

# JAVA DEVELOPER CERTIFICATE

Total Credits: 16

Catalog Edition: 2025-2026

## Program Description

This certificate is designed for students who want to receive training in developing object-oriented Java applications that will run on server and client systems. Students will be able to apply these courses toward a general studies, web careers, or information systems degree. **This program can be completed either on campus or online.**

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

## Program Outcomes

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

- Demonstrate working knowledge with Java programming language.
- Write GUI-based, object-oriented, event-driven, client-side Java programs using primitive data types, control structures, methods, arrays, classes, interfaces, inheritance, polymorphism, asynchronous event handling, and multi-threading.
- Build Java programs to connect to databases and manipulate database records.
- Develop networking programs using Remote Method Invocation and networking API.
- Create server-side programs using the web protocol, client-side interfaces, and serverside technologies such as Java Servlet and JavaServer Page.
- Implement Java games and applications to run on different devices.

## Program Advisors

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2025-2026

# Program Advising Guide

An Academic Reference Tool for Students

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## 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 201 - Java Programming Language *3 semester hours*

CMSC 214 - Advanced Java Programming *3 semester hours*

CMSC 220 - Client-Server Programming with Java *3 semester hours*

## **Total Credit Hours: 16**

**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: