

King Fahd University of Petroleum & Minerals
MECHANICAL ENGINEERING DEPARTMENT
ME 351: COOP Training

Catalogue Description (0-0-9):

A period of 28 weeks of industrial employment where Applied Mechanical Engineering students work in appropriate industries or firms. Students are evaluated on their performance on the job and are required to submit an extensive formal report on their experience in addition to making a presentation for a coop committee. (Limited to AME Students)

Status in Curriculum (Required or Elective): Required (offered twice a year)

Prerequisites: ENGL 214, ME307, ME309 and ME315

Co-requisites: None

Prerequisites by Topics:

- Introduction to Report Writing (ENGL 214)
- Design of mechanical and thermal systems
- Mechanics of Machines
- Principles of Heat Transfer

Textbook: None

References: None

Coordinators: Dr. Mohammed Antar, Mechanical Engineering

Goals: (general objectives)

To provide students with an opportunity to receive training in the industry such that they would be exposed to real-world working environment to assist them develop their individual and interpersonal team work skills, independence of judgment, work ethics, decision making and problem-solving skills, and utilize their academic background.

Course Outline (Lecture Topics): None

Design Activities/Projects:

Students are encouraged to work on design cases that involve engineering design analysis and/or go through a full problem identification, diagnosis and solution.

Computer Usage:

Students are encouraged/requested to utilize available computer software in the department such as Microsoft Word, Excel and PowerPoint and addition to SolidWorks, LABVIEW, FLUENT, ANSYS, EES, and MATLAB. In addition, they deal with their assigned coop advisors through a learning management system for their communication and reports submissions

Laboratory:

None

Assessment Tools:

- i- Company evaluations
- ii- Progress reports
- iii- Final report
- iv- Presentation

Course Learning Outcomes:

- I- The student should gain practical experience in mechanical engineering
- II- The student should demonstrate the ability to design/analyze industrial mechanical systems using engineering principles
- III- The student should demonstrate the ability to communicate effectively in various ways; reading, writing, presentation and be effective while working in a team.
- IV- The student should demonstrate the ability to work in team

Course Learning Outcomes mapped to Student Outcomes:

Student Outcomes	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>	<i>k</i>
Course-to-Student outcome mapping	II		II	IV	II	I	III	I			II
Emphasis*	S		M	S	M	S	S	M			M

* L: Little/None M: Moderate S: Strong

Status of Continuous Improvement review of this Course:

Date reviewed: 16 March 2015

Prepared by: Dr. M. Antar

Reviewed by:

Date prepared: