



**Bachelor of Science (BS)**  
**Physics**  
*Minor Required*

**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.	
		3	Choose 1	American History		060		See General Education Core for more details. Options: HIST 1301 or HIST 2327
		3	PHYS 1311	Learning to be a Physicist				Physics core requirement.
			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.
	13 Semester Total Hours							
	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.	
		4	PHYS 2425	Physics for Scientists and Engineers I		030/ 090	MATH 2413.	
		3	Choose 1	American History		060		See General Education Core for more details. Options: HIST 1302 or HIST 2328
		3	CSCI 1380	Introduction to Programming in Python		090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.	
	17 Semester Total Hours							
SECOND YEAR	FALL	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
		4	MATH 2415	Calculus III			MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		4	PHYS 2426	Physics for Scientists and Engineers II		030/ 090	PHYS 2425 and MATH 2414.	
		3	POLS 2305	U.S. Federal Government & Politics		070		See General Education Core for more details
		3	Minor Course	Minor Course				See Minor for course options.
		3	PHYS 2327	Physics for Scientists and Engineers III			PHYS 2425 (or PHYS 2411). Students may take this course concurrently with PHYS 2426.	
	17 Semester Total Hours							
	SPRING	3	MATH 3341	Differential Equations			MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		3	Minor Course	Minor Course				See Minor for course options.
		4	PHYS 3402	Modern Physics			PHYS 2426 (or PHYS 2412) and PHYS 2327 (or PHYS 2313).	Physics core requirement. Only offered in the Spring Semester.
		3	POLS 2306	Texas Government & Politics		070		See General Education Core for more details
		3	Choose 1	Creative Arts		050		See General Education Core for course options.
	16 Semester Total Hours							

The 2024-2026 list of core courses can be found in the 2024-2026 Undergraduate Catalog: [www.utrgv.edu/catalog](http://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	PHYS 3303	Thermodynamics			MATH 2415 and PHYS 2426 and PHYS 2327.	Physics core requirement.
		3	PHYS 4306 or 4101	Advanced Physics Lab or Laboratory Research			PHYS 3402.	Choose either PHYS 4306 or 4101. PHYS 4101 to be taken three times with consent of an instructor.
		4	PHYS 3411	Math Methods in Physics I			MATH 3341.	Physics core requirement.
		3	PHYS 3305	Classical Mechanics			PHYS 2426 and MATH 2415.	Physics core requirement.
		3	Minor Course	Minor Course				See Minor for course options.
	16 Semester Total Hours							
	SPRING	4	PHYS 3412	Math Methods in Physics II			PHYS 3411 or PHYS 3311	Physics core requirement.
		3	PHYS 4305	Statistical Mechanics			PHYS 3303 and [PHYS 3411 or PHYS 3311].	Physics core requirement.
		3	Choose 1	Language, Philosophy & Culture		040		See General Education Core for course options.
		3	Choose 1	Social and Behavioral Sciences		080		See General Education Core for course options.
		3	Minor Course	Minor Course				See Minor for course options.
16 Semester Total Hours								
		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FOURTH YEAR	FALL	3	PHYS 4303	Quantum Mechanics I			PHYS 3305 and [PHYS 3411 or PHYS 3311].	Physics core requirement.
		3	PHYS 3304	Optics			MATH 2415 and PHYS 2426 (or PHYS 2412) and PHYS 2327 (or PHYS 2313).	Physics core requirement. Only offered in the Spring Semester.
		3	Minor Course	Minor Course				See Minor for course options.
		3	PHYS 3301	Electromagnetic Theory I			MATH 2415 and either PHYS 2426 or PHYS 2412.	Physics core requirement.
	12 Semester Total Hours							
	SPRING	3	PHYS 3302	Electromagnetic Theory II			PHYS 3301.	Physics core requirement.
		1	Choose 1	Integrative/Experiential Learning Option		090		See General Education Core for course options.
		3	PHYS 4304	Quantum Mechanics II			PHYS 4303.	Physics core requirement.
		3	PHYS 4300	Undergraduate Research Project			Senior standing in the Physics Degree Program and consent of a supervising faculty member.	Capstone.
		3	Minor Course	Minor Course				See Minor for course options.
	13 Semester Total Hours							

120 TOTAL HOURS

(42) Advanced minimum credit hours

Revised: Tuesday, February 18th, 2025