1. Department, Course Number, and Course Title:

ENGINEERING

ENGR 301 ETHICS AND PROFESSIONALISM IN ENGINEERING

2. Designation:

Required	☑	Elective	☐
Lower Division	☐	Upper Division	☑

3. Course Description: Ethical and professional standards in engineering profession; impact of engineering profession on society; professional registration and liability; government regulations and legal responsibilities.

4. Prerequisites: Junior or Senior standing in engineering.

5. Text and Materials: Introduction to Engineering Ethics by R. Schinzinger & M. Martin, McGraw-Hill. ISBN: 0-07-233959-4.
Ethics in Engineering by M. Martin & R. Schinzinger, 4th Ed., McGraw-Hill. ISBN: 0-07-283115-4.
FE Review Manual by M. R. Lindeburg, Professional Publications, Inc. ISBN: 1-888577-53-3.

6. Course Objectives:

Course Outcomes

- Acquisition of the knowledge of professional responsibilities in engineering
- Acquisition of the knowledge of ethical issues in engineering professions
- Case studies of ethics in engineering and its impact on society
- Improvement in organization skills by identifying a team project and its building blocks
- Teamwork by working as a team to complete the term project
- Improvement in writing skills by means of term papers
- Improvement in presentation skills by means of team presentation.

7. Topics Covered: (in Order of Presentation)

- The Profession of Engineering (Ch. 1)
- Moral Reasoning and Ethical Theories (Ch. 2)
- Engineering as Social Experimentation (Ch. 3)
- Commitment to Safety (Ch. 4)
- Workplace Responsibilities and Rights (Ch. 5)
- Global Issues (Ch. 6)

8. Class Schedule:

Number of Sessions per week:	1
Duration of each session:	50 minutes

9. Contribution of course to meeting the professional component:

This course is part of the 49 units of upper

Engineering Science	1 unit

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)

Skill outcomes:

- an ability to function on multidisciplinary teams (abet e)
- an ability to communicate effectively (abet g)

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: Jeffrey Y. Beyon 05/2006