## The University of Texas RioGrande Valley

Bachelor of Science (BS) Mathematics

Pure Math

	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
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 Living and Working by Design				As required, based on credit hours earned, TSI status, High school ran major declaration
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.	
3	MATH 2318	Linear Algebra	с		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					
н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
3	MATH 3341				MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		Differential Equations	С		WATT 2414 (of WATT 2400) With a grade of C of better.	
4	MATH 2415	Differential Equations Calculus III	c		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
4	MATH 2415 POLS 2305	· ·		070		See General Education Core for more details
		Calculus III		070 030/ 090		See General Education Core for more details
3	POLS 2305	Calculus III U.S. Federal Government & Politics		030/	MATH 2414 (or MATH 2488) with a grade of 'C' or better.	See General Education Core for more details See General Education Core for course options.
3 4 3	POLS 2305 PHYS 2425	Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I		030/ 090	MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
3 4 3	POLS 2305 PHYS 2425 Choose 1	Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I		030/ 090	MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
3 4 3 17	POLS 2305 PHYS 2425 Choose 1 Semester Total Hours	Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I Language, Philosophy & Culture	C	030/ 090	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2413	
3 4 3 <b>17</b> 3	POLS 2305 PHYS 2425 Choose 1 Semester Total Hours MATH 3352	Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I Language, Philosophy & Culture Modern Geometry I	C	030/ 090	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2413 MATH 2318 with a grade of 'C' or better.	
3 4 3 17 3 3	POLS 2305 PHYS 2425 Choose 1 Semester Total Hours MATH 3352 MATH 3350	Calculus III U.S. Federal Government & Politics Physics for Scientists and Engineers I Language, Philosophy & Culture Modern Geometry I Introduction to Mathematical Proof	C	030/ 090 040	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 course options.
3 4 3 17 3 3 3	POLS 2305 PHYS 2425 Choose 1 Semester Total Hours MATH 3352 MATH 3350 POLS 2306	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	C	030/ 090 040 070 070	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 course options.

## 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.

## 2024-2026

	H 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 MATH 3365	Number Theory	с		MATH 2318 and MATH 3350, each with a grade of "C" or better.							
-ALL	3 MATH 4342	Complex Variables	с		MATH 2415 with a grade of 'C' or better.							
	3 MATH 33XX	Advanced Mathematics Electives	С		MATH 2318 with a grade of 'C' or better.	See Degree Plan for Options.						
	3 X3XX 43XX	Free Elective				Recommended: MATH 3343						
YEAR	15 Semester Total Hours											
THIRG	3 MATH 3372	Real Analysis I	с		MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better.							
	3 STAT 3337	Probability and Statistics	с		MATH 2414 (or MATH 2488) with a grade of 'C' or better.							
RING	3 MATH 3349	Numerical Methods	с		MATH 2414 (or MATH 2488) and MATH 3343, each with a grade of 'C' or better.							
SP	3 MATH or STAT 43XX	Advanced Mathematics or Statistics Elective	с									
	3 X3XX 43XX	Free Elective				Recommended: MATH 33XX or 43XX						
	15 Semester Total Hours											
	15 Semester Total Hours											
	15 Semester Total Hours H Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes						
		Course Title Mathematics Project	Min. Grade C		Prerequisite Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.	Additional Notes						
	H Course #				Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363,	Additional Notes						
	H Course #	Mathematics Project	с		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.	Additional Notes						
FALL	H         Course #           3         MATH 4390           3         MATH 4355	Mathematics Project Topology	c c		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.	Additional Notes						
FALL	H         Course #           3         MATH 4390           3         MATH 4355           3         MATH or STAT 43XX	Mathematics Project Topology Advanced Mathematics or Statistics Elective	c c		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.							
H YEAR FALL	H         Course #           3         MATH 4390           3         MATH 4355           3         MATH or STAT 43XX           3         X3XX-43XX	Mathematics Project Topology Advanced Mathematics or Statistics Elective Free Elective	c c		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.	Recommended: MATH 33XX or 43XX						
FOURTH YEAR	H         Course #           3         MATH 4390           3         MATH 4355           3         MATH or STAT 43XX           3         X3XX-43XX           3         X3XX 43XX	Mathematics Project Topology Advanced Mathematics or Statistics Elective Free Elective	c c		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.	Recommended: MATH 33XX or 43XX						
FOURTH YEAR FALL	H     Course #       3     MATH 4390       3     MATH 4355       3     MATH or STAT 43XX       3     X3XX-43XX       3     X3XX 43XX       15     Semester Total Hours	Mathematics Project Topology Advanced Mathematics or Statistics Elective Free Elective Free Elective	C C C		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372. MATH 2414 and MATH 3350, each with a grade of 'C' or better.	Recommended: MATH 33XX or 43XX Recommended: MATH 33XX or 43XX						
FALL	H     Course #       3     MATH 4390       3     MATH 4355       3     MATH or STAT 43XX       3     X3XX-43XX       3     X3XX 43XX       15     Semester Total Hours       3     MATH 43XX	Mathematics Project Topology Advanced Mathematics or Statistics Elective Free Elective Free Elective Advanced Mathematics Electives	C C C C C		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372. MATH 2414 and MATH 3350, each with a grade of 'C' or better.	Recommended: MATH 33XX or 43XX Recommended: MATH 33XX or 43XX See Degree Plan for Options.						
FOURTH YEAR SPRING FALL	H     Course #       3     MATH 4390       3     MATH 4355       3     MATH or STAT 43XX       3     X3XX-43XX       3     X3XX 43XX       15     Semester Total Hours       3     MATH 43XX       3     MATH 43XX	Mathematics Project         Topology         Advanced Mathematics or Statistics Elective         Free Elective         Free Elective         Advanced Mathematics Electives         Advanced Mathematics Electives	C C C C C C C C C C C C C C C C C C C		Pre- or co-requisite in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372. MATH 2414 and MATH 3350, each with a grade of 'C' or better.	Recommended: MATH 33XX or 43XX         Recommended: MATH 33XX or 43XX         See Degree Plan for Options.         See Degree Plan for Options.         See Degree Plan for Options.						

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120 TOTAL HOURS

(42) Advanced minimum credit hours

Revised: Wednesday, October 10th, 2024