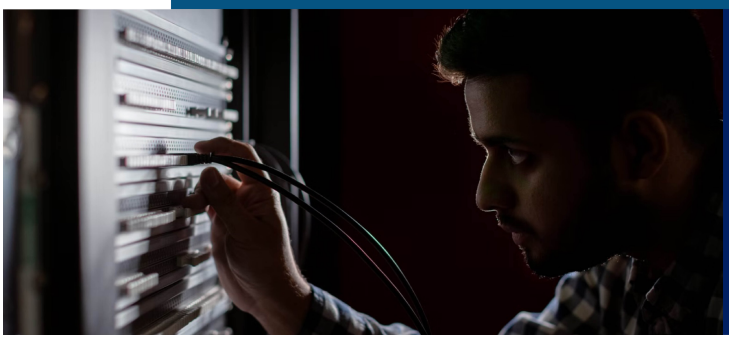
COMPUTER SCIENCE, AS



NASHUA COMMUNITY COLLEGE

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Program Overview

The Computer Science Curriculum provides a strong foundation for students interested in transferring to a bachelor's degree in computer science or other computer-related fields or entering the workforce. The combination of theoretical and applied courses provides the student with the concepts and reinforces them with hands-on experience. The curriculum has been strongly influenced by the Association of Computing Machinery's (ACM) guidelines for associate degrees in software. Students completing this curriculum will have knowledge in the following areas:

- Programming language such as C++ and Java
- Data Structures such as stacks, queues, and linked lists
- Object oriented programming
- Systems Analysis based on UML
- Database design and management

Program Outcomes

At the completion of the degree in Software Development, graduates will be able to:

1. Apply critical-thinking skills to identify, analyze and solve problems.
2. Communicate software development related information effectively to a diverse audience using visual and written modes.
3. Demonstrate the ability to apply all facets of the software development life cycle during a project.
4. Demonstrate the ability to follow a systematic progression of software development and refinement when designing and developing software for a project.
5. Participate effectively as a member of a software development team.
6. Articulate an understanding of the need for lifelong learning.
7. Develop software programs with up-to-date tools and techniques of the discipline.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

Technical Standards

- Have command of the English language
- Have reading comprehension skills sufficient to read and comprehend college textbooks
- Have communication skills sufficient to prepare required reports
- Be able to understand and follow both written and oral instructions
- Be able to complete requirements for college level classes
- Have the ability to communicate information and ideas to others.

Estimated Cost of Program (Tuition Only)

In-State $14,260 - $14,490
New England Regional $21,390 - $21,735
Out-Of-State $31,310 - $31,815

First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ENGL101N	College Composition	4	0	4
CSCI106N	Introduction to Computer Science	3	0	3
CSCI161N	Introduction to Programming	2	2	3
	MATH110N or MATH120N or MATH210N			4
	Humanities/Fine Arts/ World Language Elective			3

First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI140N	Essentials of System Analysis & Design	2	2	3
CSCI170N	Linux Essentials	2	2	3
CSCI175N	Intermediate Programming Using C++	2	2	3
	MATH120N or MATH210N or MATH211N			4
	English/Communications Elective			3

Second Year - Fall Semester

Recommended Lab Science courses are Calculus-Based Physics I and Physics II for Associate in Science Degree in Computer Science and Mathematics

Item #	Title	Class Hours	Lab Hours	Credits
	CSCI120N or CSCI208N			3
CSCI207N	Database Design & Management	2	2	3
CSCI230N	Object Oriented Programming Using: C++	2	2	3
MATH170N	Discrete Mathematics	4	0	4
	Natural or Physical Science Elective (w lab)			4

Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI278N	Data Structures Using C++	2	2	3
	Elective in Major for Computer Science			3-4
	CSCI290N or CSCI285N			3
	Behavioral Social Science Elective			3
	Total Credits			62-63