

**BACHELOR OF ARTS / SCIENCE
COMPUTER SCIENCE
COMPUTER SCIENCE EMPHASIS
2011 – 2012**

BA
BS

GENERAL EDUCATION CORE	REQ	COMP	NEED
SKILLS COMPONENT (13 cr.)			
ENGL 101 and 102 OR ENGL 109	6		
COMM 204	3		
MATH 170	4		
HUMANITIES: 1 Literature & 1 Arts (6 cr.)			
ENGL 150, ENGL 258, ENGL 257, HUM 301	3		
ART 100, HUM 101, 150, MUS 101, THEA 101	3		
NATURAL SCIENCES: NS 150 & 1 Lab. Sci. (7 cr.)			
NS 150	3		
BIOL 102, 120, 175, 252	4		
CHEM 102, 105, 111			
FSCI 101			
GEOL 100, GEOL 120			
NS 100, 171 and 172			
PHYS 111, 205, 211			
SOCIAL SCIENCE: 3 courses from 2 subjects (9 cr.)			
HRPT 185 or SS 185	3		
ANTH 102, 120, 170	6		
ECON 101, 102, 201, 202			
GEOG 102			
HIST 101, 102, 111, 112, 115			
HRPT 184			
POLS 101, POLS 285			
PSYC 101, PSYC 205			
SS 150, SS 184			
SOC 101, SOC 102			
INTEGRATIVE COMPONENT: 1 course (3 cr.)			
NS, HUM, SS 350	3		
ID, HUM, SS 351			
General Education Core Sub-Total	38		

BACHELOR OF ARTS
Take an additional 16 credits of language if selecting a BA degree.

NOTES
1) This program has been developed following the guidelines established by the CS 2001 "Computer Science Curriculum," and the CS 2008 "Computer Science Curriculum Interim Update" developed by the Association of Computing Machinery (ACM) and the IEEE Computer Society (IEEE-CS).
2) This program complies with all requirements for a Minor in Mathematics
3) WBL: Work-based Learning.

128 Total Credit (minus remedial):
36 Upper Division Credit:
32 Resident Credit (LCSC):
Exit Interview Required

MAJOR COURSES	REQ	COMP	NEED
COMPUTER SCIENCE Lower Division			
CS 101 Computer Science Seminar	1		
CS 110 Introduction to Interactive Design	4		
CS 111 Foundations of Programming	4		
CITPT 111 HTML and CSS OR ENGR 120 Engr. Foundations/Analysis/Design	3		
CS 213 Algorithms and Data Structures	4		
CS 225 Structured Query Language (SQL)	2		
CS 227 Linux and System Software	2		
CS 250 Computer Org. and Architecture	4		
MATHEMATICS Lower Division			
MATH 186 Discrete Mathematics	3		
MATH 170 Calculus I	core		
MATH 175 Calculus II	4		
LOGIC Lower Division			
PHIL 201 Logic and Argumentation	3		
LABORATORY SCIENCE Sequence			
PHYS 211 Engineering Physics I	core		
PHYS 212 Engineering Physics II	4		

COMPUTER SCIENCE Upper Division	REQ	COMP	NEED
CS 312 Object-Oriented Design	4		
CS 360 Software Engineering	4		
CS 480 Capstone Design Project	4		
CS 420 Analysis of Algorithms	4		
CS 435 Computer Networks	4		
CS 445 Databases and Knowledge Mgmt.	4		
CS 430 Operating Systems	4		
CS 475 Computer Systems Security	4		
MATHEMATICS Upper Division			
MATH 300 Intro. to Mathematical Reasoning	3		
MATH 320 Probability and Statistics	3		
MATH 340 Linear Algebra	3		
SCIENCE Upper Division			
NS 380 Senior Seminar	1		

WORK and GRADUATE SCHOOL PREPARATION	REQ	COMP	NEED
CS 194, 294, 394, 494 Internship (WBL)	1		
CS 195, 295, 395, 495 Practicum (WBL)			
CS 196, 296, 396, 496 Coop Ed. (WBL)			
CS 401 Future Professionals Seminar	1		
PROGRAM ELECTIVES Upper Division			
CS 400 Computer Science Elective	4		
CS 400 Computer Science Elective	4		

SUMMARY	REQ	COMP	NEED
GENERAL EDUCATION CORE	38		
COMPUTER SCIENCE	56		
LABORATORY SCIENCE & SCIENCE	5		
MATHEMATICS and LOGIC	19		
WORK PRACTICE AND PREPARATION	2		
PROGRAM ELECTIVES	8		
BACHELOR OF SCIENCE TOTAL	128		