



# Science, Technology, Engineering, and Mathematics Career and Academic Pathways (CAPs) Program Map: Associate in Arts Degree for Mathematics (Calculus Ready)

Total number of units: 60-65 units

Top Code/Academic Plan: 1701.00

Updated on April 14, 2022

Semester 1	Course Code	Course	Units	Notes	Advising Notes
Program/GE Course	MATH 261	<b>Calculus I</b>	<b>5</b>	Prerequisites: MATH 241 (or 241S) and 260 (or 260S). May be waived by the Math department dependent on high school coursework. Advisory: take MATH 241 or 241S the summer prior to term 1 for review and/ or preparation.	Main campus; all day options.
Program/GE Course	MATH 173	<b>Object Oriented Programming and Design</b>	<b>4</b>		Main campus.
GE Course	LACCD: Area B1		<b>3</b>	HISTORY 011 or 012 recommended, but LACCD GE: Area B1 courses vary based upon transfer goals and subsequent GE Pattern being used (in addition to the LACCD GE pattern). Advised to connect with Counselor to make GE Pattern comparison.  HISTORY 011 or 012 has sections that are part of the Honors Program. Check the current catalog for the section number(s). To apply for admission to the Honors Program, please visit the ELAC Counseling Center. For additional information about the Honors Program, please visit the <a href="#">ELAC Honors Program website</a> or contact Dr. Bermudez at <a href="mailto:bermudn@elac.edu">bermudn@elac.edu</a> .	HISTORY 011 or 012 may have sections that include a low cost (LCT) or no cost textbook (ZTC). Check the current catalog for the section number(s). You can search for classes in the ELAC and LACCD Schedule of Classes under "Class Search Type" as "Zero Textbook Cost" or "Low-Cost Textbook Classes."

**Total Units 12**

Intersession	Course Code	Course	Units	Notes	Advising Notes
GE Course	LACCD: Area B2		<b>3</b>	LACCD GE: Area B2 courses vary based upon transfer goals and subsequent GE Pattern being used (in addition to the LACCD GE pattern). Advised to connect with Counselor to make GE Pattern comparison.	

**Total Units 3**

Semester 2	Course Code	Course	Units	Notes	Advising Notes
Program/GE Course	MATH 262	<b>Calculus II</b>	<b>5</b>		Main campus; all day options.
Program/GE Course	MATH 273 or MATH 227/227S	<b>Introduction to Data Structures &amp; Algorithms or Statistics</b>	<b>4 - 5</b>	This requirement may also be met using MATH 241/260, depending on student placement; advised to see a counselor for most appropriate options.  MATH 227 has sections that are part of the Honors Program. Check the current catalog for the section number(s). To apply for admission to the Honors Program, please visit the ELAC Counseling Center. For additional information about the Honors Program, please visit the <a href="#">ELAC Honors Program website</a> or contact Dr. Bermudez at <a href="mailto:bermudn@elac.edu">bermudn@elac.edu</a> .	MATH 273 Main campus. Math 227/227S Main or South Gate, all day options.

Semester 2	Course Code	Course	Units	Notes	Advising Notes
GE Course	ENGLISH 101	<b>College Reading and Composition I</b>	<b>3</b>	ENGLISH 101 Recommended, as it meets a graduation requirement. LACCD GE: Area D1 courses vary based upon transfer goals and subsequent GE Pattern being used (in addition to the LACCD GE pattern). Advised to connect with Counselor to make GE Pattern comparison.  This course has sections that are part of the Honors Program. Check the current catalog for the section number(s). To apply for admission to the Honors Program, please visit the ELAC Counseling Center. For additional information about the Honors Program, please visit the <a href="#">ELAC Honors Program website</a> or contact Dr. Bermudez at <a href="mailto:bermudn@elac.edu">bermudn@elac.edu</a> .	This course may have sections that include a low cost (LCT) or no cost textbook (ZTC). Check the current catalog for the section number(s). You can search for classes in the ELAC and LACCD Schedule of Classes under "Class Search Type" as "Zero Textbook Cost" or "Low-Cost Textbook Classes."

**Total Units 12 to 13**

College level English and Math should be completed within the first year of study. Follow placement guidance in the application process or meet with a counselor to find the right course level.

Interession	Course Code	Course	Units	Notes	Advising Notes
GE Course	LACCD: Area A		<b>3 to 5</b>	PHYSICS 011 Recommended for Math majors planning to transfer. GE courses vary based upon transfer goals and subsequent GE Pattern being used (in addition to the LACCD GE pattern). Advised to connect with Counselor to make GE Pattern comparison.  This course has sections that are part of the Honors Program. Check the current catalog for the section number(s). To apply for admission to the Honors Program, please visit the ELAC Counseling Center. For additional information about the Honors Program, please visit the <a href="#">ELAC Honors Program website</a> or contact Dr. Bermudez at <a href="mailto:bermudn@elac.edu">bermudn@elac.edu</a> .	

**Total Units 3 to 5**

Semester 3	Course Code	Course	Units	Notes	Advising Notes
Program/GE Course	MATH 263	<b>Calculus III</b>	<b>5</b>		Main campus; all day options.
Program/GE Course	MATH 273 or MATH 227/227S	<b>Introduction to Data Structures &amp; Alorythms or Statistics</b>	<b>4 - 5</b>	This requirement may also be met using MATH 241/260, depending on student placement; advised to see a counselor for most appropriate options.  This course has sections that are part of the Honors Program. Check the current catalog for the section number(s). To apply for admission to the Honors Program, please visit the ELAC Counseling Center. For additional information about the Honors Program, please visit the <a href="#">ELAC Honors Program website</a> or contact Dr. Bermudez at <a href="mailto:bermudn@elac.edu">bermudn@elac.edu</a> .	MATH 273 Main campus MATH 227/227S Main or South Gate, all day options.
GE Course	LACCD: Area C		<b>3</b>	LACCD GE: Area C courses vary based upon transfer goals and subsequent GE Pattern being used (in addition to the LACCD GE pattern). Advised to connect with Counselor to make GE Pattern comparison.	

**Total Units 12 to 13**

Interession	Course Code	Course	Units	Notes	Advising Notes
Elective			<b>3</b>	Students may have met these units with math pre-requisites. Please see a counselor.	
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**Total Units 6**

Semester 4	Course Code	Course	Units	Notes	Advising Notes
Program/GE Course	MATH 270	<b>Linear Algebra</b>	<b>3</b>	Student also has the option take MATH 280, 282, 284.	Main campus; AM or PM.
Elective	MATH 275	<b>Ordinary Differential Equations</b>	<b>3</b>	Student also has the option take MATH 280, 282, 284.	Main campus; AM or PM.
Elective			<b>3 to 4</b>	Students may have met these units with math pre-requisites. Please see a counselor.	
GE Course	LACCD: Area E1/E2		<b>3</b>	HEALTH 002 Recommended as it meets both Area E1 and E2. LACCD GE: Area E1/E2 courses vary based upon transfer goals and subsequent GE Pattern being used (in addition to the LACCD GE pattern). Advised to connect with Counselor to make GE Pattern comparison.	

**Total Units 12 to 13**

#### **Degree Path and Requirements:**

This is not a CSU Transfer degree, there may be additional general education coursework needed. This map is a suggested term-by-term sequence of courses to complete the program in a recommended time frame. This is an efficient and recommended plan, but actual plans may vary by individual student need. This map cannot replace a meeting with [counselors](#).

#### **Department Advising Notes:**

This plan follows the LACCD GE Pattern. This is just a suggested plan, and does not necessarily reflect transfer preparation. Please see a counselor to adjust GE plan as needed.

#### **Program Description**

This program is designed to award the Associate in Arts degree to those students who have completed a specialization in mathematics. This degree program is intended to meet the needs of mathematics students who do not require a science component for their degree. The requirements were chosen to optimize student preparation for upper division coursework at a four-year institution leading to a minor in mathematics or a Bachelor's degree in a field related to mathematics.

#### **Career and Transfer Opportunities**

The degree program offers training in both pure and applied mathematics leading to careers in research, business, industry, and government. In addition, many areas, such as accounting, actuarial science, finance, management, and operations research depend upon the use of mathematics in developing solutions to practical problems. Visit the [Transfer Center](#) for transfer and guaranteed transfer information, which varies based on transfer college. Make [an appointment with a counselor](#) for transfer information. Students can visit [Career and Job Services](#) for career counseling and further exploration. Check out these [Math careers](#).

#### **Youtube Videos**

[Mathematician Career Video](#)

[Statistician Career Video](#)

#### **Program Map**

A suggested sequence of classes to complete a degree, certificate, or program of study. Students should consult an academic counselor for variations to this plan based on part-time or full-time status, transfer plans, pre-requisites needed, etc.

#### **Prerequisite Course**

A specific course that must be completed before advancing to the next course.

Check the online catalog at [elac.edu](http://elac.edu) for the latest and most accurate information.

#### **Contact**

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