

# WEB PROGRAMMING CERTIFICATE

Total Credits: 38-39

Catalog Edition: 2023-2024

## Program Description

WEB PROGRAMMING CERTIFICATE: 230 WAS REPLACED BY WEB DEVELOPMENT CERTIFICATE: 231B AND IS NO LONGER ACCEPTING NEW STUDENTS. ADDITIONALLY, STUDENTS ADMITTED PRIOR TO FALL 2022 WILL NOT BE ABLE TO GRADUATE WITH THIS CERTIFICATE AFTER SPRING 2025. PLEASE CONTACT A [PROGRAM ADVISOR](#) #FOR ALTERNATIVE OPTIONS.

To view the Advising Worksheet, please visit <https://www.montgomerycollege.edu/documents/counseling-and-advising/advising-worksheets/current-catalog/230.pdf>

This certificate is designed to provide training, skills, and knowledge that prepare a student for employment as a programmer on a web development team. Skills include advanced web programming languages (Java, Visual Basic, XML, DHTML/JavaScript, web databases), UNIX, and advanced HTML.

## Program Outcomes

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

- Create valid XHTML webpages.
- Write and use JavaScript in webpages.
- Use an Integrated Development Environment (IDE) such as the MX Studio 8 effectively.
- Create webpages incorporating the Cascading Style Sheets technology.
- Create webpages with dynamic content utilizing at least two web server application technologies.
- Create coherent and intuitive web-enabled applications.

## Program Advisors

### Rockville

- Prof. John "Erik" Swanson,  
240-567-7529, [John.Swanson@montgomerycollege.edu](mailto:John.Swanson@montgomerycollege.edu)

For more information, please visit <https://www.montgomerycollege.edu/academics/programs/digital-media-and-web-technologies/web-programming-certificate.html>

2023-2024

# 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 246 - Introduction to SQL Using Oracle *3 semester hours*

CMSC 140 - Introduction to Programming *3 semester hours*

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*

CMSC 250 - UNIX/LINUX Operating System *3 semester hours*

GDES 116 - Digital Tools for the Visual Arts *4 semester hours*

OR

CMAP 106 - Computer Literacy *3 semester hours*

TECH 272 - Website Development *4 semester hours*

TECH 273 - Advanced Website Development *3 semester hours*

OR

TECH 276 - JavaScript Fundamentals *3 semester hours*

TECH 277 - Advanced JavaScript *3 semester hours*

TECH 278 - Web Application Development Using ColdFusion *4 semester hours*

### Electives (Select 1 Course)

CMAP 245 - Database Applications *3 semester hours*

CMAP 269 - Computer Applications Internship *1-4 semester hours*

CMSC 226 - Introduction to Object-Oriented Programming with C++ *3 semester hours*

CMSC 260 - Computer Security *3 semester hours*

CMSC 269 - Computer Science and Technologies Internship *1-4 semester hours*

TECH 225 - Game Programming *4 semester hours*

TECH 274 - Web Content Management Systems and Strategy *3 semester hours*

TECH 282 - Web Application Development Using PHP and MySQL *3 semester hours*

TECH 288 - Advanced Web Application Development Using ColdFusion *3 semester hours*

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## 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/>

## Related Careers

Some require a Bachelor's degree.  
Information Security Analyst, Computer Programmer, Web Developer, Web Administrator, Video Game Designer, Multimedia Artist and Animator.

## 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: