

FIRST YEAR

Choose 1 Communication
 MATH 2413 Calculus I (Core)
 CIVE 1101 Introduction to Civil Engineering
 CIVE 2220¹ Civil Engineering Measurements¹
 CHEM 1309 Chemistry for Engineers or CHEM
 1311 Gen Chemistry I
 CHEM 1109 Chemistry for Engineers Lab or
 CHEM 1111 Gen. Chemistry Lab
 Choose 1 American History
 UNIV 1301 Learning Framework
 Choose 1 Communication
 MATH 2414 Calculus II
 PHYS 2425 Physics for Scientists & Engineers I
 MANE 2332 Engineering Statistics
 CIVE 2440 Civil Engineering Materials

SECOND YEAR

MATH 2415 Calculus III
 MECE 2301 Statics
 MECE 2350 Numerical Methods for Engineers
 PHYS 2426 Physics for Scientists and Engineers II
 Choose 1 Government/Political Science
 MATH 3341 American History
 MECE 2302 Dynamics
 CIVE 3321 Stress Analysis
 MATH 3341 Differential Equations
 CIVE 3315 Fluid Mechanics and Hydraulics
 CIVE 3115 Fluid Mechanics and Hydraulics Lab
 Courses in red are part of the General Education Core Curriculum (GEC).
 "Choose 1" indicates course options. If options are not listed, please review the General Education Core or the degree plan for this major: www.utrgv.edu/degreeplans
¹ If you are unable to get a seat in this course this semester, take it in the next semester or as soon as possible thereafter, but no later than the 5th semester (but note that if you take it past the 1st year you may have scheduling conflicts)

THIRD YEAR

MANE 3337 Engineering Economics
 CIVE 3324 Structural Analysis
 CIVE 3331 Environmental Engineering
 CIVE 3475 Geotechnical. Engr. & Applications
 Choose 1 Government/Political Science
 CIVE 3341 Structural Steel Design
 CIVE 3345 Transportation Engineering
 CIVE 4335 Water Resources Engineering
 CIVE 4346 Reinforced Concrete Design
 Choose 1 Social and Behavioral Sciences

FOURTH YEAR

CIVE 4349 Construction Planning & Mgmt.
 CIVE 43XX Technical Elective I
 CIVE 4347 Foundation Design
 CIVE 4391 CE Senior Fundamentals
 PHIL 2326² Ethics, Technology, & Society
 CIVE 43XX Technical Elective II
 Choose 1 Creative Arts
 CIVE 4392 CE Senior Project
 Choose 1 Basic Science Elective
 Choose 1 Integrative & Experiential Learning
² Make sure to enroll for the section specifically recommended for engineering majors, otherwise it may not count towards your degree.

2019-2020 ACADEMIC PLAN

UTRio Grande Valley

BLUE
 PRINT

CIVIL ENGINEERING (BS)
Catalog: 2019-20
**COLLEGE OF ENGINEERING
 AND COMPUTER SCIENCE**

Degree Info

The Civil Engineering Program prepares graduates for local, regional or worldwide employment in the engineering profession or placement in a graduate school. The program affords students opportunities to meet and interact with practicing engineers, businesses and government agencies; to participate in professional engineering organizations and in research. The faculty endeavor to be accessible, maintain state of the art instruction and facilities, and to provide liberal access to laboratories and academic support.

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Additional Info

- Math courses must be taken in order, and you should take at least 1 MATH course in each of the first four semesters to avoid getting behind in your degree plan!
- Students must get a "C" or better in all CIVE courses & any other courses which are prerequisites for CIVE courses.
- It is critical for students to maintain a GPA above 3.0 since most scholarships, internships and EMPLOYERS REQUIRE IT AS A MINIMUM!

BLUEPRINT EXPERIENCES

FIRST YEAR

SECOND YEAR

THIRD YEAR

FOURTH YEAR AND BEYOND

CAREERS

MILESTONES

- UTRGV has a Learning Center which can help you if you are struggling with a particular class, particularly Math and CHEM. Visit them, they're friendly, and it's free!
- Complete your core English classes (section 010) and **MATH 2414 Calculus II** during your first year.
- Complete 30 credit hours per year to graduate in 4 years.
- Complete foundational classes ASAP (CIVE 1101 in the 1st semester and CIVE 2220 concurrently or soon after.**
- Take advantage of the job shadowing opportunity offered in the Into to Civil Engineering course**

ADVICE & SUPPORT

- Meet with your academic advisor and bring your orientation folder with you to every session!
- Choose a major with confidence- Visit my.UTRGV.edu and check out MyMajors!
- If you are struggling or have questions about a class, make sure to visit the instructor during office hours; they can and will help you!
- Classes fill up fast. When registration opens, be sure to register on the first day for your group. **Be sure to get on waitlist if your course is full.**
- Maintain a GPA of at least 3.0.

APPLY WHAT YOU LEARN

- Look for a service-learning course! For guidance, visit Engaged Scholarship & Learning Office.
- Participate in a UTRGV community service project.
- Ask a fellow student in class to study with you.
- Feeling sick? Visit the free Student Health Services

GLOBAL, CAMPUS & COMMUNITY ENGAGEMENT

- Set up your profile on the Engagement Zone through My.UTRGV.edu.
- Attend a diversity based campus or community event (e.g. MLK Day of Service).
- Attend a departmental program such as Engineering Convocation.
- Join a student organization! Consider looking into ESAC or visit VLink (utrgv.edu/vlink) for options.

LIFE AFTER GRADUATION

- Create a résumé and set up your profile on the Handshake icon: (My.UTRGV.edu).
- Got summer plans? Visit Career Center and ask about places to do some job shadowing.
- Research shows that students who work on campus perform better than those who work off campus. Look for a job on Handshake!
- Check your UTRGV email for the daily Messenger- locate and attend one student workshop.

- Maintain a GPA of 3.0 (or higher if you can!)
- Complete major foundation classes, such as CIVE 2440, CIVE 3315/3115, and CIVE 3321.**
- Complete MATH sequence courses, such as MATH 2415 and MATH 3341.**
- Complete 30 credit hours.
- Become a member of the ASCE (it's free!) and join their local UTRGV student chapter (minor fee).
- If you haven't done so, job-shadow an EIT (Engineer-in-training) or a PE (Professional Engr).

- Want to explore different careers? Check out MyMajors!
- Come ready with course suggestions and questions when you visit your academic advisor.
- Visit the Communication Hauser Lab for help with your speeches and job interviews.
- Trouble making your tuition payment? The Financial Aid Office can help. Payment plans and emergency loans are also available

- To find undergraduate research opportunities, visit the Engaged Scholarship & Learning Office.
- Consider attending the LeaderShape Institute or attend the Engaged Scholar Symposium.

- Look at study abroad opportunities! Consider going to Peru or other interesting countries!
- Check out a cultural campus or community event such as HESTEC or FESTIBA.
- Join another student organization. Perhaps Student Government Association or visit VLink for options.
- Check out a campus event that offers free lunch- bring a friend!

- Update your resume in Handshake
- Visit the Career Center site to find a job fair to attend. At the event, approach a recruiter and discuss internships.
- Will a minor expand your career options? We do not have a recommendation for a minor.
- Explain to someone how your academic program aligns with your strengths and interests.

- Maintain a GPA of at least 3.0 in order to qualify for the best internships and entry-level jobs!
- Complete 30 credit hours.
- Have you landed an internship or acquired research experience? This is the year to make it happen, since most employers look for that.
- Put together a work portfolio with your most relevant student work, internship projects, Etc. This will give you an edge in finding good internships and/or entry-level jobs!

- Seek out research opportunities within your major and join a professional organization such as American Society of Civil Engineers.
- Check Degree Works to make sure you are on track for graduation next year.
- Apply for internship and/or job shadowing opportunities. Discuss this with your advisor, faculty mentor, or Career Center.

- Go show off your research, service-learning or creative works at the Engaged Scholar Symposium (this will open a lot of doors for you!)
- Sharpen your writing skills! Take an intensive writing course such as ENGL 3342 or become the secretary for your organization.

- Consider serving on a campus life/community committee or become a student leader and make a difference. Visit VLink or speak with your Student Government Association for more information!
- Travel the world! Look into study abroad opportunities at Office for International Programs & Partnerships.

- Check out the Civil Engineering department website for postings on career/graduate school.
- Think about three people you can ask for letters of recommendation (professors, mentors, advisors, supervisors, etc.). Give them at least two weeks' advance notice!
- When is the deadline for your graduate school application? Most do not accept late applicants!

- Study hard to get a GPA above 3.0 in order to get good entry-level jobs since **most employers require it.**
- "I have a plan for after graduation." If this describes you, great! If not, visit your Faculty Advisor or Career Center!
- Register for your Capstone/senior/portfolio project: CIVE 4391 & 4392 CE Senior Design Project I & II.
- Complete at least 30 credit hours to graduate.
- Submit your application(s) for graduate school, an apprenticeship, or for fulltime employment.

- Engage in an independent study project or an academic internship to complement your major, such as Texas Department of Transportation.
- Discuss future plans with your faculty mentor or advisor that includes employment, finances, and other life goals.
- Apply for graduation one semester prior to your anticipated date. Visit the Academic Advising Center to ensure you are on track.

- Continue to present research or creative works at the Engaged Scholar Symposium.
- Set up an informational interview with an individual (especially an alumnus) currently in the field you aspire to work in.

- Identify employers of interest and seek them out at job fairs, online, at on-campus information sessions, staffing agencies, etc. The Career Center can help.
- Before a job interview, schedule a mock interview with the Career Center or speech coaching with the Communication Hauser Lab.

- Have you received your acceptance for graduate school or an employment offer? If not, network: talk to faculty, the Career Center, and get on LinkedIn.
- Formulate and implement a strategy for life after graduation: attend career fairs, graduate fairs, apply to fellowships, etc.
- Update your information with Alumni Relations. Enjoy alumni mixers, events and continued access to Career Center services!
- Remember to do your exit loan counseling on studentloans.gov.

- **Structural**
- **Urban Planning**
- **Construction**
- **Environmental**
- **Water Resources**
- **Transportation**
- **Geotechnical**
- **Construction industry**
- **Utility companies**
- **Oil companies**
- **Water/Waste water treatment plant**
- **Manufacturing companies**
- **Railroads**
- **Airports**
- **Road construction**
- **Engineering, surveying & architecture offices and consultants.**
- **City, state, and federal government:**

- **Departments of Transportation (TxDOT & others)**
- **Army Corps of Engineers**
- **International Boundary and Water Commission**
- **Environmental Protection Agency**
- **City Engineering & Planning offices**

For additional info, visit the Career Center website and check out "What Can I Do With This Major?" www.utrgv.edu/careercenter