

# 2015-2016 Catalogue

## COMPUTER SCIENCE B.S.CS.

All students must meet the University Requirements .

A minimum of 120 credits are required and must include the following:

<b>Computer Science (minimum forty-four credits, maximum sixty credits)</b>		
Recommended:		1
CS 050	Seminar for New CS Majors	1
Core:		26
CS 021	Computer Programming I	3
CS 064	Discrete Structures	3
CS 110	Intermediate Programming	4
CS 121	Computer Organization	3
CS 124	Data Structures & Algorithms	3
CS 125	Computability and Complexity	3
CS 201	Operating Systems	3
CS 224	Algorithm Design & Analysis	3
or CS 243	Theory of Computation	
CS 292	Senior Seminar	1
Eighteen additional credits, including three at the 0XX-level (or above), six at the 1XX-level (or above), and nine credits at the 2XX-level		18
<b>Mathematics (fourteen credits)</b>		
MATH 021	Calculus I	4
MATH 022	Calculus II	4
Choose two of the following:		6-7
MATH 121	Calculus III	
MATH 122	Applied Linear Algebra	
or MATH 124	Linear Algebra	
MATH 173	Basic Combinatorial Theory	
MATH 271	Adv Engineering Mathematics	
<b>Statistics (three to six credits)</b>		
STAT 143	Statistics for Engineering	3
or one course in statistics (e.g. STAT 141) and one course in probability (e.g. CS 128 or STAT 151)		
<b>Natural Science (thirteen credits)</b>		

Chosen from courses in astronomy, biology (or BioCore), chemistry, environmental science, geology, microbiology and molecular genetics, plant biology, or physics, including one of the following laboratory science sequences:		13
BIOL 001 & BIOL 002	Principles of Biology and Principles of Biology	
or BCOR 011 & BCOR 012	Exploring Biology and Exploring Biology	
CHEM 031 & CHEM 032	General Chemistry 1 and General Chemistry 2	
or CHEM 035 & CHEM 036	General Chemistry for Majors 1 and General Chemistry for Majors 2	
PHYS 031 & PHYS 125	Physics for Engineers I and Physics for Engineers II	
or PHYS 051 & PHYS 152	Fundamentals of Physics I and Fundamentals of Physics II	
<b>Fine Arts, Humanities and Social Sciences (eighteen credits)</b>		
Chosen from courses in ALANA U.S. Ethnic Studies; anthropology; art history; art studio; classics; communication sciences and disorders; dance; economics; English; Film and Television Studies; foreign language; geography; global and regional studies; history; Holocaust Studies; linguistics; music; philosophy; political science; psychological science; religion; sociology; theatre; Gender, Sexuality, and Women's Studies; and World Literature		18

Credits used to fulfill the University's Writing, Sustainability and Diversity requirements (one three-credit course Diversity Category 1 and a second three-credit course from Diversity Category 1 or 2) may also be applied to the above distribution requirements as appropriate.

Students must complete a university approved minor (excluding computer science); courses used to fulfill the minor can also satisfy other requirements.

No more than three grades of D+, D, or D- in computer science courses numbered CS 124 and higher.