Mathematics AS-T (CSU 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. The Student Transfer Achievement Reform Act (SB 1440)

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**
Course	**Title**	**Units**	**Major and GE Courses**
MATH 211	**Calculus 1 (FA, SP, SU)**	**5**	**Major Course and Area B4**
ENG 101/101H	English Composition (FA, WI, SP, SU)	4	Area A2
Arts Course	Choose one course from the CSU GE Area C1 (FA, WI, SP, SU)	3	Area C1
Social Science	Choose one course from CSU GE Area D (FA, WI, SP, SU) *Department Recommends Econ 201*	3	Area D
	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**
Physical Science	Choose one course from CSU GE Area B1 *(if not taking the corresponding lab, will need to add a lab to the Life Science course*) (FA, WI, SP, SU)	3-4	Area B1 (and B3)
*Critical Thinking	Choose one course from the CSU GE A3 category (FA, WI, SP, SU)	3	Area A3
COMS 105/105H ***OR*** COMS 120	Fundamentals of Public Speaking (FA, WI, SP, SU) ***OR*** Small Group Communication (FA, WI, SP, SU)	3	Area A1
	Term Totals:	**14-15**	

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

Intersession I –	**Winter/Summer**		**(30-32 units minimum)**
Course	**Title**	**Units**	**GE Area**
Social Science	Choose one course from CSU GE Area D (FA, WI, SP, SU) *Department Recommends Econ 202*	3	Area D
	Term Totals:	**3**	

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Third Semester	(33-46 units minimum)		
Course	**Title**	**Units**	**Major and GE Courses**
MATH 213 PreReq: MATH 212	**Calculus III (FA, SP)**	**5**	**Major Course**
Life Science	Choose one course from CSU GE Area B2 (if not taking the corresponding lab, will need to add a lab to the Physical Science category)	3-4	Area B2 (and B3)
**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 C2
Arts ***OR*** Humanities	Choose one course from either CSU GE Area C1 or C2 (FA, WI, SP, SU)	3	Area C1 or C2
	Term Totals:	**14-15**	

Fourth Semester	(47-60 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)**	**3-4**	**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 D
Lifelong Learning	Choose one course from the CSU GE Area E category that is at least 3-units (FA, WI, SP, SU)	3	Area E
CSU Elective	Choose any course that is CSU transferable (FA, WI, SP, SU)	1	Elective
	Term Totals:	**14-15**	

Total Units: 60+

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

CMPSCI 235	'C' Programming (FA, WI, SP, SU)
CMPSCI 236	C++ Object Oriented Programming (FA, SP)
MATH 140/140H	Introductory Statistics (FA, WI, SP, SU)
MATH 214	Linear Algebra (FA, SP)
MATH 215	Differential Equations (FA, SP)
CMPSCI 111	Introduction to Algorithms & Programming/Java (FA, SP)
CMPSCI 111L	Introduction to Algorithms & Programming Lab (FA, SP)

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
CSU General Education Guide:
https://www.canyons.edu/_resources/documents/studentservices/counseling/degrees/CSUGE20192020.pdf
CSU/UC Articulation Agreements: www.assist.org
Cal State University: www.calstate.edu
A Degree with a Guarantee: http://adegreewithaguarantee.com/
COC Honors Program: https://www.canyons.edu/academics/honors/index.php
MESA Program: www.canyons.edu/mesa

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Career Resources

California Career Zone: www.californiacareerzone.com
O*Net Online: www.onetonline.com
Bureau of Labor and Statistics: www.bls.gov
What Can I do with this major: http://career.uark.edu/majors/
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

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