COLLEGE OF ENGINEERING

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International Engineering Programs

The College of Engineering and the College of Liberal Arts and Sciences offer five-year, dual degree programs in German (Eurotech), French (Technopole France), and Spanish (Engineering Spanish Program). The programs include courses taught in the respective languages specifically designed to include engineering content. During the fourth year, students study abroad, taking coursework taught in their major's language during the first semester and complete an internship during their second semester.

Students who wish to concentrate their elective work in a second field within the College of Engineering may elect a double major program or a dual degree. Students seeking to double major (BSE and BSE) or pursue a dual degree (BS and BSE) should consult with their assigned academic advisor, and may need to meet with multiple faculty or staff advisors to co-create a plan of study.

The College of Engineering also offers Minors in:

- Bioinformatics
- Biomedical Engineering
- Computer Science
- Construction Engineering and Management
- Electronics and Systems
- Engineering Management
- Entrepreneurship and Technology Innovation
- Environmental Engineering
- Information Assurance
- Information Technology
- Manufacturing
- Materials Science and Engineering
- Nanomaterials
- Nanotechnology

Please refer to the "Minors" section of this publication for these and other relevant minor descriptions.

Majors

B

- Biomedical Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/biomedical-engineering-bse/)

C

- Chemical Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/chemical-engineering-bse/)
- Civil Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/civil-engineering-bse/)
- Computer Engineering (BS) (https://catalog.uconn.edu/undergraduate/engineering/computer-engineering-bs/)
- Computer Science (BS) (https://catalog.uconn.edu/undergraduate/engineering/computer-science-bs/)
- Computer Science and Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/computer-science-engineering-bse/)

D

- Data Science and Engineering (BS) (https://catalog.uconn.edu/undergraduate/engineering/data-science-engineering-bs/)

E

- Electrical Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/electrical-engineering-bse/)
- Engineering Physics (BSE) (https://catalog.uconn.edu/undergraduate/engineering/engineering-physics-bse/)
- Environmental Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/environmental-engineering-bse/)

M

- Management and Engineering for Manufacturing (BS) (https://catalog.uconn.edu/undergraduate/engineering/management-engineering-manufacturing-bs/)
- Materials Science and Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/materials-science-engineering-bse/)
- Mechanical Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/mechanical-engineering-bse/)
- Multidisciplinary Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/multidisciplinary-engineering-bse/)

R

- Robotics Engineering (BSE) (https://catalog.uconn.edu/undergraduate/engineering/robotics-engineering-bse/)

The majors offered by the College of Engineering lead to Bachelor of Science of Engineering (BSE) degrees except for the Computer Science, Data Science and Engineering, and Management and Engineering in Manufacturing majors, which lead to Bachelor of Science (BS) degrees. See major descriptions for credit totals and accreditation information.

Admission Requirements

See Admission to the University section of this publication. All students admitted to the College of Engineering are required to take a math placement exam prior to attending orientation and registering for their first semester. Based on the survey results, students may be required to take additional preparatory course work that may not be counted toward graduation. Students not admitted into the College of Engineering at the time of entry to the University may apply for admission to a major through the College of Engineering. Admission is competitive. Decisions will be based on several criteria including the applicant's academic record, courses completed, and space availability. Students in the School may request a change to their major later by submitting an application to the College of Engineering and meeting the admission criteria for that major.

Scholarships

The College of Engineering offers academic merit based scholarships to first-year and continuing students. The University offers merit based scholarships to eligible incoming first-year students.

Faculty Advisors, Professional Advisors and Academic Support

Advising in the College of Engineering is mandatory for every student, every semester. Academic advising in the College of Engineering is done jointly by trained professional staff and faculty advisors. Typically, first- and second-year students are assigned to a professional staff advisor in order to assist students in their transition to college, aid students in navigating the University, and collaborate in course selection and academic planning. Faculty advisors typically meet with engineering students with junior or senior standing in order to assist students in their course selection, counsel them in meeting their educational and career goals, and provide discipline-specific mentorship. Faculty advisors and professional staff advisors are assigned to students entering the College of Engineering according to the student's major. The College of Engineering provides additional content-specific academic support via the Engineering Tutoring Center. The Engineering Tutoring Center is staffed by undergraduate engineering students and provides 40+ hours of weekly tutoring to all students on a walk-in basis.

College Academic Requirements

Students in the College of Engineering must complete the following requirements:

Common Curriculum Requirements

The Common Curriculum Requirements provide students with academic breadth and depth through a set of intellectually rigorous and challenging courses that foster skills and attributes associated with leadership and global citizenship. The program allows student students to make choices in their studies, to make connections between different disciplines and ideas, and to explore their creativity by taking courses that fall into six Topics of Inquiry (TOIs) and additional required Competencies. These requirements appear in the "Common Curriculum" section of this *Catalog*.

Additionally, all engineering students are required to complete:

- A one-time electronic preliminary plan of study submitted after 54 earned credits.
Course	Title	Credits
MATH 1131Q & MATH 1132Q	Calculus I and Calculus II	8
CSE 1010	Introduction to Computing for Engineers	3
- All majors, except B.S. in Computer Science and B.S. in Data Science and Engineering majors, are required to complete:
Course	Title	Credits
CHEM 1127Q	General Chemistry I	4
Select one of the following:		8-11
PHYS 1201Q & PHYS 1202Q & PHYS 1230	General Physics I and General Physics II and General Physics Problems	
PHYS 1401Q & PHYS 1402Q	General Physics with Calculus I and General Physics with Calculus II	
PHYS 1501Q & PHYS 1502Q	Physics for Engineers I and Physics for Engineers II	
- The University writing requirement is fulfilled through one First-Year Writing Course (ENGL 1007 Seminar and Studio in Writing and Multimodal Composition or ENGL 1010 Seminar in Academic Writing or ENGL 1011 Seminar in Writing through Literature) and two W courses, at least one in the major. Some programs have the required two W courses specified in the curriculum. If there are not two W courses in the program, each student must take a minimum of one W course outside the major to satisfy the University's Common Curriculum writing requirements.

Credit Restrictions

Students should read carefully the course descriptions in the Undergraduate Catalog before they register because some of the course credits may not count toward graduation. The following courses may not be counted for credit toward graduation in the College of Engineering: MATH courses numbered 1110Q and below. No course taken on a Pass/Fail basis may be counted for credit toward the required credits for graduation nor toward any course requirements for the College of Engineering.

Major Requirements and Normal Sequences

In addition to the University's Common Curriculum requirements and the College requirements listed above, the requirements for the specific majors are listed in the following pages. Full program details, normal/updated course sequences, and accreditation requirements can be found on the respective departmental website.

Accreditation Graduation Requirements

These requirements are for the following programs: Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Computer Science and Engineering, Electrical Engineering, Environmental Engineering, Management and Engineering for Manufacturing, Materials Science and Engineering, Mechanical Engineering, Multidisciplinary Engineering, and Robotics Engineering.

ABET Requirements

1. Math/Science Credits - Minimum of 30 credits (any TOI 6 course) including all courses from BIOL, CHEM, EEB, ERTH, GEOG, MARN, MATH, MCB, NUSC, NRE, PHYS, PNB, and STAT (unless restricted by program or school). SPSS courses may be used to satisfy this requirement if approved by the Office of the Dean.
2. Engineering Credits - Minimum of 45 credits from BME, CE, CHEG, CSE, ECE, ENGR, ENVE, ME, MEM, MSE, excluding classes as noted.

Accreditation Documentation Statements

The program educational objectives are intended to be statements that describe the expected accomplishments of graduates during the first several years following graduation from the program. Each program's educational objectives are listed within the actual program.

College of Engineering Supplementary Scholastic Standards Policy

To be in good academic standing in the College of Engineering, students must maintain a 2.5 cumulative GPA after completing 24 or more credits. Students must maintain a minimum 2.3 cumulative GPA to continue in the College of Engineering.

- Students who fall below a 2.3 cumulative GPA after 24 credits in residence will be removed from the College of Engineering and moved to the Academic Center for Exploratory Students.
- Students will have the opportunity to appeal this decision. If a student's cumulative GPA falls between 2.3 and 2.5, they will be considered on academic probation for the College of Engineering.

- Students on academic probation will be reduced to a 14-credit load until the cumulative GPA improves to at least 2.5. Students may stay in the College of Engineering while on academic probation with the reduced credit load.