

EMPHASIS IN COMPUTER SCIENCE AND TECHNOLOGY, ASSOCIATE IN ARTS DEGREE

Banner code: 2_AA_LACST

Financial aid: Eligible

This program is designed for students who wish a broad knowledge of liberal arts and sciences, plus additional course work in an "Area of Emphasis." This program would be an ideal choice for students planning on transferring to the California State University (CSU) or University of California (UC), as the student may satisfy their general education requirements plus focus on transferable course work relating to baccalaureate majors at these institutions. Because admission and major preparation requirements vary at each transfer institution, courses used to fulfill requirements for an emphasis should be selected with the assistance of GWC Counselor. Students completing this degree will need to complete a minimum of 18 units in the area of emphasis, and complete a general education pattern that matches the student's career and educational goals. Students may select either the native Golden West College General Education pattern, the CSU-GE Breadth pattern, or the IGETC pattern.

Program Level Learning Outcomes

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

1. Understand the fundamentals of computer programming and software.
2. Evaluate various types of technology.
3. Demonstrate the ability to use technology to design various art, computer, or database projects

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/associate-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
Select at least 18 units, including two or more disciplines, of the following:		
AUTO G101	Introduction to Automotive Technology	3
AUTO G110	Engine Repair	5
CS G101	Computer Literacy	3
CS G102	Computer Software Development, Introduction	4
CS G130	Survey Of Computer Science/Information Technology	4
CS G131	Python Programming I	4
CS G135	UNIX/Linux Operating System	4
CS G147	Game Programming, Introduction	4
CS G153	Java Programming, Introduction	4
CS G154	Data Structures with Java	4
CS G175	C++ Programming	4
CS G179	C++ Programming, Advanced	4
CS G189	Data Structures With C++	4
CS G242	Computer Architecture and Organization	3
CS G262	Discrete Structures	3
DART G100	Introduction To Digital Arts	3
DART G103	Digital 2D Design	3
ART G115	Typography	3
DART G135	Introduction To Adobe Illustrator	3
DART G150	Photoshop, Beginning	3
DART G170	Graphic Design Principles	3
DART G178	Introduction To Web Page Design	3
DART G180	Introduction To Web Animation	3
DRAF G101	Basic Computer Aided Design Drafting	4
DRAF G105	Basic Engineering Drafting I, Computer Aided Drafting	3
DRAF G110	Basic Engineering Drafting II, Computer Aided Drafting	3
EDUC G103	Technology Proficiencies For Teachers I	2
LIBR G110	Information Competency and Library Research	1
LIBR G120	Libraries And The Internet	1
MATH G140	Business Calculus	4
MATH G180	Calculus I	5
MATH G185	Calculus 2	5
ENGR G101	Introduction to Engineering and Technology	2
ENGR G220	Programming and Problem-Solving in MATLAB	4
ENGR G280	Statics	3
ENGR G285	Engineering Circuits	4

Course	Title	Units
Select no more than one course from the following:		
BIOL G100	Introduction To Biology	4
CHEM G180	General Chemistry A	5
CHEM G185	General Chemistry B	5
PHYS G185	Calculus Based Physics: Mechanics	4
PHYS G280	Calculus Based Physics: Electricity/ Magnetism	4
PHYS G285	Calculus Based Physics: Modern	4
Major Total		18
GE Pattern (Local, CSU GE-Breadth, or IGETC)		18-39
Total Units		60