
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.