

## HUMAN VALUES & PROFESSIONAL ETHICS

**Course Code: 19HM11Z1**

<b>L</b>	<b>P</b>	<b>T</b>	<b>C</b>
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### Course Objective:

To impart the basic concepts of human values and ethical matters in professional life in order to make the student more effective in assessing humanitarian issues and making appropriate decisions.

**Course Outcomes:** At the end of the course, the student will be able to:

**CO1:** Understand various concepts of ethics and ethical issues

**CO2:** Describe various theories relating to professional ethics at work place

**CO3:** Determine the fundamental concepts of social experimentation and problem solving

**CO4:** Understand an engineer responsibility for social safety and concepts of risk benefits

**CO5:** Describe human values and environment in the era of digitisation and globalisation of workplace.

### UNIT – I

**10 lectures**

#### HUMAN VALUES

Morals, Values and Ethics – Integrity-Work Ethics -Service learning – Civic Virtue – Respect for others –Living Peacefully –Caring –Sharing –Honesty – Courage–Cooperation–Commitment – Empathy –Self Confidence Character –Spirituality

**Learning Outcomes:** At the end of this unit, the student will be able to

1. Define morals, values & work ethics. (L1)
2. Demonstrate respecting others and developing civic virtue. (L3)
3. Describe commitment (L1)
4. Describe how to live peacefully (L1)

### UNIT- II

**10 lectures**

#### ENGINEERING ETHICS

Senses of Engineering Ethics-Variety of moral issued –Types of inquiry –Moral dilemmas – Moral autonomy –Kohlberg’s theory-Gilligan’s theory-Consensus and controversy –Models of professional roles-Theories about right action-Self interest -Customs and religion –Uses of Ethical theories –Valuing time – Cooperation – Commitment

**Learning Outcomes:** At the end of this unit, the student will be able to

1. Summarise ethical responsibilities of the engineers. (L2)
2. Describe various theories of professional ethics. (L2)
3. Determine time management (L3)

4. Recite different professional roles and theories. (L1)

### UNIT- III

10 lectures

#### ENGINEERING AS SOCIAL EXPERIMENTATION

Engineering As Social Experimentation –Framing the problem –Determining the facts –Codes of Ethics –Clarifying Concepts –Application issues –Common Ground -General Principles – Utilitarian thinking respect for persons

**.Learning Outcomes:** At the end of this unit, the student will be able to

1. Describe issues relating to social experimentation. (L3)
2. Determine the process of framing the problem and the facts. (L2)
3. Summarise the concept of code of ethics. (L2)
4. Demonstrate the concept of utilitarian thinking (L3)

### UNIT- IV

10 lectures

#### ENGINEERS RESPONSIBILITY FOR SAFETY AND RISK

Safety and Risk –Assessment of safety and risk –Risk benefit analysis and reducing risk-Safety and the Engineer-Designing for the safety-Intellectual Property Rights (IPR)

**Learning Outcomes:** At the end of this unit, the student will be able to

1. Define safety, risk & risk benefit analysis. (L1)
2. Describe engineer's responsibility for providing safety. (L1)
3. Summarise Intellectual Property Rights. (L2)

### UNIT- V

10 lectures

#### GLOBAL ISSUES

Globalization –Cross culture issues-Environmental Ethics –Computer Ethics –Computers as the instrument of Unethical behaviour –Computers as the object of Unethical acts –Autonomous Computers-Computer codes of Ethics –Weapons Development -Ethics and Research – Analyzing Ethical Problems in research

**Learning Outcomes:** At the end of this unit, the student will be able to

1. Interpret changes in human value system in the era of globalisation. (L2)
2. Understand the computer ethics and environmental ethics (L2)
3. Outline ethical issues relating to weapons development. (L4)
4. Describe ethical problems in research. (L2)

#### TEXT BOOKS:

1. “*Professional Ethics and Human Values*” by A.Alavudeen, R.Kalil Rahman and M.Jayakumaran - Laxmi Publications.

2. *“Engineering Ethics includes Human Values”* by M.Govindarajan, S.Natarajanad, V.S.SenthilKumar-PHI Learning Pvt. Ltd-2009
3. *“Engineering Ethics”* by Harris, Pritchard and Rabins, CENGAGE Learning, India Edition, 2009.
4. *“Ethics in Engineering”* by Mike W. Martin and Roland Schinzinger –Tata McGraw-Hill–2003.
5. *“Professional Ethics and Morals”* by Prof.A.R.Aryasri, DharanikotaSuyodhana-Maruthi Publications.
6. *“Professional Ethics and Human Values”* by Prof.D.R.Kiran-
7. *“Indian Culture, Values and Professional Ethics”* by PSR Murthy-BS Publications.