

# Computer Science & Innovation



## Why Computer Science & Innovation?

In each year of the Computer Science and Innovation degree program, students are presented with a personalized, student-centered learning program focused on innovative workplace and consumer applications. The program focuses on emerging technology, such as mobile devices and devices not normally associated with Computer Science, such as automobiles, household appliances and other devices including future computerized devices.

The Computer Science and Innovation Associate degree program offers students technical and professional preparation for careers in computer science, as well as transfer to a four-year degree program. In particular, students are prepared for admission into the Computer Science Innovation Bachelor of Science degree at Granite State College in accordance with the Articulation Agreement. All degree candidates study core computer science competencies, including various programming, internet, networking and operating system courses.

## Program Outcomes

Students who graduate from this program will be able to:

- Demonstrate proficiency in the foundation of programming languages, object-oriented databases and networking
- Explain the need to develop non-traditional computer applications for use on a mobile platform or other emerging technology
- Understand the need for Software Quality Assurance
- Know the differences between manual and automated software testing
- Display methods of creating secure code on various platforms
- Show expertise in one area of computer science: programming, data structures, databases or networking
- Demonstrate knowledge in social, legal and ethical implications for computer science

## Potential Jobs

- Web Developer
- Software Engineer
- Networker
- Mobile App Developer
- IoT Developer
- Web Designer

## Potential Salary\*

Computer Science remains one of the fastest growing fields, with a projected shortage of qualified job candidates for programmers, networkers, database professionals and web designers.

There is a wide range of jobs in the computer science and innovation industry. See below for the average annual salary range in NH for a **Software or App Developer**.

ENTRY LEVEL	MID-RANGE	EXPERIENCED
\$72,051	\$112,590	\$132,891

*\*New Hampshire Occupational Employment & Wages 2021, published by the NH Economic + Labor Market Information Bureau — Salaries are based on 40 hours of work, not including overtime.*

## Transfer Opportunities

- Granite State College
  - Plymouth State University
  - Rivier University
  - UNH
- ...and many more!

This degree creates a stepping stone for transfer to the Computer Science & Innovation four-year degree at Granite State College. See your MCC advisor for details.

# Degree & Certificate Requirements

## Computer Science & Innovation Degree

### Degree Program - First Year

First Year	Fall Semester	TH	LAB	CR
CIS105M	Introduction to Computer Science	2	2	3
ENGL110XM or ENGL110M	College Composition I with Corequisite or College Composition I	4	0	4
MATH155M	College Algebra with Trigonometry	4	0	4
FYE100M	MCC Essentials	1	0	1
	Apps Elective - <i>choose one: CIS107M, CIS108M</i>	2	2	3
	<b>Total</b>	<b>13</b>	<b>4</b>	<b>15</b>

  

First Year	Spring Semester	TH	LAB	CR
	Physics Elective - <i>Choose one: (PHYS135M, PHYS210M)</i>	3	3	4
	English Literature/Philosophy Elective - <i>choose one: ENGL213M, ENGL214, any English Literature course, PHIL240M</i>	3	0	3
	Programming Language Elective - <i>choose one: CIS117M, CIS118M, CIS126M, CIS148M, CIS158M</i>	2	2	3
	Technical Elective	2	2	3
	Social Science Elective	3	0	3
	<b>Total</b>	<b>13</b>	<b>7</b>	<b>16</b>

### Degree Program - Second Year

Second Year	Fall Semester	TH	LAB	CR
CIS210M	Data Structures and Elementary Algorithms	3	3	4
CIS220M	Object-Oriented Programming	2	2	3
CSCN210M	Computer Science in Action I - Technology Innovation	3	3	4
MATH171M	Pre-Calculus	4	0	4
	<b>Total</b>	<b>12</b>	<b>8</b>	<b>15</b>

  

Second Year	Spring Semester	TH	LAB	CR
CSCN220M	Entrepreneurship in Computer Science	3	3	4
CSCN225M	Computer Science in Action II - Quality Assurance and Security	3	3	4
MATH170M	Discrete Mathematics	4	0	4
ACCT113M	Accounting and Financial Reporting I	3	0	3
	Computer Science Elective - <i>choose one: CSCN290M, CIS291M</i>	2	2	3
	<b>Total</b>	<b>15</b>	<b>8</b>	<b>18</b>
	<b>Total Credits - 64</b>			

## Programming Certificate

Designed to prepare students for careers in computer programming, this certificate provides the skills necessary for entry-level positions in the field. Students will also be prepared to transfer these courses into the MCC Computer Science degree program.

		TH	LAB	CR
CIS105M	Introduction to Computer Science	2	2	3
	Apps Elective - <i>choose one: CIS107M, CIS108M</i>	2	2	3
	Computer Science Elective - <i>choose one: CIS118M, CIS126M, CIS148M, CIS158M, CIS274M</i>	2	2	3
	Computer Science Elective - <i>choose one: CIS118M, CIS126M, CIS148M, CIS158M, CIS274M</i>	2	2	3
CIS210M	Data Structures and Elementary Algorithms	3	3	4
CIS220M	Object Oriented Programming	2	2	3
	<b>Total Credits - 19</b>			



More information about this program is available on our website: [www.mccnh.edu/academics/programs/computer-science](http://www.mccnh.edu/academics/programs/computer-science)



All courses and degree requirements are subject to change. For the most current information on MCC programs, visit [mccnh.edu](http://mccnh.edu).

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