

EMPHASIS IN MATHEMATICS, ASSOCIATE IN ARTS DEGREE

Banner code: 2_AA_LAMA

Financial aid: Eligible

This program is designed for students who desire 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.

Program Level Learning Outcomes

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

1. Solve linear and non-linear equations in the real and complex number system.
2. Calculate probabilities of independent and mutually exclusive events and conditional probability using appropriate formulas and theorems.
3. Compute derivatives of basic functions and the derivatives of their sums, differences, products, quotients, and compositions.
4. Solve right-angle and oblique triangles and use appropriate laws to solve applied problems.
5. Perform matrix operations, evaluate determinants, and solve systems of linear equations using appropriate computational techniques.
6. Solve first-order differential equations.

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 of the following: ¹		
MATH G100	Liberal Arts Mathematics	3
MATH G103	Statistics For Elementary Teachers	3
MATH G104	Mathematics For Elementary Teachers	3
MATH G115	College Algebra	4
MATH G120	Trigonometry	3
MATH G140	Business Calculus	4
MATH G160	Introduction To Statistics	4
MATH G170	Precalculus	5
MATH G180	Calculus I	5
MATH G185	Calculus 2	5
MATH G235	Applied Linear Algebra	4
MATH G280	Calculus 3	5
MATH G282	Ordinary Differential Equations	4
MATH G285	Introduction to Linear Algebra and Differential Equations	5
One science class from the list identified for the Science Area of Emphasis		
Major Total		18
GE Pattern (Local, CSU GE-Breadth, or IGETC)		18-39
Total Units		60

¹ Selections must include one math course at the level of MATH G180 or above. Students should check with a counselor to see which courses will transfer to their target university.