

# LIBERAL ARTS: 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.

Review Graduation Requirements (<https://catalog.cccd.edu/golden-west/graduation-requirements/associate-degree/>) and General Education (<https://catalog.cccd.edu/golden-west/general-education/>).

Course	Title	Units
<b>Select at least 18 units of the following:</b> <sup>1</sup>		<b>18</b>
CS G262	Discrete Structures	3
ECON G105	Consumer and Financial Math	3
ECON G115	Game Theory	3
MATH G100	Liberal Arts Mathematics	3
MATH G103	Statistics For Elementary Teachers	3
MATH G104	Mathematics For Elementary Teachers	3
MATH G115	College Algebra	4-6
or MATH G115S	College Algebra with Support	
MATH G120	Trigonometry	3
MATH G140	Business Calculus	4-6
or MATH G140S	Business Calculus with Support	
MATH G160	Introduction To Statistics	3-6
or MATH G160S	Introduction to Statistics with Support	
or ECON G160	Statistics for Business and Economics	
or PSYC G140	Statistics for the Behavioral Sciences	

Course	Title	Units
or SOC G125	Introduction to Statistics in Sociology	
MATH G170	Precalculus	4
MATH G180	Calculus 1	4
MATH G185	Calculus 2	4
MATH G280	Calculus 3	4
MATH G285	Introduction to Linear Algebra and Differential Equations	5

**One science class from the list identified for the Science Area of Emphasis**

<b>Major Total</b>	<b>27</b>
<b>GE Pattern (Local, CSU GE-Breadth, or IGETC)</b>	<b>18-39</b>
<b>Total Hours</b>	<b>18</b>

<sup>1</sup> 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.