COUNTY COLLEGE OF MORRIS

COMPUTER SCIENCE
Associate of Science

WHAT YOU WILL LEARN

Computer Science is a dynamic and exciting field, designed to engage learners with the power to solve today's pressing challenges in every field from health care to entertainment.

CCM Computer Science students learn how to:

- Design and write a program to solve a problem
- Create a website or develop an app
- Work with others, lead a team and develop a project plan
- Consider ethical questions regarding technological impacts on society
- Understand the inner-workings of a computer

Our Computer Science program follows industry curriculum standards and is designed to transfer seamlessly to bachelor-level Computer Science programs at four-year colleges and universities.

CAREERS

Computer Science is useful for any career or industry that requires technology – which means just about anything. Pair your other interests with Computer Science and use it to create your dream job. The demand for computer scientists with bachelor's degrees is great. For some, working immediately after receiving an associate degree is the goal. With an associate degree you can become a:

- Computer programmer - write and test code general software applications
- Computer support specialist - provide help to computer users and organizations
- Data engineer - manage the data collected and stored by a business
- Mobile application developer - design and develop code for mobile devices
- Web developer - create interactive websites

CAREERS

Employment of computer and information research scientists is projected to grow 22 percent by 2030, much faster than the average for all occupations. About 3,200 openings for computer and information research scientists are projected each year, on average, over the next decade.

Associate Degree

- Computer Programmer
- Computer Support Specialist
- Data Engineer
- Mobile Application Developer
- Web Developer

Bachelor's Degree

- Data Scientist
- Machine Learning Engineer
- Software Engineer
- Systems Analyst

CONTACT INFORMATION

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With an associate degree in Computer Science, the salary depends upon the specific position and years of experience. According to the Bureau of Labor Statistics, the median salary for computer science professionals is $88,240. However, this encompasses a wide variety of careers. For example, the average salary for computer support specialists is $28,825 per year, while the average salary for software engineers is $107,843 per year.

Salaries that trend higher often have additional education such as a bachelor's degree and more years of experience, but an A.S. in Computer Science from CCM provides a solid foundation on which to begin your career.

If you decide transfer to a four-year program to earn a bachelor's degree, you may then be able to explore careers such as a:

- Data scientist - collect, clean and process data to analyze situations and make predictions
- Machine learning engineer- create models of a part of our world and train computers to learn about them and predict the future
- Software engineer - design software solutions to problems
- Systems analyst - plan and design solutions to business problems that use technology

According to Payscale's 2021 College Salary Report computer science is one of the highest paid majors and graduates earned an average early career salary of $75,100 and a mid-career salary of $123,400.

WHY STUDY COMPUTER SCIENCE AT CCM

There are many reasons why you should study Computer Science at CCM:

- Seamless transfer to nearby bachelor-level institutions
- Active learning classrooms where you work in teams to solve problems
- Small class sizes providing individual attention from faculty
- A diverse faculty and student body
- Extra-curricular activities including clubs, conferences, and fun events that allow you to get to know others in your field and learn outside of the classroom
- Faculty with industry experience to give you a real-world understanding of the computing field
- Supportive environment with free tutoring and faculty office hours
- Flexible terms and class schedules that fit into your busy life
- Internship opportunities

WHERE YOU CAN GO

The majority of our Computer Science graduates continue their education at nearby New Jersey public and private institutions including Fairleigh Dickinson, Montclair, NJIT, Ramapo, Rutgers, Stevens and William Paterson. Other students have recently transferred to out-of-state schools such as Amherst, Columbia, Maryland, RPI and Towson.

CURRICULUM - 2500

GENERAL EDUCATION FOUNDATION (35/36 CR)

COMMUNICATION (6 CR)

English Composition I	ENG 111	3
English Composition II	ENG 112	3

MATH/SCIENCE/TECHNOLOGY (12 CR)

Precalculus	MAT 123	4
Analytic Geometry and Calculus I	MAT 131	4
Analytic Geometry and Calculus II	MAT 132	4

SOCIAL SCIENCE (3 CR)

Choose from General Education list (Social Science)	3

HUMANITIES/SOCIAL SCIENCE (3 CR)

Choose from General Education course list (Humanities/Social Science)	3

HUMANITIES (3 CR)

Choose from General Education course list (Humanities)	3

GENERAL EDUCATION (8/9 CR)

Laboratory Science Sequence	4
Laboratory Science Sequence	4/5

COMPUTER SCIENCE CORE (25 CR)

Computer Science I	CMP 128	3
Computer Science II (Java)	CMP 129	3
Computer Architecture and Assembly Language	CMP 230	3
Data Structures and Algorithms (CS III)	CMP 233	3
Software Engineering	CMP 280	3
Discrete Mathematics	MAT 225	4
CMP ELECTIVES*		6

TOTAL	**60**

Note: You must see a faculty advisor to plan your sequence of courses. For the most up-to-date listing of courses, see the Curriculum Checklist.