COMPUTER SCIENCE MAJOR (BA)

Major Requirements

Bachelor of Arts in Computer Science

122 credits

For a major in computer science, students complete the following:

Code	Title	Credits
Foundation Courses		
CPSC 1101	Introduction to Computing (Preferred course)	3
or ENGR 1031	Fundamentals of Engineering	
CPSC 1131	Fundamentals of Programming	3
CPSC 2231	Programming Workshop	3
CPSC 2231L	Programming Workshop Lab	1
CPSC 2232	Data Structures	3
CPSC 2232L	Data Structures Lab	1
Computing and Software Depth		
CPSC 2250L	Computer Science Sophomore Clinic	1
CPSC 2304	Web Development	3
CPSC 3351L	Computer Science Junior Clinic I	1
CPSC 3352L	Computer Science Junior Clinic II	1
CPSC 3354	Theory of Programming Languages	3
SWEG 3301	Software Engineering Methods	3
SWEG 3302	Software Design Methods	3
Select four major elective courses [1]		12
Total Credits		**41**

[1] Major electives are chosen from the department, but may be chosen from among other courses with approval of advisor and department chair.

Note: Students with a primary major in a degree other than Computer Science, may use the foregoing 41 credits as the basis for a Computer Science double major

Optional Concentrations

Concentrations in Software Engineering and Computer Engineering are available to students majoring in Computer Science. These concentrations build on required courses in the program and require students to complete additional credits.

Computer Engineering Concentration

Code	Title	Credits
CPEG 2245 & 2245L	Digital Design I and Digital Design I Lab	4
CPEG 3346	Computer Systems Architecture	3
Select two courses from the following:		6-7
CPEG 3246	Digital Electronics Design II	
CPEG 3331	Biomedical Signal Processing	
CPEG 4320	Computer Networks	
or CPSC 4314	Network Security	
CPEG 4332	Biomedical Imaging	
ELEG 3348 & 3348L	Embedded Microcontrollers and Embedded Microcontrollers Lab	
Total Credits		**13-14**

Software Engineering Concentration

Code	Title	Credits
SWEG 3301 & CPSC 3351L	Software Engineering Methods and Computer Science Junior Clinic I	4
SWEG 3302 & CPSC 3352L	Software Design Methods and Computer Science Junior Clinic II	4
SWEG 4320	Software Testing and Maintenance	3
SWEG 4321	Software Project Management	3
or SWEG 4312	Agile Software Engineering	
Total Credits		**14**