

# COLLEGE OF ENGINEERING

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## EUROTECH

The College of Engineering and the College of Liberal Arts and Sciences offer five-year, dual degree programs in German (Eurotech), French (Technopole France), Spanish (Engineering Spanish Program), and Chinese (AsiaTech). 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. Students seeking to double major 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
- Environmental Engineering
- Information Assurance
- Information Technology
- Materials Science and Engineering
- Nanomaterials
- Nanotechnology

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

## Majors

- Biomedical Engineering (BSE) (<https://catalog.uconn.edu/undergraduate/engineering/biomedical-engineering-bse/>)
- 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/>)
- Data Science and Engineering (BS) (<https://catalog.uconn.edu/undergraduate/engineering/data-science-engineering-bs/>)
- 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/>)
- 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/>)
- 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.

## Supplementary Scholastic Standards

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. Residence means courses completed at one of the UConn campuses and does not include Early College Experience or non-degree courses. Students will have the opportunity to appeal this decision. If a student's cumulative GPA falls between 2.3 and 2.499, 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.

## 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.

## School Academic Requirements

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

### General Education Requirements

The University has adopted General Education Requirements in a variety of curricular areas, which must be satisfied as part of every bachelor's degree program. Additionally, each student must demonstrate competency in the University of Connecticut's five fundamental areas. These requirements appear in the "General Education Requirements" section of this *Catalog*.

Additionally, all engineering students are required to complete:

- A *Plan of Study* form submitted during the first semester of the junior year

Course	Title	Credits
MATH 1131Q & MATH 1132Q	Calculus I and Calculus II	8
ENGR 1000 & CSE 1010 or CSE 1010	Orientation to Engineering and Introduction to Computing for Engineers Introduction to Computing for Engineers	4

- All majors, except Mechanical Engineering, are required to complete PHIL 1104 Philosophy and Social Ethics
- All majors, except B.S. in Computer Science majors, are required to complete:

Course	Title	Credits
Select one of the following:		
CHEM 1127Q & PHYS 1501Q & PHYS 1502Q	General Chemistry I and Physics for Engineers I and Physics for Engineers II	12
PHYS 1201Q & PHYS 1202Q & PHYS 1230	General Physics I and General Physics II and General Physics Problems	11
PHYS 1401Q & PHYS 1402Q	General Physics with Calculus I and General Physics with Calculus II	8

- The University writing (W) course requirement is fulfilled through required major-specific W course work. 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 General Education 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 General Education requirements and the School requirements listed above, the requirements for the specific majors are listed in the following pages. Additionally, students successfully completing these courses will have met their general education information literacy exit requirement for this major. Full program details, normal/updated course sequences, and accreditation requirements can be found in the respective *Guide to Course Selection for each major*.

### 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 CA 3 class) including all courses from BIOL, CHEM, EEB, ERT, 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 ENGR 1000 Orientation to Engineering and other 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.