CATALOG YEAR 2022-2023

ACADEMIC MAP

ELECTRICAL ENGINEERING

Bachelor of Science

TEXAS A&M UNIVERSITY CORPUS CHRISTI

FINISH IN 4

START HERE

1

SEMESTER 1 - FALL	CREDITS	COMPLETED
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	

TOTAL CREDITS: 17

2

SEMESTER 2 - SPRING	CREDITS	COMPLETED
ENGL 1302 WRITING AND RHETORIC II	3	
HIST 1302 U.S. HISTORY SINCE 1865	3	
UNIV 1102 UNIVERSITY SEMINAR II	1	
MATH 2414 CALCULUS II	4	
MATH 2305 DISCRETE MATHEMATICS I	3	
PHYS 2425 UNIVERSITY PHYSICS I	4	

TOTAL CREDITS: 18

YEAR 1

3

SEMESTER 3 - FALL	CREDITS	COMPLETED
ENGR 2306 DIGITAL SYSTEMS	3	
ENGR 2106 DIGITAL SYSTEMS LABORATORY	1	
COSC 1320 C PROGRAMMING	3	
MATH 2415 CALCULUS III	4	
PHYS 2426 UNIVERSITY PHYSICS II	4	

TOTAL CREDITS: 18

4

SEMESTER 4 - SPRING	CREDITS	COMPLETED
ENGR 2325 STATICS	3	
ENGR 3316 THERMODYNAMICS	3	
ENGR 3322 MATERIALS SCIENCE	3	
ENGR 2460 CIRCUIT ANALYSIS	3	

TOTAL CREDITS: 16

YEAR 2

5

SEMESTER 5 - FALL	CREDITS	COMPLETED
EEEN 3315 ELECTRICAL CIRCUITS II	3	
EEEN 3418 MICROPROCESSORS AND MICROCONTROLLERS	4	
MATH 3311 LINEAR ALGEBRA	3	
MATH 3345 STATISTICAL MODELING AND DATA ANALYSIS	3	
POLS 2305 U.S. GOVERNMENT AND POLITICS	3	

TOTAL CREDITS: 16

6

SEMESTER 6 - SPRING	CREDITS	COMPLETED
EEEN 3310 ELECTROMAGNETIC THEORY	3	
EEEN 3320 INTRODUCTION TO COMMUNICATION THEORY AND SYSTEMS	3	
EEEN 3330 CONTROL SYSTEMS I	3	
EEEN 3350 ELECTRONIC SYSTEMS DESIGN	3	
TECHNICAL ELECTIVE	3	
SOCIAL AND BEHAVIORAL SCIENCES CORE REQUIREMENT	3	

TOTAL CREDITS: 18

YEAR 3

7

SEMESTER 7 - FALL	CREDITS	COMPLETED
ENGR 4420 ENGINEERING LAB MEASUREMENTS	4	
ENGR 4240 PROJECT MANAGEMENT	2	
EEEN 4310 SIGNAL PROCESSING	3	
TECHNICAL ELECTIVE	3	
LANGUAGE, PHILOSOPHY & CULTURE CORE REQUIREMENT	3	

TOTAL CREDITS: 15

8

SEMESTER 8 - SPRING	CREDITS	COMPLETED
ENGR 4370 CAPSTONE PROJECTS	3	
EEEN 4333 MACHINE VISION AND IMAGE PROCESSING	3	
TECHNICAL ELECTIVE	3	
POLS 2306 STATE AND LOCAL GOVERNMENT	3	

TOTAL CREDITS: 12

YEAR 4

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

ELECTRICAL ENGINEERING

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FINISH IN 4

Electrical Engineers develop electrical systems using knowledge of physics, mathematics, circuit design, electromagnetic theory, communication theory, control systems and signal processing. Electrical engineering historically involved the generation, transmission, and utilization of electrical energy. Today, electrical engineering applications also include control systems, robotics, automation, plasma, sensors, computers and imaging. The Bachelor of Science in Electrical Engineering (BSEE) program emphasizes service, systems-based knowledge, and sustainability with an eye toward the interface of traditional electrical engineering with new and emerging fields, in particular unmanned aircraft systems, maritime sciences and marine biology that directly impact the Gulf Coast. All electrical engineering students must complete a senior-level capstone project in ENGR 4370 Capstone Projects (3 sch). Students will work with practicing engineers and mechanical engineering faculty. The Capstone Project will give engineering students practical, professional experience to prepare them for careers in electrical 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

Students are encouraged to take the NCEES (National Council for Examiners for Engineering and Surveying) Fundamentals of Engineering (FE) exam during their senior year. The FE exam is the first step in the process that leads to licensure as a Professional Engineer (P.E.).
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.

CAREER OPTIONS

• Electrical Engineer	• Quality Engineer
• Instrumentation Engineer	• Controls Engineer
• Test Engineer	• Project Engineer
• Hardware Electronics Engineer	• Design Engineer
• Aeronautical Engineer	

STUDENT ORGANIZATIONS

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

ADDITIONAL SOURCES OF INFORMATION

1. National Society of Professional Engineers
2. Society of Women Engineers
3. National Society of Black Engineers
4. Institute of Electrical and Electronics Engineers

SKILLS/ATTRIBUTES

- Critical Thinking/Problem Solving
- Teamwork/Collaboration
- Professionalism/Work Ethic
- Oral/Written Communication
- Digital Technology
- Concentration
- Math

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https://www.tamucc.edu/institutional-advancement/career-center/