Student ID:_____	**Catalog: 2019-20 College of Liberal Arts**
Student Name:_____	**Program: Computer Science Major**
Adviser Name:_____	**Minimum Credits Required:**_____

Computer Science Major

Meet the Faculty

The Department of Mathematics and Computer Science offers a computer science major that develops students' ability to design and implement computer programs to solve many types of problems. Based on curricula developed by the Association for Computing Machinery (ACM), the major prepares students for graduate study and for many interesting careers in the computer industry. The computer science minor complements any major for which computer applications are important. The minor also gives students excellent preparation for many computer-related occupations.

Major Requirements

Thirteen (13) courses are required, all nine (9) core courses and four (4) electives, including at least one from each of group 1 and group 2. A first-year student majoring in computer science will typically take *CMS 167/CMS 167L* and one of *MAT 111*, *MAT 109*, *MAT 110*, or *MAT 108* in the Fall, and *CMS 170* and *MAT 140* in the spring.

Core Courses

Course Name	Crs:	Term Taken	Grade	Gen Ed
CMS 167 - Problem Solving I with Selected Topics ***Co-requisite(s):*** CMS 167L				
CMS 167L - Problem Solving I Lab ***Co-requisite(s):*** CMS 167				
CMS 170 - Problem Solving II with Selected Topics *Prereq(s):* CMS 167/CMS 167L.				
CMS 230 - Introduction to Computer Systems *Prereq(s):* CMS 170.				
CMS 270 - Object-Oriented Design and Development *Prereq(s):* CMS 170.				
CMS 330 - System Software Principles *Prereq(s):* CMS 230.				
CMS 484 - Senior Computer Science Capstone *Prereq(s):* one 400-level CMS course.				
MAT 140 - Introduction to Discrete Mathematics				
MAT 310 - Applied Discrete Mathematics *Prereq(s):* MAT 140.				

Electives

Group 1:

At least one is required.

Course Name	Crs:	Term Taken	Grade	Gen Ed
CMS 375 - Database Design and Development *Prereq(s):* CMS 270.				
CMS 380 - Simulation Analysis and Design *Prereq(s):* CMS 270.				

Group 2:

At least one is required. A student who is considering graduate studies should take CMS 460.

Course Name	Crs:	Term Taken	Grade	Gen Ed
CMS 460 - Algorithm Analysis *Prereq(s):* CMS 270 and MAT 140.				
CMS 450 - Networks *Prereq(s):* CMS 330.				

Additional Electives

For students considering graduate school in computer science, a minor in Mathematics is recommended.

Course Name	Crs:	Term Taken	Grade	Gen Ed
CMS 341 - Mobile App Development *Prereq(s):* CMS 270.				
CMS 352 - Web Application Development				

Prereq(s): CMS 270.				
CMS 395 - Special Topics *Prereq(s):* CMS 270 and instructor consent.				
CMS 430 - Artificial Intelligence *Prereq(s):* MAT 310.				
CMS 441 - Advanced Systems *Prereq(s):* CMS 330.				
CMS 480 - Programming Language Translation *Prereq(s):* CMS 270 and CMS 330.				
CMS 495 - Topics in Computer Science *Prereq(s):* CMS 270				

Notes: