School of Natural Sciences and Mathematics

Mathematics (BS)

Degree Requirements (120 semester credit hours)

Four-Year Degree Plan (Example)

This is an example only. Please see advisor to develop individual four-year plan.

- Mathematics
- Applied Mathematics Specialization
- Statistics Specialization

Mathematics with Mathematics Specialization (BS)

Degree Requirements (120 semester credit hours)

Four-Year Degree Plan (Example)

This is an example only. Please see your advisor to develop your individual plan.

	Fall Semester	SCH	Spring Semester	SCH
FRESHMAN	HIST 1301 U.S. History Survey to Civil War[2] [8]	3	HIST 1302 U.S. History Survey from the Civil War[2] [8]	3
	MATH 2417 Calculus I[2] [3] [4] [5]	4	MATH 2419 Calculus II[3] [4] [5]	4
	MATH 2370 Introduction to Programming with MATLAB	3	PHYS 2325 Mechanics[2] [3] [8] [10]	3-4
	or CS 1325 Introduction to Programming I[7]		or PHYS 2421 Honors Physics I - Mechanics and Heat[2] [3] [8] [10]	
	or CS 1337 Computer Science I[7]		PHYS 2125 Physics Laboratory I[2] [3] [8]	1

	COMM 1311 Survey of Oral and Technology-based Communication[2]	3	or PHYS 2121 Honors Physics Lab I[3,8]	
	UNIV 1010 Freshman Seminar[1]	0	ARTS 1301 Exploration of the Arts[2]	3
	NATS 1101 Natural Sciences and Mathematics Freshman Seminar[1]	1		
		14		14-15

	Fall Semester	SCH	Spring Semester	SCH
SOPHOMORE	GOVT 2305 American National Government[2]	3	GOVT 2306 State and Local Government[2]	3
	MATH 2418 Linear Algebra[7]	4	MATH 2420 Differential Equations with Applications[7]	4
	PHYS 2326 Electromagnetism and Waves[2,3,8,11]	3-4	MATH 3310 Theoretical Concepts of Calculus	3
	or PHYS 2422 Honors Physics II - Electromagnetism and Waves[2,3,8,11]		MATH 2451 Multivariable Calculus with Applications[7]	4
	PHYS 2126 Physics Laboratory II[3,8]	1	PSY 2301 Introduction to Psychology[2]	3
	RHET 1302 Rhetoric[2]	3		
		14-15		17

	Fall Semester	SCH	Spring Semester	SCH
JUNIOR	MATH 3311 Abstract Algebra I	3	MATH 3312 Abstract Algebra II	3
	MATH 4334 Numerical Analysis	3	MATH 3379 Complex Variables	3
	Free Elective	6	Free Elective	9
	HUMA 1301 Exploration of the Humanities[2]	3		
		15		15

	Fall Semester	SCH	Spring Semester	SCH
SENIOR	MATH 4301 Mathematical Analysis I	3	MATH 4302 Mathematical Analysis II	3
	MATH 3380 Differential Geometry	3	MATH 4341 Topology	3
	STAT 4351 Probability	3	MATH Guided Elective[9]	3
	Elective	6	Elective	5-7
		15		14-16

NOTES:

1 Incoming freshmen must enroll and complete requirements of UNIV 1010 and the corresponding school-related freshman seminar course. Students, including transfer students, who complete their core curriculum at UT Dallas must take UNIV 2020.

2	Curriculum Requirements can be fulfilled by other approved courses from institutions of higher education. The courses listed are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at UT Dallas.
3	A required Major course that also fulfills Core Curriculum requirements. If semester credit hours are counted in the Core Curriculum, students must complete additional coursework to meet the minimum requirement for graduation. Course selection assistance is available from the undergraduate advisor.
4	Three semester credit hours of Calculus are counted to fulfill the Mathematics Core Requirement with the remaining five semester credit hours to be counted under Component Area Option Core.
5	MATH 2417 and MATH 2419 requirements can be fulfilled by completing MATH 2413, MATH 2414, and MATH 2415.
6	
7	Indicates a prerequisite class to be completed before enrolling in upper-division classes.
8	Six semester credit hours of Physics or Chemistry are counted under Science core, and one semester credit hour of Physics (PHYS 2125) is counted under Component Area Core.
9	Approval of Mathematics department advisor required.
10	PHYS 2421 Honors Physics I may be electively substituted for PHYS 2325. (Requires a minimum grade of B+ in either MATH 2413 or MATH 2417)
11	PHYS 2422 Honors Physics II may be electively substituted for PHYS 2326.

Needed prerequisites are satisfied if above degree program is followed in the sequence as indicated. Otherwise please see the catalog for prerequisite requirements.

51 Hours of upper division courses (course numbers beginning with 3 or greater) are required for all degrees.

Be sure to check prerequisites of Level 2 courses

120 semester credit hours required for graduation

Research Experiences for Undergraduates (REUs) during the summer are highly recommended for Mathematics majors planning to continue their education in graduate school, whether in Mathematics or another discipline. Formal REU programs exist at many universities, national laboratories, and even overseas, and usually offer a stipend typical of a graduate teaching assistantship. Announcements for REU programs usually appear online in December and application deadlines usually range from late January to early March. Requirements vary, but students are often eligible if they have completed their freshman year.

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Mathematics with Applied Mathematics Specialization (BS)

Degree Requirements (120 semester credit hours)

Four-Year Degree Plan (Example)

This is an example only. Please see your advisor to develop your individual plan.

	Fall Semester	SCH	Spring Semester	SCH
FRESHMAN	HIST 1301 U.S. History Survey to Civil War[2,8]	3	HIST 1302 U.S. History Survey from the Civil War[2,8]	3
	MATH 2417 Calculus I[2,3,4,5]	4	MATH 2419 Calculus II[3,4,5]	4
	MATH 2370 Introduction to Programming with MATLAB	3	PHYS 2325 Mechanics[2,3,8,10]	3-4
	or CS 1325 Introduction to Programming I[7]		or PHYS 2421 Honors Physics I - Mechanics and Heat[2,3,8,10]	
	or CS 1337 Computer Science I[7]		PHYS 2125 Physics Laboratory I[2,3,8]	1
	COMM 1311 Survey of Oral and Technology-based Communication[2]	3	or PHYS 2121 Honors Physics Lab I[3,8]	
	UNIV 1010 Freshman Seminar[1]	0	ARTS 1301 Exploration of the Arts[2]	3
	NATS 1101 Natural Sciences and Mathematics Freshman Seminar[1]	1		
		14		14-15

	Fall Semester	SCH	Spring Semester	SCH
SOPHOMORE	GOVT 2305 American National Government[2]	3	GOVT 2306 State and Local Government[2]	3
	MATH 2418 Linear Algebra[7]	4	MATH 2420 Differential Equations with Applications[7]	4
	PHYS 2326 Electromagnetism and Waves[2,3,8,11]	3-4	MATH 3310 Theoretical Concepts of Calculus	3
	or PHYS 2422 Honors Physics II - Electromagnetism and Waves[2,3,8,11]		MATH 2451 Multivariable Calculus with Applications[7]	4
	PHYS 2126 Physics Laboratory II[3,8]	1	PSY 2301 Introduction to Psychology[2]	3
	RHET 1302 Rhetoric[2]	3		
		14-15		17

	Fall Semester	SCH	Spring Semester	SCH
JUNIOR	MATH 3311 Abstract Algebra I	3	MATH 4362 Partial Differential Equations	3
	MATH 4334 Numerical Analysis	3	MATH 3379 Complex Variables	3
	Free Elective	6	Free Elective	9
	HUMA 1301 Exploration of the Humanities[2]	3		
		15		15
	Fall Semester	**SCH**	**Spring Semester**	**SCH**
SENIOR	MATH 4301 Mathematical Analysis I	3	MATH 4302 Mathematical Analysis II	3
	MATH 4341 Topology	3	MATH 4355 Methods of Applied Mathematics	3
	STAT 4351 Probability	3	STAT 4382 Stochastic Processes	3
	Free Elective	6	Free Elective	5-7
		15		14-16

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5	MATH 2417 and MATH 2419 requirements can be fulfilled by completing MATH 2413, MATH 2414, and MATH 2415.
6	
7	Indicates a prerequisite class to be completed before enrolling in upper-division classes.
8	Six semester credit hours of Physics or Chemistry are counted under Science core, and one semester credit hour of Physics or Chemistry (PHYS 2125 or CHEM 1111) is counted under Component Area Core.
9	Approval of Mathematics department advisor required.
10	PHYS 2421 Honors Physics I may be electively substituted for PHYS 2325. (Requires a

	minimum grade of B+ in either MATH 2413 or MATH 2417)
11	PHYS 2422 Honors Physics II may be electively substituted for PHYS 2326.

Needed prerequisites are satisfied if above degree program is followed in the sequence as indicated. Otherwise please see the catalog for prerequisite requirements.

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Be sure to check prerequisites of Level 2 courses

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Mathematics with Statistics Specialization (BS)

Degree Requirements (120 semester credit hours)

Four-Year Degree Plan (Example)

This is an example only. Please see your advisor to develop your individual plan.

	Fall Semester	SCH	Spring Semester	SCH
FRESHMAN	HIST 1301 U.S. History Survey to Civil War[2 8]	3	HIST 1302 U.S. History Survey from the Civil War[2 8]	3
	MATH 2417 Calculus I[2 3 4 5]	4	MATH 2419 Calculus II[3 4 5]	4
	MATH 2370 Introduction to Programming with MATLAB	3	PHYS 2325 Mechanics[2 3 8 10]	3-4
	or CS 1325 Introduction to Programming I[7]		or CHEM 1311 General Chemistry I[2 3 8]	
	or CS 1337 Computer Science I[7]		or PHYS 2421 Honors Physics I -	

			Mechanics and Heat[2 3 8 10]	
	COMM 1311 Survey of Oral and Technology-based Communication[2]	3	PHYS 2125 Physics Laboratory I[2 3 8]	
	UNIV 1010 Freshman Seminar[1]	0	or CHEM 1111 General Chemistry Lab I[2 3 8]	1
	NATS 1101 Natural Sciences and Mathematics Freshman Seminar[1]	1	or PHYS 2121 Honors Physics Lab I[3 8]	
			ARTS 1301 Exploration of the Arts[2]	3
		14		14-15
SOPHOMORE	**Fall Semester**	**SCH**	**Spring Semester**	**SCH**
	GOVT 2305 American National Government[2]	3	GOVT 2306 State and Local Government[2]	3
	MATH 2418 Linear Algebra[7]	4	MATH 2420 Differential Equations with Applications[7]	4
	PHYS 2326 Electromagnetism and Waves[2 3 8 11]	3-4	MATH 3310 Theoretical Concepts of Calculus	3
	or CHEM 1312 General Chemistry II[2 3 8]		MATH 2451 Multivariable Calculus with Applications[7]	4
	or PHYS 2422 Honors Physics II - Electromagnetism and Waves[2 3 8 11]		PSY 2301 Introduction to Psychology[2]	3
	PHYS 2126 Physics Laboratory II[3 8]	1		
	or CHEM 1112 General Chemistry Lab II[3 8]			
	RHET 1302 Rhetoric[2]			
		14-15		17
JUNIOR	**Fall Semester**	**SCH**	**Spring Semester**	**SCH**
	MATH 3311 Abstract Algebra I	3	MATH 3379 Complex Variables	3
	MATH 4334 Numerical Analysis	3	STAT 3355 Data Analysis for Statisticians and Actuaries	3
	Free Elective	6	Free Elective	9
	HUMA 1301 Exploration of the Humanities[2]	3		
		15		15
S	**Fall Semester**	**SCH**	**Spring Semester**	**SCH**

SENIOR	MATH 4301 Mathematical Analysis I	3	MATH 4302 Mathematical Analysis II	3
	STAT 4351 Probability	3	STAT 4352 Mathematical Statistics	3
	STAT Guided Elective[9]	3	STAT 4382 Stochastic Processes	3
	Free Elective	6	Free Elective	5-7
		15		**14-16**

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