COMPUTER SCIENCE: SOFTWARE DEVELOPMENT

Program code: CSSD-AS

Location: Gateway, Housatonic, Norwalk

Program Description

The curriculum includes a foundation of core courses in database development and programming languages, and permits students to select major electives that are best suited to their career goals and interests. This flexibility will enable the College better to prepare students for employment in a fast-moving field.

The Associate of Science in Software Development provides a solid general education as well as a thorough coverage of the topics and skills supporting the dynamic information technology field. Programmatic goals relate to the mission in the following manner:

- provide students with skills needed to gain entry level or higher employment;
- provide students with appropriate educational experiences that give them the written, verbal, and interpersonal skills necessary to function as a team member in the IT environment as well as transfer to higher level institutions;
- provide students with course work and experience that improves on existing skills or develops new ones; and
- work in partnership with business and industry in responding to the employment and training needs in the field of information technology.

The program serves both traditional first-time students as well as professionals currently working in the field. The curriculum is flexible enough to meet the needs of students who wish to transfer to a baccalaureate institution and students preparing for immediate entry into the workplace.

Learning Outcomes

Upon successful completion of this degree graduates will be able to:

1. Demonstrate an understanding of connections between various platforms and programming languages;
2. Work with and study the underlying technologies that support the internet;
3. Demonstrate the ability to use an IDE (integrated development environment);
4. Demonstrate the use of OOP (object-oriented programming) techniques in program design and development;
5. Demonstrate writing, compiling and executing code in Object Oriented programming languages;
6. Test programs and troubleshoot simple problems;
7. Understand relational database design methodology and be able to use database software to build, modify, and query relational databases; and
8. Produce logical software solutions to problems.

Degree Requirements

Code	Title	Credits
General Education Courses		
ENG 1010	Composition	3
MATH 1600	College Algebra (or higher)	3
Elective ARHX - Arts & Humanities Course		3-4
Elective SCKX - Scientific Knowledge Course or Elective SCRX - Scientific Reasoning Course		3-4
Elective HISX - Historical Knowledge Course or Elective SBSX - Social / Behavioral Science Course		3
COMM 1301	Public Speaking	3
CCS 1001	College and Career Success	3
Program Courses		
CSC 2276	XML for the Worldwide Web	4
CSC 2232	Database Development II	4
CSC 1201	Introduction to Programming	4
CSC 1231	Database Development and Design I	4
Technical Directed Electives - Any CSC, CST courses, or MATH 2000-level or higher		9-12
Unrestricted Electives - Any course 1000 or higher		9
Two-Semester Programming Sequence		
Choose one programming sequence:		6-8
CSC 2213 & CSC 2216	Object Oriented Programming and Data Structures and Algorithms	
CSC 2252 & CSC 2253	Programming Mobile Devices I and Programming Mobile Devices II	
CSC 2272 & CSC 1271	Web Development and Design II and Web Development and Design I	
Total Credits		**61-68**

There are four Associate degree options within Computer Science. Students may earn only one degree but can earn additional certificates.

- Computer Science: Mobile Programming, AAS
- Computer Science: Relational Database Development Certificate
- Computer Science: Smartphone Application Development
- Computer Science: Software Engineering, AAS
- Computer Science: Web Developer Certificate
- Computer Science: Web Development, AAS