

INTEGRATED DESIGN ENGINEERING *Environmental Emphasis – FALL 2025*

1

APPM 1350 (4)
Calculus 1 For Engineers

GEEN 1400 (3)
Engineering Projects

PHYS 1110 (4)
General Physics 1
(CR: APPM 1350)

COEN 1500 (1)
First-Year Seminar

**Humanities &
Social Science (2)**

2

APPM 1360 (4)
Calculus 2 For Engineers
(PR: APPM 1350)

CHEN 1310 (3)
Intro to Engineering
Computing
(CR: APPM 1350)

PHYS 1120 (4)
General Physics 2
(PR: PHYS 1110)
(CR: APPM 1360)

PHYS 1140 (1)
Experimental Physics
(CR: PHYS 1120)

**Writing
Requirement(3)**

3

APPM 2350 (4)
Calculus 3 For Engineers
(PR: APPM 1360)

GEEN 2400 (3)
Engineering Projects for
the Community
(PR: GEEN 1400)

GEEN 2851 (3)
Statics & Structures
(PR: APPM 1360, PHYS 1110)
Fall Only

CHEN 1201 (4)
General Chemistry for
Engineers 1
(PR: 1 yr. HS Chemistry or CHEM
1021, HS Algebra)

**Humanities &
Social Science (3)**

4

APPM 2360 (4)
Linear Algebra &
Differential Equations
(PR: APPM 1360)

Free Elective (3)

GEEN 3024 (3)
Materials Science for
Engineers
(PR: PHYS 1110)
Spring Only

CVEN 3313 (3)
Theoretical Fluid
Mechanics
(PR: GEEN 2851)
Spring Only

CHEN 1203 (2)
General Chemistry for
Engineers 2
(PR: CHEN 1201)

CHEM 1221 (1)
Engineering Chemistry
Lab
(CR: CHEN 1203)

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**Concentration
Course (3)**

GEEN 3400 (3)
Invention & Innovation
(PR: 57 credits)

GEEN 3852 (3)
Thermodynamics
(PR: PHYS 1110)
Fall Only

CVEN 3323 (3)
Hydraulic Engineering
(PR: CVEN 3313)
Fall Only

CVEN 3414 (3)
Fundamentals of
Environmental Engineering
(PR: CHEN 1201, APPM 1360)

**Humanities &
Social Science (3)**

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**Concentration
Course (3)**

Free Elective (3)

GEEN 3853 (4)
Data Analysis for Engineers
(PR: APPM 2360, CSO 1300, PHYS
1140)
(CR: GEEN 3010, Writing)
Spring Only

GEEN 3010 (3)
Circuits for Engineers
(PR: PHYS 1140)
(CR: APPM 2360)
Spring Only

EVEN Elective 1 (3)
See page 2 for options

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**Concentration
Course (3)**

Free Elective (3)

Free Elective (1)

EVEN 4464 (3)
Environmental
Engineering Processes
(PR: CVEN 3313, CVEN 3414)
Fall Only

EVEN Elective 2 (3)
See page 2 for options

**Humanities &
Social Science (3)**
Upper Division

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**Concentration
Course (3)**

Free Elective (3)

Free Elective (3)

EVEN 4434 (4)
Senior Design Project
(PR: CVEN 3424 or EVEN 4464)
(RPR: EVEN 4464)
Spring Only

**Humanities &
Social Science (3)**
Upper Division

Integrated Design Engineering Curriculum

Environmental Engineering Emphasis

Approved Course Substitutions

- **APPM 1350:** MATH 1300
- **APPM 1360:** MATH 2300
- **APPM 2350:** MATH 2400
- **APPM 2360:** MATH 2130 and MATH 3430, MATH 2135 and MATH 3430
- **CHEN 1201:** CHEN 1211, MCEN 1024, CHEM 1113
- **CHEN 1203:** CHEM 1133
- **CHEN 1310:** ASEN 1320, CSCI 1320, CSCI 1300, ECEN 1310
- **CVEN 3313:** CHEN 3200, MCEN 3021
- **EVEN 4434:** CVEN 4434
- **EVEN 4464:** CVEN 4464
- **GEEN 1400:** ASEN 1400, ASEN 1403, ECEN 1400
- **GEEN 1017:** AREN 1027, CVEN 1027, MCEN 1025 or EMEN 4100
- **GEEN 2851:** CVEN 2121, MCEN 2023, ASEN 2001/2701/2401
- **GEEN 3010:** ECEN 3010, MCEN 3017
- **GEEN 3024:** MCEN 2024
- **GEEN 3852:** ASEN 2110, MCEN 3012, ASEN 2002/2702/2402
- **GEEN 3853:** CVEN 3227, MCEN 3047

EVEN Electives

- **CVEN 3424:** Water & Wastewater Treatment (Spring Only)
- **CVEN 3434:** Introduction to Applied Ecology (Spring Only)
- **CVEN 4333:** Engineering Hydrology
- **CVEN 4474:** Hazardous & Industrial Waste Management
- **EVEN 4404 or CVEN 4404:** Water Chemistry (Fall Only)
- **EVEN 4484:** Introduction to Environmental Microbiology (Spring Only)
- **MCEN 4131:** Air Pollution Control Engineering (Fall Only)

Grade Requirements

The minimum passing grade for a course that is a prerequisite or corequisite for another required course is a C-. If a grade of D+ or lower is received in a course which is a prerequisite to another, the student may not register for the subsequent course until the first grade has been raised to a C- or higher. If a grade of D+ or lower is received in a course which is a corequisite to another, the course must be repeated until a grade of C- or higher is achieved.

The minimum passing grade for all required engineering core, disciplinary emphasis, and concentration courses is a C-. The minimum passing grade for a course that is not specifically a prerequisite or corequisite for another required course is D-, if not otherwise noted above.

In addition, students need to have a cumulative and major GPA of at least 2.000 in order to graduate from the College of Engineering. **Pass/Fail** is only permitted for up to 6 Free Elective credits.

Math or Science Electives

- Must reach at least 30 total math & science credits.
- [This is a list](#) of CU Boulder courses that have been approved to satisfy this requirement.
- Visit the [IDE Advising](#) webpage for more information.

Humanities & Social Science Electives/Writing Requirements

Visit the college's [Humanities, Social Sciences, and Writing Requirements](#) webpage for options.

FE Exam

Completion of the [FE Exam](#) is required of all IDE students to graduate.

Concentration

IDE majors are required to officially declare a [Concentration](#) by the end of their second year at the latest. Students who transfer into the IDE major after their second year must declare a Concentration by the end of their first semester in IDE. Students who have not declared a Concentration before those deadlines will receive a hold on their registration until they declare. Students can initiate the declaration process by emailing or meeting with an IDE Academic Advisor.

EVEN 4434 Pre-Requisites

- EVEN 4464 or CVEN 3424
- GEEN 2400
- GEEN 3400

Helpful Links

- [IDE Emphasis Areas](#)
- [IDE Concentrations](#)
- [IDE Core Courses](#)
- [IDE Projects](#)
- [FE Exam](#)
- [H&SS Requirements](#)
- [CEAS Forms](#) (including Petition, Incomplete Grade, and Independent Study)
- [Study Abroad](#)