

Bachelor of Science in Electrical Engineering

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 Science – 6 hours	
PHYS 2401 Physics Science and Engineering I	PHYS 2425 Physics for Scientists and Engineers I
PHYS 2402 Physics Science and Engineering II	PHYS 2426 Physics for Scientists and Engineers II
Mathematics – 3 hours	
MATH 1460 Calculus I (or MATH 1487 Honors) three-hour lecture	MATH 2413 Calculus I (or MATH 2487) three-hour lecture
Humanities	
Philosophy and Modern/Classical Language Literature – 3 hours	
PHIL 2390 Professional Ethics	PHIL 2320 Professional Ethics
PHIL 2393 Engineering Ethics	PHIL 2326 Professional Ethics: Engineering
Social Science	
Other Social Sciences – 3 hours	
ECON 2301 Macroeconomics	ECON 2301 Principles of Macroeconomics
Computer Literacy – 5 hours	
CSCI 1380 Computer Science I (or CSCI 1387 Honors)	CSCI 1380 Computer Science I (or CSCI 1387 Honors)
B – MAJOR REQUIREMENTS – 60 HOURS (45 advanced)	
ELEE 1101 Introduction to Electrical Engineering	ELEE 1101 Introduction to Electrical Engineering
ELEE 2319 Numerical Computation & Data Visualization	ELEE 2319 Numerical Computation and Data Visualization
ELEE 2320/2120 Electrical Circuits I and Lab	ELEE 2305/2105 Electric Circuits I and Lab
ELEE 2321 Electrical Circuits II	ELEE 3321 Signals and Systems
ELEE 2330/2130 Digital Systems Engineering I and Lab	ELEE 2330/2130 Digital Systems Engineering I and Lab
ELEE 3225 Electrical Engineering Lab I	ELEE 3225 Electrical Engineering Lab I
ELEE 3301 Electronics I	ELEE 3301 Electronics I
ELEE 3302 Electronics II	ELEE 3302 Electronics II
ELEE 3315 Electromagnetics	ELEE 3315 Electromagnetics Engineering
ELEE 3330 Electrical Engineering Lab II	ELEE 3230 Electrical Engineering II Lab AND ELEE 3101 Electronics Lab
ELEE 3435 Microprocessors	ELEE 3435 Microprocessor Systems
ELEE 4303 Digital Systems Engineering II	ELEE 4303 Digital Systems Engineering II
ELEE 4321 Automatic Controls	ELEE 4321 Automatic Controls
ELEE 4328 Solid State	ELEE 4328 Solid State Devices
ELEE 4351 Communications	ELEE 4351 Communication Theory
ELEE 4361 Senior Design I	ELEE 4361 Senior Design I
ELEE 4362 Senior Design II	ELEE 4362 Senior Design II
<i>Choose 9 hours of advanced Electrical Engineering.</i>	
C – OTHER REQUIRED COURSES – 21 HOURS (6 advanced)	
MATH 1460 Calculus I (or MATH 2487 Honors) one-hour lecture	MATH 2413 Calculus I (or MATH 2487 Honors) one-hour lecture
MATH 1470 Calculus II (or MATH 2488 Honors)	MATH 2414 Calculus II (or MATH 2488 Honors)
MATH 2401 Calculus III	MATH 2415 Calculus III
MATH 3349 Differential Equations	MATH 3341 Differential Equations
MATH 2346 Math for Electrical Engineers and Computer Engineers	MATH 2346 Mathematics for Electrical and Computer Engineers
ELEE 3340 Probability and Statistics for Electrical Engineers	ELEE 3340 Probability and Statistics for Electrical Engineers
<i>Choose one:</i>	
CHEM 1301 General Chemistry I	CHEM 1311 General Chemistry I
CHEM 1307 Chemistry for Engineers	CHEM 1307 Chemistry for Engineers
MECE 2305 Engineering Mechanics	Recommended alternative: MECE 2301 Statics

TOTAL CREDIT HOURS FOR GRADUATION – 124 HOURS

TOTAL ADVANCED HOURS – 51 HOURS