

## COMPUTER PROGRAMMING CERTIFICATE: 108

Total Credits: 18-20

Catalog Edition: 2022-2023

### Program Description

This certificate curriculum emphasizes software development and computer programming skills. The curriculum provides flexibility in the student's choice of programming languages. Students should consult an advisor before beginning the curriculum. **This program can be completed either on campus or online.**

### Program Outcomes

Upon completion of this program a student will be able to:

- Analyze, design, and implement computer programs.
- Demonstrate working knowledge in one high-level programming language.
- Demonstrate proficiency in a second high-level programming language.

### Program Advisors

- Email: [cs@montgomerycollege.edu](mailto:cs@montgomerycollege.edu)
- Phone: 240-567-2438
- **Khandan Monshi**,  
[Khandan.Monshi@montgomerycollege.edu](mailto:Khandan.Monshi@montgomerycollege.edu)
- **David Kuijt**, [David.Kuijt@montgomerycollege.edu](mailto:David.Kuijt@montgomerycollege.edu)
- **Margaret Tseng**,  
[Margaret.Tseng@montgomerycollege.edu](mailto:Margaret.Tseng@montgomerycollege.edu)
- **Sandro Fouche**, [Sandro.Fouche@montgomerycollege.edu](mailto:Sandro.Fouche@montgomerycollege.edu)

For more information, please visit: <https://www.montgomerycollege.edu/computerscience>

To view the Advising Worksheet, please visit <https://www.montgomerycollege.edu/documents/counseling-and-advising/advising-worksheets/current-catalog/108.pdf>

2022-2023

# Program Advising Guide

An Academic Reference Tool for Students

# COMPUTER PROGRAMMING CERTIFICATE: 108

## Program Requirements

A suggested course sequence for full-time students follows. All students should review this advising guide and consult an advisor.

### Program Requirements

CMSC 110 - Computer Concepts *3 semester hours* ‡

CMSC 140 - Introduction to Programming *3 semester hours*

Intermediate Languages *6-7 semester hours* ‡ ‡

Advanced Language *3-4 semester hours* ‡ ‡ ‡

CMSC Elective or Department-Approved CMAP or TECH  
Elective *3 semester hours*

### Total Credit Hours: 18-20

‡ May be replaced by another CMSC course with department consent.

‡ ‡ Select two courses from CMSC 201, CMSC 203, CMSC 222, CMSC 226, or other department-approved language.

‡ ‡ ‡ The advanced language must correspond to one of the intermediate languages chosen.

**This program can be completed either on campus or online.**

## Transfer Opportunities

Montgomery College has partnerships with multiple four-year institutions and the tools to help you transfer. To learn more, please visit <https://www.montgomerycollege.edu/transfer> or <http://artsys.usmd.edu>.

## Get Involved at MC!

Employers and Transfer Institutions are looking for experience outside the classroom.

MC Student Clubs and Organizations: <https://www.montgomerycollege.edu/life-at-mc/student-life/>

Computer Science and Technologies Student Professional Groups: <https://www.montgomerycollege.edu/computerscience>

## Related Careers

Some require a Bachelor's degree.

Computer Science Teacher, Computer Systems Engineer/Architect, Computer/Information Research Scientist, Web Administrator, Mobile Developer, Game Programmer.

## Career Services

Montgomery College offers a range of services to students and alumni to support the career planning process. To learn more, please visit <https://www.montgomerycollege.edu/career>

## Career Coach

A valuable online search tool that will give you the opportunity to explore hundreds of potential careers or job possibilities in Maryland and the Washington D.C. metropolitan area. Get started today on your road to a new future and give it a try. For more information, please visit <https://montgomerycollege.emsicc.com>

## Notes: