Students receiving the BS Degree in Chemistry (Broadfield Major) can continue their academic studies into masters or doctoral programs in Chemistry or can use the degree to find employment as a chemist. This degree can also be combined with teacher certification work to enter a career as a secondary school teacher of chemistry. The Chemistry (Broadfield Major) degree is certified by the American Chemical Society.

A – GENERAL EDUCATION CORE – 42 HOURS
Students must fulfill the General Education Core requirements. The courses listed below satisfy both degree requirements and General Education core requirements.

Required

020 - Mathematics – 3 hours
MATH 2413 Calculus I (or MATH 2487 Honors) three-hour lecture

030 - Life and Physical Sciences – 6 hours
CHEM 1311 General Chemistry I
CHEM 1312 General Chemistry II

090 - Integrative and Experiential Learning – 2 hours
CHEM 1111 General Chemistry I Lab
CHEM 1112 General Chemistry II Lab

B – MAJOR REQUIREMENTS – 37 HOURS (25 advanced)
CHEM 2301 Analytical Chemistry
CHEM 2101 Analytical Chemistry Lab
CHEM 2323 Organic Chemistry I
CHEM 2123 Organic Chemistry I Lab
CHEM 2325 Organic Chemistry II
CHEM 2125 Organic Chemistry II Lab
CHEM 3301 Inorganic Chemistry
CHEM 3101 Inorganic Chemistry Lab
CHEM 3303 Biochemistry I
CHEM 3103 Biochemistry I Lab
CHEM 3304 Physical Chemistry I
CHEM 3104 Physical Chemistry I Lab
CHEM 3305 Physical Chemistry II
CHEM 3105 Physical Chemistry II Lab
CHEM 4201 Chemistry Problems I
CHEM 4304 Instrumental Analysis
CHEM 4104 Instrumental Analysis Lab
CHEM 4305 Chemistry Capstone

C – SUPPORT COURSES – 16 HOURS (3 advanced)
MATH 2413 Calculus I (or MATH 2487 Honors) one-hour lecture
MATH 2414 Calculus II (or MATH 2488 Honors)
MATH 3341 Differential Equations
PHYS 1401 General Physics I
PHYS 1402 General Physics II

D – TECHNICAL ELECTIVES – 20 HOURS (20 advanced)
Complete 6 advanced hours in CHEM, and complete 14 advanced hours in one of the following areas: CHEM, BIOL, PHYS, MATH, or ENGR.

E – FREE ELECTIVES – 5 HOURS

TOTAL CREDIT HOURS FOR GRADUATION – 120 HOURS
TOTAL ADVANCED HOURS – 48 HOURS
ADMISSION, PROGRESSION, AND GRADUATION REQUIREMENTS, if applicable:

Graduation requirements

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 up to six credit hours of college-level language coursework.