

# Bachelor of Science in Chemistry (UTeach Certification 7-12)

## 2014 - 2015 Catalog

### The University of Texas-Pan American

This document provides a list of the UTPA 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.

<b>UTPA Courses</b>	<b>Course Equivalents at UTRGV</b>
<b>A – GENERAL EDUCATION CORE – 43 HOURS</b>	
<b>Natural Sciences – 8 hours</b>	
CHEM 1301/1101 General Chemistry I and Lab	CHEM 1311/1111 General Chemistry I and Lab
CHEM 1302/1102 General Chemistry II and Lab	CHEM 1312/1112 General Chemistry II and Lab
<b>Humanities</b>	
<b>Philosophy and Modern/Classical Language Literature – 3 hours</b>	
PHIL 3301 Philosophy in Science and Mathematics	MATE 3317 Perspectives in Mathematics and Science
<b>B – MAJOR REQUIREMENTS – 56 HOURS (31 advanced)</b>	
<b>1 – Chemistry Core – 37 hours (25 advanced)</b>	
CHEM 2301/2101 Analytical Chemistry and Lab	CHEM 2301/2101 Analytical Chemistry and Lab
CHEM 2302/2102 Organic Chemistry I and Lab	CHEM 2323/2123 Organic Chemistry I and Lab
CHEM 2303/2103 Organic Chemistry II and Lab	CHEM 2325/2125 Organic Chemistry II and Lab
CHEM 3301/3202 Inorganic Chemistry and Lab	CHEM 3301/3202 Inorganic Chemistry and Lab
CHEM 3303/3103 Biochemistry and Lab	CHEM 3303/3103 Biochemistry I and Lab
CHEM 3304/3104 Physical Chemistry I and Lab	CHEM 3304/3104 Physical Chemistry I and Lab
CHEM 3305/3105 Physical Chemistry II and Lab	CHEM 3305/3105 Physical Chemistry II and Lab
CHEM 4101 Chemistry Seminar	CHEM 4101 Chemistry Seminar
CHEM 4201 Chemistry Problems I	CHEM 4201 Chemistry Problems I
CHEM 4304/4104 Instrumental Analysis and Lab	CHEM 4304/4104 Instrumental Analysis and Lab
CHEM 4105 Chemistry Capstone	CHEM 4105 Chemistry Capstone
<b>2 – Additional Chemistry Requirement – 6 hours (6 advanced)</b>	
CHEM 3330 Functions and Modeling	Recommended alternative: MATE 3321 Functions and Modeling
CHEM 4392 Research Methods	Recommended alternative: BIOL 4392 Research Methods
<b>3 – Additional Mathematics and Physics – 13 hours</b>	
MATH 1460 Calculus I (or MATH 1487 Honors) one-hour lecture	MATH 2413 Calculus I (or MATH 2487 Honors) one-hour lecture
MATH 1470 Calculus II (or MATH 1488 Honors)	MATH 2414 Calculus II (or MATH 2488 Honors)
PHYS 1401 General Physics I	PHYS 1401 General Physics I
PHYS 1402 General Physics II	PHYS 1402 General Physics II
<b>C – UTEACH CERTIFICATION – 21 hours (19 advanced)</b>	
UTCH 1101 Inquiry Approaches to Teaching	UTCH 1101 Inquiry Approaches to Teaching
UTCH 1102 Inquiry-Based Lesson Design	UTCH 1102 Inquiry-Based Lesson Design
UTCH 3301 Knowing and Learning	UTCH 3301 Knowing and Learning in Mathematics and Science
UTCH 3302 Classroom Interaction	UTCH 3302 Classroom Interactions
UTCH 3303 Project-Based Instruction	UTCH 3303 Project-Based Instruction
<del>UTCH 4601 Apprentice Teaching</del>	<del>UTCH 4601 Apprentice Teaching</del>
<del>UTCH 4101 Apprentice Teaching Seminar</del>	<del>UTCH 4101 Apprentice Teaching Seminar</del>
READ 4351 Learning Through Literacy	READ 4305 Content Area Literacy

**TOTAL CREDIT HOURS FOR GRADUATION – 120 HOURS**

**TOTAL ADVANCED HOURS – 51 HOURS**