CATALOG YEAR 2024-2025

ACADEMIC MAP

Industrial Engineering, Bachelor of Science

TEXAS A&M UNIVERSITY CORPUS CHRISTI

FINISH IN 4

First Year

Fall		Hours
UNIV 1101	University Seminar I	1
MATH 2413	Calculus I	4
ENGL 1301	Writing and Rhetoric I	3
HIST 1301	U.S. History to 1865	3
CHEM 1411	General Chemistry I	4
ENGR 1201	Introduction to Engineering	2
	Hours	**17**

Spring		
UNIV 1102	University Seminar II	1
ENGL 1302 or COMM 1311	Writing and Rhetoric II or Foundation of Communication	3
MATH 2414	Calculus II	4
COSC 1330	Programming for Scientists, Engineers, and Mathematicians	3
PHYS 2425	University Physics I	4
ENGR 1312	Engineering Graphics I	3
	Hours	**18**

Second Year

Fall		
HIST 1302	U.S. History Since 1865	3
PHYS 2426	University Physics II	4
MATH 2415	Calculus III	4
ENGR 2325	Statics	3
IEEN 2302	Engineering Economics	3
	Hours	**17**

Spring		
MATH 3315	Differential Equations	3
ENGR 2460	Circuit Analysis	4
ENGR 3316	Thermodynamics	3
ENGR 3322	Materials Science	3
	Hours	**13**

Third Year

Fall		
POLS 2305	U.S. Government and Politics	3
MATH 3342	Applied Probability and Statistics	3
MATH 3311	Linear Algebra	3
IEEN 3330	Robotics and Automation	3
ENGR 3350	Manufacturing Processes	3
	Hours	**15**

Spring		
POLS 2306	State and Local Government	3
IEEN 3320	Human Factors	3
IEEN 3302	Operations Research	3
Technical elective		3
Language, Philosophy & Culture Core Requirement		3
	Hours	**15**

Fourth Year

Fall		
ENGR 4420	Engineering Lab Measurements	4
ENGR 4240	Project Management	2
IEEN 4312	Experimental Design and Analysis	3
IEEN 3324	Human Systems Interface	3
Social and Behavioral Sciences Core Requirement		3
	Hours	**15**

Spring		
ENGR 4370	Capstone Projects	3
IEEN 4330	Digital Systems Simulation	3
Creative Arts Core Requirement		3
Technical elective		3
Technical elective		3
	Hours	**15**
	Total Hours	**125**

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

INDUSTRIAL ENGINEERING

Bachelor of Science

The Industrial Engineering curriculum prepares graduates to design, develop, implement, and improve integrated systems that include people, materials, information, equipment and energy. The curriculum includes in-depth instruction to accomplish the integration of systems using appropriate analytical, computational, and experimental practices. Industrial Engineers apply science, mathematics, and engineering methods to complex system integration and operations. Because these systems are so large and complex, IEs need to have knowledge and skills in a wide variety of disciplines, the ability to work well with people, and a broad, systems perspective. Industrial engineers use their knowledge and skills to improve systematic processes through the use of statistical analysis, interpersonal communication, design, planning, quality control, operations management, computer simulation, and problem solving.

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 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 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.

STUDENT ORGANIZATIONS

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

SKILLS/ATTRIBUTES

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

ADDITIONAL SOURCES OF INFORMATION

1. National Society of Professional Engineers
2. Society of Women Engineers
3. National Society of Black Engineers
4. Institute of Industrial and Systems Engineers

INTERNSHIP INFORMATION

- Industrial Engineer
- Maintenance Engineer
- Agricultural Engineer
- Distribution Planning Engineer
- Business Analyst
- Ergonomist
- Chemical Engineer
- Facilities Engineer
- Cost Estimator
- Project Engineer

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