

		Concentration: Science and Engineering					Prerequisite	Additional Notes	
		I	H	Course #	Course Title	Min. Grade			GEC
FIRST YEAR	FALL		3	Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1301 or ENGL 1387 (H)
			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.	<b>Prerequisite for MATH 2412:</b> 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 1387 or HIST/MASC 2327
			3	Choose 1	Integrative/Experiential Learning Option (Core)		090		Recommended: CSCI 1380
			3	Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
				UNIV 1301	Learning Framework				Only if required, based on ACT/SAT and high school rank.
		<b>16 Semester Total Hours</b>							
	SPRING		3	Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305
			4	MATH 2414	Calculus II	C		MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
			3	MATH 2318	Linear Algebra	C		MATH 2413 (or MATH 2487) 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 1388 or HIST/MASC 2328
			3	Choose 1	Social and Behavioral Sciences (Core)		080		Recommended: ECON 1301 or ECON 2301
	<b>16 Semester Total Hours</b>								
SECOND YEAR	FALL		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
			4	MATH 2415	Calculus III	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
			3	MATH 3341	Differential Equations	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
			3	Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
			4	Choose 1	Life and Physical Sciences (Core)		030/090		Recommended: PHYS 2425
			3	Choose 1	Language, Philosophy & Culture (Core)		040		See General Education Core for course options.
		<b>17 Semester Total Hours</b>							
	SPRING		3	MATH 3352	Modern Geometry I	C		MATH 2318 with a grade of 'C' or better.	
			3	MATH 3350	Introduction to Mathematical Proof	C		MATH 2318 with a grade of 'C' or better.	
			3	Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)
			1	Choose 1	Integrative/Experiential Learning Option (Core)		090		See General Education Core for course options.
			4	Choose 1	Life and Physical Sciences (Core)		030/090		Recommended: PHYS 2426
		<b>14 Semester Total Hours</b>							

CORE: The 2018-2019 list of core courses can be found at: [www.utrgv.edu](http://www.utrgv.edu) > Academics > Undergraduate > General Education Core  
[www.utrgv.edu/core](http://www.utrgv.edu/core)

**Symbols Key**

**Critical ('I'):** 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.

**Language Proficiency Requirement:** Student is required to  
demonstrate language proficiency in a language other than  
English at the undergraduate level equivalent to a minimum  
of six credits.

	I	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL	3	MATH 3363	Modern Algebra I	c		MATH 2318 and MATH 3350, each with a grade of 'C' or better.	
		3	33XX-43XX	Major Advanced Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	33XX-43XX	Major Advanced Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	X3XX X3XX	Major Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	X3XX X3XX	Free Elective				
	15 Semester Total Hours							
	SPRING	3	MATH 3372	Real Analysis I	c		MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better.	
		3	STAT 3337	Probability and Statistics	c		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		3	33XX-43XX	Major Advanced Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	33XX-43XX	Major Advanced Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	X3XX X3XX	Free Elective				
	15 Semester Total Hours							
FOURTH YEAR	FALL	3	MATH 4390	Mathematics Project	c		MATH 2318, MATH 3350, and 9 additional advanced hours of MATH, all with grades of 'C' or better.	
		3	33XX-43XX	Major Advanced Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	33XX-43XX	Major Advanced Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	X3XX X3XX	Free Advanced Elective				
		3	X3XX X3XX	Free Elective				
	15 Semester Total Hours							
	SPRING	3	33XX-43XX	Major Advanced Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	X3XX X3XX	Major Elective				College of Sciences or College Engineering & Computer Science; excluding MATH, STAT or MATE
		3	33XX-43XX	Free Advanced Elective				
		3	XXXX X3XX	Free Elective				
	12 Semester Total Hours							

#### Graduation Requirements:

1. The student must complete all these major course requirements and all MATH and MATE courses with grades of 'C' or better and have a GPA for the major of 2.5 or better.
2. In addition to the graduation requirements listed in the UTRGV 2018-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV department of Writing and Language Studies, and/or to six credit hours of college-level language coursework.

**120 TOTAL HOURS**  
**(48) TOTAL ADVANCED HOURS**

Approved: Tuesday, April 3, 2018  
Revised: Thursday, July 5, 2018