

**Bachelor of Science in Chemistry**  
2014 - 2015 Catalog

**The University of Texas at Brownsville and Texas Southmost College**

This document provides a list of the UTB/TSC courses required for the major and their equivalent UTRGV courses.

A significant number of courses have changed their course prefix, number, and title.

For any additional information, please visit the Academic Advising Center.

**UTB/TSC Courses**

**Course Equivalents at UTRGV**

**GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR**

**020 – Mathematics\***

MATH 2413 Calculus I

MATH 2413 Calculus I

**030 – Natural Sciences**

CHEM 1411 General Chemistry I

CHEM 1311/1111 General Chemistry I/Lab I

CHEM 1412 General Chemistry II

CHEM 1312/1112 General Chemistry II/Lab II

**A – GENERAL EDUCATION CORE – 42 HOURS**

42 hours of General Education Core

**B – MAJOR REQUIREMENTS – 42 HOURS**

**1 – Core Courses for the Major – 36 hours**

CHEM 2423 Organic Chemistry I

CHEM 2323/2123 Organic Chemistry I/Lab I

CHEM 2425 Organic Chemistry II

CHEM 2325/2125 Organic Chemistry II/Lab II

CHEM 3301 Inorganic Chemistry I

CHEM 3301 Inorganic Chemistry

CHEM 3101 Inorganic Chemistry I Lab

CHEM 3202 Inorganic Chemistry Lab

CHEM 3303 Biochemistry I

CHEM 3303 Biochemistry I

CHEM 3103 Biochemistry I Lab

CHEM 3103 Biochemistry I Lab

CHEM 3305 Analytical Chemistry

CHEM 2301 Analytical Chemistry

CHEM 3105 Analytical Chemistry Lab

CHEM 2101 Analytical Chemistry Lab

CHEM 3310 Physical Chemistry I

CHEM 3304 Physical Chemistry I

CHEM 3110 Physical Chemistry I Lab

CHEM 3104 Physical Chemistry I Lab

CHEM 3312 Physical Chemistry II

CHEM 3305 Physical Chemistry II

CHEM 3112 Physical Chemistry II Lab

CHEM 3105 Physical Chemistry II Lab

CHEM 4110 Chemistry Seminar

CHEM 4101 Chemistry Seminar

CHEM 4305 Instrumental Methods of Analysis

CHEM 4304 Instrumental Analysis

CHEM 4105 Instrumental Methods of Analysis Lab

CHEM 4104 Instrumental Analysis Lab

CHEM 4320 Chemistry Problems

CHEM 4201 Chemistry Problems I

**2 – Chemistry Electives – 6 hours**

(6 hours must be advanced 3000, 4000 level)

(6 hours must be advanced 3000, 4000 level)

**C – SUPPORT COURSES – 19 – 20 HOURS**

Choose one course:

PHYS 1401 College Physics I

PHYS 1401 General Physics I

PHYS 2325/2125 University Physics I/Lab I

PHYS 2425 Physics for Scientists and Engineers I

Choose one course:

PHYS 1402 College Physics II

PHYS 1402 General Physics II

PHYS 2326/2126 University Physics II/Lab II

PHYS 2426 Physics for Scientists and Engineers II

MATH 2413 Calculus I\*\*

MATH 2413 Calculus I

MATH 2414 Calculus II

MATH 2414 Calculus II

Choose one course:

MATH 3349 Differential Equations

MATH 3341 Differential Equations

MATH 2415 Calculus III

MATH 2415 Calculus III

COSC 1301 Introduction to Computing

CSCI 1301 Introduction to Computing

**D – ELECTIVES – 16 – 17 HOURS**

(16 hours if MATH 2415 or 17 hours if MATH 3349 in Support Courses)

16 - 17 hours of Electives

(16 hours if MATH 2415 or 17 hours if MATH 3341 in Support Courses)

(3 hours must be Advanced 3000, 4000 level if MATH 2415 in Support Courses)

(3 hours must be Advanced 3000, 4000 level if MATH 2415 in Support Courses)

**TOTAL CREDIT HOURS FOR GRADUATION – 120**

Rev. Date: 3/30/15

**TOTAL ADVANCED HOURS (minimum) – 36**

Publication Date: 3/1/15

Admission requirements to this program: MATH-2413 Calculus I with "C" or better grade.

\* Grade of "C" or better is required for a MATH course used to fulfill the General Education Core requirement (MATH-1314 College Algebra or higher).

\*\* MATH 2413-3 sch for general education and 1 sch for support courses.