

1. Department, Course Number, and Course Title:

MECHANICAL ENGINEERING

ME 499 UNDERGRADUATE DIRECTED STUDY

2. Designation: Required Elective
Lower Division Upper Division

3. Course Description: Project selected in conference with the sponsor before registration; progress meetings held regularly, and a final report submitted. May be repeated for credit.

4. Prerequisites: Consent of an instructor to act as sponsor.

5. Text and Materials: Text varies. Resources include the Library, the Internet, all of the test equipment available in the college.

6. Course Objectives: To allow a student to independently research a topic and perform an experimental investigation related to the topic.

Course Outcomes

- Varies with Project

7. Topics Covered: (in Order of Presentation)

- Varies with Project and Advisor

8. Class Schedule: Number of Sessions per week: 1
Duration of each session: 2 hour 50 minutes

9. Contribution of course to meeting the professional component:

This course is a required laboratory course for the mechanical engineering program.
Engineering Laboratory 1 units

10. Relationship of course to program objectives:

This course relates to the program objectives by contributing to the following measurable outcomes at the level indicated for all engineering graduates:

Knowledge outcomes:

- an ability to apply knowledge of mathematics, science, and engineering (abet a)
- a knowledge of measurement and manufacturing

Skill outcomes:

- an ability to design and conduct experiments as well as to analyze and interpret data (abet b)
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice (abet k)
- an ability to think in a logical sequential process

Attitudes Outcome:

- a desire to be a flexible and adaptable team player (collaborative attitude)

11. Prepared by: Darrell Guillaume

05/2005