

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

YEAR 1: FALL			YEAR 1: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 75 (LD GE B4) ⁰	4	CRT/ALEKS PPL	MATH 76	4	MATH 75/(75A&B)
CSCI 40	4	MATH 75 (Conc. OK)	MATH 101 or Free/MATH Elective ²	3/4	MATH 75/(75A&B) See table below
LD GE A1	3		PHYS 4A+4AL (B1+B3) ⁰	4	MATH 76 (Conc. OK)
LD GE A3	3		LD GE E	3	
TOTAL UNITS	14	(9 GE)	TOTAL UNITS	14/15	(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 or 101	3/4	See table below
MATH Elective ² or 107	3/4	See table below	LD GE B2	3	
LD GE A2	3		LD GE C1	3	
			HIST 11 or 12 (D1)	3	
TOTAL UNITS	14/15	(3 GE)	TOTAL UNITS	15/16	(9 GE)

YEAR 3: FALL			YEAR 3: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 152 ¹	4	MATH 77	MATH 151 ¹ or 171 ¹	4	MATH 111; and MATH 152 (for MATH 151)
MATH Elective ²	3/4	See table below	MATH 193B (Spring only)	1	See table below
LD GE C2	3		MATH Elective ²	3/4	See table below
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	(9 GE)	TOTAL UNITS	14/15	(6 GE)

YEAR 4: FALL			YEAR 4: SPRING		
COURSE	UNITS	PREREQ	COURSE	UNITS	PREREQ
MATH 171 ¹ or 151 ¹	4	MATH 111; and MATH 152 (for MATH 151)	MATH Elective ² or MATH 198 (if not taken)	4/3	See table below
MATH 198 or MATH 190	3	See table below	UD GE IB	3	
Free Elective	3		UD GE IC	3	
UD GE ID ⁰	3		Free Elective	4	
UD MI ⁰	3		Free Elective	3	
TOTAL UNITS	16	(6 GE)	TOTAL UNITS	17/16	(6 GE)

⁰3 units of MATH 75 (or MATH 75A) also will satisfy the G.E. Foundation B4 requirement.

⁰PHYS 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.

⁰Consider 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, and MATH 152 before taking MATH 165.

¹ It is suggested to take MATH 116 before taking MATH 151, and at least one of MATH 161, 128 or 165 before taking MATH 171

²The MATH ELECTIVES for the PURE MATH option are as follows: Choose MATH 107 or MATH 114; MATH 128 or MATH 172; MATH 161 or MATH 165; MATH 193B, MATH 198 (in Pure Mathematics); *plus one additional MATH elective (any 3-4 unit MATH course, upper division or graduate, excluding MATH 100, 102, 133, 134, 137, 138, 139. Special conditions apply for graduate courses.

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 107	Mathematical Statistics	MATH 77 (concurrently OK)	Fall only
MATH 114	Discrete Structure	MATH 111	Spring only
MATH 128 ¹	Applied Complex Analysis	MATH 77	Fall only
MATH 161	Principles of Geometry	MATH 111	Fall and Spring
MATH 165 ¹	Differential Geometry	MATH 77 and MATH 111	Fall only
MATH 172	Intermediate Mathematical Analysis II	MATH 77 and MATH 171	Spring only
MATH 193B	Junior Seminar in Pure Mathematics	MATH 111 and 152 (Math 152 conc. OK)	Spring only
MATH 198	Senior Project	MATH 151, 152, 171 (or permission)	
One Math Elective*			