

Bachelor of Science in Physical Science (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.

UTPA Courses	Course Equivalents at UTRGV
A – GENERAL EDUCATION CORE – 43 HOURS	
Natural Sciences – 8 hours	
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
Mathematics – 3 hours	
MATH 1460 Calculus I (or MATH 1487 Honors) three-hour lecture	MATH 2413 Calculus I (or MATH 2487 Honors) three-hour lecture
Humanities	
Philosophy and Modern/Classical Language Literature – 3 hours	
PHIL 3301 Philosophy in Science and Mathematics	MATE 3317 Perspectives in Mathematics and Science
B – MAJOR REQUIREMENTS – 42 HOURS (23 advanced)	
1 – Physics Core – 24 hours (16 advanced)	
PHYS 2411 Physics for Teachers I	PHYS 2411 Physics for Teachers I
PHYS 2412 Physics for Teachers II	PHYS 2412 Physics for Teachers II
PHYS 3101 Junior Physics Lab I	PHYS 3101 Junior Laboratory Research I
PHYS 3303 Thermodynamics	PHYS 3303 Thermodynamics
PHYS 3402 Modern Physics	PHYS 3402 Modern Physics
PHYS 3404 Optics	PHYS 3404 Optics
PHYS 4401 Physics Education	PHYS 4401 Physics Education
2 – Chemistry Core – 18 hours (7 advanced)	
CHEM 2302/2102 Organic Chemistry I and Lab	CHEM 2323/2123 Organic Chemistry I and Lab
CHEM 2303/2103 Organic Chemistry II	CHEM 2325/2125 Organic Chemistry II and Lab
CHEM 2301 Analytical Chemistry	CHEM 2301 Analytical Chemistry
CHEM 3303 Biochemistry	CHEM 3303 Biochemistry I
CHEM 4401 Chemistry Education	CHEM 4401 Chemistry Education
C – SUPPORT COURSES – 14 hours (9 advanced)	
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)
MATH 3349 Differential Equations	MATH 3341 Differential Equations
PHYS 3330 Functions and Modeling	PHYS 3330 Functions and Modeling
PHYS 4392 Research Methods	PHYS 4392 Research Methods
D – UTEACH CERTIFICATION – 21 hours (19 advanced)	
READ 4351 Learning Through Literacy	READ 4305 Content Area Literacy
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
UTCH 4101 Apprentice Teaching Seminar	Recommended alternative: UTCH 4101 Apprentice Teaching Seminar
UTCH 4601 Apprentice Teaching	Recommended alternative: UTCH 4601 Apprentice Teaching

TOTAL CREDIT HOURS FOR GRADUATION – 120 HOURS

TOTAL ADVANCED HOURS – 51 HOURS