

SOFTWARE DEVELOPMENT - ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

Explore More About This Program: <https://cwi.edu/program/software-development>

Degree Quick Facts

- **Instructional School:** Science, Technology, and Math
- **Department:** Computer Science and Information Technology
- **Program Code:** SWDV.AAS
- **Program Type:** Career and Technical Education
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the [Special Course Fees](#) web page.

Degree Requirements

Course	Course Title	Min Credits
General Education Requirements		
GEM 1 - Written Communication course		3
GEM 2 - Oral Communication course		3
GEM 3 - Mathematical Ways of Knowing course		3
PSYC 140	Human Relations for Career and Personal Success (GEM 6)	3
COMM 259	Communicating Through Web Design (GE Elective)	3
Major Requirements		
SWDV 105	Introduction to Programming	4
SWDV 110	Intermediate Programming	4
SWDV 115	Introduction to Web Application Development	4
SWDV 140	Intermediate Web Application Development	4
SWDV 143	Client-Side Frameworks	4
SWDV 152	Systems Analysis and Design	4
SWDV 210	Introduction to Server-Side Programming	4
SWDV 220	Fundamentals of Database Systems	4
SWDV 235	Advanced Web Application Development	4
SWDV 265	Mobile Development	4
SWDV 271	Game Development	4
or SWDV 275	Software Development Tools and Technology	
SWDV 280	Collaborative Development	3
SWDV 290	Software Development Capstone Internship	1-3
Minimum Credit Hours Required		63

Degree Plan: Fall Or Spring Start

The course sequence listed below is strongly recommended in order to complete your program requirements. Many Career and Technical Education (CTE) courses have prerequisites and/or corequisites that have been accounted for within this course sequence plan. Please register for your major requirements each semester as shown below using the Student Planning tool in myCWI. Consult your advisor for any questions regarding this plan.

NOTE: The required general education courses may be completed during any semester the student prefers, including summer semesters.

First Year

Fall		Credit Hours
SWDV 105	Introduction to Programming	4
SWDV 110	Intermediate Programming	4
SWDV 115	Introduction to Web Application Development	4
GEM 2 - Oral Communication course		3
Total Semester Credit Hours		15

Spring

SWDV 140	Intermediate Web Application Development	4
SWDV 143	Client-Side Frameworks	4
SWDV 152	Systems Analysis and Design	4
GEM 1 - Written Communication course		3
Total Semester Credit Hours		15

Second Year**Fall**

PSYC 140	Human Relations for Career and Personal Success (GEM 6)	3
SWDV 210	Introduction to Server-Side Programming	4
SWDV 220	Fundamentals of Database Systems	4
SWDV 235	Advanced Web Application Development	4
GEM 3 - Mathematical Ways of Knowing course		3
Total Semester Credit Hours		18

Spring

COMM 259	Communicating Through Web Design (GE Elective)	3
SWDV 265	Mobile Development	4
SWDV 271 or SWDV 275	Game Development or Software Development Tools and Technology	4
SWDV 280	Collaborative Development	3
SWDV 290	Software Development Capstone Internship	1-3
Total Semester Credit Hours		15
Minimum Credit Hours Required		63

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Develop static web design with HTML and CSS, frameworks, and client-side scripting.
- Develop dynamic web design using common frameworks and server-side programming.
- Demonstrate proficiency with data access methods and basic knowledge of database design practices.
- Analyze a software system and make informed decisions on structure and function.
- Collaborate using industry standard work methods.
- Demonstrate proficiency in multiple general purpose programming languages, along with industry standard best practices.
- Apply programming skills in multiple platforms and modalities.
- Demonstrate proficiency with industry standard programming environments and source control tools.
- Implement common design patterns for various kinds of software.