Mathematics AS-T (IGETC GE Track)

+If you have completed coursework at another college and/or are starting in a semester other than a Fall term, please follow up with the Counseling Department to determine if this sequence is appropriate for your academic and career goals.

Program Description: The Mathematics program provides curriculum from algebra to statistics, liberal arts math, linear algebra, calculus, and differential equations. These courses fulfill breadth requirements, associate degree requirements and transfer major requirements for degrees in mathematics, physics, chemistry and engineering. Many B.A./B.S. level careers require extensive background in mathematics. Virtually all two-year career programs in the business or technology fields require a solid foundation in mathematics. Examples of these career options include computer programmer, financial analyst, statistician, systems analyst, urban planner, and teacher.

Program SLO: Students will be prepared for the mathematical reasoning required in upper division work in their major, including the ability to generalize concepts and comprehend increasing levels of abstraction; Demonstrate mathematical literacy, problem solving ability, and modeling ability.

Important Transfer Information: *The sequence listed below, may not meet all your transfer admissions requirements. Connect with a counselor to develop an individual student education plan through the Counseling Department @ https://www.canyons.edu/counseling or (661) 362-3288/(661) 362-3811.*

*Major courses are sequenced and **BOLDED** based on recommendations by the Mathematics Department.*

First Semester (3-15 units minimum)   FA = Fall; WI = Winter; SP = Spring; SU = Summer

MATH 211	**Calculus 1 (FA, SP, SU)**	**5**	**Major Course and Area 2**
ENG 101/101H	English Composition (FA, WI, SP, SU)	4	Area 1A
Arts Course	Choose one course from the IGETC GE Area 3A (FA, WI, SP, SU)	3	Area 3A
Social & Behavioral Sciences	Choose one course from IGETC GE Area 4 (FA, WI, SP, SU) *Department Recommends Econ 201*	3	Area 4
	Term Totals:	**15**	

Check the Honors website for most recent course offerings. Must be enrolled in the Honors program to take courses - see below

Second Semester (16-29 units minimum

Course	Title	Units	Major and GE Courses
MATH 212 PreReq: MATH 211	**Calculus II (FA, SP, SU)**	**5**	**Major Course**
*Critical Thinking	Choose one course from the IGETC GE 1B category (FA, WI, SP, SU)	3	Area 1B
COMS 105/105H	Fundamentals of Public Speaking (FA, WI, SP, SU)	3	Area 1C
Physical Science	Choose one course from IGETC GE Area 5A *(if not taking the corresponding lab, will need to add a lab to the Life Science course)* (FA, WI, SP, SU)	3-4	Area 5A (and 5C)
	Term Totals:	**14-15**	

***Some UC's will require a second semester of English Composition.**

Intersession I – Winter/Summer (30-32 units minimum)

Course	Title	Units	GE Area
Social & Behavioral Sciences	Choose one course from IGETC GE Area 4 (FA, WI, SP, SU) *Department Recommends Econ 202*	3	Area 4
	Term Totals:	**3**	

Third Semester (33-47 units minimum)

Course	Title	Units	Major and GE Courses
MATH 213 **PreReq: MATH 212**	**Calculus III (FA, SP)**	**5**	**Major Course**
Biological Sciences	Choose one course from IGETC GE Area 5B (if not taking the corresponding lab, will need to add a lab to the Physical Science category)	3-4	Area 5B (and 5C)
**American Institutions Choose Option 1 or 2	Complete first course in chosen option – (note: must take both classes within one option) (FA, WI, SP, SU) *see American Institutions Table below*	3	American Institutions and Area 3B
++UC Elective (consider Foreign Language)	Choose another UC transferable course (FA, WI, SP, SU)	4-5	Elective (Have you met the UC ++Foreign language requirement?)
	Term Totals:	15-17	

Fourth Semester (48-60 units minimum)

Course	Title	Units	Major and GE Courses
MATH 214 or 215 **PreReq: MATH 212**	**Linear Algebra (FA, SP) or Differential Equations (FA, SP)**	**4**	**Major Course**
Group 1 Course	**Choose one course from Group 1, listed below (FA, WI, SP, SU)**	**3-5**	**Major Elective**
**American Institutions	Complete second course in chosen option – (note: must take both classes within one option) (FA, WI, SP, SU) *see American Institutions Table below*	3	American Institutions and Area 4
Arts *or* Humanities	Choose one course from either IGETC GE Area 3A or 3B (FA, WI, SP, SU)	3	Area 3A or 3B
	Term Totals:	13-15	

Total Units: 60+

+ +Note: Foreign language is required as part of the transfer general education breadth. Please see the Counseling Office for additional information.

Group 1 – Select three-four units from the following that have not already been taken

CMPSCI 235	'C' Programming (FA, WI, SP, SU)	3
CMPSCI 236	C++ Object Oriented Programming (FA, SP)	3
MATH 140/140H OR MATH 140X	Introductory Statistics (FA, WI, SP, SU) or Statistics with Support (FA, SP)	4-5
MATH 214	Linear Algebra (FA, SP)	4
MATH 215	Differential Equations (FA, SP)	4
CMPSCI 111	Introduction to Algorithms & Programming/Java (FA, SP)	3
CMPSCI 111L	Introduction to Algorithms & Programming Lab (FA, SP)	1

Students are encouraged to take additional courses in Group 1 to fulfill elective units.

****American Institutions Requirement** – Select one of the options below and complete a total of 6 units

Option 1	One course from the following: Economics 170/170H, History 111/111H, History 112/112H, History 120/120H, or History 130 **AND** Political Science 150/150H (FA, WI, SP, SU)
Option 2	History 111/111H **AND** History 112/112H (FA, WI, SP, SU)

Counseling Resources

Mathematics Department: www.canyons.edu/mathematics
Counseling Department: www.canyons.edu/counseling
UC General Education Guide: https://www.canyons.edu/studentservices/counseling/transfer/uc.php
CSU/UC Articulation Agreements: www.assist.org
University of California: www.universityofcalifornia.edu
UC Transfer Pathways: https://admission.universityofcalifornia.edu/admission-requirements/transfer-requirements/transfer-pathways/

A Degree with a Guarantee: https://icangotocollege.com/associate-degree-for-transfer?sitekey=adegree&sitekey=adegree
COC Honors Program: https://www.canyons.edu/academics/honors/index.php
MESA Program: www.canyons.edu/mesa
Campus Alliances: https://www.canyons.edu/administration/ie2/equity/alliances/index.php

Petition for Associate Degree: Check the student calendar for term-specific submission deadlines. Summer graduation associate degree petitions are due by April 1st for your name to appear in the spring commencement pamphlet. The petition form must be reviewed with a counselor and may be found here: https://www.canyons.edu/studentservices/admissions/records/forms.php

Career Resources
California Career Zone: www.cacareerzone.org
O*Net Online: www.onetonline.org
Bureau of Labor and Statistics: www.bls.gov
Professional Associations:
Mathematical Association of America Career page: https://mathcareers.maa.org/
American Mathematical Association Career page: https://www.ams.org/profession/data/emp-survey
SIAM (Society for Industrial and Applied Mathematics) Career page: https://www.siam.org/students-education/programs-initiatives/thinking-of-a-career-in-applied-mathematics