



## Bachelor of Science (BS) Civil Engineering

2024-2026

		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FIRST YEAR	FALL	3	Choose 1	Communication	C	010	For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	See General Education Core for more details Option: ENGL 1301
		4	MATH 2413	Calculus I	C	020	MATH 2412 with a grade of C or better; or passing the Pre-Calculus exemption test administered by the Department of Mathematics.	1 hr for Support Courses
		1	CIVE 1101	Introduction to Civil Engineering*	C			*This course and CIVE 2220 should be your first CIVE courses.
		2	CIVE 2220	Civil Engineering Measurements**	C			**This course and CIVE 1101 should be your first CIVE courses.
		3	CHEM 1309	Chemistry for Engineers	C		MATH 1314, MATH 1414, MATH 2412, or MATH 2413 with a grade of 'C' or higher	
	SPRING	1	CHEM 1109	Chemistry for Engineers Lab	C	090	Credit/registration in CHEM 1309.	
		3	Choose 1	American History		060		Options: HIST 1301 or HIST 2327
			UNIV	1301 Learning Framework				As required, based on credit hours earned, TSI status, High School rank, major declaration.
		17	Semester Total Hours					
		3	Choose 1	Communication	C	010	For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.	See General Education Core for more details Options: ENGL 1302 or ENGL 1305.
SECOND YEAR	FALL	4	MATH 2414	Calculus II	C		MATH 2413 with a grade of 'C' or better.	
		4	PHYS 2425	Physics for Scientists and Engineers I	C	030	MATH 2413.	1 hour of lab for Core 090. See General Education Core for more details.
		3	MANE 3332	Engineering Statistics	C		MATH 2413 and credit for or enrollment in MATH 2414.	
		4	CIVE 3440	Civil Engineering Materials	C		Minimum grade of 'C' in CIVE 1101 and CHEM 1309/1109.	
		18	Semester Total Hours					
	FALL	4	MATH 2415	Calculus III	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		3	MECE 2301	Statics	C		A grade of 'C' or better in [MECE 1101 or CIVE 1221 or CIVE 1101] and PHYS 2425; a grade of 'C' or better or concurrent enrollment in MATH 2414. Must be officially admitted to the Mechanical Engineering major or Civil Engineering major.	
		3	CIVE 2350	Numerical Methods for Civil Engineers	C		Grade of C or better or concurrently enrollment in in MATH 2414 Calculus II.	
		4	PHYS 2426	Physics for Scientists and Engineers II	C	030	PHYS 2425 and MATH 2414.	1 hour of lab for Core 090. See General Education Core for more details.
		3	POLS 2305	U.S. Federal Govt & Politics		070		
	SPRING	17	Semester Total Hours					
		3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 2328.
		3	MECE 2302	Dynamics	C		A grade of 'C' or better in MECE 2301 and MATH 2414 (or MATH 2488). Must be officially admitted to the Mechanical Engineering major or Civil Engineering major.	
		3	CIVE 3321	Mechanics of Materials	C		Must be officially admitted to the Civil Engineering major and must have a minimum grade of 'C' in MECE 2301 and MATH 2414.	
		3	MATH 3341	Differential Equations	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
	FALL	3	CIVE 3315	Fluid Mechanics and Hydraulics	C		Must be officially admitted to the Civil Engineering major and must have a minimum grade of 'C' in MECE 2301 and in [MATH 2415 or MECE 3449].	
		1	CIVE 3115	Fluid Mechanics and Hydraulics Lab	C		CIVE 3315. May be taken concurrently.	
		16	Semester Total Hours					
	SPRING	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 2328.
		3	MECE 2302	Dynamics	C		A grade of 'C' or better in MECE 2301 and MATH 2414 (or MATH 2488). Must be officially admitted to the Mechanical Engineering major or Civil Engineering major.	
		3	CIVE 3321	Mechanics of Materials	C		Must be officially admitted to the Civil Engineering major and must have a minimum grade of 'C' in MECE 2301 and MATH 2414.	
		3	MATH 3341	Differential Equations	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
		3	CIVE 3315	Fluid Mechanics and Hydraulics	C		Must be officially admitted to the Civil Engineering major and must have a minimum grade of 'C' in MECE 2301 and in [MATH 2415 or MECE 3449].	
		1	CIVE 3115	Fluid Mechanics and Hydraulics Lab	C		CIVE 3315. May be taken concurrently.	
		16	Semester Total Hours					

CORE: The 2024-2026 list of core courses can be found in the 2024-2026 Undergraduate Catalog: [www.utrgv.edu/catalog](http://www.utrgv.edu/catalog) > See "Core Curriculum"

### Symbols Key

**Minimum Grade:** A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.  
**Bolded Course #:** Program Admission Requirement

**General Education Core (GEC) Sections:** 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Applied Communication and Literacies; 090 - Humanities; 090 - Leadership; 090 - Science Labs; 090 - Interdisciplinary; 090 - Technologies; 090 - Language Diversity & Writing.

		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR	FALL	3	MANE 3337	Engineering Economics	C		Credit/registration in MANE 2332 or MANE 3332.	
		3	CIVE 3324	Structural Analysis I	C		Minimum grade of 'C' in MECE 3321 or CIVE 3321 and [CIVE 2240 or CIVE 2440 or CIVE 3440 or CIVE 2140].	
		3	CIVE 3331	Environmental Engineering	C		Minimum grade of 'C' in (CIVE 3315 or MECE 3315), CIVE 3115, and either (CHEM 1307 and CHEM 1107) or (CHEM 1309 and CHEM 1109) or (CHEM 1311 and CHEM 1111).	
		4	CIVE 3475	Geotechnical Engineering and Applications	C		Minimum grade of 'C' in MECE 3321 or CIVE 3321.	
		3	POLS 2306	Texas Government & Politics		070		
	16 Semester Total Hours							
	SPRING	3	CIVE 3341	Structural Steel Design	C		Minimum grade of 'C' in CIVE 3324	
		3	CIVE 3345	Transportation Engineering	C		Minimum grade of 'C' in CIVE 2220 and MECE 2302	
		3	CIVE 4335	Water Resources Engineering	C		Minimum grade of 'C' in [CIVE 3315 and CIVE 3115], MATH 3341, and CIVE 2350 or MECE 2350.	
		3	CIVE 4346	Reinforced Concrete Design	C		Minimum grade of 'C' in CIVE 3324	
		3	Choose 1	Social and Behavioral Sciences		080		See General Education Core for course options.
15 Semester Total Hours								
		H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FOURTH YEAR	FALL	3	CIVE 4349	Construction Planning & Management	C		Minimum grade of 'C' in [MANE 3337 or CIVE 3252] and PHYS 2426	
		3	CIVE 43XX or CIVE 33XX	Prescribed Elective I	C			Choose any two of these 4000-level courses, or one 4000-level and one of the 3000-level courses: CIVE 4300, 4315, 4333, 4340, 4348, 4350, 4351, 4352, 4359, 3300, 3100 (repeat for 3 credits)
		3	CIVE 4347	Foundation Design	C		Minimum grade of 'C' in CIVE 3475.	
		3	CIVE 4391	CE Senior Fundamentals	C		Senior Standing, a minimum GPA of 2.4 and a grade of C or better in CIVE 3324, CIVE 3331, CIVE 3345, CIVE 3475 and CIVE 4335.	
		3	PHIL 2326	Ethics, Technology, and Society		040		
	15 Semester Total Hours							
	SPRING	3	CIVE 43XX or CIVE 33XX	Prescribed Elective II	C			Choose any two of these 4000-level courses, or one 4000-level and one of the 3000-level courses: CIVE 4300, 4315, 4333, 4340, 4348, 4350, 4351, 4352, 4359, 3300, 3100 (repeat for 3 credits)
		3	Choose 1	Creative Arts		050		See General Education Core for course options.
		3	CIVE 4392	CE Senior Project	C		A a grade of C or better in CIVE 4391, and maximum 15 credit hours enrolled in the term.	
		4	Choose 1	Basic Science Elective				Choose one of the following: BIOL 1406; ENVR 1401; GEOL 1401; GEOL 1403; GEOL 1404; GEOL 4411
		3	Choose 1	Integrative & Experiential Learning		090		Complete an additional 3 hours from this section of the Core Curriculum except PHIL 2326.
16 Semester Total Hours								

130 TOTAL HOURS

(42) Advanced minimum credit hours

Revised: Thursday, August 29th, 2024