

Computer and Information Sciences

Curriculum in Computer Science

(2013)



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-101	English Composition I	3
MTSC-251	Calculus I	4
		14

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-102	English Composition II	3
MVSC-101	Lifetime Fitness & Wellness	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
PSYC-201	Introduction to Psychology	3
		13

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
ENGL-200	Speech	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
GLOB-395	Global Societies	3
AH	Arts and Humanities (M/AE)	3
		15

Total Credit Hours	121
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** Senior capstone course.

* Writing Intensive.

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

Department of Computer and Information Sciences

Computer Science and General Education Requirements (2013)

General Education - Core		
CSCI-191	University Seminar I	1
CSCI-192	University Seminar II	1
ENGL-101	English Composition I	3
ENGL-102	English Composition II	3
ENGL-200	Speech	3
GLOB-395	Global Societies	3
MVSC-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	3 ●
NSC	Natural Science with Lab	4 ●
		26

Computing - Foundations		
CSCI-101	Computational Thinking I	2
CSCI-102	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
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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
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Computing - Cognate		
ENGR-210	Digital Logic Design	4
MTSC-213	Discrete Math I	3
MTSC-251	Calculus I	
		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	
AE	Area Elective	3
AE	Area Elective	3
AE	Area Elective	3
		22

Total		121
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History (choose one)	
HM	History / Multicultural
HIST-101	World History to 16th Century
HIST-102	World History from 16th Century
HIST-205	Themes in World History
HAE	History / African-American Experience
HIST-203	African American History to 1865
HIST-204	African American History from 1865

Literature (choose one)	
LM	Literature / Multicultural
ENGL-201	World Literature I
ENGL-202	World Literature II
LAE	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-316	African-American Art History
ART-317	Art History I
ENGL-113	Introduction to Theatre
AH/M	Arts and Humanities / Multicultural
PHIL-XXX	All Philosophy Courses without prerequisites
XX-XXX	All World Languages
AH/AE	Arts and Humanities / African-American Experience
MUSC-100	African-American Music
MUSC-101	Introduction to Music

Mathematics (choose one)	
MTSC-251	Calculus I

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

Capstone Experience	
CSCI-495	CS Capstone Project

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 of these paths

