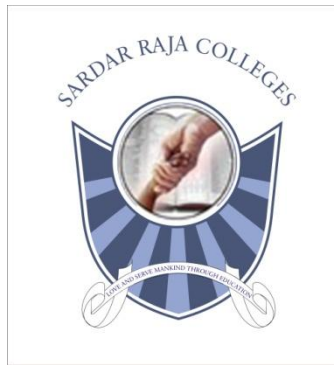


**SARDAR RAJA COLLEGE OF ENGINEERING,
ALANGULAM**

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
MICRO LESSON PLAN**



SUBJECT : PROFESSIONAL ETHICS & HUMAN VALUES

CODE : GE2025 PROFESSIONAL ETHICS IN ENGINEERING

CLASS : III Year / VI SEM

STAFF:S.PRIYADHARSINI ,

A.P/EEE

1. Engineering Ethics**9**

Senses of 'Engineering Ethics' – Variety of moral issues – Types of inquiry – Moral dilemmas – Moral Autonomy – Kohlberg's theory – Gilligan's theory – Consensus and Controversy – Professions and Professionalism – Professional Ideals and Virtues – Uses of Ethical Theories

2. Engineering as Social Experimentation**9**

Engineering as Experimentation – Engineers as responsible Experimenters – Research Ethics - Codes of Ethics – Industrial Standards - A Balanced Outlook on Law – The Challenger Case Study

3. Engineer's Responsibility for Safety**9**

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

4. Responsibilities and Rights**9**

Collegiality and Loyalty – Respect for Authority – Collective Bargaining – Confidentiality – Conflicts of Interest – Occupational Crime – Professional Rights – Employee Rights – Intellectual Property Rights (IPR) - Discrimination

5. Global Issues**9**

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

TOTAL: 45 PERIODS**TEXT BOOKS:**

1. Mike Martin and Roland Schinzinger, "Ethics in Engineering", McGraw Hill, New York (2005).
2. Charles E Harris, Michael S Pritchard and Michael J Rabins, "Engineering Ethics – Concepts and Cases", Thompson Learning, (2000).

REFERENCES

1. Charles D Fleddermann, "Engineering Ethics", Prentice Hall, New Mexico, (1999).
2. John R Boatright, "Ethics and the Conduct of Business", Pearson Education, (2003)
3. Edmund G Seebauer and Robert L Barry, "Fundamentals of Ethics for Scientists and Engineers", Oxford University Press, (2001)
4. Prof. (Col) P S Bajaj and Dr. Raj Agrawal, "Business Ethics – An Indian Perspective", Biztantra, New Delhi, (2004)
5. David Ermann and Michele S Shauf, "Computers, Ethics and Society", Oxford University Press, (2003)

SUBJECT DESCRIPTION AND OBJECTIVES

SUBJECT DESCRIPTION:

Environmental ethics refers to the moral relations between human beings and their natural environment. More specifically, it refers to the value that mankind places on protecting, conserving, and efficiently using resources that the earth provides. It is a standard that we use to view issues pertaining to the environment. Some people may have varying degrees of consciousness in this area, but everyone has an environmental ethic that they hold to. The key is to balance an awareness and motivation for environmental issues while not neglecting the needs of people.

OBJECTIVES:

Values decide the standard of behavior. Some universally accepted values are freedom justice and equality. Other principles of values are love, care, honesty, integrity, self respect.

Values are mainly related to individuals and since they are related to justice, they remain the same for every one. E.g. truth, honesty, empathy, self respect. Values do not change from individual to individual. Ethics is common to a group of individuals; the group may be religious or professional. Ethics is mostly based on some code or law and judgment of any action is based on code of conduct or law. Ethics change from individual to individual. Culture commonly refers to conduct of a group. E.g. system of worship, marriage. It may differ from society to society, nation to nation or religion to religion.

MICRO LESSON PLAN

Hours	LECTURE TOPICS	READING
UNIT I Engineering Ethics		
1	Senses of 'Engineering Ethics, Variety of moral issues	T1
2	Types of inquiry	T1
3	Moral dilemmas, Moral Autonomy (AV)	T1
4	Kohlberg's theory	T1
5	Gilligan's theory	T1
6	Consensus and Controversy (AV)	T1
7	Professions and Professionalism	T1
8	Professional Ideals and Virtues (AV)	T1
9	Uses of Ethical Theories	T1
UNIT II Engineering as Social Experimentation		
10	Engineering as Experimentation	T1
11	Engineers as responsible Experimenters	T1
12	Research Ethics (AV)	T1
13	Codes of Ethics (AV)	T1
14	Industrial Standards	T1
15	A Balanced Outlook on Law (AV)	T1
16,17,18	The Challenger Case Study	T1
UNIT III Engineer's Responsibility for Safety		
19	Safety and Risk	T2
20	Assessment of Safety and Risk	T2
21,22	Risk Benefit Analysis (AV)	T2
23	Reducing Risk	T2
24	The Government Regulator's Approach to Risk	T2
25,26,27	Chernobyl Case Studies and Bhopal(AV)	T2
UNIT IV Responsibilities and Rights		
28	Collegiality and Loyalty	R1
29	Respect for Authority	R1
30	Collective Bargaining	R1
31	Confidentiality (AV)	R1
32	Conflicts of Interest	T2

33	Occupational Crime	T2
34	Professional Rights, Employee Rights	T2
35	Intellectual Property Rights (IPR)	T2
36	Discrimination	T2
UNIT V Global Issues		
37	Multinational Corporations	R2
38	Business Ethics	R4
39	Environmental Ethics (AV)	R4
40	Computer Ethics (AV)	R4
41	Role in Technological Development, Weapons Development	R4
42	Engineers as Managers, Consulting Engineers	R4
43	Engineers as Expert Witnesses and Advisors	R4
44	Honesty, Moral Leadership	R4
45	Sample Code of Conduct	R4

PREPARED BY

Miss. S. Priyadharsini.,

AP/EEE