Web Development

STEM

● **CAREER DEGREE**   M **MIDDLETOWN CAMPUS**

Program Description

The Associate in Applied Science degree program in Web Development prepares students for employment in a variety of entry-level careers in the areas of web site development, implementation, and management.

This is a Web Development degree with a server-side concentration and exposure to the full stack. It is not a study of designing web site displays – this program's focus is on the back-end, server-side functions required to support today's use of the Internet. The program intends to provide students with a firm foundation in core internet / web technologies, a familiarity with Internet architecture and web protocol, and a proficiency in web server management.

Web Development in basic terms comprises all the components required for developing, deploying, and supporting web sites for the internet. Creating an attractive "front-end" web page, which usually falls under the heading of Web Design, is only the beginning. There is so much more required on the "back-end" to support web applications including the programming side that enables a website to run and function properly.

The theory and practical experience students gain in the Web Development degree program allow them to compete for and earn jobs with highly competitive salaries.

Program Outcomes

- Develop, test, and implement web applications using scripting and programming tools incorporating accepted standards and protocols.
- Working within a team environment, develop and implement dynamic, interactive web sites through a series of both assigned and student-driven projects.
- Understand the various components involved in supporting and administering web services required to host a website.
- Become familiar with various web development frameworks that aid in developing faster and smarter applications.
- Implement websites using appropriate security principles, and incorporate best practices to develop web environments that deliver strong user experiences.

Admissions Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are home schooled, they may be eligible for admission.

Transfer Options

This degree was created in 2022. Options for transfer are not yet known.

Your Career Coach

Entry level opportunities exist in the following areas:

- Server side developer and administrators
- Web programmer
- Web operations and security professional
- API developer
- as well as entry-level jobs in the field of cloud computing infrastructure

Explore careers at Career Coach

Web Development Gateway Courses:

- Gateway courses: CIT 105, CSC 138
- Key courses: CIT 215, CSC 108, CIT 216

Courses above have been recommended by the department to help introduce you to the program (Gateway courses) and guide you in selecting courses that will provide you with the best academic experience (Key courses and suggested Electives).

First Semester

Course #	Course Name	P, C, P/C	Cr
ENG 101	Freshman English 1 (G10A [w] & G11A)	P	3
MAT 121	College Algebra (G1A)		3
CSC 138	Introduction to Applied Logic Through Scripting (G11A)		3
CIT 105	Data Communications and Networking	P	3
CIT 117	UNIX/LINUX	P	3

SUNY Orange

Course #	Course Name	P, C, P/C	Cr
COM 100	Oral Communication * (G10A [o])		1
	Total Semester Credits		16

Milestones
During this semester, students should:

- Meet with your newly assigned "department" advisor to plan your second semester
- Consider joining the student-led Computer Club

Second Semester

Course #	Course Name	P, C, P/C	Cr
ENG 102	Freshman English 2 (G7A and G12A)	P	3
CIT 111	Internet and HTML		3
CSC 101	Computer Science 1	P	4
CIT 215	Web Site Management	P	3
CIT 225	Database Fundamentals and Design		3
	Total Semester Credits		16

Milestones
During this semester, students should:

- Meet with department advisor to plan third semester

Third Semester

Course #	Course Name	P, C, P/C	Cr
CIT 218	Systems Analysis and Design	P, P/C	3
CSC 227	Java Script	P`	3
CSC 108	Web Programming 1	P	4
_____	Category E Social Science Elective (G6A)		3
_____	SUNY Natural Sciences ** (G2A)	P	4
	Total Semester Credits		16

Milestones
During this semester, students should:

- Prepare resume for next semester's internship
- Schedule time with Career Services Office to identify internship opportunities
- Narrow focus for post-graduate job search or, if continuing studies, research and apply to transfer schools

Fourth Semester

Course #	Course Name	P, C, P/C	Cr
CIT 216	Internet Security	P/C	3
CIT 228	Systems Administration	P	3
CSC 232	Mobile Application Development	P	3
CSC 205	Web Programming 2	P	3
_____	SUNY Social Sciences ***		3
	Total Semester Credits		16

Milestones
During this semester, students should:

- Apply for graduation
- Schedule mock interviews through the Career Services Office or the Department

TOTAL DEGREE CREDITS: 64

Notes
*COM 101 satisfies the requirement of COM 100

**must be 4 credits

***Student must choose from G3A (SUNY Social Sciences), G4A (SUNY US History & Gov) or G5A (SUNY World History)