

COLLEGE OF ENGINEERING AND APPLIED SCIENCE (COEN)

Courses

COEN 1500 (1) CEAS Design Lab: Engineering Your Life

Using the Design Your Life framework new students work with their instructor and a Peer Mentor to intentionally understand the nuances of their social identities, discover opportunities that are available to them within the college, plan their future as an engineer, and develop successful study strategies and time management skills early in their educational careers. Allowable only in student's first semester at CU, should not be repeated.

Requisites: Restricted to students with 0-56 (Freshmen) College of Engineering majors only.

COEN 1510 (1) Self Management and Leadership Principles 1

Prepares first-year students for personal and academic success in their transition to college. Focuses on academic success strategies, time and stress management, study skills, S.M.A.R.T. goal setting and developing self-awareness. Students identify their strengths and participate in peer-to-peer interaction to foster collaboration and community. Students will also explore leadership capabilities, professional development, and insights into career interests. Speakers provide students with unique insights into academic and engineering experiences.

Requisites: Restricted to Engineering Goldshirt (PENG) students only.

COEN 1520 (1) Self Management and Leadership Principles 2

Continuation of COEN 1510. Self-management and student development is reiterated. Includes time and stress management, study skills and S.M.A.R.T. goal setting. Leadership skills are explored through group projects. Students complete professional development activities and assignments geared toward preparing students for engineering internships and research opportunities.

Requisites: Requires prerequisite course of COEN 1510 (minimum grade C-). Restricted to Engineering Goldshirt (PENG) students only.

COEN 1550 (1) YOU'RE@CU: Undergraduate Career Seminar

Exposes first or second year undergraduate students to engineering research careers through a partner program (YOU'RE@CU), panel discussions with researchers in academics and industry, and exposure to research labs. Restricted to YOU'RE@CU participants. Department consent required.

COEN 1830 (1-3) Special Topics

Explores topics of interest in engineering. Content varies by instructor and semester.

Repeatable: Repeatable for up to 9.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.

COEN 2830 (1-3) Special Topics

Explores topics of interest in engineering. Content varies by instructor and semester.

Repeatable: Repeatable for up to 9.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.

COEN 2850 (1-3) Independent Study

Provides opportunities for independent study at the lower-division undergraduate level. Subject and/or project agreed upon by the student and the instructor to fit the needs of the student.

Repeatable: Repeatable for up to 6.00 total credit hours.

Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.

COEN 2880 (1) Fresh Start for Success

Fresh Start is a class for students in the College of Engineering who want to work toward a Fresh Start! This course focuses on learning the mindsets and skills necessary to achieve academic and personal change goals. Topics include the science of learning (metacognition) and the use of metacognition in everyday life, including strategies supporting mastery of the material in engineering, effective study planning and test-taking, maintaining balance throughout the semester, and the science and creation of sustainable change through habits, support, and resiliency. This class focuses on the actions necessary to reflect deeply and develop awareness and skills to help create change. Enrolled students must engage in the class and commit to applying knowledge and skills acquired during lessons and reflection to their other classes and aspects of their student experience. This course is best suited for students looking for support in the pursuit of success in achieving academic goals.

Repeatable: Repeatable for up to 2.00 total credit hours.

Requisites: Restricted to Engineering Fresh Start (PEEA) students only.

COEN 3051 (2) Leadership Seminar 1: Launching the Leadership Experience

Practicing needs assessment, decision-making and planning skills, students take this seminar to prepare for their Leadership Experience (required for completion of the Engineering Leadership Certificate). Students work in collaboration with each other, their Engineering Leadership Program mentors and campus/community organizations and leaders to lay the foundation for and launch their individually unique Leadership Experiences.

Requisites: Requires a prerequisite course of COEN 2050 (minimum grade C-). Restricted to Engineering Leadership Program (PENL) students only.

COEN 3053 (2) Leadership Seminar 3: ELP Synthesis and Final ePortfolio

Progressing through this course, students complete the ePortfolio that demonstrates fulfillment of the requirements of the Engineering Leadership Certificate, reflecting upon synthesizing and discerning practical applications of the leadership experiences tackled throughout their time at CU.

Requisites: Restricted to Engineering Leadership Program (PENL) students only.

COEN 3100 (1) Engineering Transfer Student Success Seminar

Designed to aid in a successful transition to CU Engineering for students transferring from another two- or four-year institution. Through this course students will learn about college, campus and academic resources, evaluate their skills, explore relevant engineering transfer student issues, build on their strengths and education related to overall career goals, and establish a supportive transfer student community.

Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.

COEN 3210 (3) Climate Change and Engineering

Explores the fundamentals of climate change science, but from an engineering perspective. After learning the fundamentals, the relationship between climate change and different engineering disciplines will be discussed. Topics covered include geoengineering, renewable energy, sustainable engineering, coastal engineering, building design, etc. Career options and entrepreneurial opportunities will also be discussed.

Requisites: Requires prerequisite courses of PHYS 1110 and APPM 1350 (minimum grade D-).

COEN 3930 (1-6) Engineering Internship/Co-op

Students enrolled in this course participate in a pre-approved internship or cooperative education program with an employer that allows them to explore the relationship between theory and practice and demonstrate evidence of significant learning (e.g., academic assignments and employer/sponsor evaluations). Credits may apply towards BS or BA degree program in CEAS, please check with the department for specifics (even if student has multiple enrollments in this course and/or COEN 4950). Students should contact the CEAS Extracurricular Programs Manager for more information. Minimum 2.00 cumulative GPA is required.

Repeatable: Repeatable for up to 6.00 total credit hours.

Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.

COEN 4000 (1-3) Global Intensive Studies

Provides a hands-on exploration of a particular engineering/applied science subject area in an overseas setting. Serves as a complement to an existing engineering or applied science course taught at CU. Topic areas will vary.

Equivalent - Duplicate Degree Credit Not Granted: ENES 3844 COEN 5000

Repeatable: Repeatable for up to 6.00 total credit hours.

COEN 4830 (1-3) Special Topics

Explores topics of interest in engineering. Content varies by instructor and semester.

Repeatable: Repeatable for up to 9.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.

COEN 4850 (1-3) Independent Study

Provides opportunities for independent study at the upper-division undergraduate level. Subject and/or project agreed upon by the student and the instructor to fit the needs of the student.

Repeatable: Repeatable for up to 6.00 total credit hours.

Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.

COEN 4950 (1-6) Global Engineering Internship

Students enrolled in this course participate in a pre-approved global internship with an employer that allows them to explore the relationship between theory and practice and demonstrate evidence of significant learning (e.g., academic assignments and employer/sponsor evaluations). Up to 3 credits may apply towards BS degree program's Free Electives (even if student has multiple enrollments in this course and/or COEN 3930). Students may also earn COEN 4950 credit for international internship facilitated through CU-approved providers that contract with CU's Education Abroad Office. These placements must be pre-approved by the student's department/program to be eligible for credit. Students should contact the CEAS International Programs Director for more information. Minimum 2.75 cumulative GPA required.

Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.

COEN 5000 (1-3) Global Intensive Studies

Provides a hands-on exploration of a particular engineering/applied science subject area in an overseas setting. Serves as a complement to an existing engineering or applied science course taught at CU. Topic areas will vary.

Equivalent - Duplicate Degree Credit Not Granted: ENES 3844 COEN 4000

Repeatable: Repeatable for up to 6.00 total credit hours.

COEN 5830 (1-6) Special Topics

Explores topics of interest in engineering. Content varies by instructor and semester. May be repeated for up to 9 total credit hours.

Repeatable: Repeatable for up to 9.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to College of Engineering graduate students only.

Grading Basis: Letter Grade

COEN 5850 (1-6) Independent Study

Provides opportunities for independent study at the graduate level.

Subject and/or project agreed upon by the student and the instructor to fit the needs of the student.

Repeatable: Repeatable for up to 6.00 total credit hours.

Requisites: Restricted to College of Engineering graduate students only.