ENGINEERING (ENGR)

ENGR 1000 - Introduction to Engineering (1 Credit)
Introduces engineering profession, engineering design and practice; and
the tools used by engineers to accomplish design. The specialties within
engineering are described. Students are involved in application projects
and use word processors, spreadsheets and engineering software. Note:
ENGR 1000 cannot be substituted for ELEC 1201. Prereq: High school
trigonometry. Repeatable. Max Hours: 3 Credits.
Grading Basis: Letter Grade
Repeatable. Max Credits: 3.

ENGR 1100 - Fundamentals of Computational Innovation (3 Credits)
Provides a foundation in computational thinking and practices. Students
learn to take advantage of computational power in problem solving by
writing simple programs, studying the underlying logic of hardware, and
working with a variety of technologies. Cross-listed with IWKS 2300 and
MECH 1100. Max hours: 3 Credits.
Grading Basis: Letter Grade

ENGR 1111 - Psychological and Social Implications of Technology (3 Credits)
This course will explore the impact of technology and its advances on
human beings from an emotional, psychological, and social perspective.
Discussions will include ethical, moral, and multicultural implications
of technological advances from a global perspective and will require
students to critically analyze issues that arise from such advances. Max
Hours: 3 Credits.
Grading Basis: Letter Grade
Restriction: Restricted to majors with 12 credit hours or less at CU
Denver.

ENGR 1130 - Chemistry for Engineers (5 Credits)
An introductory lecture and recitation course designed to meet the
general chemistry requirement for engineering students. Topics include
atoms, molecules, moles, stoichiometry, chemical bonding, atomic
& molecular structures, thermodynamics and kinetics. The course
will highlight the application of chemistry to engineering disciplines.
Note: Suggested background of one year of high school chemistry
or CHEM 1000 and MATH 1110 (or high school equivalent) strongly
recommended. Max Hours: 5 Credits.
Grading Basis: Letter Grade

ENGR 1200 - Fundamentals of Engineering Design Innovation (3 Credits)
This course introduces concepts of engineering design innovation
at a variety of scales and disciplines. Participants will experience
and explore core technology and design themes including design
principles, processes, methods, modes of thinking, and social and cultural
aspects or design. Cross-listed with CSCI 1200, CVEN 1200, MECH 1200,
ELEC 1201 and IWKS 2100. Max Hours: 3 Credits.
Grading Basis: Letter Grade

ENGR 1208 - Special Topics (1-3 Credits)
Restriction: Restricted to Engineering and pre-engineering students only.
Repeatable. Max Hours: 9 Credits.
Grading Basis: Letter Grade
Repeatable. Max Credits: 9.

ENGR 1218 - Special Topics (1-3 Credits)
Repeatable. Max Hours: 9 Credits.
Grading Basis: Letter Grade
Repeatable. Max Credits: 9.
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<th>Course Code</th>
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| ENGR 2268   | Special Topics (1-3 Credits)                |         | Explores the cultural and political foundations of technology and the impact of technology upon the individual and society. Contributions to technological advances and the impact of technology on women and diverse ethnic groups are examined in the context of specific engineering designs and case studies. (Satis
| ENGR 2278   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          | Additional Information: Denver Core Requirement, Cultural Diversity.               |
| ENGR 2288   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          | Additional Information: Denver Core Requirement, International Perspectives.        |
| ENGR 2298   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3208   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3218   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3228   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3238   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3248   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3258   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3268   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3278   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3288   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3298   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3300   | Technology and Culture (3 Credits)          |         | Explores the cultural and political foundations of technology and the impact of technology upon the individual and society. Contributions to technological advances and the impact of technology on women and diverse ethnic groups are examined in the context of specific engi
| ENGR 3308   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3318   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3328   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3338   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3348   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3358   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3368   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3378   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3388   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3398   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3400   | Technology and Culture (3 Credits)          |         | Explores the cultural and political foundations of technology and the impact of technology upon the individual and society. Contributions to technological advances and the impact of technology on women and diverse ethnic groups are examined in the context of specific engi
| ENGR 3418   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3428   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3438   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3448   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3458   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3468   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3478   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3488   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |
| ENGR 3498   | Special Topics (1-3 Credits)                |         |                                                                                                                                                                                                             | Repea       | Max Hours: 9 Credits.          | Grade Basis: Letter Grade                                                          |                                                                                       |

**ENGR 3400 - Technology and Culture (3 Credits)**
Explores the cultural and political foundations of technology and the impact of technology upon the individual and society. Contributions to technological advances and the impact of technology on women and diverse ethnic groups are examined in the context of specific engineering designs and case studies. (Satisfies the multicultural diversity requirement of the UCDHSC core curriculum). Max hours: 3 Credits.
Grade Basis: Letter Grade

**ENGR 3600 - International Dimensions of Technology and Culture (3 Credits)**
This course provides students with an understanding of how science, technology and international issues interrelate in a world that has become more interconnected and interdependent. The course will focus on the technical, organizational and cultural aspects of information and other technologies with an emphasis on their impact on third world countries. (Satisfies the international perspectives requirement of the UCDHSC core curriculum). Max hours: 3 Credits.
Grade Basis: Letter Grade
Additional Information: Denver Core Requirement, International Perspectives.

**ENGR 3995 - Global Technology, Business & Culture (3 Credits)**
Repeatable. Max Hours: 9 Credits.
Grade Basis: Letter Grade
Repeatable. Max Credits: 9.
Typically Offered: Summer.

**ENGR 4150 - Seminar: Special Topics in Engineering (1 Credit)**
A flexible seminar format dealing with topics of special interest in engineering. Topics vary from semester to semester. Prereq: Senior standing. Cross-listed with ENGR 5150 and 7150. Max hours: 1 Credit.
Grade Basis: Letter Grade
Restriction: Restricted to senior standing or higher
Typically Offered: Fall, Spring.

**ENGR 4208 - Special Topics (1-3 Credits)**
Repeatable. Max Hours: 9 Credits.
Grade Basis: Letter Grade
Repeatable. Max Credits: 9.

**ENGR 4218 - Special Topics (1-3 Credits)**
Repeatable. Max Hours: 9 Credits.
Grade Basis: Letter Grade
Repeatable. Max Credits: 9.

**ENGR 4228 - Special Topics (1-3 Credits)**
Repeatable. Max Hours: 9 Credits.
Grade Basis: Letter Grade
Repeatable. Max Credits: 9.

**ENGR 4238 - Special Topics (1-3 Credits)**
Repeatable. Max Hours: 9 Credits.
Grade Basis: Letter Grade
Repeatable. Max Credits: 9.

**ENGR 4248 - Special Topics (1-3 Credits)**
Repeatable. Max Hours: 9 Credits.
Grade Basis: Letter Grade
Repeatable. Max Credits: 9.

**ENGR 4258 - Special Topics (1-3 Credits)**
Repeatable. Max Hours: 9 Credits.
Grade Basis: Letter Grade
Repeatable. Max Credits: 9.
ENGR 4268 - Special Topics (1-3 Credits)
Repeatable. Max Hours: 9 Credits.
Grading Basis: Letter Grade
Repeatable. Max Credits: 9.

ENGR 4278 - Special Topics (1-3 Credits)
Repeatable. Max Hours: 9 Credits.
Grading Basis: Letter Grade
Repeatable. Max Credits: 9.

ENGR 4288 - Special Topics (1-3 Credits)
Repeatable. Max Hours: 9 Credits.
Grading Basis: Letter Grade
Repeatable. Max Credits: 9.

ENGR 4298 - Special Topics (1-3 Credits)
Repeatable. Max Hours: 9 Credits.
Grading Basis: Letter Grade
Repeatable. Max Credits: 9.

ENGR 4800 - Science Engineering and Culture for Undergraduates (3 Credits)
Course for undergraduate international and limited English proficient (LEP) students to improve success in science and engineering degree programs through senior research paper writing, advanced STEM English skills and cross cultural training. Repeatable. Max Hours: 6 Credits.
Grading Basis: Letter Grade

ENGR 4840 - Independent Study (1-3 Credits)
Repeatable. Max Hours: 9 Credits.
Grading Basis: Letter Grade
Repeatable. Max Credits: 9.