CATALOG YEAR 2024-2025

ACADEMIC MAP

Civil Engineering, Bachelor of Science

TEXAS A&M UNIVERSITY CORPUS CHRISTI

FINISH IN 4

First Year		
Fall		**Hours**
ENGL 1301	Writing and Rhetoric I	3
HIST 1301	U.S. History to 1865	3
UNIV 1101	University Seminar I	1
MATH 2413	Calculus I	4
CHEM 1411	General Chemistry I	4
ENGR 1201	Introduction to Engineering	2
	Hours	**17**
Spring		
ENGL 1302 or COMM 1311	Writing and Rhetoric II or Foundation of Communication	3
ENGR 1312	Engineering Graphics I	3
UNIV 1102	University Seminar II	1
MATH 2414	Calculus II	4
COSC 1330	Programming for Scientists, Engineers, and Mathematicians	3
PHYS 2425	University Physics I	4
	Hours	**18**
Second Year		
Fall		
ENGR 2325	Statics	3
MATH 3315	Differential Equations	3
HIST 1302	U.S. History Since 1865	3
MATH 2415	Calculus III	4
PHYS 2426	University Physics II	4
	Hours	**17**
Spring		
ENGR 2326	Dynamics	3
Language, Philosophy & Culture Core Requirement		3
ENGR 3322	Materials Science	3
GEOL 1403 or GISC 1470	Physical Geology or Geospatial Systems I	4
	Hours	**13**

Third Year		
Fall		
POLS 2305	U.S. Government and Politics	3
MATH 3342	Applied Probability and Statistics	3
ENGR 3315	Fluid Mechanics	3
ENGR 3320	Strength of Materials	3
CEEN 2315	Geomatics and Surveying Engineering	3
	Hours	**15**
Spring		
POLS 2306	State and Local Government	3
CEEN 3320	Geotechnical Engineering I	3
Technical elective		3
CEEN 4312	Hydraulics and Hydrology	3
CEEN 3321	Structural Analysis	3
CEEN 4304	Construction Materials Design	3
	Hours	**18**
Fourth Year		
Fall		
ENGR 4420	Engineering Lab Measurements	4
ENGR 4240	Project Management	2
Social and Behavioral Sciences Core Requirement		3
CEEN 4325	Reinforced Concrete Design	3
CEEN 4323	Structural Steel Design	3
	Hours	**15**
Spring		
ENGR 4370	Capstone Projects	3
CEEN 4306	Transportation Engineering	3
Technical elective		3
Creative Arts Core Requirement		3
Technical elective		3
	Hours	**15**
	Total Hours	**128**

This is not an official degree plan. It is a guideline for planning your courses. To access a copy of this academic map please visit tamucc.edu/academics/planning/academic-advising/

CAREER MAP

CIVIL ENGINEERING

Bachelor of Science

Civil engineers oversee large construction projects, including designing, constructing, supervising, and maintaining road systems and the accompanying infrastructure, buildings, airports, and systems for water treatment, hydroelectricity, and more. Because there are so many different aspects of civil engineering, many civil engineers choose to pursue a specialty. The civil engineering curriculum prepares graduates to apply knowledge of mathematics through differential equations, calculus-based physics, chemistry, and at least one additional area of basic science; to apply probability and statistics to address uncertainty; to analyze and solve problems in technical areas appropriate to civil engineering; to conduct experiments in technical areas of civil engineering and analyze and interpret the resulting data; to design a system, component, or process in civil engineering contexts; to include principles of sustainability in design; to explain basic concepts in project management, business, public policy, and leadership; and to analyze issues in professional ethics. The civil engineering curriculum consists of 123 credit hours. All civil engineering students must complete a senior-level capstone project in ENGR 4370 Capstone Projects (3 sch) (3 sem. hrs.). Students will work with practicing engineers and engineering faculty. The Capstone Project will give engineering students practical, professional experience to prepare them for careers in civil engineering.

CONTACT INFORMATION

Career Counselor:
Career and Professional Development Center | UC 304 | 361.825.2628 | career.center@tamucc.edu

Internship Coordinator:
Mayra Alvarado | RFEB 215 | 361.825.6025 | mayra.alvarado@tamucc.edu

Department Contact:
Department of Engineering | RFEB 222 | 361.825.5849 | mayra.alvarado@tamucc.edu

ADDITIONAL PROGRAM REQUIREMENTS

All civil engineering students are encouraged to take the Fundamentals of Engineering (FE) exam. This exam is an important step toward licensure as a Professional Engineer (P.E.), which many civil engineers find useful and necessary in their careers. Close to the end of the B.S. degree program is an excellent time to take the exam, because the student has the best preparation for the exam at that point in the student's academic career. For all students admitted into a pre-engineering program at TAMUCC who wish to transfer into one of the TAMU-CC engineering programs (CEEN, EEEN, IEEN, MEEN), the cumulative GPA for all MATH, CHEM, PHYS, ENGR, COSC, CEEN, EEEN, IEEN, or MEEN courses that appear in the CEEN, EEEN, IEEN, or MEEN program curricula, plus any ENTC courses, taken at TAMU-CC, or their equivalents taken at other institutions, should be 2.5 or greater to be admitted into the CEEN, EEEN, IEEN, or MEEN programs at TAMU-CC. There should be a minimum of at least 12 hours of such courses taken at TAMU-CC or elsewhere before a transfer / admission to CEEN, EEEN, IEEN, or MEEN may be considered. All such students must also meet the requirements to take MATH 2413 Calculus I (4 sch) if they have not already done so.

STUDENT ORGANIZATIONS

- Society of Hispanic Professional Engineers
- Math Club
- SACNAS Chapter at Texas A&M University - Corpus Christi

SKILLS/ATTRIBUTES

- Analytical Skills
- Critical Thinking/Problem Solving
- Teamwork/Collaboration
- Oral/Written Communication
- Math Skills
- Decision Making Skills
- Organizational Skills

CAREER OPTIONS

- Construction
- Design Engineer
- Civil Engineer
- Nuclear Engineer
- Building Control Surveyor
- Site Engineer
- CAD Technician
- Structural Engineer
- Transportation Engineer

ADDITIONAL SOURCES OF INFORMATION

1. American Society of Civil Engineers
2. National Society of Professional Engineers
3. Society of Women Engineers
4. National Society of Black Engineers

This content is subject to change. Please check our website to receive the most up to date information:
https://www.tamucc.edu/institutional-advancement/career-center/