

	I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes	
FIRST YEAR	FALL	3	Choose 1	Communication (Core)	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. <b>Options: ENGL 1301</b>	
		4	MATH 2413	Calculus I (Core)	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 (Core)		060		See General Education Core for more details. <b>Options: HIST 1301 or HIST 2327</b>	
		3	PHYS 1311	Learning to be a Physicist				Physics core requirement.	
			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.	
<b>13 Semester Total Hours</b>									
FIRST YEAR	SPRING	3	Choose 1	Communication (Core)	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. <b>Options: ENGL 1302 or ENGL 1305</b>	
		4	MATH 2414	Calculus II	C		MATH 2413 with a grade of 'C' or better.		
		4	PHYS 2425	Physics for Scientists and Engineers I (Core)		030/090	MATH 2413 and concurrent enrollment in MATH 2414.		
		3	Choose 1	American History (Core)		060		See General Education Core for more details. <b>Options: HIST 1302 or HIST 2328</b>	
		3	CSCI 1380	Computer Science I		090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.		
<b>17 Semester Total Hours</b>									
SECOND YEAR	FALL	4	MATH 2415	Calculus III			MATH 2414 with a grade of 'C' or better.		
		4	PHYS 2426	Physics for Scientists and Engineers II (Core)		030/090	PHYS 2425.		
		3	POLS 2305	U.S. Federal Government & Politics (Core)		070		See General Education Core for more details.	
		3	Choose 1	Advanced Science Elective				See Degree Plan for course options.	
		3	PHYS 2327	Physics for Scientists and Engineers III			PHYS 2425. Students may take this course concurrently with PHYS 2426.		
	<b>17 Semester Total Hours</b>								
	SECOND YEAR	SPRING	3	MATH 3341	Differential Equations			MATH 2414 with a grade of 'C' or better.	
			3	Choose 1	Advanced Science Elective				See Degree Plan for course options.
			4	PHYS 3402	Modern Physics			PHYS 2426 and PHYS 2327.	Physics core requirement.
			3	POLS 2306	Texas Government & Politics (Core)		070		See General Education Core for more details.
3			Choose 1	Creative Arts (Core)		050		See General Education Core for course options.	
<b>16 Semester Total Hours</b>									

**CORE: The 2023-2024 list of core courses can be found in the 2023-2024 Undergraduate Catalog: [www.utrgv.edu/smartcatalog](http://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.

	I	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.	
			PHYS 4101	Laboratory Research			Consent of Instructor.	Not needed if PHYS 4306 taken.	
		4	PHYS 3411	Math Methods in Physics I			MATH 3341	Physics core requirement.	
		3	Choose 1	Advanced Science Elective				See Degree Plan for course options.	
		3	Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for course options.	
		3	PHYS 3305	Classical Mechanics			PHYS 2426 and MATH 2415.	Physics core requirement.	
<b>16 Semester Total Hours</b>									
SPRING		4	PHYS 3412	Math Methods in Physics II			PHYS 3411	Physics core requirement.	
		3	PHYS 4305	Statistical Mechanics			PHYS 3303 and PHYS 3411.		
		3	PHYS 4306 or PHYS 4101	Advanced Physics Lab or Laboratory Research			Consent of Instructor.	Choose either PHYS 4306 or 4101. PHYS 4101 to be taken three times.	
		3	Choose 1	Language, Philosophy & Culture (Core)		040		See General Education Core for course options.	
		3	PHYS 33XX-43XX	Advanced Physics Elective				See degree plan for course options.	
<b>16 Semester Total Hours</b>									
FOURTH YEAR	FALL	3	PHYS 4303	Quantum Mechanics I			PHYS 3305 and PHYS 3411.	Physics core requirement.	
			PHYS 4101	Laboratory Research			Consent of instructor.	Not needed if PHYS 4306 taken.	
		3	PHYS 33XX-43XX	Advanced Physics Elective				See Degree Plan for course options.	
		3	PHYS 3301	Electromagnetic Theory I			MATH 2415 and PHYS 2426.	Physics core requirement.	
		3	PHYS 33XX-43XX	Advanced Physics Elective				See degree plan for course options.	
	<b>12 Semester Total Hours</b>								
	SPRING		3	PHYS 3302	Electromagnetic Theory II			PHYS 3301.	Physics core requirement.
			1	Choose 1	Integrative/Experiential Learning Option (Core)		090		See General Education Core for course options.
			3	PHYS 4304	Quantum Mechanics II			PHYS 4303.	Physics core requirement.
			3	PHYS 3304	Optics			MATH 2415 and PHYS 2426 and PHYS 2327	Physics core requirement.
		3	PHYS 4300	Undergraduate Research Project			Senior standing in the Physics Degree Program and consent of a supervising faculty member.	Capstone	
<b>13 Semester Total Hours</b>									

**120 TOTAL HOURS**

**(42) Advanced minimum credit hours**

Approved: Thursday, March 23, 2023

Revised: Thursday, March 23, 2023