The University of Texas Rio Grande Valley

Bachelor of Science (BS) Mathematics

Wathematics

Science and Engineering

	Н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes			
	3	Choose 1	Communication	с	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	с	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	Prerequiste 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			
FALI	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.			
T YEAR		UNIV	1301 Learning Framework 1101 Academic and Career Success 1001 Living and Working by Design				As required, based on credit hours earned, TSI status, High school rank, major declaration			
FIRS'	16 Semester Total Hours									
	3	Choose 1	Communication	с	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	с		MATH 2413 (or MATH 2487) with a grade of 'C' or better.				
RING	3	MATH 2318	Linear Algebra	с		MATH 2413 (or MATH 2487) with a grade of 'C' or better.				
S	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									
	н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes			
	н 3	Course # MATH 3341	Course Trile Differential Equations	Min. Grade C		Prerequisite MATH 2414 (or MATH 2488) with a grade of 'C' or better.	Additional Notes			
	_			Grade			Additional Notes			
ALL	3	MATH 3341	Differential Equations	Grade		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	Additional Notes See General Education Core for more details			
FALL	3	MATH 3341 MATH 2415	Differential Equations Calculus III	Grade		MATH 2414 (or MATH 2488) with a grade of 'C' or better.				
FALL	3 4 3	MATH 3341 MATH 2415 POLS 2305	Differential Equations Calculus III U.S. Federal Government & Politics	Grade	070 030/	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) with a grade of 'C' or better.				
YEAR FALL	3 4 3 4 3	MATH 3341 MATH 2415 POLS 2305 PHYS 2425	Differential Equations Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I	Grade	070 030/ 090	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) with a grade of 'C' or better.	See General Education Core for more details			
ECOND YEAR FALL	3 4 3 4 3	MATH 3341 MATH 2415 POLS 2305 PHYS 2425 Choose 1	Differential Equations Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I	Grade	070 030/ 090 040	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) with a grade of 'C' or better.	See General Education Core for more details			
SECOND YEAR FALL	3 4 3 4 3 17 5	MATH 3341 MATH 2415 POLS 2305 PHYS 2425 Choose 1 Semester Total Hours	Differential Equations Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I Language, Philosophy & Culture	Grade C C	070 030/ 090 040	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2413	See General Education Core for more details			
SECOND YEAR NG FALL	3 4 3 4 3 17 3	MATH 3341 MATH 2415 POLS 2305 PHYS 2425 Choose 1 Semester Total Hours MATH 3352	Differential Equations Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I Language, Philosophy & Culture Modern Geometry I	Grade C C C C C	070 030/ 090 040	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2413 MATH 2318 with a grade of 'C' or better.	See General Education Core for more details			
SECOND YEAR SPRING FALL	3 4 3 4 3 17 5 3 3	MATH 3341 MATH 2415 POLS 2305 PHYS 2425 Choose 1 Semester Total Hours MATH 3352 MATH 3350	Differential Equations Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I Language, Philosophy & Culture Modern Geometry I Introduction to Mathematical Proof	Grade C C C C C	070 030/ 090 040	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2413 MATH 2318 with a grade of 'C' or better.	See General Education Core for more details See General Education Core for course options.			
SECOND YEAR SPRING FALL	3 4 3 4 3 3 17 5 3 3 3 3	MATH 3341 MATH 2415 POLS 2305 PHYS 2425 Choose 1 Semester Total Hours MATH 3352 MATH 3350 POLS 2306	Differential Equations Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I Language, Philosophy & Culture Modern Geometry I Introduction to Mathematical Proof Texas Government & Politics	Grade C C C C C	070 030/ 090 040	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2413 MATH 2318 with a grade of 'C' or better.	See General Education Core for more details See General Education Core for course options. See General Education Core for more details			

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; 1090 - Technologies; 090 - Language Diversity & Writing.

2024-2026

	н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes				
	3	MATH 3363	Modern Algebra I	С		MATH 2318 and MATH 3350, each with a grade of 'C' or better.					
	3	13XX-43XX	Science and Engineering Concentration - Elective				See Degree Plan for options.				
E AL I	3	33XX-43XX	Science and Engineering Concentration - Advanced Elective				See Degree Plan for options.				
	3	33XX-43XX	Science and Engineering Concentration - Advanced Elective				See Degree Plan for options.				
ъ	3	X3XX 43XX	Free Elective								
THIRD YEAR	15 Semester Total Hours										
THIR	3	MATH 3372	Real Analysis I	С		MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of $^{\rm 'C'}$ or better.					
	3	STAT 3337	Probability and Statistics	С		MATH 2414 (or MATH 2488) with a grade of 'C' or better.					
INC	3	33XX-43XX	Science and Engineering Concentration - Advanced Elective				See Degree Plan for options.				
UNIACS	3	33XX-43XX	Science and Engineering Concentration - Advanced Elective				See Degree Plan for options.				
	3	X3XX 43XX	Free Elective								
	15 Semester Total Hours										
		Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes				
	3	MATH 4390	Mathematics Project	С		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.					
	3	33XX-43XX	Science and Engineering Concentration - Advanced Elective				See Degree Plan for options.				
FAL I	3	33XX-43XX	Science and Engineering Concentration - Advanced Elective				See Degree Plan for options.				
	3	X3XX 43XX	Free Elective								
EAR	3	X3XX 43XX	Free Elective								
FOURTH YEAR	15 Semester Total Hours										
FOU	3	33XX-43XX	Science and Engineering Concentration - Advanced Elective				See Degree Plan for options.				
SPRINC	3	13XX-43XX	Science and Engineering Concentration - Elective				See Degree Plan for options.				
	3	X3XX 43XX	Free Elective								
	3	X3XX 43XX	Free Elective								
	12 Semeste	12 Semester Total Hours									

120 TOTAL HOURS

(42) Advanced minimum credit hours

Revised: Wednesday, October 10th, 2024