

16HS301 PROFESSIONAL ETHICS

Hours Per Week :

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Course Description and Objectives:

This course offers insight into workplace rights of people, their safety concerns and more importantly the ethics that are to be followed by professionals and corporates. The objective of the course is to bring in awareness among the students about human values, social responsibility and the ethics to be followed by engineering professionals.

Course Outcomes:

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Upon completion of the course, the student will be able to

- CO1: Engage in informed critical reflection on the nature of professionalism and ethical Challenges inherent in professionalism.
- CO2: Apply his/her awareness of professional rights and responsibilities of an engineer to conduct.
- CO3: Possess the ability to highlight ethical issues in risky situation.
- CO4: Aware of the role of professional bodies, and the code of ethics.
- CO5: Aware of code of ethics as per industrial standards prescribed for engineers.

SKILLS:

- ✓ *Analyze the issues faced by society and business world related to safe technologies/ practices, employee rights, resource sharing and allocation, team work, organizational dynamics, legislations related to business and technology, discrimination.*
- ✓ *Appreciate the need for workplace etiquette and proper code of conduct.*
- ✓ *Construct and evaluate arguments during decision making by considering viewpoints of all the stakeholders.*
- ✓ *Analyze one's own beliefs and values during interpersonal and intra-organizational conflicts.*
- ✓ *Detect inconsistencies and common errors in reasoning during discussions and practices.*

UNIT - 1 L-6

HUMAN VALUES : Morals, values, ethics, integrity, work ethic, service learning, civic virtue, respect for others, living peacefully, caring, sharing, honesty, courage, valuing time, co-operation, commitment, empathy, self-confidence, character and spirituality.

UNIT - 2 L-6

ENGINEERING ETHICS AND ENGINEERING AS SOCIAL EXPERIMENTATION : Engineering ethics; variety of moral issues; Types of inquiry- moral dilemmas, moral autonomy, the problems of many hands, Kohlburg's theory, Gilligan's theory impediments to responsible action.

Engineering as social experimentation; Codes of ethics; A balanced outlook on law; The challenger case study.

UNIT - 3 L-6

ENGINEER'S RESPONSIBILITY FOR SAFETY : Safety and risk; Assessment of safety and risk; Risk benefit analysis; Reducing risk, the government regulator's approach to risk - Chernobyl case studies and Bhopal gas tragedy.

UNIT - 4 L-6

WORKPLACE RIGHTS, RESPONSIBILITIES AND WORK ENVIRONMENT : Workplace rights and responsibilities; Engineers and managers; Organizational complaint procedures; Government agencies; Resolving employee concerns; Limits on acceptable behaviour in large corporation; Work environment- ethical and legal considerations, organizational responses to offensive behaviour and harassment; Ethics in a global context.

UNIT - 5 L-6

GLOBAL ISSUES : Multinational corporations; Business ethics; Environmental ethics; Computer ethics; Role in technological development, weapons development; Engineers as managers; Consulting engineers; Engineers as expert witnesses and advisors; Honesty; Moral leadership; Sample code of conduct.

TEXT BOOK:

1. M. Martin and R. Schinzinger, "Ethics in Engineering", McGraw Hill, New York, 2005.

REFERENCE BOOKS:

1. Prof. (Col) P. S. Bajaj and Dr. R. Agrawal, "Business Ethics – An Indian Perspective", Biztantra, New Delhi, 2004.
2. C. E. Harris, M. S. Protchard and M. J. Rabins, "Engineering Ethics – Concepts and Cases", Wadsworth Thompson Learning, United States, 2000.
3. E. G. Seebauer and R. L. Barry, "Fundamentals of Ethics for Scientists and Engineers", Oxford University Press, Oxford, 2001.

ACTIVITIES:

- Discuss a typical case study on workers strike and analyze the conflict of interest among different stakeholders.
- Reading and analyzing a prisoner's narrative of police abuse in custody.
- Watching and discussing a video report on mishaps such as space shuttle mishap.
- Analyze and comment on disasters such as Chernobyl, Bhopal etc.
- Analyzing the HR policies documents of a typical company on issues such as working hours, employee security and health care.