

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

Engineering & Technology Department

The Web Development and Design AAS degree provides students with the skills and knowledge necessary for a rewarding career in designing and developing professional websites and applications. All students gain a foundation in website development and design, various web technologies, multimedia, and effective communication. Students are able to select from one of the following concentrations: **Interactive Web Media**, **Web Application Development**, or **General Web Studies**. The *Interactive Web Media concentration* graduates are able to focus on making creative content using rich media. *Web Application Development concentration* graduates emphasize their studies on building interactive data-driven web sites and mobile applications. Finally, students choosing the General Web Studies track are able to develop a mix of design and development skills. The complete program is available through Virtual Learning.

## Career Opportunities

Graduates may obtain positions with many different businesses, government agencies, and Web consulting firms as Web Developers, Web Designers, Web Interactive Media Specialists, Web Producers, Web Content Writers, Web Application Developers, programmers, and other related positions.

## Competency Profile

This curriculum is designed to prepare students to:

- Design high quality web pages for a variety of uses
- Publish websites with effective design and content for various platforms
- Create interactive and multimedia content for web use
- Develop websites using modern standards for HyperText Markup Language (HTML), Cascading Style Sheets (CSS), and JavaScript
- Create programs for both web and mobile applications
- Develop web applications that integrate server programming, databases, and markup languages
- Work individually and as team members on website projects
- Recognize the importance of how specialized training fits into larger management and societal context

## PROGRAM REQUIREMENTS (TOTAL CREDITS = 60)

General Education		Major Requirements		Other Required Courses	
ENGL 101 English Composition I (or)	3	WEB 101 Web Program Introduction	3	Open Elective	1
ENGL 110 Foundations of Professional Writing	(3)	WEB 110 Web Site Publishing	3	Program Major Elective*	3
COMM 101 Effective Speaking (or)	3	WEB 125 HTML & CSS	3		4
COMM 203 Interpersonal Communication	(3)	WEB 130 Multimedia Fundamentals	3		
Humanities & Arts Elective	3	WEB 133 Design Fundamentals	3		
Mathematics or Science Elective	3	WEB 143 Development Fundamentals	3		
Social & Behavioral Sciences Elective	3	WEB 240 JavaScript Programming	3		
First-Year-Seminar Elective	1	WEB 268 Web Program Capstone (or)	(3)		
Wellness	1	WEB 270 Cooperative Work Experience in Web	3		
	17		24		

\*Students are to select program elective courses from the following: Any WEB course; AOS; ART; CIS; CISE; CNT; CPS; and ELEC; Excluding AOS 100, 101; CIS 100;

Note: Students must achieve a collective average GPA of 2.0, or higher, in all required WEB/CIS courses in order to graduate.

General Web Studies Concentration		Interactive Web Media Concentration		Web Application Development Concentration	
WEB 135 Raster Imaging & Photography	3	WEB 135 Raster Imaging & Photography	3	CIS 245 Database Programming	3
WEB 245 Advanced Development	3	WEB 138 Vector Imaging and SVG	3	WEB 245 Advanced Development	3
General Web Studies Electives **	9	WEB 225 Responsive Design & Typography	3	WEB 253 Intro to Windows Development	3
		Interactive Web Media Electives (Select two: WEB 227, 230, 231, or 233)	6	Web Application Development Electives (Select from CIS 140; WEB 144, 255 or 257)	6

\*\*Students are to select from the following: 3-credits from Interactive Web Media Elective (WEB 138, 225, 227, 230, 231 or 233); 3-credits from Web Application Development Elective (CIS 140, 245; WEB 144, 253, 255 or 257); and 3-credits from either the Interactive Web Media or Web Application Development electives.

## **RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS**

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

### **General Web Studies Concentration**

<b>Fall Semester I</b>		<b>Spring Semester I</b>		<b>Fall Semester II</b>		<b>Spring Semester II</b>	
FYS Elective	1	Humanities/Arts Elective	3	General Web Studies Electives**	6	COMM 101 or 203	3
ENGL 110 or 101	3	Math/Science Elective	3	Social/Behavioral Science Elective	3	General Web Studies Elective**	3
WEB 101	3	WEB 133	3	WEB 240	3	Open Elective	1
WEB 110	3	WEB 135	3	WEB 245	3	Program Major Elective*	3
WEB 125	3	WEB 143	3			WEB 268 or 270	3
WEB 130	3					Wellness	1

### **Interactive Web Media Concentration**

<b>Fall Semester I</b>		<b>Spring Semester I</b>		<b>Fall Semester II</b>		<b>Spring Semester II</b>	
FYS Elective	1	Humanities/Arts Elective	3	Interactive Web Media Elective	3	COMM 101 or 203	3
ENGL 110 or 101	3	WEB 133	3	Math/Science Elective	3	Interactive Web Media Elective	3
WEB 101	3	WEB 135	3	Social/Behavioral Science Elective	3	Open Elective	1
WEB 110	3	WEB 138	3	WEB 225	3	Program Major Elective*	3
WEB 125	3	WEB 143	3	WEB 240	3	WEB 268 or 270	3
WEB 130	3					Wellness	1

### **Web Application Developer Concentration**

<b>Fall Semester I</b>		<b>Spring Semester I</b>		<b>Fall Semester II</b>		<b>Spring Semester II</b>	
FYS Elective	1	Humanities/Arts Elective	3	CIS 245	3	COMM 101 or 203	3
ENGL 110 or 101	3	Math/Science Elective	3	Web Application Developer Elective	3	Web Application Developer Elective	3
WEB 101	3	WEB 133	3	Social/Behavioral Science Elective	3	Open Elective	1
WEB 110	3	WEB 143	3	WEB 245	3	Program Major Elective	3
WEB 125	3	WEB 240	3	WEB 253	3	WEB 268 or 270	3
WEB 130	3					Wellness	1