

Bachelor of Science (BS) Mathematics

Concentration: Pure Mathematics

2023-2024

• н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
3	Choose 1	Communication (Core)	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 (Core)		060		See General Education Core for more details. Options: HIST 1301 or HIST 2327
3	CSCI 1380	Computer Science I		090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.	
3	Choose 1	Creative Arts (Core)		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 rank, major declaration
16	Semester Total Hours					
3	Choose 1	Communication (Core)	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 with a grade of 'C' or better.	
i 3	MATH 2318	Linear Algebra	С		MATH 2413 with a grade of 'C' or better.	
3	Choose 1	American History (Core)		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
! 4	MATH 2415	Calculus III	С		MATH 2414 with a grade of 'C' or better.	
! 3	MATH 3341	Differential Equations	С		MATH 2414 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 and concurrent enrollment in MATH 2414.	
3	Choose 1	Language, Philosophy & Culture (Core)		040		See General Education Core for course options.
17	Semester Total Hours					
3	MATH 3352	Modern Geometry I	С		MATH 2318 with a grade of 'C' or better.	
! 3	MATH 3350	Introduction to Mathematical Proof	С		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 (Core)		090		See General Education Core for course options.
	PHYS 2426	Physics for Scientists and Engineers II		030/090	PHYS 2425.	
4	11113 2420				11113 2-123.	

CORE: The 2023-2024 list of core courses can be found in the 2023-2024 Undergraduate Catalog: www.utrgv.edu/smartcatalog > Bachelors Degree Regulations and Graduation Policies > 'Core Curriculum'

Symbols Key

Critical ('!'): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

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.

	Н	Course #	Course Title	Min. GEC Grade	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.	
FALL	3	MATH 4342	Complex Variables	С	MATH 2415 with a grade of 'C' or better.	
	3	MATH 3345 or MATH 3361	Advanced Mathematics Electives	С	MATH 2318 with a grade of 'C' or better.	
1R	3	X3XX X3XX	Free Elective			
IRD YEA	15	Semester Total Hours				
王	3	MATH 3372	Real Analysis I	С	MATH 2414 and MATH 3350, each with a grade of 'C' or better.	
	3	STAT 3337	Probability and Statistics	С	MATH 2414 with a grade of 'C' or better.	
PRING	3	MATH 3349	Numerical Methods	С	MATH 2414 and MATH 3343, each with a grade of 'C' or better.	
S	3	MATH 43XX	Advanced Mathematics Elective	С		See Degree Plan for course options. Choose one: MATH 4359, MATH 4364, MATH 4367, MATH 4373
	3	X3XX 43XX	Free Elective			
	15	Semester Total Hours	,	1		
	Н	Course #	Course Title	Min. GEC Grade	Prerequisite	Additional Notes
	3	MATH 4390	Mathematics Project	С	MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better.	
	3	MATH 4355	Topology	С	MATH 2414 and MATH 3350, each with a grade of 'C' or better.	
FALL	3	MATH 43XX	Advanced Mathematics Elective	С		See Degree Plan for course options. Choose one: MATH 4359, MATH 4364, MATH 4367, MATH 4373
œ	3	X3XX-43XX	Free Elective			
JURTH YEA	3	X3XX 43XX	Free Elective			
5	15	Semester Total Hours				
	3	MATH 43XX	Major Advanced Elective	С		See Degree Plan for course options. (MATH or STAT) courses not used to fulfill other requirements.
9	3	MATH 43XX	Major Advanced Elective	С		See Degree Plan for course options. (MATH or STAT) courses not used to fulfill other requirements.
SPRIN	3	X3XX-43XX	Free Elective			
	3	X3XX 43XX	Free Elective			
	12	Semester Total Hours				

Major Graduation Requirements:

Major requirements must be completed with a minimum grade of "C" and a minimum GPA of 2.5.

120 TOTAL HOURS

(42) Advanced minimum credit hours

Approved: Wednesday, March 22, 2023

Revised: Wednesday, March 22, 2023