Environmental Engineering

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Environmental Engineering (EVEN) B.S. Degree Guidelines

Academic Year 20 23- 202 4

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College of Engineering and Applied Science

University of Colorado at Boulder

Environmental Engineering Program
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ram Staff

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1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics 2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors 3. an ability to communicate effectively with a range of audiences 4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts 5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	

2.1.2. Curriculum for EVEN BS Degree

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with incoming students for students entering the program during the current academic year, completion of this curriculum with a satisfactory grade point average is the requirement for graduation. The curriculum also represents a guarantee that the courses listed (or approved substitutes) will be available in the semesters listed.

The curriculum is somewhat dynamic despite its con-3.996 (m)-5.994 (. (T /TT3 9.9 (s)]TJ ET Q q 0 0 612 792 re W* n BT /TTQ6F

2.2. EVEN Sequence: Design and Technical Electives (beginning 2016 - 2017)

Beginning in the spring semester of their third year, EVEN students begin a three course (9 credit hours) sequence in environmental engineering. They will take one 3 credit hour design two additional (6 credit hours -division technical second from list A, no double counting).

Note that not all of the courses listed are offered every year, denoted by *I

List A

working with their established faculty mentors.

Admissions Requirements

In order to gain admission to the BAM programs named above, a student must meet the following criteria:

Have a cumulative GPA of 3.00 or higher or civil engineering nical engineering students must have a cumulative GMq 0 0 612 792 re W* n o

Other certificate and minor programs are available throughout the CU-Boulder campus, in many different disciplines. Some minors are particularly compatible with the EVEN BS degree: Applied Math, Chemistry, Ecology and Evolutionary Biology, Electrical Renewable Energy Systems, Geological Sciences, and Math. The Academic Advisor can provide more details on how these minors fit with the EVEN degree requirements.

3. Advising

3.1. Advising Process

In the Environmental Engineering Program, all students meet with the Academic Advisor and junior and senior students are assigned a Faculty Mentor to provide career counseling and promote greater student-faculty interaction. Students are required to participate in the advising process during designated advising weeks just prior to course registration for each semester. An advising hold

GRADUATION includes information for graduating seniors such as FE exam, senior checkout, recognition ceremonies, senior survey, etc.

CAREER DEVELOPMENT - s, mock interviewing, meetings with employers, Career Fair, etc.

JOB - includes job opportunities for students still in school such as internships, co-ops, and on-campus jobs, as well as information on permanent positions.

INTERNSHIP includes internship/co-op opportunities for students still in school.

EVENT includes upcoming meetings, programs, events, trips, and opportunities for volunteers to participate in various functions

EXTRACURRICULAR includes information on student societies, clubs, etc.

SURVEY

4.4. Technical Electives

4.4.1. Overview of Technical Electives

Technical electives provide an opportunity for students to explore a range of engineering, mathematical, and natural sciences topics to provide increased breadth or to focus on a specific technical area to develop in-depth understanding. In addition, one technical elective must be used to meet a requirement for a course in earth sciences.

4.4.2. Technical Elective Requirements

The EVEN BS curriculum requires nine credit hours of technical electives. Technical elective credit may be met by courses in the following categories:

- most engineering, physics, biology (both EBIO and MCDB), chemistry, geology, physical geography, atmospheric and oceanic sciences, and mathematics (both APPM and MATH) courses that are substantially different from required EVEN courses;
- many courses taught by Computer Science and Engineering Management;
- quantitatively rigorous courses in social sciences (economics, psychology, human geography);
- EVEN senior thesis; and
- independent study courses with appropriate technical content.

Three credit hours of technical electives may be lower division (1000-, 2000-level course). The remaining technical elective courses must be taken at the 3000-level or above. Both undergraduate and graduate courses (5000 level and above) may be taken as technical electives; enrollment in graduate courses requires the consent of the instructor.

One (3) three credit upper level TE may be satisfied by an upper Social Sciences class that is relevant to environmental engineering.

Requirement: One of the technical elective courses (3 credit hours) must be an earth science course at either the lower or upper division level.

All technical elective course selections should be approved by your advisor. Technical electives counted toward the graduation requirements for the EVEN BS degree may not be taken pass/fail.
Exceptions to these rules will be considered by petition to the Environmental Engineering faculty.

4.4.3. Internship for Credit

Internship for credit: Permitted to use up to 3 credits as a free or UD TE credit.
Must be preapproved per policies on website.

4.4.4. Specific Inclusions and Exclusions for Technical Electives

Independent study (see Section 4.7) is accepted as technical elective credit up to a maximum of 6 credit hours.
Co-op/internship credits will not count as technical electives nor toward other degree requirements, except as free elective credits.

Environmental Engineering Program a copy of the final product (a report, a computer code, etc.) in addition to any required products due to the collaborating faculty.

4.8. Senior Thesis

Students in their final year may choose to do a senior thesis, which is conducted over two terms and demonstrates that a s

student stating the work that must be completed to award a final grade. All work required for the final grade must be completed within one year or the I grade is changed to F. A grade of NC indicates that the course taken cannot be used to fulfill graduation requirements and cannot be repeated

Research: Flow visualization, Fluids education, Experimental vortex dominated fluid dynamics, Applications in cardiac flow and indoor air quality
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Amy Javernick-Will, Associate Professor, Civil, Environmental, And Architectural Engineering
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t5.995 e (e)4.005 (de)3 seatatnnd A.m(m5 (ch)4.07 (ra)3.)5.995 eKnng

Forms (College): Petition form, Change of Major Form, etc.): http://www.colorado.edu/engineering -advising/forms
Human

Student Name:____Student#:____________

Faculty Advisor:____Catalog year:________Major year:________

Required Courses

Engineering (54 hours)

EVEN 1000	Intro to Environmental Engineering	1	____________	____	___
CHEN 1310	Intro to Engineering Computing	3	____________	____	___
GEEN 1400	Engineering Projects	3	[redacted]	____	___
CVEN 3414	Fundamentals of Environmental Engr	3	____________	____	___
	Free Elective [redacted]				