

SOFTWARE DEVELOPMENT, ASSOCIATE IN ARTS DEGREE

Banner code: 2_AA_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.

Associate Degree Graduation Requirements

(See GWC website (<http://www.goldenwestcollege.edu>) for the most up-to-date information on Associate Degree Requirements (<https://catalog.cccd.edu/golden-west/general-education/asssociate-degree/>).

1. Completion of General Education Requirements by one of the following methods:
 - a. Completion of a minimum of 18 units as listed under Areas A through E, including the Cultural Diversity Requirement.
 - b. Completion of a minimum of 39 units of CSU General Education requirements. Students who complete this pattern are also eligible to receive the Certificate of Achievement in CSU General Education Breadth (<https://catalog.cccd.edu/golden-west/general-education/csu-ge/>).
 - c. Completion of a minimum of 34 (UC) or 37 (CSU) units of Intersegmental General Education Transfer Curriculum (IGETC) requirements. Students who complete this pattern are also eligible to receive the Certificate of Achievement in IGETC (<https://catalog.cccd.edu/golden-west/general-education/igetc/>).
2. Completion of a Major or Area of Emphasis—a minimum of 18 units.
3. Completion of additional elective units to a total of 60 units.

4. 2.0 overall Grade Point Average at GWC and 2.0 overall Grade Point Average for all colleges attended.
5. At least 12 units completed at GWC.

Students should consult a GWC counselor in order to select the best pathway to meet their educational goals. For students who intend to transfer, the choice of general education will be specific to both their major and transfer institution.

Course	Title	Units
Required Courses		
CS G175	C++ Programming	4
CS G102	Computer Software Development, Introduction	4
CS G189	Data Structures With C++	4
CS G178	Visual C# .Net	4
CS G196	Web Programming With .NET	4
Major Total		20
GE Pattern (Local, CSU GE-Breadth, or IGETC)		18-39
Total Units		60