

Computational Science Degree 122-123 hours (tentative 4-year course plan)			
Fall semester	CR	Spring semester	CR
First Year			
CSCI 104 Computing in MATLAB	3	CSCI 150 Introduction to Computational Science	3
MATH 115	4	MATH 141 Calculus I	4
ENGL 101/101L Composition and Composition Laboratory	3-4	ENGL 102 Composition and Literature	3
General education elective	3	General education elective	3
Elective	3	Elective	3
Total:	16/17		16
Second year			
CSCI 145 Algorithm Design I	4	CSCI 146 Algorithm Design II	4
MATH 142 Calculus II	4	MATH 240 Calculus III	4
General education elective (Recommended: BPHY 211+L, Essentials of Physics I w/Lab)	4	General education elective (Recommended: PHYS 212+L, Essentials of Physics II w/lab)	3
General education elective (ENGL 462 Technical writing)	3	CSCI 280/ MATH 280 Computational Mathematics	4
Total:	15		15
Third Year			
CSCI 350 Techniques of Computation	3	CSCI 416 Introduction to Computer networks	3
CSCI 320 Database Management Systems	3	CSCI 365 Computer Graphics	3
STAT 340 Introduction to Probability and Statistics	3	CSCI 422 Data Mining	3
+Cognate Elective	3	+Cognate Elective	3
Elective	3	Elective	3
Total	15		15
Fourth year			
CSCI 466 Data visualization	3	CSCI 469 High performance computing	3
CSCI 450 Modeling and Simulation	3	CSCI 470 Software Testing and Verification	3
+ Cognate Elective	3	+ Cognate Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	15		15

+ A cognate is a minimum of 12 hours in advanced-level courses related to, but outside, the major. It is intended to support the course work in the major. Cognate courses may be drawn from one or more departments, depending on the individual interests and program requirement of the student as determined by the student's major advisor. A cognate differs from a minor in that the courses must be above prerequisite level and may be distributed over more than one subject area. Completion of a cognate is not recorded on the academic transcript. Requirements for individual cognates are available from the student's academic advisor.