**CM 2000 – Construction Graphics**

# Construction Management Department

**College of Architecture & Construction Management Term: Spring 2020**

**Prerequisite:** CM 1000

**Class Meeting time:** T&R **(**3:30–4:45) PM **Course Website:** http:d2l.kennesaw.edu **Class Location:** Design Bldg. I1-102

**Class instruction methodology:** Lecture & Lab **(**2-2-3) **Instructor:** Dr. Amaal Al Shenawa

**Office Location:** Academic Building H-342

**Office Hours:**  M & W 2:15 - 3:15 PM

T & R 1:45 - 3:15 PM

**Or by appointment**

**Email****:** [aalshena@kennesaw.edu,](mailto:aalshena@kennesaw.edu,%20) **Office** **Phone**: 470-578-6233

**Course Communications:** [aalshena@kennesaw.edu](mailto:aalshena@kennesaw.edu,%20)

**Required Text/ISBN Number:** Principles of Construction Graphics – Fifth Edition

By: Dr. Hussein Abaza & Jacqueline F. Stephens

\*Additional reading material for selected topics may be assigned.

# COURSE SYLLABUS

The intent of the syllabus is to provide the students with information on the course content, required learning outcomes, grading policy, course policies, and Kennesaw State University student policies and resources. This syllabus also includes the tentative topical outline and schedule. Each student is expected to abide by the stated policies. Course Syllabus is subject to changes during the semester. Please take notes of any Syllabus changes that are announced during the class and if you have any objection, it must be reported in writing by e-mail to the instructor within three business days after announcing these changes.

# Course Catalog Description:

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.

# Student Learning Outcomes covered in this course:

SLO 1 - Create written communications appropriate to the construction discipline.

# Course Learning Outcomes:

CLO 1 Generate plan, elevation and section of 3D objects.

CLO 2 Read and interpret Civil, Architecture, and Structural drawings.

CLO 3 Identify conflicts and coordinate between the different constructions drawings.

# Purpose of this course:

All courses in the Construction Management program contribute to the body of knowledge required to complete the Capstone project necessary for graduation. Each course in the Construction Management

Program provides the student with an opportunity to attain knowledge, skills, and abilities in one or more of the 20 Student Learning Outcomes (SLO) set forth by the American Council for Construction

Education (ACCE). The student’s level of achievement of SLO is measured through one or more Course Learning Outcomes (CLO). The mapping of CLOs with SLOs for the course is shown in the table below followed by the table that presents the mapping of CLO with assessment tools.

Mapping of CLO with SLO

|  |  |  |  |
| --- | --- | --- | --- |
| **Assessment** | **CLO 1** | **CLO 2** | **CLO 3** |
| SLO 10 | X | X | X |

Mapping of assessment with CLO

|  |  |  |  |
| --- | --- | --- | --- |
| **Assessment** | **CLO 1** | **CLO 2** | **CLO 3** |
| Exam 1 | X |  |  |
| Exam 2 |  | X |  |
| Lab 14 |  |  | X |
| Lab 15 |  |  | X |

# COURSE POLICIES

**Attendance Policy:** Attendance is required for this course. Excused absences are given with proper notice and/or documentation. The Class Participation grade is based on your attendance to the class and other approved functions.

**Quiz / Exam Policy:** There are 2 quizzes for this course and 3-4 vocabulary quizzes. Any problems with behavior during tests student will be excused from class and receive a zero.

**Make-up Policy:** No make-up exams are given.

**Assignment Policy:** Students are expected to attend class and complete assignments in a timely manner. Due dates and times are given for all assignments it is your responsibility to submit the work in the appropriate method according to the instructions given by the instructor (paper or D2L) before the time expires. There will be an end date so you will be able continue turning in assignments up to that date. Assignment turned in after due date and by end date will be subject to a decreased grade (I am able to see the amount of days late). All student work will be graded within two weeks of submission.

**Course Technology:** This course requires access to a computer. The Construction Management Department has 105 computer stations available for student use. At a minimum, students should be able

to use a word processing application, a spreadsheet application and a presentation application (i.e., Microsoft Word, Excel and PowerPoint). Construction documents are supplied in PDF format, students may view them using Bluebeam software in the department, or on PDF viewers of their choice.

# Evaluation & Grading:

Assignments 50%

2 Tests 20%

Vocabulary Quizzes 10%

Class Participation 5%

2 Projects 15%

|  |  |
| --- | --- |
| Total:  A = 90-100 | 100 % |
| B = 80-89 |  |
| C = 70-79 |  |
| D = 60-69 |  |
| F = Below 60 |  |

# CM 2000: COURSE TOPICAL OUTLINE & SCHEDULE

|  |  |  |
| --- | --- | --- |
| Week | Topic | Assignment |
| 1 | Introduction  Construction Phases (Ch 1) |  |
| 2 | Mathematics  Area (Ch 3) | Assignment 1-Exercise 1  Assignment 2-Exercise 2 |
| 3 | Architect’s Scale (Ch4)  Engineer’s Scale (Ch 4) | Assignment 3-Exercise 3  Assignment 4-Exercise 4 |
| 4 | Orthographic Projections- VQ1 | Assignment 5- Exercise 5-7 |
| 5 | Isometric Sketching (Ch 7) | Assignment 6-Exercise 8-10 |
| 6 | Architecture Symbols (Ch8 & 6)- Windows (Ch18)  Dimensioning (Ch 5 & 9) -VQ 2  Stairs | Assignment 7  Bring Tape |
| 7 | Foundation (Ch 10)  Roofing (Ch 11)-Framing (Ch 12) | Assignment 8-Exercise 11  Assignment 9-Exercise 12 |
| 8 | Test 1  Quest Speaker | Assignment 10 |
| 9 | CSI Divisions (Ch 2)  Residential Plans (Ch 15) | Assignment 11-Exercise 14-16 |
| 10 | Civil (Ch 17)  BB Introduction-VQ 3 | Assignment 12  Assignment 13 |
| 11 | Site Plan Reading | Assignment 14-Exercise 17  Assignment 15-Exercise 18 |
| 12 | Ceiling (Ch 19)  Schedule (Ch 20)-Welding (21) | Assignment 16-Exercise 19 |
| 13 | Take-off -VQ 4 | Assignment 17-Exercise 21 |
| 14 | Quest Speaker  Test 2 | Assignment 18 |
| 15 | Presentation |  |

**Note:** The topical outline and schedule is **tentative** and subject to change as per the progress of the course.

# UNIVERSITY POLICIES: Statement of Student Rights and Responsibilities KSU Student Code of Conduct

**Plagiarism and Cheating:**

No student shall receive, attempt to receive, knowingly give or attempt to give unauthorized assistance in the preparation of any work required to be submitted for credit (including examinations, laboratory reports, essays, themes, term papers, etc.). Unless specifically authorized, the presence and/or use of electronic devices during an examination, quiz, or other class assignment is considered cheating. Engaging in any behavior which a professor prohibits as academic misconduct in the syllabus or in class discussion is cheating. When direct quotations are used, they should be indicated, and when the ideas, theories, data, figures, graphs, programs, electronic based information or illustrations of someone other than the student are incorporated into a paper or used in a project, they should be duly acknowledged. No student may submit the same, or substantially the same, paper or other assignment for credit in more than one class without the prior permission of the current professor(s).

# University Policy on Academic Misconduct:

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the KSU Student Academic Integrity Policy at<http://kennesaw.edu/handbooks/faculty/section2_13.php>

# University Policy on Accommodating Students with Disabilities:

Students requesting accommodation for disabilities must first register with the Office of Disabled Student Support Services at [http://www.kennesaw.edu/stu\_dev/dsss/dsss.html.](http://www.kennesaw.edu/stu_dev/dsss/dsss.html) The Office of Disabled Student

Support Services will provide documentation to the student who must then provide this documentation to

the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams (No more than 3 weeks). Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

# \*\*Netiquette: Communication Courtesy:

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chat[s. http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf](http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf)

# Electronic Recording & Social Media Policy

Electronic recording performed without the consent of the people being recorded chills the free exchange of ideas. Academic freedom, free inquiry, and freedom of expression should not be limited by the fear

that one’s brainstorming, polemic discourse, speculative inquiry, or any other kind of expressed curiosity

made within the space of a university classroom will be made public without one’s consent. This fear is unacceptable regardless of whether one is in an online, hybrid, or face-to-face classroom setting.

Accordingly, no person shall electronically record any class discussion without the written permission of

the instructor. No person shall publish online or elsewhere any electronic recording of a class discussion without the written permission of the instructor and any other persons who were recorded. This policy is not intended to discourage electronic recording in the classroom or the use of social media when such actions are performed with the written consent of the instructor and any other persons who were/will be recorded. Faculty accommodate all reasonable requests to electronically record a class discussion; these requests must be documented by the Disabled Student Support Services available at:<http://www.kennesaw.edu/stu_dev/dsss/prospect.shtml>

# GETTING HELP

For issues with technical difficulties, please contact the Student Helpdesk:

1. Fill out a service form <http://uits.kennesaw.edu/support/formselect.php?s=tech>
2. Email: [studenthelpdesk@kennesaw.edu](mailto:studenthelpdesk@kennesaw.edu)

3. Call: 770-499-3555

Getting Started with Technology Serv[ices http://uits.kennesaw.edu/](http://uits.kennesaw.edu/)

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from ITS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

# Additional Technology Resources

1. Student Service Desk and Help Center [studenthelpdesk@kennesaw.edu](mailto:studenthelpdesk@kennesaw.edu)
2. Browser Checker https://usg.desire2learn.com/d2l/tools/system\_check/systemcheck.asp?ou=6606
3. USG Desire2Learn Help Center https://d2lhelp.view.usg.edu/
4. D2L Training Options & Resources for Students https://web.kennesaw.edu/acs/pages/desire2learn/student-resources-d2l
5. Computer train Online Course[s http://www.kennesaw.edu/dlc/FacultyResources/](http://www.kennesaw.edu/dlc/FacultyResources/)
6. ITS Documentation Center<http://uits.kennesaw.edu/docs/netaccess/guides/windows7_wifi_instructions.pdf>
7. Check Service Outag[es http://status.usg.edu/](http://status.usg.edu/)
8. Maintenance Schedule https://usg.desire2learn.com

# Academic Resources

1. Academic Tutoring Servic[es http://www.kennesaw.edu/stu\_dev/alp/academic.shtml](http://www.kennesaw.edu/stu_dev/alp/academic.shtml)
2. Disability Resourc[es http://www.kennesaw.edu/stu\_dev/dsss/dsss.html](http://www.kennesaw.edu/stu_dev/dsss/dsss.html)
3. ESL Study and Tutorial Cente[r http://www.kennesaw.edu/us/programs/esl.php](http://www.kennesaw.edu/us/programs/esl.php)
4. Library <http://www.kennesaw.edu/library/>
5. Supplemental Instruction <http://www.kennesaw.edu/us/programs/si.php>
6. The Writing Center <http://www.kennesaw.edu/writingcenter/index.php>
7. Math Lab <http://mathlab.kennesaw.edu/>

# Student Support and Wellness Resources

1. Career Services Center https://careerctr.kennesaw.edu/
2. Counseling and Psychological Service[s http://sss.kennesaw.edu/cps/](http://sss.kennesaw.edu/cps/)
3. Center for Health, Promotion and Welln[ess http://www.kennesaw.edu/col\_hhs/wellness/](http://www.kennesaw.edu/col_hhs/wellness/)
4. Student Health Clin[ic http://studenthealth.kennesawstateauxiliary.com/](http://studenthealth.kennesawstateauxiliary.com/)

KSU desires to resolve student grievances, complaints and concerns in an expeditious, fair and amicable manner. The Complaints and Appeals Page was developed to assist current and prospective students in submitting complaints and appeals and to direct them to the most effective venue for accurate information and resolution. The resources on the page will direct students to the specific venue to appropriately address related student complaint. <http://www.kennesaw.edu/complaints_appeals.shtml>

Complaints for online students are resolved following the same general procedures for students who attend classes on campus. However, for any process that requires that a student appear in person, the university may make other arrangements. For processes that cannot be completed via telephone, e-mail, or written correspondence, the university may set up a two-way video conference site in place of a meeting on the KSU campus.

**KSU Tobacco Policy**

Tobacco products: cigarettes, cigars, pipes, all forms of smokeless tobacco, clove cigarettes and any other smoking devices that use tobacco such as hookahs or simulate the use of tobacco such as electronic cigarettes.

University property: all land and improvements owned, occupied, leased, or controlled by the University or the University System of Georgia. This includes, but is not limited to, buildings, offices, meeting

rooms, residence halls (including private rooms), parking garages, parking lots, athletic fields, and

stadium seating areas.

Visitors and third parties: contractors and subcontractor, spectators, and other individuals visiting, working, or attending activities and events on University property.

6. Policy

KSU prohibits the use of tobacco products on any University property. The use of tobacco products is prohibited in all vehicles—private or public—located on University property. Further, this policy prohibits any advertising, sale, or free sampling of tobacco products on University property unless specifically stated and approved for research purposes.

The University president hereby establishes and designates responsibility to KSU Smoke/Tobacco-Free Committee (the Committee) for developing, implementing, and overseeing tobacco and smoke-free policy, procedures, best practices, and activities for the University. The University president designated the associate vice president for Operations as the Committee Chair, responsible for leading Committee activities and designating Committee members to ensure representation by faculty, staff, and students. KSU procedures related to this policy are managed by the Committee and various departments with related procedures and functional responsibilities. In addition to the Office of Human Resources and the Office of the Vice President for Student Affairs (see Contact Information above), the departments listed below also have functional responsibilities and maintain procedures related to this policy. All procedures and contact information are maintained on the KSU Smoke/Tobacco Free website (see link provided below under Section 8, Associated Procedures).

# STUDENT LEARNING OUTCOMES

Upon graduation from an accredited ACCE 4-year program a graduate shall be able to:

# ACCE SLO TARGET

SLO 1 – Create written communications appropriate to the construction discipline.

SLO 2 – Create oral presentations appropriate to the construction discipline. SLO 3 – Create a construction project safety plan.

SLO 4 – Create construction project cost estimates. SLO 5 – Create construction project schedules.

SLO 6 – Analyze professional decisions based on ethical principles.

SLO 7 – Analyze construction documents for planning and management of construction processes. SLO 8 – Analyze methods, materials, and equipment used to construct projects.

SLO 9 – Apply construction management skills as a member of a multi-disciplinary team. SLO 10 – Apply electronic-based technology to manage the construction process.

SLO 11 – Apply basic surveying techniques for construction layout and control.

SLO 12 – Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.

SLO 13 – Understand construction risk management.

SLO 14 – Understand construction accounting and cost control. SLO 15 – Understand construction quality assurance and control. SLO 16 – Understand construction project control processes.

SLO 17 – Understand the legal implications of contract, common, and regulatory law to manage a construction project.

SLO 18 – Understand the basic principles of sustainable construction. SLO 19 – Understand the basic principles of structural behavior.

SLO 20 – Understand the basic principles of mechanical, electrical and piping systems.