CHEMISTRY BACHELOR OF SCIENCE

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

The University of Texas Rio Grande Valley Program Re