## Computer Science (grid only)

# Course Sequence: Semester 1

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
CSCI 111 - Computer Science I *	FNMT 118 or higher; (or MATH 161 placement)	4 credits	Tech <mark>nological</mark> Comp <mark>etency</mark>
MATH 163 - Discrete Mathematics	MATH 161 with a grade of "C" or better, or placement in MATH 162 or higher	4 credits	Quantitative Reasoning
MATH 171 - Calculus I	MATH 162 or higher with a grade of "C" or better, or placement in MATH 171 or higher	4 credits	
ENGL 101 - English Composition		3 credits	Writing/Research/Info Lit 1
ENGL 115 - Public Speaking	ENGL 101, which may be taken concurrently	3 credits	Oral Communication/Creative Expression

### Semester 2

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
CSCI 112 - Computer Science II *	CSCI 111 with a grade of "C" or better	4 credits	Tech <mark>nological</mark> Comp <mark>etency</mark>
CIS 205 - Database Management Systems	CSCI 112, which may be taken concurrently, or CIS 103 or CSCI 118	4 credits	
MATH 172 - Calculus II	MATH 171 or higher with a grade of "C" or better, or placement in MATH 172 or higher	4 credits	

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
ENGL 102 - The Research Paper	ENGL 101 with a grade of "C" or better	3 credits	Writing/Research/Info Lit 2

### Semester 3

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
CSCI 211 - Data Structures and Algorithms	CSCI 112 with a grade of "C" or better	4 credits	
PHYS 140 - Mechanics, Heat and Sound	MATH 171 or higher	5 credits	Scientific Reasoning
CSCI 218 - Statistics for Computing and Data Science	MATH 161 with a grade of "C" or better (or higher placement) and either CSCI 111 with a grade of "C" or better or CSCI 118 with a grade of "C" or better	4 credits	
HUM 101 - Cultural Traditions: Ancient to the 13 <sup>th</sup> Century or HIST 121 - World History: The Distant Past or HIST 122 - World History: The Recent Past or World Language **		3 credits	

### Semester 4

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
CSCI 213 - Computer Organization	CSCI 111 with a grade of "C" or better and MATH 163 which may be taken concurrently	4 credits	

Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
PHYS 241 - Electricity, Magnetism and Light	<u>PHYS 140</u> and <u>MATH 172</u>	5 credits	
SOC 101 - Introduction to Sociology or HIST 121 - World History: The Distant Past or HIST 122 - World History: The Recent Past		3 credits	Cultural Analysis and Interpretation
Directed Elective (see list below) ***		4 credits	

#### Minimum Credits Needed to Graduate: 65

<sup>\*\*\*</sup> The following courses will fulfill the directed elective requirement, provided the student has met the course prerequisites:

Directed Elective (choose one):	Prerequisites and Corequisites
CIS 200 - Apple App Development I	CIS 106 or CIS 114 or CSCI 111
CIS 211 - Android App Development I	CIS 106 or CIS 114 or CSCI 111
CSCI 221 - Machine Learning	CSCI 118 with a grade of "C" or better, or CSCI 218 with a grade of "C" or better
MATH 263 - Discrete Mathematics II	MATH 163 with a grade of "C" or better
MATH 270 - Linear Algebra	MATH 171 with a grade of "C" or better and MATH 172 with a grade of "C" or better (MATH 172 may be taken concurrently)

**General Education Requirements:** All general education requirements necessary for graduation are met through the courses in the program as indicated above. Students who wish to take courses that differ from the general education courses indicated above must complete a course substitution request form. To access the form, login to the MyCCP portal, and in

<sup>\*</sup>Students must complete <u>CSCI 111</u> and <u>CSCI 112</u> to meet the Technological Competency requirement.

<sup>\*\*</sup> Any language course in Arabic, Chinese, French, Italian, Hebrew, Japanese, or Spanish may be chosen.