ENGR M122: INDEPENDENT STUDY - ENGINEERING

Originator
srelle

College
Moorpark College

Discipline (CB01A)
ENGR - Engineering

Course Number (CB01B)
M122

Course Title (CB02)
Independent Study - Engineering

Banner/Short Title
Ind. Study - Engineering

Credit Type
Credit

Start Term
Spring 2020

Formerly
ENGR M22A/B

Catalog Course Description
Allows independent study for students who wish to extend their knowledge of a particular area of Engineering through research and study. Utilizes an approved independent project. Includes one-on-one work with the instructor. Interested students should contact an Engineering instructor for assistance in developing a contract for learning about a specific topic.

Additional Catalog Notes
May be taken for a maximum of 6 units.

Taxonomy of Programs (TOP) Code (CB03)
0924.00 - *Engineering Technology, General (requires Trigonometry)

Course Credit Status (CB04)
D (Credit - Degree Applicable)

Course Transfer Status (CB05) (select one only)
B (Transferable to CSU only)

Course Basic Skills Status (CB08)
N - The Course is Not a Basic Skills Course

SAM Priority Code (CB09)
D - Possibly Occupational

Course Cooperative Work Experience Education Status (CB10)
N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)
Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)
N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)
Y - Not Applicable

Course Noncredit Category (CB22)
Y - Credit Course

Funding Agency Category (CB23)
Y - Not Applicable (Funding Not Used)

Course Program Status (CB24)
2 - Not Program Applicable

General Education Status (CB25)
Y - Not Applicable

Support Course Status (CB26)
N - Course is not a support course

Field trips
Will not be required

Grading method
Letter Graded

Alternate grading methods
Student Option- Letter/Pass
Pass/No Pass Grading

Does this course require an instructional materials fee?
No

Repeatable for Credit
No

Is this course part of a family?
No

Units and Hours

Carnegie Unit Override
No

In-Class

Lecture

Activity

Laboratory

Total in-Class

Total in-Class

Outside-of-Class

Internship/Cooperative Work Experience

Paid
Minimum Paid Internship/Cooperative Work Experience Hours
37.5
Maximum Paid Internship/Cooperative Work Experience Hours
210

Unpaid
Minimum Unpaid Internship/Cooperative Work Experience Hours
30
Maximum Unpaid Internship/Cooperative Work Experience Hours
180

Total Outside-of-Class

Total Outside-of-Class

Total Student Learning

Total Student Learning

Minimum Units (CB07)
.5
Maximum Units (CB06)
3

Prerequisites
Completion of one course in Engineering and instructor approval

Entrance Skills

Entrance Skills
Completion of one course in Engineering and instructor approval

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Requisite Justification

Requisite Type
Prerequisite

Requisite
One course in engineering

Requisite Description
Course in a sequence

Level of Scrutiny/Justification
Other (specify)

Specify Other Level of Scrutiny/Justification
To complete an internship in engineering the student must have completed at least one course in engineering

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Student Learning Outcomes (CSLOs)

	Upon satisfactory completion of the course, students will be able to:
1	present the results of their independent study research or project.

Course Objectives

	Upon satisfactory completion of the course, students will be able to:
1	apply the knowledge acquired to other aspects of engineering.
2	formulate statements designed to assess the applicability of their knowledge to other related topics.
3	analyze new information, practices, or research in the engineering discipline and utilize those findings in further research or creative projects.

Course Content

Lecture/Course Content

Not applicable.

Laboratory or Activity Content

Project content and specific topics will be determined by the student in consultation with the supervising faculty member.

Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):

Problem solving exercises
Skills demonstrations
Written expression

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):

Individual projects
Journals
Oral analysis/critiques
Oral presentations
Projects
Participation
Portfolios
Reports/Papers/Journals
Reports/papers
Research papers

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Other (specify)

Specify other method of instruction

Meetings with the student to review project/internship progress.

Representative Course Assignments

Writing Assignments

1. Development of project-related documents: essays, project reports, library research, and literature reviews.
2. Projects to be outlined based upon consultation between the instructor and the student.

Critical Thinking Assignments

1. Projects to be outlined based upon consultation between the instructor and the student.

Reading Assignments

1. Reading assignments will depend upon the nature of the project.

Skills Demonstrations

1. Skills demonstrations will depend upon the nature of the project.

Outside Assignments

Representative Outside Assignments

1. Projects to be determined in a conversation between the instructor and the student.

District General Education

A. Natural Sciences

B. Social and Behavioral Sciences

C. Humanities

D. Language and Rationality

E. Health and Physical Education/Kinesiology

F. Ethnic Studies/Gender Studies

Course is CSU transferable
Yes

CSU Baccalaureate List effective term:
FALL 1998

CSU GE-Breadth

Area A: English Language Communication and Critical Thinking

Area B: Scientific Inquiry and Quantitative Reasoning

Area C: Arts and Humanities

Area D: Social Sciences

Area E: Lifelong Learning and Self-Development

CSU Graduation Requirement in U.S. History, Constitution and American Ideals:

IGETC

Area 1: English Communication

Area 2A: Mathematical Concepts & Quantitative Reasoning

Area 3: Arts and Humanities

Area 4: Social and Behavioral Sciences

Area 5: Physical and Biological Sciences

Area 6: Languages Other than English (LOTE)

Textbooks and Lab Manuals

Resource Type
Other Resource Type

Description
Specific books, articles, films, etc. used will be determined by the supervising faculty member in consultation with the student..

Library Resources

Assignments requiring library resources
Research projects using the Library's print and online resources.

Sufficient Library Resources exist
Yes

Primary Minimum Qualification
ENGINEERING

Review and Approval Dates

Department Chair
11/02/2019

Dean
11/02/2019

Technical Review
11/07/2019

Curriculum Committee
11/19/2019

DTRW-I
12/12/2019

Curriculum Committee
MM/DD/YYYY

Board
01/21/2020

CCCCO
01/28/2020

Control Number
CCC00061247

DOE/accreditation approval date
MM/DD/YYYY