

Bachelor of Science in Civil Engineering

| | ! | ! н | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|------|--------|-------------------------|-------------|--|---------------|-----|---|--|
| | | 3 | Choose 1 | Communication (Core) | С | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1301 or ENGL 1305 or ENGL 1387 (H) |
| | | 4 | | Calculus I (Core) | С | 020 | MATH 2412 with a grade of C or better; or passing the Pre- Calculus exemption test administered by the Department of Mathematics. | |
| | | 1 | | Introduction to Civil Engineering | С | | | CIVE 2220 [‡] |
| | FALL | 2 | CIVE 2220 | Civil Engineering Measurements | С | | | CIVE 1101 [‡] |
| œ | | 3 | | Chemistry for Engineers | С | | MATH 1314, MATH 1414, MATH 2412, or MATH 2487 with a grade of 'C' or higher | |
| YEA | | 1 | | Chemistry for Engineers Lab | С | | Credit/registration in CHEM 1309. | Or CHEM 1111 General Chemistry I Lab |
| IRST | | 3 | Choose 1 | American History (Core) | | 060 | | Options: HIST 1301 or HIST 1387 or HIST/MASC 2327 |
| | | | | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |
| | | 17 | Semester To | tal Hours | | | | |
| | | 3 | Choose 1 | Communication (Core) | С | 010 | For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387. | See General Education Core for more details Options: ENGL 1302 or ENGL 1388 (H) or ENGL 1305. |
| | (D | 4 | MATH 2414 | Calculus II | С | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | |
| | SPRING | 4 | PHYS 2425 | Physics for Scientists and Engineers I (Core) | С | 030 | MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488). | 1 hour of lab for Core 090. See General Education Core for more details. |
| | | 3 | MANE 2332 | Engineering Statistics | С | | MATH 2413 (or MATH 2487). | |
| | | 4 | CIVE 2440 | Civil Engineering Materials | С | | CIVE 1101, CHEM 1309, 1109 or CHEM 1311, 1111 | |
| | | 18 | Semester To | tal Hours | | | | |
| | ! | ! н | | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
| | | 4 | MATH 2415 | Calculus III | С | | MATH 2414 | |
| | | 3 | MECE 2301 | Statics | С | | Minimum grade of C in [MECE 1101 or CIVE 1221 or CIVE 1101] and PHYS 2425. | |
| | | 3 | MECE 2350 | Numerical Methods for Engineers | С | | Credit/registration in MATH 2414 (or MATH 2488). | |
| | FALL | 4 | PHYS 2426 | Physics for Scientists and Engineers II (Core) | С | 030 | Minimum of grade 'C' in PHYS 2425 | 1 hour of lab for Core 090. See General Education Core for more details. |
| YEAR | | 3 | Choose 1 | Government/Political Science (Core) | | 070 | | See General Education Core for more details Options: POLS 2305 or POLS 2385 (H) |
| DNC | | 17 Semester Total Hours | | | | | | |
| SEC | | 3 | Choose 1 | American History (Core) | | 060 | | See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328. |
| | (J | 3 | MECE 2302 | Dynamics | С | | MECE 2301, MATH 2414 | |
| | RIN | 3 | CIVE 3321 | Stress Analysis | С | | MECE 2301, MATH 2414 | |
| | S | 3 | MATH 3341 | Differential Equations | С | | MATH 2414 | |
| | | _ | | Fluid Mechanics and Hydraulics | С | | MECE 2301, MATH 2415 or MECE 3449 | |
| | | 1 | | Fluid Mechanics and Hydraulics Lab | С | | CIVE 3315 [‡] | |
| | | 16 | Semester To | tal Hours | | | | |

| | ! | ! н | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|------------|--------|----------------------------------|---|--|---------------|-----|---|---|
| | | 3 | MANE 3337 | Engineering Economics | С | | Credit/Registration in MANE 2332. | |
| | | 3 | CIVE 3324 | Structural Analysis | С | | MECE 3321, CIVE 2440 or 2240 or 2140 | |
| | | 3 | CIVE 3331 | Environmental Engineering | С | | Minimum grade of 'C' in CIVE 3315, CIVE 3115, and either CHEM 1309/1109 or CHEM 1311/1111. | |
| 4R | FALL | 4 | CIVE 3475 | Geotechnical Engineering and Applications | С | | Minimum grade of 'C' in MECE 3321. | |
| THIRD YE | | 3 | | Government/Political Science (Core) | | 070 | | See General Education Core for more details. Options: POLS 2306 or POLS 2386 (H) |
| | | 16 | Semester To | tal Hours | | 1 | | |
| | | 3 | CIVE 3341 | Structural Steel Design | С | | Minimum grade of 'C' in CIVE 3324 | |
| | | 3 | CIVE 3345 | Transportation Engineering | С | | Minimum grade of 'C' in CIVE 2220 and MECE 2302 | |
| | SPRING | 3 | CIVE 4335 | Water Resources Engineering | С | | CIVE 3315, 3115, MATH 3341 and MECE 2350 | |
| | SP | 3 | CIVE 4346 | Reinforced Concrete Design | С | | CIVE 3324 | |
| | | 3 | Choose 1 | Social and Behavioral Sciences (Core) |) | 080 | | See General Education Core for course options. |
| | | 15 Semester Total Hours | | | | | | |
| | | ! н | Course # | | Min. | CEC | Prerequisite | Additional Notes |
| | | : 11 | Course # | Course Title | Grade | GEC | rielequisite | Additional Notes |
| ľ | T | 3 | CIVE 4349 | Construction Planning & Management | Grade C | GEC | MANE 3337 and PHYS 2426 | Additional Notes |
| ı | | | CIVE 4349 | Construction Planning & | | GEC | · | CIVE 4333, 4347, 4348, 4350, 4351, 4352 |
| | | 3 | CIVE 4349 CIVE 43XX | Construction Planning & Management | С | GEC | · | |
| | FALL | 3 | CIVE 4349 CIVE 43XX CIVE 4347 | Construction Planning & Management Technical Elective I | C C | GEC | MANE 3337 and PHYS 2426 | |
| SAR | | 3 3 3 3 | CIVE 4349 CIVE 43XX CIVE 4347 CIVE 4391 PHIL 2326 | Construction Planning & Management Technical Elective I Foundation Design CE Senior Fundamentals Ethics, Technology, and Society (Core) | C C | 040 | MANE 3337 and PHYS 2426 CIVE 3475 A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs | |
| H YEAR | | 3 3 3 3 | CIVE 4349 CIVE 43XX CIVE 4347 CIVE 4391 | Construction Planning & Management Technical Elective I Foundation Design CE Senior Fundamentals Ethics, Technology, and Society (Core) | C C C | | MANE 3337 and PHYS 2426 CIVE 3475 A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs | CIVE 4333, 4347, 4348, 4350, 4351, 4352 |
| OURTH YEAR | | 3 3 3 3 | CIVE 4349 CIVE 43XX CIVE 4347 CIVE 4391 PHIL 2326 Semester To | Construction Planning & Management Technical Elective I Foundation Design CE Senior Fundamentals Ethics, Technology, and Society (Core) | C C C | | MANE 3337 and PHYS 2426 CIVE 3475 A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs | CIVE 4333, 4347, 4348, 4350, 4351, 4352 |
| FOURTHYEAR | | 3 3 3 3 15 | CIVE 4349 CIVE 43XX CIVE 4347 CIVE 4391 PHIL 2326 Semester To | Construction Planning & Management Technical Elective I Foundation Design CE Senior Fundamentals Ethics, Technology, and Society (Core) tal Hours | C C C | | MANE 3337 and PHYS 2426 CIVE 3475 A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs | CIVE 4333, 4347, 4348, 4350, 4351, 4352 See General Education Core for more details. |
| FOURTHYEAR | FALL | 3 3 3 3 15 | CIVE 4349 CIVE 43XX CIVE 4347 CIVE 4391 PHIL 2326 Semester To CIVE 43XX Choose 1 | Construction Planning & Management Technical Elective I Foundation Design CE Senior Fundamentals Ethics, Technology, and Society (Core) tal Hours Technical Elective II | C C C | 040 | MANE 3337 and PHYS 2426 CIVE 3475 A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs | CIVE 4333, 4347, 4348, 4350, 4351, 4352 See General Education Core for more details. CIVE 4333, 4347, 4348, 4350, 4351, 4352 |
| FOURTHYEAR | | 3 3 3 3 15 3 | CIVE 4349 CIVE 43XX CIVE 4347 CIVE 4391 PHIL 2326 Semester To CIVE 43XX Choose 1 | Construction Planning & Management Technical Elective I Foundation Design CE Senior Fundamentals Ethics, Technology, and Society (Core) tal Hours Technical Elective II Creative Arts (Core) | C C C | 040 | MANE 3337 and PHYS 2426 CIVE 3475 A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs enrolled in the semester A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs | CIVE 4333, 4347, 4348, 4350, 4351, 4352 See General Education Core for more details. CIVE 4333, 4347, 4348, 4350, 4351, 4352 |
| FOURTHYEAR | FALL | 3 3 3 3 15 3 3 | CIVE 4349 CIVE 4347 CIVE 4391 PHIL 2326 Semester To CIVE 43XX Choose 1 CIVE 4392 Choose 1 | Construction Planning & Management Technical Elective I Foundation Design CE Senior Fundamentals Ethics, Technology, and Society (Core) tal Hours Technical Elective II Creative Arts (Core) CE Senior Project | C C C | 040 | MANE 3337 and PHYS 2426 CIVE 3475 A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs enrolled in the semester A minimum GPA of 2.4, Senior Standing, and maximum 15 hrs | CIVE 4333, 4347, 4348, 4350, 4351, 4352 See General Education Core for more details. CIVE 4333, 4347, 4348, 4350, 4351, 4352 See General Education Core for course options. BIOL 1406; ENVR 1401/1402/3304/4301; GEOL |

Progression requirements: Students must receive a grade of 'C' or better in all courses that are prerequisites for civil engineering courses. Graduation requirements: Students must receive a grade of 'C' or better in all civil engineering courses.

CORE: The 2019-2020 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core www.utrgv.edu/core

Symbols Key

Critical ('!'): sequence sensitive course.

Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

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.