

Bachelor of Science in Civil 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 2393 Engineering Ethics	PHIL 2326 Professional Ethics: Engineering
Computer Literacy – 5 hours	
MECE 1221 Engineering Graphics	MECE 1221 Engineering Graphics
B – MAJOR REQUIREMENTS – 60 HOURS (45 advanced)	
CIVE 1221 Engineering Graphics	Recommended alternative: CIVE 1221 Engineering Graphics
CIVE 2120 Civil Engineering Measurements	CIVE 2220 Civil Engineering Measurements
CIVE 2140 Materials of Construction	CIVE 2240 Materials of Construction
CIVE 3252 Civil Engineering Systems Analysis	CIVE 3252 Civil Engineering Systems Analysis
CIVE 3324 Structural Analysis	CIVE 3324 Structural Analysis
CIVE 3331 Environmental Engineering Water Resources	CIVE 3331 Environmental Engineering
CIVE 3333 Water-Wastewater Treatment	CIVE 4333 Water and Wastewater Treatment
CIVE 3341 Structural Steel Design	CIVE 3341 Structural Steel Design
CIVE 3375 Geotechnical Engineering	CIVE 3475 Geotechnical Engineering and Applications
CIVE 4315 Applied Hydrology	CIVE 4315 Applied Hydrology
CIVE 4335 Water Resources Engineering Structures	CIVE 4335 Water Resources Engineering
CIVE 4346 Reinforced Concrete Design Geotechnical	CIVE 4346 Reinforced Concrete Design
CIVE 4347 Foundation Design	CIVE 4347 Foundation Design
CIVE 4348 Highway Engineering Management	CIVE 4348 Highway Engineering
CIVE 4349 Construction Planning & Management	CIVE 4349 Construction Planning and Management
CIVE 4390 CE Senior Design Project	CIVE 4190 Civil Engineering Senior Design I
	CIVE 4290 Civil Engineering Senior Design II
MECE 2303 Statics	MECE 2301 Statics
MECE 2304 Dynamics	MECE 2302 Dynamics
MECE 2335 Thermodynamics	MECE 2335 Thermodynamics I
MECE 2340/2140 Engineering Materials (Lecture and Lab)	MECE 2340/2140 Engineering Materials and Lab
MECE 3315/3115 Fluid Mechanics (Lecture and Lab)	MECE 3315/3115 Fluid Mechanics and Lab
MECE 3321 Mechanics of Solids	MECE 3321 Mechanics of Solids
B – SUPPORT COURSES – 24 hours (6 advanced minimum)	
CHEM 1307/1107 Chemistry for Engineers (Lecture and Lab)	CHEM 1307/1107 Chemistry for Engineers and Lab
MATH 1470 Calculus II (or MATH 1488 Honors)	MATH 2414 Calculus II (or MATH 2488 Honors)
MECE 2450 Numerical Methods & Statistics	Recommended alternative: MECE 2350 Numerical Methods for Engineers
MECE 3449 Mechanical Engineering Analysis I	MECE 3449 Mechanical Engineering Analysis I
MECE 3450 Mechanical Engineering Analysis II	MECE 3450 Mechanical Engineering Analysis I
<i>X3XX Basic Science Elective (Suggested: BIOL 1401, ENSC 3400 or GEOL 1401)</i>	BIOL 1406 General Biology I <u>or</u>
	ENVR 4301 Environmental Regulations <u>or</u>
	GEOL 1403 Physical Geology
MATH 1460 Calculus I (or MATH 1487 Honors) one-hour lecture	MATH 2413 Calculus I (or MATH 2487) one-hour lecture

TOTAL CREDIT HOURS FOR GRADUATION – 127 HOURS

TOTAL ADVANCED HOURS – 51 HOURS