

BS Computer Science – Software Engineering Concentration (Effective Fall 2011)

This is an unofficial description of degree requirements. For official audit see the Registrar's website.

The Software Engineering concentration enhances a computer science background with a focus on the development of large-scale software systems.

Computer Science Core:	Credits
CS1000: Explorations in Computing	1
CS1121: Introduction to Programming I and CS1122: Introduction to Programming II	5/6
OR	
CS1131: Accelerated Introduction to Programming	
CS1141: C for Java Programmers	2
CS2311: Discrete Structures	3
CS2321: Data Structures	3
CS3000: Ethical and Social Aspects of Computing	2
CS3141: Team Software Project	3
CS3311: Formal Models of Computation	3
CS3331: Concurrent Computing	3
CS3411: Systems Programming	3
CS3421: Computer Organization	4
CS4121: Programming Languages	3
CS4321: Introduction to Algorithms	3
CS4710/4712: Model-driven Software Development/Software Quality Assurance	3
CS4711: Software Processes and Management	3
CS4791: Senior Software Engineering Project I (may sub with ENT 3950 and 4950)	3
CS4xxx: (may be satisfied by CS4099)	3/4
Technical Electives: (<i>credits for the Technical Electives and CS4xxx must total 12+ credits</i>)	8-9

Technical Elective choices are found on the CS Advising web page.

Computer Science Subtotal:	<u>59+</u>
Mathematics Core:	
MA1160/1161: Calculus with Technology I	4/5
MA2160: Calculus with Technology II	4
MA2330: Introduction to Linear Algebra	3
MA2720/3710: Statistical Methods/Engineering Statistics	3/4
Mathematics Subtotal:	<u>14+</u>
HU3120: Technical and Scientific Communication	<u>3</u>
Lab Science Courses: (see STEM list for options)	<u>8+</u>

Note: Both lab and lecture components of a science are required for the science to count toward this requirement.

General Education Core:

UN1001: Perspectives 3

UN1002: World Cultures 4

or

UN1003 (World Cultures Activities) and 2 sequential language courses

(one of the two language classes will be used as a HASS elective)

UN2001: Composition 3

UN2002: Institutions 3

HASS Requirements:

SS Elective (SS3510, SS3511, SS3520, SS3530, SS3630, SS3640, SS3800, SS3801, SS3810, or HU3701) 3

HASS Elective (3000 or higher) 3

HASS Electives (1000 or higher) 9

Co-curricular Activities: (see Co-curricular list on the Registrar's website) (3 units)

General Education and HASS subtotal: 28

Free Electives: 6+

The purpose of these electives are to provide students with the opportunity to choose courses related to their own personal interests. These courses can be used to enhance the students education in computing or broaden their education in other areas.

Total Credits for graduation: 123