Roadmap B.S. in Mathematics: Applied Mathematics option - AY 2022-2023

YEAR 1: FALL			YEAR 1: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 75 (LD GE B4)[0]	4	ALEKS PPL	**MATH 76**	4	MATH 75/(75A & B)
LD GE A1	3		**CSCI 40**	4	MATH 75 (Conc. OK)
LD GE A2	3		**PHYS 4A+4AL** (B1+B3)[0]	4	MATH 76 (Conc. OK)
LD GE A3	3		**LD GE E**	3	
TOTAL UNITS	13	(9 GE)	**TOTAL UNITS**	15	(7 GE)

YEAR 2: FALL			YEAR 2: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 77	4	MATH 76	**MATH 81**	3	MATH 77
MATH 111	4	MATH 76	**MATH Elective**[2]	3	See table below
MATH 120 (Fall only) or **CSCI 41**	3/4	(MATH 76 and CSCI 40) or CSCI 40	**LD GE B2**	3	
LD GE C1	3		**LD GE C2**	3	
			HIST 11 or 12 (D1)	3	
TOTAL UNITS	14/15	(3 GE)	**TOTAL UNITS**	15	(9 GE)

YEAR 3: FALL			YEAR 3: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 152[1]	4	MATH 77	**MATH 151 or 171**	4	MATH 111; and MATH 152 (for MATH 151)
MATH Elective[2]	3	See table below	**MATH 193A** (Spring only)	1	MATH 111 and at least two of MATH 109, 121, 122, 123, 152, 181, 182.
MATH 107 (Fall only) or **MATH 101**	3/4	MATH 77 or MATH 75	**MATH Elective**[2]	3	
LD GE C1 or C2	3		**LD GE D2**	3	
PL SI 2 (US & Ca Govt)	3		**LD GE F**	3	
TOTAL UNITS	16/17	(6 GE)	**TOTAL UNITS**	14	(6 GE)

YEAR 4: FALL			YEAR 4: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 171 or 151	4	MATH 111; and MATH 152 (for MATH 151)	**MATH Elective**[2]	3	See table below
MATH 198 or MATH 190 (as free elective)	3	MATH 151,152,171 (or permission)	**UD GE IB**	3	
Free Elective	3		**UD GE IC**	3	
UD GE ID[0]	3		**Free Elect. or MATH 198**	3	
UD MI[0]	3		**Free Elective**	3	
TOTAL UNITS	16	(3 GE + 3 campus req.)	**TOTAL UNITS**	15	(6 GE)

[0]3 units of MATH 75 (or MATH 75A) also will satisfy the G.E. Foundation B4 requirement.

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

[0]Consider taking ANTH 105W (UD MI) or ANTH 116W (UD GE ID) to satisfy your upper division Writing Skills Requirement.

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

[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).

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 107	Fall only
MATH 121	Numerical Analysis I	MATH 77 and CSCI 40	Fall and Spring
MATH 122	Numerical Analysis II	MATH 121 and 152	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