



Bachelor of Science (BS)
Mathematics
Applied Mathematics

2025-2026

		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes	
FIRST YEAR	FALL	3	Choose 1	Communication	C	010	For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	See General Education Core for more details Options: ENGL 1301	
		4	MATH 2413	Calculus I	C	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	Prerequisite for MATH 2412: MATH 1314/1414 with a grade of "C" or better or passing Exemption Test administered by Department of Mathematics	
		3	Choose 1	American History		060		See General Education Core for more details. Options: HIST 1301 or HIST 2327	
		3	CSCI 1380	Introduction to Programming in Python		090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.		
		3	Choose 1	Creative Arts		050		See General Education Core for course options.	
			UNIV	1301 Learning Framework 1101 Academic and Career Success 1001/1300 Living and Working by Design				As required, based on a number of factors such as credit hours earned, TSI status, high school rank, major declaration, etc.	
	16 Semester Total Hours								
FIRST YEAR	SPRING	3	Choose 1	Communication	C	010	For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	See General Education Core for more details Options: ENGL 1302 or ENGL 1305	
		4	MATH 2414	Calculus II	C		MATH 2413 (or MATH 2487) with a grade of 'C' or better.		
		3	MATH 2318	Linear Algebra	C		MATH 2413 (or MATH 2487) with a grade of 'C' or better.		
		3	Choose 1	American History		060		See General Education Core for more details. Options: HIST 1302 or HIST 2328	
		3	ECON 1301 or ECON 2301	Introduction to Economics or Principles of Macroeconomics		080			
16 Semester Total Hours									
		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes	
SECOND YEAR	FALL	3	MATH 3341	Differential Equations	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.		
		4	MATH 2415	Calculus III	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.		
		3	POLS 2305	U.S. Federal Government & Politics		070		See General Education Core for more details	
		4	PHYS 2425	Physics for Scientists and Engineers I		030/ 090	MATH 2413		
		3	Choose 1	Language, Philosophy & Culture		040		See General Education Core for course options.	
	17 Semester Total Hours								
	SECOND YEAR	SPRING	3	MATH 3343	Introduction to Mathematical Software	C		MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better.	
3			MATH 3350	Introduction to Mathematical Proof	C		MATH 2318 with a grade of 'C' or better.		
3			POLS 2306	Texas Government & Politics		070		See General Education Core for more details	
1			Choose 1	Integrative/Experiential Learning Option		090		See General Education Core for course options.	
4			PHYS 2426	Physics for Scientists and Engineers II		030/ 090	PHYS 2425 and MATH 2414.		
14 Semester Total Hours									

The 2024-2026 list of core courses can be found in the 2024-2026 Undergraduate Catalog: www.utrgv.edu/catalog > See 'Bachelors Degree Program Regulations'

Symbols Key

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.
Bolded Course #: Program Admission Requirement

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Applied Communication and Literacies; 090 - Humanities; 090 - Leadership; 090 - Science Labs; 090 - Interdisciplinary; 090 - Technologies; 090 - Language Diversity & Writing.

		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL	3	MATH 3363	Modern Algebra I	C		MATH 2318 and MATH 3350, each with a grade of 'C' or better.	
		3	MATH 3352	Modern Geometry I	C		MATH 2318 with a grade of 'C' or better.	
		3	STAT 3301	Applied Statistics	C		MATH 2413 with a grade of 'C' or better.	
		3	MATH 3345	Linear Optimization	C		MATH 2318 with a grade of 'C' or better.	
		3	X3XX 43XX	Free Elective				Recommended: MATH 4344, MATH 4342, or MATH 4346
	15 Semester Total Hours							
	SPRING	3	MATH 3372	Real Analysis I	C		MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better.	
		3	STAT 3337	Probability and Statistics	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		3	MATH 3349	Numerical Methods	C		MATH 2414 (or MATH 2488) and MATH 3343, each with a grade of 'C' or better.	
		3	MATH 4344	Boundary Value Problems	C		MATH 3341 or MATH 2321 with a grade of 'C' or better.	
		3	X3XX 43XX	Free Elective				Recommended: MATH 4344, MATH 4342, or MATH 4346
	15 Semester Total Hours							
FOURTH YEAR	FALL	3	MATH 4390	Mathematics Project	C		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.	
		3	MATH 3361	Applied Discrete Mathematics	C		MATH 2318 with a grade of 'C' or better.	
		3	MATH 4342	Complex Variables	C		MATH 2415 with a grade of 'C' or better.	
		3	X3XX-43XX	Free Elective				
		3	X3XX-43XX	Free Elective				Recommended: MATH 4344, MATH 4342, or MATH 4346
	15 Semester Total Hours							
	SPRING	3	MATH 3347	Elementary Cryptology	C		MATH 2318 with a grade of 'C' or better.	
		3	MATH 4346	Integral Transforms	C		MATH 2415 and either MATH 3341 or MATH 2321, both with a grade of 'C' or better.	
		3	X3XX-43XX	Free Elective				
		3	X3XX-43XX	Free Elective				
	12 Semester Total Hours							

120 TOTAL HOURS

(42) Advanced minimum credit hours

Revised: Tuesday, February 18th, 2025