# WEB DEVELOPMENT - ASSOCIATE OF APPLIED SCIENCE OPTION (AASO)

## Description

The Computer Information Systems program is designed around a core curriculum and three distinct options. The program's core provides an introduction to computer concepts, software applications, operating systems, networking, database, computer servicing, internet, math, human relations, and writing. Graduates work in information technology for a wide variety of commercial businesses, education, federal/state/local governments, e-commerce, publishing and real estate. Careers typically include positions such as personal computer technician, desktop support, network administrator, web developer, draftsperson, database administrator, system administrator, and related managerial and administrative roles.

The Web Development Associate of Applied Science Option prepares students for a career as a web developer or website administrator. These professionals are responsible for creating standards-based websites and web/database applications. In addition to programming skills in common markup, scripting, and SQL languages, these professions require project management and communication skills.

## Program Learning Outcomes

Upon successful completion of the degree, students will be able to:

1. Construct websites that demonstrate best practices for function, design, and usability.
2. Integrate functional client-side programs within a website.
3. Develop effective server-side programs.
4. Communicate effectively with clients, customers, and coworkers about web development topics.

## Entrance Requirements

### Academic Entrance Requirements

Recommended:

- High school diploma or GED
- Completion of WR 065 Rhetoric and Critical Thinking II or higher or minimum placement Wr/Comm Level 7
- Completion of MTH 060 Beginning Algebra or higher or minimum placement Math Level 10
- Basic computer competency or CIS 010 Computer Keyboarding and CIS 070 Introduction to Computers: Windows

## Additional Costs (Beyond Standard Tuition/Fees and Textbooks)

### Material Costs

Recommended:

- A desktop or laptop computer capable of running the latest version of the Windows operating system and the latest version of Microsoft Office: approximately $800

## Course Requirements

| Course | Title | Credits |
|---|---|---|
| **Core Courses** | | |
| CIS 101 | Information Technology Orientation | 3 |
| CIS 122 | Introduction to Programming | 4 |
| CIS 124 | Tech+ | 4 |
| CIS 131 | Software Applications | 4 |
| CIS 135DB | Database Theory/SQL | 4 |
| CIS 140 | A+ Essentials I | 4 |
| CIS 145 | A+ Essentials II | 4 |
| CIS 179 | Networking Essentials | 4 |
| CIS 183C | Introduction to Cybersecurity | 4 |
| CIS 195 | Web Development I | 4 |
| CIS 244 | Information Systems Analysis | 4 |
| CIS 279WC | Windows Client | 4 |
| or CIS 179L | Linux Essentials | |
| CIS 297 | CIS Professional Capstone | 4 |
| **Web Development Option** | | |
| Choose a minimum of 27 credits from the following: | | 27-28 |
| CIS 125DV | Adobe Premiere | |
| or CIS 125WA | Web Animation | |
| CIS 125G | Photoshop | |
| or CIS 125I | Adobe Illustrator | |
| CIS 133JS | Introduction to JavaScript | |
| CIS 133P | Introduction to PHP | |
| CIS 197 | CMS Web Development: WordPress | |
| CIS 233P | Web Programming | |
| CIS 280 | Co-op Work Experience CIS | |
| CIS 295 | Web Development II | |
| **Other Required Courses** | | |
| BA 214 | Business Communications | 3-4 |
| or WR 227Z | Technical Writing | |
| COMM 111Z | Public Speaking | 4 |
| or COMM 218Z | Interpersonal Communication | |
| or COMM 219 | Small Group Communication | |
| Human Relations: | | 3-5 |
| MTH 102 | Applied Technical Mathematics (or one course from the foundational requirements math list) | 4 |
| WR 121Z | Composition I | 4 |
| **Total Credits** | | **96-100** |

## Advising Notes

Planning is important. Most option courses are offered once per academic year and many need to be taken in sequence. Some core classes are offered once every two years. Students may take non-program support courses any term to build skills related to prerequisites.

This program is designed for students planning to enter their chosen career upon graduation. Often only selected credits are considered transferable to public or private baccalaureate institutions.

# Performance Standards

- Academic Requirements:
    - Students must have a 2.0 cumulative GPA to earn a COCC certificate or degree.
    - All courses in the program must be completed with a grade of C or higher.
- Additional Requirements:
    - All COCC students enrolled in the Computer Information Systems program (which includes requirements for Cooperative Work Experience) may have to pass Criminal History Checks (CHC) as a condition of their acceptance into a work site. Students who do not pass the CHC may not be eligible to complete requirements at affiliated practicum sites or be hired for some professional positions. Students who believe their history may interfere with their ability to complete the program of study should contact the program director.

# Sample Plan

| First Term | | Credits |
|---|---|---|
| CIS 101 | Information Technology Orientation | 3 |
| COMM 111Z<br>or COMM 218Z<br>or COMM 219 | Public Speaking<br>or Interpersonal Communication<br>or Small Group Communication | 4 |
| MTH 102 | Applied Technical Mathematics (or one course from the foundational requirements math list) | 4 |
| WR 121Z | Composition I | 4 |
| | **Credits** | **15** |
| **Second Term** | | |
| BA 214<br>or WR 227Z | Business Communications<br>or Technical Writing | 3-4 |
| CIS 124 | Tech+ | 4 |
| CIS 183C | Introduction to Cybersecurity | 4 |
| Web Development Option, choose from the following: [1] | | 4 |
| CIS 125DV<br>or CIS 125WA | Adobe Premiere<br>or Web Animation | |
| CIS 125G<br>or CIS 125I | Photoshop<br>or Adobe Illustrator | |
| CIS 133JS | Introduction to JavaScript | |
| CIS 133P | Introduction to PHP | |
| CIS 197 | CMS Web Development: WordPress | |
| CIS 233P | Web Programming | |
| CIS 280 | Co-op Work Experience CIS | |
| CIS 295 | Web Development II | |
| | **Credits** | **15-16** |
| **Third Term** | | |
| CIS 122 | Introduction to Programming | 4 |
| CIS 131 | Software Applications | 4 |
| CIS 140 | A+ Essentials I | 4 |
| CIS 145 | A+ Essentials II | 4 |
| | **Credits** | **16** |
| **Fourth Term** | | |
| CIS 135DB | Database Theory/SQL | 4 |
| CIS 179 | Networking Essentials | 4 |
| CIS 195 | Web Development I | 4 |
| CIS 279WC<br>or CIS 179L | Windows Client<br>or Linux Essentials | 4 |
| Web Development Option, choose from the following: [1] | | 4 |
| CIS 125DV<br>or CIS 125WA | Adobe Premiere<br>or Web Animation | |
| CIS 125G<br>or CIS 125I | Photoshop<br>or Adobe Illustrator | |
| CIS 133JS | Introduction to JavaScript | |
| CIS 133P | Introduction to PHP | |
| CIS 197 | CMS Web Development: WordPress | |
| CIS 233P | Web Programming | |
| CIS 280 | Co-op Work Experience CIS | |
| CIS 295 | Web Development II | |
| | **Credits** | **20** |
| **Fifth Term** | | |
| CIS 244 | Information Systems Analysis | 4 |
| Web Development Option, choose from the following: [1] | | 7-8 |
| CIS 125DV<br>or CIS 125WA | Adobe Premiere<br>or Web Animation | |
| CIS 125G<br>or CIS 125I | Photoshop<br>or Adobe Illustrator | |
| CIS 133JS | Introduction to JavaScript | |
| CIS 133P | Introduction to PHP | |
| CIS 197 | CMS Web Development: WordPress | |
| CIS 233P | Web Programming | |
| CIS 280 | Co-op Work Experience CIS | |
| CIS 295 | Web Development II | |
| <u>Human Relations:</u> | | 3-5 |
| | **Credits** | **14-17** |
| **Sixth Term** | | |
| CIS 297 | CIS Professional Capstone | 4 |
| Web Development Option, choose from the following: [1] | | 12 |
| CIS 125DV<br>or CIS 125WA | Adobe Premiere<br>or Web Animation | |
| CIS 125G<br>or CIS 125I | Photoshop<br>or Adobe Illustrator | |
| CIS 133JS | Introduction to JavaScript | |
| CIS 133P | Introduction to PHP | |
| CIS 197 | CMS Web Development: WordPress | |
| CIS 233P | Web Programming | |
| CIS 280 | Co-op Work Experience CIS | |
| CIS 295 | Web Development II | |
| | **Credits** | **16** |
| | **Total Credits** | **96-100** |

[1] Students considering courses in the Web Development Option should work closely with their advisor to determine the proper course sequencing for completing the requirement.