

SOFTWARE DEVELOPMENT, CERTIFICATE OF ACHIEVEMENT

Banner Code: 2_CN_CSSD
Financial Aid Eligible

The Software Development program at Golden West College is designed to provide formal training for individuals who seek entry into the rapidly growing fields of computer software engineering, systems analysis, application development, and systems software. Students utilize the latest tools to learn programming languages, algorithms, operating system environments, and web-based multi-user application architectures. Classes are conducted in smart classrooms with the latest instructional tools. Sizable projects are undertaken in each class providing the students with an opportunity to add the projects to their portfolios, and knowledge to their skill sets.

Students can apply the skills they learn through this program, to: general computing (corporate applications, databases, web applications); entertainment media development (3-D computer animation for video games and movies); engineering applications (computer-aided manufacturing, robotics, and product simulations); and emerging technologies (artificial intelligence, urban simulation, augmented reality, and biotechnology process simulation).

Program Level Learning Outcomes

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

1. Understand computer programming using Microsoft programming languages and operating systems environments.
2. Design and build single-user applications.
3. Design and build multi-user web-based applications.
4. Design and build single-user database environments.
5. Design and build multi-user database environments.

Review Graduation Requirements (<https://catalog.cccd.edu/golden-west/graduation-requirements/certificates/#achievementtext>).

Course	Title	Units
Required Courses		
CS G102	Computer Software Development, Introduction	4
CS G175	C++ Programming 1	3
CS G178	Visual C# .Net	4
CS G189	C++ Programming 2	3
CS G196	Web Programming With .NET	4
Total Units		18

Recommended Program Sequence

These sequences are general maps for students to finish all requirements for the Certificate. There may be advisories or time requirements that students may want to consider before following these maps. **Students are advised to meet with a GWC Counselor for alternate sequencing.**

Year 1:

Course	Title	Units
Semester 1		
CS G102	Computer Software Development, Introduction	4
<i>Units</i>		<i>4</i>

Course	Title	Units
Semester 2		
CS G175	C++ Programming 1	3
<i>Units</i>		<i>3</i>

Year 2:

Course	Title	Units
Semester 3		
CS G189	C++ Programming 2	3
CS G178	Visual C# .Net	4
<i>Units</i>		<i>7</i>

Course	Title	Units
Semester 4		
CS G153	Java Programming 1	3
<i>Units</i>		<i>3</i>