

S355 - PROFESSIONAL ETHICS AND HUMAN VALUES

Lecture	:	3 Periods / Week	Internal Marks	:	25
Tutorial	:	0 Period / Week	External Marks	:	75
Credits	:		External Examination	:	3 hrs.

UNIT - I**ETHICS**

Senses of 'Engineering Ethics' -Variety of moral issues - 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.

UNIT - II**HUMAN VALUES**

Morals, Values and Ethics – Integrity – Work Ethic – Service Learning - Civic Virtue –
Respect for Others – Living Peacefully – Caring – Sharing - Honesty – Courage– Valuing
Time - Cooperation – Commitment – Empathy – Self Confidence – Character – Spirituality

UNIT – III**ENGINEERING AS SOCIAL EXPERIMENTATION**

Engineering as experimentation - Engineering Projects VS. Standard Experiments -
Engineers as responsible experimenters – Codes of ethics - Industrial Standards - A balanced
outlook on law- The challenger case study.

UNIT - IV**SAFETY, RESPONSIBILITIES AND RIGHTS**

Safety and risk- Assessment of safety and risk- Risk benefit analysis and reducing risk- Three
Mile Island and Chernobyl case study - Collegiality and loyalty -Respect for authority -
Collective bargaining – Confidentiality- Conflicts of interest - Occupational crime -
Professional Rights- Employee rights- Intellectual Property Rights (IPR) discrimination.

UNIT - V**GLOBAL ISSUES**

Multinational Corporation's -Environmental ethics-computer ethics -weapons development
Engineers as managers - consulting engineers-engineers as expert witnesses and advisors
Moral leadership - sample code of Ethics (Specific to a particular Engineering Discipline).



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TEXT BOOKS

1. R.S.Nagarajan, a Textbook on “Professional Ethics and Human Values”, New Age Publishers – 2006.
2. Mike Martin and Roland Schinzinger, "Ethics in engineering", McGraw Hill, New York 1996.

REFERENCES

1. Govindarajan M, Natarajan S, Senthil Kumar V. S, “ Engineering Ethics”, Prentice Hall of India, New Delhi, 2004.
2. Charles D. Fleddermann, "Engineering Ethics", Pearson Education/ Prentice Hall, New Jersey,2004 (Indian Reprint now available)
3. Charles E Harris, Michael S. Protchard and Michael J Rabins, “Engineering Ethics – Concepts and Cases”, Wadsworth Thompson Leatning, United States, 2000 (Indian Reprint now available).
4. John R Boatright, “Ethics and the conduct of business”, Pearson Education, New Delhi,2003.
5. Edmund G Seebauer and Robert L Barry, “Fundamentals of ethics for scientists and engineers”, Oxford University Press, Oxford, 2001.



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