creativity, scholarship, and artistic identity play in personal and professional lives via mission statements, career goals, and action steps.

Projects include discipline-specific design, development, and integration of self-marketing tools into presentations for entering the professional world.

### **WRIT 3000: Introduction to Creative Writing Genres**

#### **3 Credit Hours**

*Prerequisite:* ENGL 1102

This course is a multi-genre creative writing survey incorporating the study of three genres from the following list: short fiction, poetry, creative nonfiction, playwriting, and screenplay writing. Pairing creativity with technique, this content-based course introduces students to concepts, approaches, and methods. As students develop a portfolio of work, they learn to contextualize their own writing with writings from celebrated authors by completing short critical commentaries. This course introduces students to the workshop format.

### **WRIT 3100: Poetry Writing**

#### **3 Credit Hours**

*Prerequisite:* ENGL 1102

This course is a workshop approach to poetry writing that emphasizes original writing, revision, and analysis and response from classmates. Some attention is given to the work of established writers as models.

### **WRIT 3109: Careers in Writing**

#### **3 Credit Hours**

*Prerequisite:* ENGL 1102

This course exposes students from a variety of backgrounds to various careers in writing. (Students need not be English majors.) Students will analyze and create a wide variety of professional texts ranging from technical, business, and governmental documents to medical, community-based, and web-based documents.

## **WRIT 3110: Playwriting**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a workshop approach to playwriting that emphasizes original writing, revision, and analysis and response from classmates. Some attention is given to the work of established writers as models.

## **WRIT 3111: Professional Editing**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This is a course in editing as a practice and a profession. It focuses on editorial roles and responsibilities and introduces students to the skills, principles, and methods of editing. Course assignments provide ample practice in applying the techniques of editing, including editing for grammar, punctuation, and style. This course prepares students for careers in publishing and writing.

## **WRIT 3120: Fiction Writing**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a workshop approach to fiction writing that emphasizes original writing, revision, and analysis and response from classmates. Some attention is given to the work of established writers as models.

## **WRIT 3125: Interactive Narrative & Games**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course explores the theory and practice of writing narratives for interactive fiction and video games. Through multiple written projects and workshops, students gain experience developing and creating interactive narratives for diverse platforms and genres. Additionally, students explore the intersection among narrative theory, game studies, and creative authorship through critical readings and discussion.

## **WRIT 3130: Literary Nonfiction**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is a study and practice of selected genres of literary nonfiction. The course features extensive nonfiction writing and revision, workshop discussion, and readings in major authors of literary nonfiction.

## **WRIT 3140: Writing in the Workplace**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course emphasizes strategies for producing effective documents in a variety of professional contexts. Students gain practice with common workplace forms as they master writing clearly and with the needs and expectations of their audiences in mind. This course is particularly valuable to students preparing for careers in business, government, and nonprofit organizations.

## **WRIT 3150: Topics in Digital Rhetoric**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course explores rhetorical practices in electronic environments and provides an examination of major works on digital reading, writing, and culture framed by contemporary rhetorical theories. Students plan, design, and compose a variety of rhetorically effective digital texts. This course can be taken more than once provided the course content differs from the previous offering.

## **WRIT 3151: Digital Storytelling**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

Stories shape both our personal identities and our culture. Stories move us, entertain us, and affect social change and public awareness. This Digital Storytelling course focuses on the theory and practice of narrative composition in digital environments, including text, image, audio, and video. Students learn to compose rhetorically dynamic and engaging digital stories that explore a variety of types, techniques, audiences, and purposes (for personal, academic, and professional contexts). The course explores critical and creative approaches to narrative and visual design while attending to the interplay of form and content.

## **WRIT 3152: Digital Community Engagement**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course includes collaborative digital writing projects that reach beyond the classroom for the purpose of community engagement and/or community service. Students learn to use digital tools that support collaboration and streamlined team organization. The course involves students in writing, research, and analysis to implement projects of value in which they partner with community groups to inform, educate, and advocate for change through the design of digital content and engagement projects.

## **WRIT 3160: Argumentative Writing**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course focuses on the study and practice of argumentative writing. It includes the study of current models of effective arguments and the process of forming written arguments. It features extensive writing and revision, workshop discussion, and readings of classical and contemporary arguments. The course can be taken more than once provided the course content differs entirely from the previous offering. *Notes: These courses can be taken more than once provided the course content differs entirely from the previous offering.*

## **WRIT 3170: Environmental Writing and Literature**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course is intended for students interested in major works of environmental literature and for those who wish to think and write about the interconnections between humans and the nonhuman world. The course studies pastoral literature, nature writing, and science writing, and provides instruction in the writing of environmental nonfiction prose for aesthetic, expressive, intellectual, and instrumental purposes. *Notes: This course can be taken more than once if content differs entirely from a previous offering.*

## **WRIT 3210: Graphic Storytelling**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course focuses on the theory, practice, and production of comics and graphic narratives across media. Topics may include visual rhetoric, graphic and transmedia storytelling, image and representation, and the use of other sensory-based media in graphic narrative. Projects may include essays, sketchbooks, proposals/scripts, a chapter of a graphic novel, a pilot for a comic book series, and a one-off graphic storytelling project.

## **WRIT 3650: Introduction to Literacy Studies**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course provides students with an overview of approaches to studying and shaping literacy in a range of social contexts, including workplace, instructional, and community settings. Students explore literacy studies research, literacy practices, and the implications of competing definitions of literacy within the field of rhetoric and professional writing as well as other disciplines.

## **WRIT 3810: Research Methods for Writers**

### **3 Credit Hours**

*Prerequisite: ENGL 1102*

This course introduces students to quantitative, qualitative, and mixed methods theories in the fields of writing studies and engages students in practices of researched writing for a variety of digital media spaces. Students learn to create and process research reports by getting exposure to mixed methods, including interviewing, survey design, and archival work. The course teaches how to perform basic qualitative and quantitative analyses and IRB-approved research.

## **WRIT 4100: Advanced Poetry Writing**

### **3 Credit Hours**

*Prerequisite: WRIT 3100*

Building on the skills learned in WRIT 3100, this course offers advanced workshop experiences for practiced writers of poetry and includes lecture and discussion of contemporary approaches to poetics and the work of contemporary poets. This workshop approach stresses development and integration of all technical and artistic elements of poetry writing.

## **WRIT 4110: Advanced Playwriting**

### **3 Credit Hours**

*Prerequisite: WRIT 3110*

This advanced workshop stresses development and integration of all technical and artistic elements of playwriting. Some readings from the work of established writers are included.

## **WRIT 4120: Advanced Fiction Writing**

### **3 Credit Hours**

*Prerequisite: WRIT 3120*

Building on the skills learned in WRIT 3120, this course offers advanced workshop experiences for practiced writers of fiction and includes lecture and discussion of contemporary approaches to fiction writing and the work of contemporary fiction writers. This workshop approach stresses development and integration of all technical and artistic elements of fiction writing.

## **WRIT 4125: Advanced Techniques in Fiction Writing**

### **3 Credit Hours**

*Prerequisite: WRIT 4120 or permission of the instructor.*

Advanced Techniques in Fiction Writing is a seminar-workshop that offers in-depth study of a topic in fiction writing. It builds on skills learned in WRIT 4120, but differs from this workshop in that it focuses on a particular topic rather than student-generated manuscripts. For example, students may study a specific author's use of a technique or the use of a technique in a subgenre as a model for their own writing.

## **WRIT 4130: Advanced Creative Nonfiction**

### **3 Credit Hours**

*Prerequisite: WRIT 3130*

This course offers advanced workshop experiences for practiced writers of creative nonfiction and includes lecture and discussion of contemporary approaches to writing creative nonfiction and the work of contemporary creative nonfiction writers. This workshop approach stresses development and integration of all technical and artistic elements of writing creative nonfiction.

## **AIAE 0101: Introduction to ASCE I**

### **3 Credit Hours**

*Prerequisite: Student must be enrolled in the Academic, Social and Career Enrichment Certificate only.*

This course focuses on the transition to the ASCE program and provides a framework for understanding everyday life skills in the areas of responsibility, respect for self and others, teamwork, maintaining positive attitude, time management, financial responsibility, and other critical elements that are needed to become independent young adults today.

## **AIAE 0102: Introduction to ASCE II**

### **3 Credit Hours**

*Prerequisite: Student must be enrolled in the Academic, Social and Career Enrichment Certificate only and AIAE 0101*

This course builds on the content covered in ASCE I and identifies methods for individualized supports to build, monitor, and enhance core academic and social skills related to overall school success. Students will explore methods for improving the development of individual thinking, socialization, and how to succeed in independent living situations.

## **AIAE 0103: Professional Communication I**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Academic, Social and Career Enrichment Certificate only.*

This course is designed to enhance young adults with communication, problem solving and critical thinking skills they need to be successful in life. This course will focus on the development of communication skills in a professional setting, professionalism and critical thinking through lecture, group work, and experiential learning opportunities.

## **AIAE 0104: Professional Communication II**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Academic, Social and Career Enrichment Certificate only and AIAE 0103*

This course builds on the content covered in Professional Communications I and will introduce students to the theories and best practices of speech communication as applied to business and professional situations.

### **AIAE 0105: Career Preparation and Internship I**

#### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Academic, Social and Career Enrichment Certificate only.*

This course is designed to allow students the opportunity to establish, develop, and expand skills that lead to positive employment outcomes through hands-on experiences and in-class instruction of best practices.

### **AIAE 0106: Career Preparation and Internship II**

#### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Academic, Social and Career Enrichment Certificate only and AIAE 0105*

This course will expand on skills developed in Career Preparation and Internship I. This course is designed to assist students in understanding the career development process in order to make informed and appropriate occupational and educational decisions. Internship hours are required.

### **AIAE 0201: Managing Personal Resources I**

#### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Academic, Social and Career Enrichment Certificate only.*

This course explores how to use human, material, and community resources effectively, and how to make informed choices with respect to purchases, food, nutrition, housing, and transportation. Students will learn how to make responsible choices in their transition to independent living and strategies to enable them to manage time, talents, and money effectively.

### **AIAE 0202: Managing Personal Resources II**

#### **3 Credit Hours**

*Prerequisite: Student must be enrolled in the Academic, Social and Career Enrichment Certificate only and AIAE 0201*

This course builds on the skills learned in Managing Personal Resources I with an emphasis on introducing students to skills used resource management. Student will identify the principles and techniques required for effective management of personal and family finances and identify the roles that responsible consumerism plays in independent and family living.

### **AIAE 0203: Intermediate Professional Communications I**

#### **3 Credit Hours**

*Prerequisite: Student must be enrolled in the Academic, Social and Career Enrichment Certificate only.*

This course is designed to build on skills learned in year 1 of the ASCE program. The course concentrates on building speaking and delivery skills, as well as critical thinking and analytical skills that focus on presentation organization. Students will begin to make choices about the most effective and efficient way to communicate and deliver messages.

## **AIAE 0204: Intermediate Professional Communications II**

### **3 Credit Hours**

*Prerequisite: Student must be enrolled in the Academic, Social and Career Enrichment Certificate only and AIAE 0203*

This course builds on skills learned Intermediate Professional Communications I with an emphasis on providing a conceptual framework and specific tools for communicating in complex environments. Students will demonstrate how to offer feedback, accept feedback, and use feedback to improve communication skills.

## **AIAE 0205: Career Preparation and Internship III**

### **3 Credit Hours**

*Prerequisite: Student must be enrolled in the Academic, Social and Career Enrichment Certificate only.*

This course is designed to prepare students in the ASCE program for the transition to the workforce. Students will investigate how their skills, interests, values and personality influence career decisions. Students will begin to organize and prepare professional documents that includes resumes, cover letters, letters of recommendation, and other essential items needed for a customized employment portfolio. Internship hours are required.

## **AIAE 0206: Career Preparation and Internship IV**

### **3 Credit Hours**

*Prerequisite: Student must be enrolled in the Academic, Social and Career Enrichment Certificate only and AIAE 0205*

This course builds on skills discussed in Career Preparation and Internship III. Students will investigate the job search process and recognize the qualities, skills, and abilities that employers are seeking in job candidates. Students will complete professional documents that include a resume, cover letters, letters of recommendation, and other essential items needed for a customized employment portfolio. Internship hours are required.

## **AIAE 0301: Advanced Professional Communications I**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only.*

This course is designed to understand theories and practice of speech and written communication as applied to business and professional situations. Students will learn to demonstrate an understanding of professional language, written principles, and multimodal communication, including verbal, written, and digital/visual modes.

## **AIAE 0302: Advanced Professional Communications II**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only and AIAE 0301*

This course will expand on the skills presented in Advanced Professional Communications I and is designed to improve communication skills with peers, family, teachers, and large groups of people. Students will explore the role of rapidly expanding technologies in verbal and nonverbal messages, listening skills and critical thinking.

## **AIAE 0303: Leadership Seminar I**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only.*

This course provides a framework for developing leadership skills as they relate to career and academic success. Seminars are designed to promote the leveraging of leadership skills as a basis for career success, as well as individual and group impact within the global community. This course will focus on the development of leadership skills through lecture, group work, and experiential learning opportunities.

## **AIAE 0304: Leadership Seminar II**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only and AIAE 0303*

This course will build on skills developed in Leadership Seminar I and identify abilities that help develop leaders in the workplace. Students will identify and evaluate their communication style, leadership style, complete peer reviews, and practice constructive feedback. Students will participate dedicated leadership hours and training in the larger campus community.

## **AIAE 0305: Career Preparation and Internship V**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only.*

This course will focus on the development of job skills including interviewing techniques, resume preparation, career exploration, and career preparation. Students will investigate the job search process and recognize the qualities, skills, and abilities that employers are seeking in job candidates. Internship hours are required.

### **AIAE 0306: Career Preparation and Internship VI**

#### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only and AIAE 0305*

This course will build on skills learned in Career Preparation and Internship V and identify key career development theories and learn how to integrate self-knowledge into occupational/life decisions, set goals, and devise strategies to attain these goals. Internship hours are required.

### **AIAE 0401: Advanced Professional Communications III**

#### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only.*

This course will explore communication in the global economy that requires individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication.

### **AIAE 0402: Advanced Professional Communications IV**

#### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only and AIAE 0401*

This course will expand on the skills learned in Advanced Professional Communications III and enable students to expand the ability to write, read, edit, speak, listen, and conduct Internet research in professional settings.

### **AIAE 0403: Leadership Seminar III**

#### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only.*

This course will focus on the development of leadership skills through lecture, group work, and experiential learning opportunities and is designed to prepare students in their final year of the ALCD program to present their skills and value to potential coworkers, employers, and other stakeholders.

### **AIAE 0404: Leadership Seminar IV**

#### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only and AIAE 0403*

This course builds on the skills learned in Leadership Seminar III and provides students a framework for developing leadership skills as they relate to career success. Students will create an ePortfolio designed to help them promote themselves through a comparison of their skills and abilities and the artifacts that demonstrate their abilities.

## **AIAE 0405: Career Preparation and Internship VII**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only.*

This course is designed to prepare students in the ALCD program for the transition to the workforce. Students will investigate how their skills, interests, values and personality influence career decisions. Students will begin to organize and prepare professional documents that includes resumes, cover letters, letters of recommendation, and other essential items needed for a customized employment portfolio. Internship hours are required.

## **AIAE 0406: Career Preparation and Internship VIII**

### **3 Credit Hours**

*Prerequisite: Students must be enrolled in the Advanced Leadership and Career Development Certificate only.*

Students will work with transition and career specialists to focus on job opportunities and establishing strategic career and professional goals. Students will complete professional documents that include a resume, cover letters, letters of recommendation, and other essential items needed for a customized employment portfolio. Internship hours are required.

## **CMPD 4470: Alternative Dispute Resolution**

### **3 Credit Hours**

This course offers a survey of theories and methods related to alternative dispute resolution and conflict management through lecture, discussion, and experiential activities. Emphasis will be placed on interpersonal conflict and mediation skills.

## **Faculty at Kennesaw State University (2023-2024):**

**Abaidoo, Samuel**, Professor, Ph.D., University of Saskatchewan, 1997, M.A., University of Saskatchewan, 1994, B.A., University of Cape Coast, 1987

**Abaza, Hussein**, F, Professor, Ph.D., Virginia Polytechnic Institute and State University, 2002, Bachelor of Architecture, King Faisal University, 1987, M.S., Jordan University, 1991

**Abbott-Lyon, Heather, L**, Associate Professor, Ph.D., University of Virginia, 2007, B.S., Emory University, 2002, B.S., Emory University, 2002

**Abernathy, John, L**, Associate Professor, Ph.D., The University of Alabama, 2010, M.Acct., The University of Alabama, 1997, B.S., Birmingham-Southern College, 1996

**Achar, Premila, N**, Associate Professor, Ph.D., University of Mysore, 1989, M.Phil., University of Mysore, 1983, M.S., University of Mysore, 1982, B.S., University of Mysore, 1980

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Akanbi	Linda	B	Professor Emeritus	Reading Education
Akridge	Russell		Associate Professor Emeritus	Physics
Alexander	Carole	L	Assistant Professor Emeritus	History
Alsup	Rodney	G	Professor Emeritus	Accounting
Anderson	Jeffrey	F	Associate Professor Emeritus	Communication
Anderson	Thomas	F	Associate Professor Emeritus	Economics
Aronoff	Craig	E	Professor Emeritus	Management
Ash	Charles	W	Professor Emeritus	Health, Physical Education & Sport Science
Astrachan	Joseph	H	Professor Emeritus	Management
Atkinson	Melvis	E	Professor Emeritus	Mathematics and Mathematics Education
Bacman	Charles	L	Professor Emeritus	
Bairan	Annette		Professor Emeritus	Nursing
Ball	Thomas	R	Associate Dean Emeritus	Engineering
Barnum	Carol	M	Professor Emeritus	
Barrier	Robert	G	Professor Emeritus	English
Bennett	David	M	Professor Emeritus	
Bennett	David	N	Professor Emeritus	Nursing
Bernal	Barbara	V	Professor Emeritus	Software Engineering
Bill	M	L	Professor Emeritus	Social Work Administration
Bobia	Rosa		Professor Emeritus	French

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Brooks	Glenn	E	Professor Emeritus	
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Buchanan	W.	Wray	Professor Emeritus	Marketing
Bumgarner	Mary	K	Professor Emeritus	Economics
Burke- Abowd	Meghan		Professor Emeritus	Mathematics
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Davis	Kim		Professor Emeritus	
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Davis	Sidney		Professor Emeritus	
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Ridley	Helen	S	Professor Emeritus	Political Science
Roach, Jr.	S.	Federick	Professor Emeritus	History
Robbins	Sarah	R	Professor Emeritus	English and English Education
Roberts	Gary	B	Professor Emeritus	Management
Roberts	Morris	W	Professor Emeritus	Nursing
Roberts	Vanice	W	Professor Emeritus	Nursing
Robinson	George	W	Professor Emeritus	

Robley	Lois	R	Professor Emeritus	Nursing
Rodgers	Faye	H	Professor Emeritus	Accounting
Rogato	Mary	E	Assistant Professor Emeritus	English
Rogers, Jr.	Thomas	H	Director of Admissions Emeritus	
Roper	Thomas	B	Associate Professor Emeritus	Business Law
Rugg	Edwin	A	Professor Emeritus	Educational Research
Russ	Donald	D	Professor Emeritus	English
Sabbarese	Donald	M	Professor Emeritus	Economics
Salter, III	M.	Thomas	Professor Emeritus	Art
Sawyer	Jerry	D	Professor Emeritus	Decision Sciences
Scales	Sam	A	Professor Emeritus	
Schaufele	Christopher	L	Professor Emeritus	Mathematics
Scherer	Stephen	E	Professor Emeritus	Mathematics
Schiffer	Gail	B	Professor Emeritus	Biology
Schlact	Shelby	A	Professor Emeritus	Business Law
Schlesinger	Richard		Assistant Professor Emeritus	Computer Science & Information Systems
Schroeder	Ronald	N	Associate Professor Emeritus	
Scott	Thomas	A	Professor Emeritus	History
Sessum	Joseph	L	Professor Emeritus	Information Systems
Setzer	Charles	B	Professor Emeritus	Computer Science & Information Systems
Shealy, Jr.	Emmitt	H	Professor Emeritus	History
Siegel	Betty	L	President Emeritus	Psychology
Sims	Marlene	R	Associate Professor Emeritus	Mathematics
Sims	Stanley	G	Assistant Professor Emeritus	Mathematics
Slater-Moody	Judith	R	Associate Professor Emeritus	Human Services

Smith	Ann	D	Professor Emeritus	Curriculum & Instruction
Smith	Betty	A	Professor Emeritus	Anthropology
Smith	Garrett		Professor Emeritus	Geography
Snyder	Alice	F	Associate Professor Emeritus	Elementary and Early Childhood Education
Sparks	Donald	J	Associate Professor Emeritus	Mathematics
Sperry	Jeanne	A	Associate Professor Emeritus	Art
Spisak	Rita	J	Librarian Associate Professor Emeritus	Library Science
Stevenson	Barbara	J	Professor Emeritus	English
Stivers	Bonnie		Professor Emeritus	Accounting
Straley	Tina	H	Professor Emeritus	Mathematics
Stroud	Nancy	E	Professor Emeritus	History & Social Science Education
Swan	William	W	Professor Emeritus	Educational Leadership
Swindell	Barbara	J	Professor Emeritus	Art
Tambe	Balkrishna	R	Professor Emeritus	
Tate	James	B	Associate Professor Emeritus	History
Taylor	Gloria	A	Professor Emeritus	Nursing
Taylor	Patrick	L	Professor Emeritus	Art and Art Education
Tebeest	Ronald	H	Assistant Professor Emeritus	Political Science
Terry	Alice Granade	W	Professor Emeritus	Social Studies Education
Thomas	Walter		Professor Emeritus	Apparel and Textile
Thompson	William	P	Professor Emeritus	Business Administration
Thomson	Karen	M	Professor Emeritus	English
Thomson	Thomas	R	Professor Emeritus	Mathematics
Tippens	Paul		Professor Emeritus	
Trendell	Harold	R	Associate Professor Emeritus	Geography

Troemel	Hans	A	Professor Emeritus	
Tsui	Frank		Associate Professor Emeritus	Computer Science
Tucker	Lee	M	Professor Emeritus	
Tumlin	John	S	Professor Emeritus	
Turner	Carol	L	Professor Emeritus	English
Vincent	Stephen	F	Associate Professor Emeritus	
Vinelli	Jose		Associate Professor Emeritus	
Vizzini	Edward	A	Dean and Professor Emeritus	
Wachniak	Lana	J	Professor Emeritus	Criminal Justice and Sociology
Walker	Gail	B	Associate Professor Emeritus	English
Wallace	Deborah	S	Professor Emeritus	Special Education
Walls	June		Associate Professor Emeritus	Nursing
Walters	Margaret	B	Associate Professor Emeritus	English
Walters	Michael	J	Associate Professor Emeritus	Music & Music Education
Wang	Jin		Professor Emeritus	Health Promotion and Physical Education
Watkins	James	D	Professor Emeritus	Music
Webb	Linda	C	Professor Emeritus	Educational Leadership
Weeks	Charles	J	Professor Emeritus	
Wess	Robert	C	Professor Emeritus	
Whitenton	James	B	Professor Emeritus	Physics
Willey	Diane	L	Professor Emeritus	Educational Psychology
Williams, III	Britain	J	Professor Emeritus	Computer Science & Information Systems
Williams	Daniel	J	Professor Emeritus	Chemistry
Williams	Mary	K	Associate Professor Emeritus	English

Williams	Orren	W	Professor Emeritus	
Wilson	Astrid	H	Professor Emeritus	Nursing
Wingfield	Harold		Professor Emeritus	Political Science
Wojnowiak	Paul		Professor Emeritus	
Xu	Chong-wei		Professor Emeritus	Computer Science
Yancy	Robert	J	Professor Emeritus	
Young	Donald	F	Professor Emeritus	
Young	Ronald	C	Professor Emeritus	
Yow	Paula		Professor Emeritus	English
Zebich-Knos	Michele		Professor Emeritus	Political Science
Zia	Omar		Professor Emeritus	
Ziegler	John	A	Professor Emeritus	
Zinsmeister	Dorothy	D	Professor Emeritus	Biology
Zoghby	Mary	D	Professor Emeritus	English
Zumoff	Nancy		Professor Emeritus	Mathematics and Computer Science