Mathematics A.S. Degree - Local GE

This degree is designed to provide a foundation in mathematics and to meet common lower-division requirements for a major in mathematics or statistics at many four-year transfer institutions. It is highly recommended that students meet with a counselor because major and general education requirements vary for each college/university.

Total Units: 59-61

First Year

Semester 1

14-15 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
MATH 400 Z Calculus I	5	MATH 375, OR MATH 372 AND MATH 373, OR MATH 384	F, S	CRC Area L2
Local Area 1A-English Composition Z	3	Recommend meeting with a counselor	F, S, Su	CRC Area L1A
Local Area 4-Social & Behavioral Sciences Z	3		F, S, Su	CRC Area L4
Local Area 7A-Living Skills (PE) Z	1		F, S, Su	CRC Area L7A
Local Area 7B-Living Skills Z	2-3		F, S, Su	CRC Area L7B

Z At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the ZTC page of the college website.

Semester 2

15 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
MATH 401 Z Calculus II	5	MATH 400	F, S	CRC Area L2

Career Options/Outlook:

Mathematicians can pursue careers as research analysts, statisticians, or actuaries. For example, Operations Research Analysts formulate and apply mathematical modeling and other optimizing methods to develop and interpret information that assists management with decision-making, policy formulation, or other managerial functions. May collect and analyze data and develop decision support software, service, or products. May develop and supply optimal time, cost, or logistics networks for program evaluation, review, or implementation. **Career opportunities require more than an associate degree.**

A sample of reported job titles:

Advanced Analytics Associate, Analytical Strategist, Business Analytics Director, Business Insight and Analytics Manager, Decision Analyst, Operations Research Analyst, Operations Research Director, Operations Research Group Manager, Operations Research Manager, Optimization Analyst

Projected job openings in

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
CISP 360 Z Introduction to Structured Programming	4	CISP 300 or MATH 400	F(P), S(P)	
Local Area 3-Arts & Humanities Z	3		F, S, Su	CRC Area L3
Local Area 5-Natural Sciences Z	3		F, S, Su	CRC Area L5

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Year 2

Semester 3

14 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
MATH 402 Z Calculus III	5	MATH 401	F, S	CRC Area L2
Local Area 1B-Oral Communication & Critical Thinking Z	3		F, S, Su	CRC Area L1B
Elective[1]	3		F, S, Su	
Elective	3		F, S, Su	

Z At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the ZTC page of the college website.

[1] Suggestion-CISP 370 Beginning Visual Basic (4 units); Advisory: CISC 310 or CISP 300; F(O), S(P). Units required are determined by the number of units needed to total 60 units for graduation. Refer to Course Number for the appropriate course level necessary for the degree.

Semester 4

16-17 Units

California (2020-2030):

800

Projected growth in California (2020-2030):

32% growth

Median Salary in California with advanced degree (2021):

$84,860/yr

Source:

https://www.onetonline.org/link/summary/15-2031.00

Transfer notes:

Please meet with a counselor for specific transfer course evaluation or transferring to a specific 4-year institution.

General Education (GE):

Non-specified GE courses identified by CRC or Cal-GETC Area without pre- or co-requisites can be taken at any semester.

Honors option:

The CRC Honors Program is designed specifically for academically accomplished students and for students with the potential for high achievement. Students who complete 15 units or more in honors-designated

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
MATH 410 Z Introduction to Linear Algebra	3	MATH 401; Advisory: MATH 402	F, S	CRC Area L2
MATH 420 Z Differential Equations	4	MATH 401; Advisory: MATH 402	F, S	CRC Area L2
Local Area 6-Ethnic Studies Z	3		F, S, Su	CRC Area L6
Elective[1]	3		F, S, Su	
Elective[2]	3-4		F, S, Su	

Z At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the ZTC page of the college website.

^You must have passed the prerequisite course(s) with a “C” or better; Corequisite must be taken during the same semester; Advisory means it is recommended but not required to enroll in the course.

*(O) = online available (P) = partially online

[1] Suggestion-CISP 400 Object Oriented Programming with C++ (4 units); Pre-Req: CISP 360; F(O), S(O). Units required are determined by the number of units needed to total 60 units for graduation. Refer to Course Number for the appropriate course level necessary for the degree.

[2] Suggestion-CISP 401 Object Oriented Programming with Java (4 units); Pre-req: CISP 350; F(O), S(O) or

STAT C1000E: Introduction to Statistics (4 units); F, S, Su. Units required are determined by the number of units needed to total 60 units for graduation. Refer to Course Number for the appropriate course level necessary for the degree.

courses will earn special recognition as an Honors Scholar, a distinction that may entitle the student to guaranteed transfer and scholarship opportunities at select transfer colleges and universities.

About this program map:

This program map represents one possible pathway to complete the program. Please see a counselor to create an education plan customized to meet your needs. This map is not a guarantee of course availability or financial aid applicability.

Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the Zero Textbook Costs page of the college website.

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