ENGR A199: CURRENT TOPICS IN ENGINEERING

Item	Value
Curriculum Committee Approval Date	10/30/2024
Top Code	092400 - Engineering Technology, General (requires Trigonometry)
Units	.5-5 Total Units
Hours	9-126 Total Hours (Lecture Hours 9-72; Lab Hours 0-54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Current topics in Engineering may include cultural topics as well as engineering topics and could rotate through a variety of topics, such as field studies, design/build projects, design studies, and construction studies. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Demonstrate a new or enhanced professional skill.
2. Be able to graphically or verbally articulate a current topic in engineering by producing a physical manifestation of newly acquired skills.

Course Objectives

- 1. Identify, discuss and analyze current topics in engineering.
- 2. Develop skills related to current topics.
- 3. Place and evaluate action or response related to the current topic.
- 4. Recognize need for new methodologies or new technologies that have evolved or changed over time.
- 5. Assess the limits of current engineering practices and develop new strategies or directions for future practices.

Lecture Content

Content related to current issues and topics in engineering. Analysis of implications related to cultural issues or changes in engineering practices. Responses to industry changes.

Lab Content

To be established by instructor

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

Instructional Techniques

Lectures, demonstrations, discussions, individual and small group exercises, instructor feedback, peer-to-peer.

Reading Assignments

Readings will be assigned in texts, handouts, or online resources as appropriate to the course topic and current resources available at the time the course is offered. Weekly hours: 6-48

Writing Assignments

Writing assignments will be given as appropriate to the topic. Weekly hours: 6-48

Out-of-class Assignments

Assignments will be given as appropriate to the topic and may include readings, research, reports, designs, and/or hands-on activities. Weekly hours: 6-48

Demonstration of Critical Thinking

Use learned skills towards the definition, simplification, solution and verification of engineering-related problems.

Required Writing, Problem Solving, Skills Demonstration

Apply acquired skills to solve engineering-related problems, build and test engineering-related products.

Eligible Disciplines

Engineering: Master's degree in any field of engineering OR bachelor's degree in any of the above AND master's degree in mathematics, physics, computer science, chemistry, or geology OR the equivalent. (NOTE: A bachelor's degree in any field of engineering with a professional engineer's license is an alternative qualification for this discipline.) Master's degree required. Title 5, section 53410.1

Other Resources

1. Selected handout materials for a specific topic will be provided and distributed by instructor. Texts will be adopted specifically to support the topic (which will change every semester).