Computer Science (BS)

The Computer Science (BS) major is no longer accepting new students.

Computer Science offers students the opportunity to develop programing, data structures, web design, and application design skills through a sequence of courses offered primarily on line through our consortium partners. The major focuses on building expertise to prepare students to enter the workforce with project development experience and expertise they can readily put to use in context. Requirements include Mary Baldwin math courses.

Learning Objectives:

This program is intended to build from a strong liberal arts foundation, while providing students with the most relevant skills in Computer Science, Programming, and Application Development.

By the end of this program students will have the following skills and knowledge:

● Robust skill in the use of the Python programming language, especially as geared towards the development of web-based applications, and database management
● Robust skill in the use of the Django framework for application development
● Significant skill in the front-end development of websites and web apps using HTML5, CSS3 and Javascript
● An understanding of the function of the following languages, as well as elementary skill in their use: C, MySQL
● An understanding of how hardware works, and how a compiler communicates information from software to hardware
● A robust understanding of how to use Data Structures to store and manipulate information
● A robust understanding of how to select and use Algorithms to solve computational problems
● An understanding of the product development lifecycle, and knowledge of the necessary steps to bring a product to launch

Department: Computer Science
Type: Major

Requirements for Bachelor of Science in Computer Science

Item #	Title	Credits
PHIL 110	ETHICAL ISSUES IN BUSINESS (H)	3
CS 101	PROGRAMMING FOR EVERYONE I	3
CS 102	PROGRAMMING FOR EVERYONE II	3
CS 200	WEB DEVELOPMENT	3-3
CS 300	APPLICATION DEVELOPMENT I: EXPLORING WEB APPLICATIONS	3-3
CS 301	APPLICATION DEVELOPMENT II: BUILDING WEB APPLICATIONS	3-3
CS 305	INTRODUCTION TO C: HOW COMPUTERS REALLY WORK	3-3
CS 310	HARDWARE I: INSIDE A MICROPROCESSOR	3-3
CS 311	DATA STRUCTURES	3-3
CS 400	PRODUCT DEVELOPMENT	3-3
CS 401	CAPSTONE PROJECT	3-3

Supporting Courses

Item #	Title	Credits
MATH 211	INTRO CALC/ANALYTIC GEOMETRY I (Q)	4
MATH 233	STATISTICAL METHODS & THEORY I (Q)	3
	MATH 231 OR MATH 304 OR MATH 322	6
	Total credits:	**46**