

## WEB DEVELOPMENT AND DESIGN, Associate in Applied Science Degree - 1816

Engineering, Trades & Computer Technologies Department  
CIP Code: 11.0801

The Web Development and Design AAS degree provides students with the skills and knowledge necessary to have a rewarding career designing and developing professional websites and applications. Students gain a foundation in website creation, web design, multimedia, application development, various web technologies and effective communication. Coursework allows students to select electives that specialize in either *web design* or *development*. *Web design electives* provide a combination of graphic editing, user experience and user interface design, as well as, front-end development used to create visually appealing and usable websites. *Web development electives* entail programming to build data-driven websites and mobile applications. The program contains a capstone project, which provides students the opportunity to create a professional website for a client, as well as a portfolio of their work. This program may be completed entirely through asynchronous instruction.

### Career Opportunities

Graduates may obtain positions within a multitude of businesses, government agencies and web consulting firms as a Web Designer, Web Developer, Front-End Developer/Designer, Back-End Developer, Full-Stack Developer, Web Interactive Media Specialist, Web Producer, Web Content Writer, Web Application Developer, Programmer and other related positions.

### Competency Profile

This curriculum is designed to prepare students to:

- Build professional websites and web applications that optimize the user experience for various uses, platforms and accessibility
- Create web pages using HyperText Markup Language (HTML) and Cascading Style Sheets (CSS)
- Develop web applications using JavaScript code and technologies
- Manage web content with a Content Management System (CMS)
- Design websites and web graphics that are visually attractive and engaging
- Develop web and mobile applications that are dynamic, interactive and data driven

### PROGRAM REQUIREMENTS (TOTAL CREDITS = 60)

| General Education                            |           | Major Requirements                          |           | Other Required Courses |           |
|--|-----------|---|-----------|------------------------|-----------|
| ENGL 101 English Composition I (or)          | 3         | WEB 101 Intro to Web Design & Development   | 3         | Career Elective*       | 3         |
| ENGL 110 Foundations of Professional Writing | (3)       | WEB 110 Website Creation & Content Mgmt Sys | 3         | Free Elective**        | 1         |
| COMM 101 Effective Speaking (or)             | 3         | WEB 125 HTML & CSS                          | 3         | Technical Elective***  | 3         |
| COMM 203 Interpersonal Communication         | (3)       | WEB 127 Advanced HTML & CSS                 | 3         | Web Electives****      | 9         |
| Humanities & Arts Core Elective              | 3         | WEB 130 Graphics & Multimedia Fundamentals  | 3         |                        | <b>16</b> |
| Mathematics or Science Core Elective         | 3         | WEB 133 Design Fundamentals                 | 3         |                        |           |
| Social & Behavioral Sciences Core Elective   | 3         | WEB 143 Development Fundamentals            | 3         |                        |           |
| First-Year-Seminar Elective                  | 1         | WEB 240 JavaScript Programming              | 3         |                        |           |
| Wellness Elective                            | 1         | WEB 268 Web Program Capstone (or)           | (3)       |                        |           |
|  | <b>17</b> | WEB 270 Cooperative Work Experience in Web  | 3         |                        |           |
|  |           |   | <b>27</b> |                        |           |

\*Students are to select **Career Electives** from the following: ART 176; CPS 113; or CIS 239-264; WEB 140-299.

\*\*Students are to select their **Free Elective** from the following: Any course 100-299. Students may opt to take either a 4-credit course or a 3-credit FYS Elective in place of this 1-credit Free Elective.

\*\*\*Students are to select their **Technical Electives** from the following: Any WEB; BUSI; CIS; CISE; CNT; CPS; DAT or MGMT; MKTG; ART 105, 108 or GIS 141.

\*\*\*\*Students are to select their **Web Electives** from the following: WEB course 120-299.

**Note:** Students must achieve a collective average GPA of 2.0, or higher, in the following WEB courses: WEB 101, 110, 125, 127, 130, 133, 143, 240, 268 and 270.

### RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part time students can complete this program by taking one or more courses each semester.

| Fall Semester I |   | Spring Semester I          |   | Fall Semester II      |   | Spring Semester II                      |   |
|-----------------|---|----------------------------|---|-----------------------|---|---|---|
| FYS Elective    | 1 | Free Elective**            | 1 | COMM 101 or 203       | 3 | Career Elective*                        | 3 |
| WEB 101         | 3 | Math/Science Core Elective | 3 | ENGL 101 or 110       | 3 | Humanities/Arts Core Elective           | 3 |
| WEB 110         | 3 | WEB 127                    | 3 | Technical Elective*** | 3 | Social/Behavioral Science Core Elective | 3 |
| WEB 125         | 3 | WEB 133                    | 3 | Web Electives****     | 6 | Web Elective****                        | 3 |
| WEB 130         | 3 | WEB 240                    | 3 |                       |   |   |   |
| WEB 143         | 3 | Wellness Elective          | 1 |                       |   |   |   |