

**Bachelor of Science (BS)  
Chemistry**

The 2026-2027 list of core courses can be found in the 2026-2027 Undergraduate Catalog: [www.utrgv.edu/catalog](http://www.utrgv.edu/catalog) > See 'Bachelors Degree Program Regulations'

Symbols Key												
Campus: B - Offered in Brownsville; E - Offered in Edinburg; O - Offered Online; T - Travel Required												
Bolded Course Number*: Program Admission Requirement												
Min Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.												
Core: 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;												
Core: 090 - Applied Communication and Literacies; Humanities; Leadership; Science Labs; Interdisciplinary; Technologies; Language Diversity & Writing												
Year	Semester	Credit Hours	Campus	Course Number	Course Title	Minimum Grade	Core	Prerequisite	Additional Notes			
1	Fall	3	B/E/O	Choose 1	Communication	C	010	Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301.	See General Education Core for more details Options: ENGL 1301			
1	Fall	3	B/E/O	CHEM 1311	General Chemistry I		030	MATH 1314, MATH 1414, MATH 1342, MATH 1343, MATH 2412, MATH 2413 with a grade of "C" or higher."	See General Education Core for more details.			
1	Fall	1	B/E	CHEM 1111	General Chemistry I Lab		090	Credit/registration in CHEM 1311	See General Education Core for more details.			
1	Fall	3	B/E/O	Choose 1	Support Courses Choose at least one:				Satisfies Major-Specific Requirement MATH 1314, MATH 1414, MATH 1342, MATH 1343			
1	Fall	4	B/E/O	PHYS 1401	General Physics I		090	MATH 1414, MATH 1314, MATH 2412, or MATH 2413.	One hour Integrative & Experiential Learning			
1	Fall		B/E/O	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.			
1	Fall	14		<b>Semester Total Hours</b>								
1	Spring	3	B/E/O	Choose 1	Communication	C	010	Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301.	See General Education Core for more details Options: ENGL 1302 or ENGL 1305			
1	Spring	3	B/E	CHEM 1312	General Chemistry II		030	CHEM 1311.	See General Education Core for more details.			
1	Spring	1	B/E	CHEM 1112	General Chemistry II Lab		090	Credit/registration in CHEM 1312.	See General Education Core for more details.			
1	Spring	4	B/E/O	PHYS 1402	General Physics II			PHYS 1401.	Satisfies Major-Specific Requirement.			
1	Spring	4	B/E/O	MATH 2412	PreCalculus			MATH 1314 or MATH 1414 with a grade of 'C' or better; or passing the College Algebra Exemption Test administered by the Department of Mathematics.	Satisfies Major-Specific Requirement.			
1	Spring	15		<b>Semester Total Hours</b>								
Year	Semester	Credit Hours	Campus	Course Number	Course Title	Minimum Grade	Core	Prerequisite	Additional Notes			
2	Fall	3	B/E	CHEM 2323	Organic Chemistry I			CHEM 1312.	Satisfies Major-Specific Requirement.			
2	Fall	1	B/E	CHEM 2123	Organic Chemistry I Lab			CHEM 1112.	Satisfies Major-Specific Requirement.			
2	Fall	3	B/E	CHEM 2301	Analytical Chemistry			CHEM 1312 and CHEM 1112.	Satisfies Major-Specific Requirement. Offered: Fall			
2	Fall	1	B/E	CHEM 2101	Analytical Chemistry Lab			CHEM 2301	Satisfies Major-Specific Requirement. Offered: Fall			
2	Fall	4	B/E/O	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.	Satisfies Major-Specific Requirement.			
2	Fall	3	B/E/O	Choose 1	American History		060		See General Education Core for more details. Options: HIST 1301 or HIST 2327			
2	Fall	15		<b>Semester Total Hours</b>								
2	Spring	3	B/E	CHEM 2325	Organic Chemistry II			CHEM 2323.	Satisfies Major-Specific Requirement.			
2	Spring	1	B/E	CHEM 2125	Organic Chemistry II Lab			CHEM 2325.	Satisfies Major-Specific Requirement.			
2	Spring	3	B/E	CHEM 3301	Inorganic Chemistry			12 hours of chemistry, including CHEM 2323.	Satisfies Major-Specific Requirement. Offered: Spring			
2	Spring	1	B/E	CHEM 3101	Inorganic Chemistry Lab			CHEM 3301.	Satisfies Major-Specific Requirement. Offered: Spring			
2	Spring	4	B/E/O	MATH 2414	Calculus II			MATH 2413 with a grade of 'C' or better.	Satisfies Major-Specific Requirement.			
2	Spring	2	B/E/O	12XX-42XX	Free Elective							
2	Spring	14		<b>Semester Total Hours</b>								

Year	Semester	Credit Hours	Campus	Course Number	Course Title	Minimum Grade	Core	Prerequisite	Additional Notes	
3	Fall	3	B/E/O	CHEM 3303 or CHEM 3387	Biochemistry I or Biochemistry I Honors			CHEM 2323.	Satisfies Major-Specific Requirement.	
3	Fall	1	B/E	CHEM 3103	Biochemistry I Lab			CHEM 3303.	Satisfies Major-Specific Requirement.	
3	Fall	3	B/E	CHEM 3304	Physical Chemistry I			PHYS 1402; MATH 2413 with a grade of 'C' or better and pre or co-requisites in MATH 2414.	Satisfies Major-Specific Requirement. Offered: Fall	
3	Fall	1	B/E	CHEM 3104	Physical Chemistry I Lab			CHEM 3304.	Satisfies Major-Specific Requirement. Offered: Fall	
3	Fall	2	B/E	CHEM 4201	Chemistry Problems I			Chemistry major with junior standing or consent of instructor.	Satisfies Major-Specific Requirement.	
3	Fall	4	B/E/O	34XX-44XX	Advanced Science Elective				See Degree Plan for options: ASTR, BENG, BIOL, CHEM, EEMS, ENVR, GEOG, GEOL, MARS, MATE, MATH, PHYS, PSCI, SAFS, STAT.	
3	Fall	14	<b>Semester Total Hours</b>							
3	Spring	3	B/E	CHEM 3305	Physical Chemistry II			CHEM 3304	Satisfies Major-Specific Requirement. Offered: Spring	
3	Spring	1	B/E	CHEM 3105	Physical Chemistry II Lab			CHEM 3305.	Satisfies Major-Specific Requirement. Offered: Spring	
3	Spring	3	B/E/O	Choose 1	Integrative/Experiential Learning Option			090	See General Education Core for course options.	
3	Spring	3	B/E/O	POLS 2306	Texas Government & Politics			070	See General Education Core for more details.	
3	Spring	3	B/E/O	POLS 2305	U.S. Federal Government & Politics			070	See General Education Core for more details	
3	Spring	3	B/E	CHEM 4304	Instrumental Analysis			CHEM 2301 and CHEM 2101.	Satisfies Major-Specific Requirement. Offered: Spring	
3	Spring	1	B/E	CHEM 4104	Instrumental Analysis Lab			CHEM 4304.	Satisfies Major-Specific Requirement. Offered: Spring	
3	Spring	17	<b>Semester Total Hours</b>							
Year	Semester	Credit Hours	Campus	Course Number	Course Title	Minimum Grade	Core	Prerequisite	Additional Notes	
4	Fall	3	B/E/O	Choose 1	Language, Philosophy & Culture			040	See General Education Core for course options.	
4	Fall	3	B/E/O	Choose 1	American History			060	See General Education Core for more details. Options: HIST 1302 or HIST 2328	
4	Fall	3	B/E/O	33XX-43XX	Advanced Science Elective				See Degree Plan for options: ASTR, BENG, BIOL, CHEM, EEMS, ENVR, GEOG, GEOL, MARS, MATE, MATH, PHYS, PSCI, SAFS, STAT.	
4	Fall	3	B/E	CHEM 43XX-43XX	Advanced Chemistry Elective				Satisfies Major-Specific Requirement. See Degree for CHEM course options.	
4	Fall	3	B/E	CHEM 43XX-43XX	Advanced Chemistry Elective				Satisfies Major-Specific Requirement. See Degree for CHEM course options.	
4	Fall	15	<b>Semester Total Hours</b>							
4	Spring	4	B/E/O	34XX-44XX	Advanced Science Elective				See Degree Plan for options: ASTR, BENG, BIOL, CHEM, EEMS, ENVR, GEOG, GEOL, MARS, MATE, MATH, PHYS, PSCI, SAFS, STAT.	
4	Spring	3	B/E/O	Choose 1	Social and Behavioral Sciences			080	See General Education Core for course options. Recommended PSYC 2301.	
4	Spring	3	B/E	CHEM 4305	Chemistry Capstone			Chemistry Major with senior standing or consent of instructor.	Satisfies Major-Specific Requirement. Offered: Spring and Fall	
4	Spring	3	B/E/O	Choose 1	Creative Arts			050	See General Education Core for course options.	
4	Spring	3	B/E/O	33XX-43XX	Advanced Science Elective				See Degree Plan for options: ASTR, BENG, BIOL, CHEM, EEMS, ENVR, GEOG, GEOL, MARS, MATE, MATH, PHYS, PSCI, SAFS, STAT.	
4	Spring	16	<b>Semester Total Hours</b>							

120 **TOTAL HOURS**  
(42) **Advanced minimum credit hours**

Revised: Tuesday, March 3, 2026