

1. Department, Course Number, and Course Title:

ENGINEERING

ENGR 100 INTRODUCTION TO ENGINEERING

2. Designation: Required Elective
Lower Division Upper Division

3. Course Description: Introduction to profession of engineering; academic success strategies; models for viewing education; collaborative learning and team building; time management; communication skills; introduction to campus facilities and resources.

4. Prerequisites: None.

5. Text and Materials: Studying Engineering: A Road Map to a Rewarding Career, R. B. Landis, Discovery Press, 2000.

6. Course Objectives: Provide students with an understanding of the academic and professional behaviors and skills necessary to enhance their chances of success as an engineering major, and ultimately as a professional. The skills include working effectively in teams, goal setting, time management, and developing oral communication skills. Students are also introduced to the campus resources available to engineering majors.

Course Outcomes

- knowledge of the engineering profession and academic success strategies.
- knowledge of the computing, library, and career center resources available.
- knowledge of the University policies and procedures.
- ability to manage time and work effectively in team settings
- ability to prepare and deliver an oral presentation.

7. Topics Covered: (in Order of Presentation)

- Keys to Success in Engineering Study (1 session)
- Rewards and opportunities of an Engineering Career (1 session)
- Models for Viewing Education (1 session)
- Academic Success Strategies (2 sessions)
- Behavior Modification (1 session)
- University Policies and Procedures (1 session)
- Team Building and Collaborative Learning (2 sessions)
- Time Management (1 session)
- Engineering Disciplines and Professional Registration (1 session)
- Communication Skills (1 session)
- Campus Resources (3 sessions)
- Broadening the Engineering Education (1 session)
- Quizzes (2 sessions)

8. Class Schedule: Number of Sessions per week: 1
Duration of each session: 1 hour 15 minutes

9. Contribution of course to meeting the professional component:

This course is part of the lower-division required courses.

Other 1 unit or 100%

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 understanding of professional and ethical responsibility (abet f)
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context (abet h)
- knowledge of current events and societal contemporary issues -- non-engineering related. (abet j)
- a knowledge of how mechanical engineering integrates into inter-disciplinary systems

Skill outcomes:

- an ability to function on multidisciplinary teams (abet e)
- an ability to communicate effectively (abet g)
- an ability to think in a logical, sequential process

Attitudes Outcome:

- an understanding of professional and ethical responsibility (abet f)
- a recognition of the need for an ability to engage in lifelong learning (abet i)
- an understanding of responsibility and accountability
- a desire to be a professional that exhibits values, dedication and a need for continual improvement
- a desire to be a flexible and adaptable team player (collaborative attitude)

11. Prepared by: Mark Tufenkjian and Stephen F. Felszeghy

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