

Engineering Ethics and Professionalism

ENGR 7200

Credit Hours: 1.00 - 1.00 Course Levels: Graduate Course Components: Lecture

Course Description:

To learn professionalism and ethical decision-making strategies; topics include codes of ethics, moral frameworks, engineering as social experimentation, assessment of safety and risk, employer and employee rights and responsibilities, confidentiality and conflict of interest, whistle-blowing, research integrity, consulting engineers, expert witnesses. Engineering ethics case studies in detail

Course Goals / Objectives:

- To learn professionalism, ethical decision-making strategies, codes of ethics, moral frameworks, engineering
 as social experimentation, assessment of safety and risk, safe-exit and fail-safe systems, rights and
 responsibilities.
- To learn about confidentiality and conflict of interest, whistle-blowing, research integrity, consulting, expert witnesses, environment and sustainable development, globalization, appropriate technology, and moral leadership in engineering.

Course Topics:

- Introduction and Ethical Dilemmas, Choices, and Codes of Ethics
- Moral Frameworks for Engineering Ethics
- Engineering as Social Experimentation
- Safety and Risk
- Case Studies for the Design Process
- Engineer's Responsibilities and Rights
- Case Studies for the Workplace
- Honesty
- Environmental Ethics
- Global Issues
- Cautious Optimism and Moral Leadership

Designation:

Required