# **Bachelor of Science in Information Technology**



*Updated 7/9/2020* Total Degree Credit Hours: 120

## **General Education Requirements** (See Degreeworks for Prerequisites)

۸ 1	ENGL 1101 Composition I	3	
A-1	ENGL 1102 Composition II	3	
A-2	MATH 1113 Precalculus	3	

Catalog Year: 2020

All Area A courses must be completed within the first 30 credit hours with a grade of C or higher.

B-1	<b>ECON 1000</b> Contemporary Economic Issues	2	
B-2	AADS/AMST/ASIA/GWST/LAL/PAX/RELS 1102, COM	3	
D-2	1100, FL 1002, LDRS 2300, PHIL 2200, or POLS 2401		

Area B: Institutional Options (5 credit hours) Choose 1 course from B-2. COM 1100 is recommended.

Area A: Essential Skills (9 credit hours)

C-1	Literature: ENGL 2110, 2111, 2112, 2120, 2121, 2122, 2130, 2131, 2132, or 2300	3	
C-2	Arts and Culture: <b>ART 1107, MUSI 1107, DANC 1107,</b> <i>or</i> <b>TPS 1107</b>	3	

Area C: Humanities, Fine Arts, and Ethics (6 cr hrs) Choose one course from each area.

D-1	MATH 1190 Calculus I	4	
D 2	BIOL 1107/L, BIOL 1108/L, CHEM 1211/L, CHEM 1212/L, PHYS 1111/L, PHYS 1112/L,	4	
D-2	PHYS 2211/L, PHYS 2212/L	4	

Area D: Science, Math, and Technology (11-12 cr hrs)
Information Technology majors must complete two 4-credit hour

science courses. "L" denotes the corresponding lab course. Students **may not** take both PHYS 1111/L and PHYS 2211/L or PHYS 1112/L and PHYS 2212/L. A total of 12 hours are completed for this area with 2 credits carried over to Area F and Upper Div. Major courses.

E-1	POLS 1101 American Government	3	
E-2	HIST 2111 or 2112 US History	3	
E-3	HIST 1100, 1111, or 1112 World History	3	
E-4	CRJU 1101, GEOG 1101, PSYC 1101, SOCI	3	
	1101, STS 1101, ANTH 1102, or ECON 2100		

#### Area E: Social Sciences (12 credit hours)

Choose one course from each area for E-2, E-3, & E-4.

## **Area F Lower Division Major Requirements**

#### Prerequisites

CSE 1321 Programming & Problem Solving I AND	Lecture & Lab must be	4	
CSE 1321L Programming & Problem Solving I Lab	taken together		
CSE 1322 Programming & Problem Solving II AND	Min. grade of 'B' in CSE 1321/L	4	
CSE 1322L Programming & Problem Solving II Lab	& MATH 1113/1190*		
TCOM 2010 Technical Writing	ENGL 1102	3	
MATH 2332 Intro to Probability and Data Analysis	MATH 1190	3	
MATH 2345 Discrete Mathematics or	MATH 1113 or 1190	3	
CSE 2300 Discrete Structures for Computing	MATH 1113 & CSE 1321/L		
Carryover credit hour from Area D Group 2 Science Lab	See Area D Science requirement	1	

CSE 1321 & CSE 1321L and CSE 1322 & CSE 1322L must have a minimum grade of 'B.' All other courses must have a minimum grade of 'C'.

\*May be taken before or at the same time

Free Electives (5 credit hou	rs
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CSE 1300 is programmin

**CSE 1300** is <u>highly recommended</u> for students who are new to programming and have available free elective credits to complete.

## **Upper Division Major Courses**

#### Prerequisites

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CSE 3153 Database Systems	CSE 1322/L	3		
CSE 3801 Professional Practices and Ethics	CSE 1322/L	2		
IT 3123 Hardware & Software Concepts	(CSE 1321/L w/'B' or better) or IT 1113	3		
IT 3003 Professional Development & Entrepreneurship	IT 3123	3		
IT 3203 Intro to Web Development	CSE 1321/L w/'B' or better	3		
IT 3223 Software Acquisition & Project Management	CSE 1321/L w/'B' or better	3		
IT 3423 Operating Systems Concepts & Administration	IT 3123	3		
IT 3883 Advanced Applications Development	'B' or better in CSE 1322/L & (CSE 3153* or CS 3410*)	4		
IT 4323 Data Communications & Networks	IT 3123	3		
IT 4683 Management of IT & Human Computer Interaction	CSE 3153	3		
IT 4723 IT Policy and Law	IT 3123 & IT 3223	3		
IT 4823 Information Security Administration	CSE 3153 & IT 3123 & (CSE 2300 or MATH 2345)	3		
IT 4983 IT Capstone	IT 3423, IT 3223, IT 3203 & IT 4323*, IT 4823*	3		
1 Credit hour is carried over from MATH 1190 Calculus 1 – 'C' grade is required				

All major courses must have a minimum grade of 'C,' except for CSE 1321/L, which must have a minimum grade of 'B'.

\* - can be done concurrently with course

### **Concentration** (15 credit hours)

Choose **ONE** concentration. Four of the five courses must be completed from the chosen concentration. The fifth course may be from the same or any concentration, IT 4490 Special Topics, or CSE 4983 Computing Internship.

Enterprise Systems	Prerequisites		
IT 3503 Foundations of HIT	ENGL 1102	3	
IT 4153 Advanced Database	CSE 3153	3	
IT 4333 Network Configuration & Administration	IT 4323	3	
IT 4673 Virtual IT Systems	CSE 3153 & IT 3423 & IT 4323	3	
IT 4403 Advanced Web and Mobile Applications	IT 3203	3	

IT 3703 Introduction to Data	IT 3123 &	3	
Analytics and Technology	CSE 3153*		
IT 4713 Business Intelligence	CSE 3153	3	
Systems			
IT 4733 Big Data System	IT 3703	3	
Administration			
IT 4773 Machine Learning for	IT 3703	3	

Prerequisites

IT 3703

3

**Enterprise Applications** IT 4793 Applied Data Driven

Solutions

Data Analytics and Tech.

			FinTech	Prerequisites		
			IT 4603 Introduction to FinTech	CSE 3153	3	
<b>Cyber Operations Security</b>	Prerequisites		 IT 4613 Applied Machine Learning	IT 4603	3	
833 Wireless Security	IT 4323	3	in FinTech			
			IT 4623 FinTech Security & Privacy	IT 4603 and	3	
843 Ethical Hacking for	IT 4323	3		IT 4823		
ctive Defense			FTA 4001 Foundations in FinTech	None	3	
<b>853</b> Computer Forensics	IT 4323	3				
			FTA 4002 Financial Technologies	None	3	
883 Infrastructure Defense	IT 4323	3				
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FTA 4005 Intro to Financial Data Analytics can be taken as the 5<sup>th</sup> course for this concentration in addition to the other options (1 course from any concentration)

Cyber Operations Security Prerequ	iisites
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IT 4833 Wireless Security	IT 4323	3	
IT 4843 Ethical Hacking for	IT 4323	3	
Effective Defense			
IT 4853 Computer Forensics	IT 4323	3	
IT 4883 Infrastructure Defense	IT 4323	3	
IT 4893 Internet of Things	IT 4823 & IT		
	4323		
IT 4863 Web and Mobile	IT 3203	3	
Application Security			

<sup>\* -</sup> can be done concurrently with course