

19HS207 HUMAN VALUES, PROFESSIONAL ETHICS & GENDER EQUITY

Hours Per Week :

L	T	P	C
1	0	0	1

Total Hours :

L	T	P	WA/RA	SSH/HS	CS	SA	S	BS
15	0	0	6	6	7	0	0	10



Source:
www.google.com

COURSE DESCRIPTION AND OBJECTIVES:

The course will provide students with an understanding on engineering ethics and the nature of moral issues and dilemmas faced by engineers in their professional lives. It will give them an awareness on professional rights and responsibilities of an engineer and acquaint them on the code of conduct and ethics prescribed by professional bodies like IEEE, ASME etc for its members.

COURSE OUTCOMES:

Upon completion of the course, the student will be able to achieve the following outcomes:

COs	Course Outcomes	POs
1	Engage in an informed critical reflection on the nature of professionalism and ethical challenges inherent in engineering profession.	6, 7 8,9,12
2	Apply awareness of professional rights and responsibilities of an engineer to conduct themselves ethically within an organization.	6,7,8 9,12
3	Apply understanding of safety norms to highlight ethical issues in risky situation.	6,7,8 9,12
4	Understand the role of professional bodies, and the code of ethics and industrial standards prescribed for engineers.	6,7,8 9,12

SKILLS:

- ✓ *Safety and Environment consciousness.*
- ✓ *Ethical behaviour and decision-making at workplace.*
- ✓ *Work in large teams.*
- ✓ *Emotional intelligence for workplace.*

UNIT – I **L-3**

Introduction to professional ethics: Morals, Values and ethics, Civic virtue, Respect for others, Living peacefully, Caring, Sharing, Honesty, Valuing time, Co-operation, Commitment, empathy, Self-confidence, Courage, Character, Spirituality, Service learning, Introduction to Engineering Ethics, Profession, Professionalism.

UNIT – II **L-3**

Nature of moral issues: Moral dilemmas (Problem of Vagueness, Conflicting Reasons & Disagreement), Types of inquiry (Normative, Conceptual & Factual), Moral autonomy, Kohlberg's & Carol Gilligan's theory, Impediments to responsible action, Theories of right action (Bentham's Theory of Utilitarianism, Theory of Consequentialism etc.).

UNIT – III **L-3**

Engineering as social experimentation: Engineers' responsibility for safety, Assessment of safety and risk, Testing for safety, Risk benefit analysis, Reducing risk, Government regulator's approach to risk, A balanced outlook on law, Discussion of case studies - challenger disaster / chernobyl disaster; Code of ethics, Professional societies, Sample code of ethics like ASME, ASCE, IEEE etc.

UNIT – IV **L-3**

Rights and responsibilities at workplace: Organizational complaint procedures, Whistle blowing, Environment and the workplace, Gender equity, Understanding gender, Organizational policies regarding gender, Gender roles, Looking beyond stereotypical generalizations, Service rules, Conflict of interest, Prevention of sexual harassment, Women rights under labour laws.

UNIT – V **L-3**

Ethics in a Global Context: Multinational Corporations, Intellectual Property Rights, Business ethics, Transparency & fair practices, Discussion of case study: Enron-Dhabol project, Environmental Ethics, Challenge of sustainable development, UN Conventions & protocols on environment, Discussion of case studies - bhopal gas tragedy; Pacific gas & Electric company Vs Environmental activist, Erin Brockovich, Computer ethics, Automation & artificial intelligence, Cyber security & Cyber laws, Case study, Wiki leaks, Role in technological development, Weapons development.

TEXT BOOKS:

1. Martin Mike and Schinzinger Roland, 2010, "Introduction to Engineering Ethics", 2nd edition, McGraw-Hill Higher Education.
2. M. Govindarajan, S. Natarajan and V. S. Senthil Kumar, 2013, "Engineering Ethics", Prentice Hall of India, Reprint.
3. Charles E. Harris, Michael S. Pritchard and Michael J. Rabins, 2009, "Engineering Ethics: Concepts and Cases", 4th edition, Wadsworth Thompson Learning.

REFERENCE BOOKS:

1. Charles B. Fleddermann, 2014, "Engineering Ethics", 4th edition, Pearson Education/ Prentice Hall.
2. Edmund G. Seebauer and Robert L. Barry, 2008, "Fundamentals of Ethics for Scientists and Engineers", Oxford University Press.
3. "A Comprehensive Guide to Women's Legal Rights", Prepared by Majlis Legal Centre for IIT-Kanpur, 2018.