CATALOG YEAR 2022-2023

ACADEMIC MAP

CIVIL ENGINEERING

Bachelor of Science

TEXAS A&M UNIVERSITY CORPUS CHRISTI

FINISH IN 4

START HERE

YEAR 1

1 SEMESTER 1 - FALL	CREDITS	COMPLETED
UNIV 1101 UNIVERSITY SEMINAR I	1	✓
ENGL 1301 WRITING AND RHETORIC I	3	
HIST 1301 U.S. HISTORY TO 1865	3	
MATH 2413 CALCULUS I	4	
CHEM 1411 GENERAL CHEMISTRY I	4	
ENGR 1201 INTRODUCTION TO ENGINEERING	2	

TOTAL CREDITS: 17

2 SEMESTER 2 - SPRING	CREDITS	COMPLETED
UNIV 1102 UNIVERSITY SEMINAR II	1	
ENGL 1302 OR COMM 1311 WRITING AND RHETORIC II OR FOUNDATION OF COMMUNICATION	3	
ENGR 1312 ENGINEERING GRAPHICS I	3	
MATH 2414 CALCULUS II	4	
COSC 1330 PROGRAMMING FOR SCIENTISTS, ENGINEERS, AND MATHEMATICIANS	3	
PHYS 2425 UNIVERSITY PHYSICS	4	

TOTAL CREDITS: 18

YEAR 2

3 SEMESTER 3 - FALL	CREDITS	COMPLETED
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	

TOTAL CREDITS: 17

4 SEMESTER 4 - SPRING	CREDITS	COMPLETED
ENGR 2326 DYNAMICS	3	
LANGUAGE, PHILOSOPHY & CULTURE CORE REQUIREMENT	3	
ENGR 3316 THERMODYNAMICS	3	
ENGR 2460 CIRCUIT ANALYSIS	4	

TOTAL CREDITS: 13

YEAR 3

5 SEMESTER 5 - FALL	CREDITS	COMPLETED
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	

TOTAL CREDITS: 15

6 SEMESTER 6 - SPRING	CREDITS	COMPLETED
POLS 2306 STATE AND LOCAL GOVERNMENT	3	
ENGR 3316 THERMODYNAMICS	3	
CEEN 3320 GEOTECHNICAL ENGINEERING I	3	
CEEN 4324 STRUCTURAL ENGINEERING	3	
TECHNICAL ELECTIVE	3	
CEEN 4312 PRINCIPLES OF HYDRAULICS AND HYDROLOGY	3	

TOTAL CREDITS: 18

YEAR 4

7 SEMESTER 7 - FALL	CREDITS	COMPLETED
ENGR 4420 ENGINEERING LAB MEASUREMENTS	3	
ENGR 4240 PROJECT MANAGEMENT	3	
CEEN 4304 CIVIL AND CONSTRUCTION MATERIALS	3	
CEEN 3330 GIS FOR CIVIL AND ENVIRONMENTAL ENGINEERING	3	
SOCIAL AND BEHAVIORAL SCIENCES CORE REQUIREMENT	3	

TOTAL CREDITS: 15

8 SEMESTER 8 - SPRING	CREDITS	COMPLETED
ENGR 4370 CAPSTONE PROJECTS	3	
CEEN 4306 TRANSPORTATION ENGINEERING	3	
TECHNICAL ELECTIVE	3	
CREATIVE ARTS CORE REQUIREMENT	3	
TECHNICAL ELECTIVE	3	

TOTAL CREDITS: 15

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/

130 CREDITS | FINISHED!

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
david.bridges@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 TAMU-CC 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.

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

CAREER OPTIONS

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

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

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