

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA KAKINADA – 533 003, Andhra Pradesh, India DEPARTMENT OF CIVIL ENGINEERING

III Year – I Semester	Mandatory course	L	Т	Р	C
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MC (501) PROFESSIONAL ETHICS AND HUMAN VALUES					

**Course Objectives:** To give basic insights and inputs to the student to inculcate Human values to grow as responsible human beings with proper personality. Professional Ethics instills the student to maintain ethical conduct and discharge their professional duties.

## **UNIT I: Human Values:**

Morals, Values and Ethics – Integrity –Trustworthiness - Work Ethics – Service Learning – Civic Virtue – Respect for others – Living Peacefully – Caring – Sharing – Honesty –Courage – Value Time – Co-operation – Commitment – Empathy – Self-confidence – Spirituality- Character.

#### Principles for Harmony:

Truthfulness – Customs and Traditions -Value Education – Human Dignity – Human Rights –Fundamental Duties - Aspirations and Harmony (I, We & Nature) – Gender Bias - Emotional Intelligence – Salovey – Mayer Model – Emotional Competencies – Conscientiousness.

## UNIT II: Engineering Ethics and Social Experimentation:

History of Ethics - Need of Engineering Ethics - Senses of Engineering Ethics- Profession and Professionalism —Self Interest - Moral Autonomy – Utilitarianism – Virtue Theory - Uses of Ethical Theories - Deontology-Types of Inquiry –Kohlberg's Theory - Gilligan's Argument –Heinz's Dilemma - Comparison with Standard Experiments — Learning from the Past –Engineers as Managers – Consultants and Leaders – Balanced Outlook on Law - Role of Codes – Codes and Experimental Nature of Engineering.

## UNIT III: Engineers' Responsibilities towards Safety and Risk:

Concept of Safety - Safety and Risk – Types of Risks – Voluntary v/s Involuntary Risk –Consequences - Risk Assessment – Accountability – Liability - Reversible Effects - Threshold Levels of Risk - Delayed v/s Immediate Risk - Safety and the Engineer – Designing for Safety – Risk-Benefit Analysis-Accidents.

## UNIT IV: Engineers' Duties and Rights:

Concept of Duty - Professional Duties – Collegiality - Techniques for Achieving Collegiality –Senses of Loyalty - Consensus and Controversy - Professional and Individual Rights –Confidential and Proprietary Information - Conflict of Interest-Ethical egoism - Collective Bargaining –Confidentiality - Gifts and Bribes -Problem solving-Occupational Crimes- Industrial Espionage Price Fixing-Whistle Blowing.

## **UNIT V: Global Issues:**

Globalization and MNCs –Cross Culture Issues - Business Ethics – Media Ethics - Environmental Ethics – Endangering Lives - Bio Ethics - Computer Ethics - War Ethics – Research Ethics - Intellectual Property Rights.



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• Related Cases Shall is dealt where ever necessary.

Course Outcomes: It gives a comprehensive understanding of a variety issues that are encountered by every professional in discharging professional duties.

It provides the student the sensitivity and global outlook in the contemporary world to fulfill the professional obligations effectively.

#### TEXT BOOKS:

1. Professional Ethics by R. Subramanian – Oxford Publications, New Delhi.

2. Ethics in Engineering by Mike W. Martin and Roland Schinzinger - Tata McGraw-Hill -

2003.

**REFERENCE BOOKS:** 

3. Professional Ethics and Morals by Prof.A.R.Aryasri, DharanikotaSuyodhana - Maruthi

Publications.

4. Engineering Ethics by Harris, Pritchard and Rabin's, Cengage Learning, New Delhi.

5. Human Values & Professional Ethics by S. B. Gogate, Vikas Publishing House Pvt. Ltd.,

Noida.

6. Engineering Ethics & Human Values by M.Govindarajan, S.Natarajan and V.S.SenthilKumarPHI Learning Pvt. Ltd – 2009.

7. Professional Ethics and Human Values by A. Alavudeen, R.Kalil Rahman and M.

Jayakumaran – University Science Press.

8. Professional Ethics and Human Values by Prof.D.R.Kiran-Tata McGraw-Hill - 2013

Human Values and Professional Ethics by Jayshree Suresh and B. S. Raghavan, S.Chand

Publication.