

Computer and Information Sciences

Curriculum in Computer Science



First Year

First Semester

Course Number	Course Title	Credits
CSCI-191	University Seminar I	1
CSCI-110	Computational Thinking I	2
CSCI-120	Elements of Computer Programming I	4
ENGL-121	Introduction to Composition I (session I)	2
ENGL-122	Introduction to Composition II (session II)	2
MTSC-251	Calculus I	4
		15

Second Semester

Course Number	Course Title	Credits
CSCI-192	University Seminar II	1
CSCI-111	Computational Thinking II	2
CSCI-121	Elements of Computer Programming II	4
ENGL-123	Introduction to Composition and Speech III	3
ENGL-124	Introduction to Speech and Composition IV	2
MTSC-252	Calculus II	4
		16

Second Year

Course Number	Course Title	Credits
CSCI-210	Data Structures and Algorithms I	4
ENGR-210	Digital Logic Design	4
HIS	History (M/AE)	3
LIT	Literature (M/AE)	3
MTSC-213	Discrete Mathematics I	3
		17

Course Number	Course Title	Credits
CSCI-211	Data Structures and Algorithms II	3
CSCI-230	Systems Architecture	3
CSCI-280	Discrete Structures	3
CSCI-295	Mid-Program Project	1
KINE-101	Lifetime Fitness & Wellness	2
PSYC-201	Introduction to Psychology	3
		15

Third Year

Course Number	Course Title	Credits
CSCI-320	Operating Systems	3
CSCI-340	Database Systems	3
CSCI-370	Stochastic Computing	3
PHYS-211	Fundamentals of Physics I	4
MTSC-313	Linear Algebra	3
		16

Course Number	Course Title	Credits
CSCI-330	Computer Networking	3
CSCI-350	Data Analytics	3
CSCI-380	Principles of Programming Languages	3
INFO-340	Introduction to Information Security	3
AE	Area Elective	3
		15

Fourth Year

Course Number	Course Title	Credits
CSCI-480	Software Engineering Design	3
CSCI-485	Analysis of Algorithms	3
AE	Area Elective	3
GLOB-395	Global Societies	3
AH	Arts and Humanities (M/AE)	3
		15

Course Number	Course Title	Credits
CSCI-486	Theory of Computing	3
CSCI-495	CS Capstone Project**	3
AE	Area Elective	3
AH	Arts and Humanities (M/AE)	3
		12

Total Credit Hours	121
---------------------------	------------

** Senior capstone course.

NOTE: All courses must be passed with a C or better in order to fulfill the requirement.

General Education - Core		
CSCI-191	University Seminar I	1
CSCI-192	University Seminar II	1
ENGL-121	Introduction to Composition I	2
ENGL-122	Introduction to Composition II	2
ENGL-123	Introduction to Composition and Speech III	3
ENGL-124	Introduction to Speech and Composition IV	2
GLOB-395	Global Societies	3
KINE-101	Lifetime Fitness & Wellness	2
		16

General Education - Breadth		
HIS	History (HM/HAE)	3
LIT	Literature (LM/LAE)	3
SS	Social Sciences	3
AH	Arts and Humanities (M/AE)	6
MTH	Mathematics	4
CAP	Capstone Experience	4
NSC	Natural Science with Lab	4
		26

Computing - Foundations		
CSCI-110	Computational Thinking I	2
CSCI-111	Computational Thinking II	2
CSCI-120	Elements of Computer Programming I	4
CSCI-121	Elements of Computer Programming II	4
CSCI-210	Data Structures and Algorithms I	4
CSCI-211	Data Structures and Algorithms II	3
		19

Computing - Core		
CSCI-230	System Architecture	3
CSCI-320	Operating Systems	3
CSCI-330	Computer Networking	3
CSCI-340	Database Systems	3
CSCI-350	Data Analytics	3
CSCI-370	Stochastic Computing	3
CSCI-480	Software Engineering	3
INFO-340	Introduction to Information Security	3
		24

Computing - Cognate		
ENGR-210	Digital Logic Design	4
MTSC-213	Discrete Math I	3
MTSC-251	Calculus I	3
		7

CS - Cognate		
MTSC-252	Calculus II	4
MTSC-313	Linear Algebra	3
		7

CS - Specific		
CSCI-280	Discrete Structures	3
CSCI-395	Mid-Program Project	1
CSCI-380	Principles of Programming Languages	3
CSCI-485	Analysis of Algorithms	3
CSCI-486	Theory of Computing	3
CSCI-495	CS Capstone Project	3
AE	Area Elective	3
AE	Area Elective	3
AE	Area Elective	3
		22

Total		121
--------------	--	------------

History (choose one)	
H/M	History / Multicultural
HIST-101	World History to 16th Century
HIST-102	World History from 16th Century
HIST-205	Themes in World History
H/AE	History / African-American Experience
HIST-203	African American History to 1865
HIST-204	African American History from 1865

Literature (choose one)	
L/M	Literature / Multicultural
ENGL-201	World Literature I
ENGL-202	World Literature I I
L/AE	Literature / African-American Experience
ENGL-205	African-American Literature I
ENGL-206	African-American Literature II

Social Sciences (choose one)	
PSYC-201	Introduction to Psychology

Arts and Humanities (choose two)	
AH	Arts and Humanities
ART-101	Introduction to Art
ART-103	Introduction to Drawing
ART-104	Two Dimensional Design
ART-204	Drawing & Painting (Non-majors)
ART-205	Intermediate Drawing
ART-206	Three-Dimensional Design
ART-304	Introduction to Painting
ART-315	Modern Art
ART-317	Art History I
ENGL-113	Introduction to Theatre
MUSC-101	Introduction to Music
PHIL-XXX	All Philosophy Courses without prerequisites
WMGS-230	Introduction to Feminist Philosophy
WMGS-420	Women and Men of Classical Letters
AH/M	Arts and Humanities / Multicultural
PHIL-201	Introduction to Philosophy
XX-XXX	All World Languages
SCCJ-101	Introduction to Sociology
SCCJ-206	Cultural Anthropology
MGMT-440	International Management
WMGS-310	Introduction Gender Representation in Visual Culture
AH/AE	Arts and Humanities / African-American Experience
MUSC-100	African-American Music
ART-316	African-American Art History

Mathematics (choose one)	
MTSC-251	Calculus I

Capstone Experience	
CSCI-495	CS Capstone Project

Natural Sciences with Lab (choose one)	
PHYS-211	Fundamentals of Physics

Area: Security		
CSCI-440	Computer and Network Security	
CSCI-445	Digital Forensics	
AE	Course from another IT/CS or related Area	

Area: Informatics		
CSCI-355	Introduction to Bioinformatics	
AE	Course from another IT/CS or related Area	
AE	Course from another IT/CS or related Area	

Area: Intelligent Systems		
CSCI-410	Introduction to Robotics	
CSCI-455	Introduction to Computational Intelligence	
CSCI-460	Machine Learning	

General Education Breadth Paths

Student must complete one of these paths

