



VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
(Autonomous Institution, Affiliated to Anna University, Chennai)
Elayampalayam, Tiruchengode – 637 205
DEPARTMENT OF BIOTECHNOLOGY



Course Code / Name : U15BTE01& PROFESSIONAL ETHICS

Class (Year / Programme / Department / Section): III/B.TECH/BT

UNIT I - INTRODUCTION				
S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
1.	Introduction to Ethics	45	BB	T1,R1
2.	Engineering as a profession	45	BB	T1
3.	Core qualities of professional practitioners	45	PPT	R1
4.	Theories of rig action	45	BB	R2
5.	Major ethical issues	45	BB	T1,R1
6.	Three types of inquiry – Kohlberg’s stages of moral development	45	PPT	R1,R2
7.	Car Gilligan theory	45	BB	T1
8.	Moral dilemmas –,Moral autonomy	45	PPT	T1
9.	Value based ethics	45	PPT	R2
UNIT-II-ENGINEERING AS SOCIAL EXPERIMENTATION				
S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
10.	Comparison with standard experiments	45	BB	T1
11.	Relevant information	45	PPT	T1
12.	Learning from the past	45	BB	R1
13.	Engineers a managers	45	PPT	T1,R2
14.	consultants and leaders	45	BB	T1

15.	Accountability – Role of codes	45	PPT	T1,R1
16.	Code of ethics for engineer introduction	45	BB	T1,R2
17.	rules of practice and professional obligations	45	PPT	R2
18.	The space shuttle challenger case study.	45	BB	R1,R2

UNIT-III-ENGINEERS RESPONSIBILITY FOR SAFETY AND RISK

S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
19.	Introduction	45	PPT	R1
20.	Safety and Risk	45	BB	T1
21.	Types of risks	45	BB	T1
22.	Safety and the engineer	45	BB	T1,R2
23.	Designing for safety	45	BB	T1
24.	Risk Benefit analysis Accidents	45	BB	R1,T1
25.	The three mile Island disaster case study	45	PPT	R1,R2
26.	The Chernobyl disaster case study	45	BB	T1
27.	Current issues	45	PPT	T1

UNIT-IV-RESPONSIBILITIES AND RIGHTS

S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
28.	Collegiality	45	PPT	T1
29.	Two senses of loyalty	45	BB	T1
30.	Professional rights and responsibilities	45	PPT	R1
31.	Conflict of Interest	45	BB	T1
32.	Collective Bargaining	45	PPT	R1,R2
33.	Confidentiality	45	BB	R2
34.	Acceptance of bribes / gifts – Occupational crimes	45	BB	R1
35.	Whistle Blowing	45	BB	T1

36.	Case study	45	BB	R1,T1
UNIT- V- GLOBAL ISSUES				
S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
37.	Introduction	45	BB	R1,R2
38.	Globalization	45	BB	T1
39.	Cross Cultural Issues	45	BB	T1
40.	The Bhopal gas tragedy case study	45	PPT	R1
41.	Computer ethics	45	BB	R1
42.	Weapon development	45	PPT	R2
43.	Intellectual property rights (IPR)	45	BB	T1
44.	A Case Study- Global issues	45	BB	T1,R1
45.	Current Issues	45	PPT	R2

TEXT BOOKS:

1. Govindarajan M, Natarajan S, Senthil Kumar V.S, —Engineering Ethics, Prentice Hall of India (P) Ltd, New Delhi, 2005.

REFERENCE:

1. Mike W. Martin and Roland Schinzinger —Ethics in Engineering, Tata McGraw-Hill Publishing Company Limited, New Delhi, 2007.
2. Govindan K.R., and Senthil Kumar S., —Professional Ethics and Human Values, Anuradha Publications, Chennai, 2007.