

Roadmap B.S. in Mathematics: Applied Mathematics option For Transfer Students

This guide is an unofficial document intended to be used for advising and course planning. This document cannot be used to waive or supersede requirements listed in the catalog. Fulfillment of all University requirements (including required units) will be determined by the office of the Registrar.

This guide assumes that the student has satisfied and transferred from community college all of the lower division GE requirements, and the following courses: MATH 75, 76, 77, 81 and PHYS 4A and CSCI 40. All of these courses are required for the Mathematics major. Students need to earn at least 120 units in total.

YEAR 1: FALL			YEAR 1: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 111	4	MATH 76	MATH 101 (if MATH 107 not taken) or MATH Elective ²	3/4	Prereq. for MATH 101: MATH 75
MATH 152 ¹	4	MATH 77	MATH 193A (Spring only)	1	MATH 111, 81 and at least one of MATH 109, 121, 122, 123, 152, 181, and 182 or permission.
MATH Elective ² / MATH 107	3	See table below / MATH 77	MATH Elective ²	3	See table below
UD GE area 2/5 or MATH 120 (if CSCI 41 not taken at CC)	3	Prereq. for MATH 120: MATH 77 & CSCI 40	UD GE area 3	3	
			UD GE area 4 ⁰	3	
TOTAL UNITS	14		TOTAL UNITS	13/14	

YEAR 2: FALL			YEAR 2: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 171 ¹	4	MATH 111	MATH 151 ¹	4	MATH 111 and 152
MATH Elective ²	3	See table below	MATH 198	3	MATH 151, 171 (one conc OK or permission)
MATH Elective ² or MATH 120 (if not taken)	3	See table below	Free elective	3	
Free elective / MATH 190	3		UD GE area 2/5 (if not taken yet)	3	
Grad. Req. MI ⁰	3		Writing course (if writing requirement not satisfied yet)	3	
TOTAL UNITS	16		TOTAL UNITS	16	

⁰PHYS 4AL is not required for this option in the math major. If students wish to include PHYS 4A as a General Education area 5B course, they must also take PHYS 4AL.

⁰Consider taking ANTH 105W (Grad. Req. MI) or ANTH 116W (UD GE area 4) to satisfy your upper division Writing Skills Requirement.

¹ It is suggested to take MATH 81 before taking MATH 152.

¹ It is suggested to take MATH 128 and/or a math elective with MATH 111 as a prerequisite before taking MATH 171.

² The following table summarizes the MATH ELECTIVES for the APPLIED MATH option. Choose four courses from the following list.

You must also take MATH 193A and MATH 198 (in Applied Mathematics). MATH 193A must be taken before MATH 198.

You should meet with your advisor from the Department of Mathematics every semester, to choose your MATH Electives.

Course Number	Course Title	Prereq	Semester
MATH 109	Applied Probability	MATH 101 (and MATH 107 recommended)	Fall only
MATH 121	Numerical Analysis I	MATH 77 and CSCI 40; MATH 120 recommended	Spring only
MATH 122	Numerical Analysis II	MATH 81 and CSCI 40; MATH 120 recommended	Fall only
MATH 123	Mathematical Modeling	MATH 77	Fall and Spring
MATH 128	Applied Complex Analysis	MATH 77	Fall only
MATH 181	Differential Equations	MATH 81	Fall only
MATH 182	Partial Differential Equations	MATH 81	Spring only

Advising note: Upper Division GE courses and MATH 101 may also be offered during summer sessions.