Code.	Course Name	L	Т	P	Hrs	Credit
HUT 200	Professional Ethics	2	0	0	2	2

Preamble: To enable students to create awareness on ethics and human values.

Prerequisite: Nil

Course Outcomes: After the completion of the course the student will be able to

	TECHNIOLOGICAL				
CO 1	Understand the core values that shape the ethical behaviour of a professional.				
CO 2	Adopt a good character and follow an ethical life.				
CO 3	Explain the role and responsibility in technological development by keeping personal ethics and legal ethics.				
CO 4	Solve moral and ethical problems through exploration and assessment by established experiments.				
CO 5	Apply the knowledge of human values and social values to contemporary ethical values and global issues.				

Mapping of course outcomes with program outcomes

	PO	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1	PO1	PO1
	1									0	1	2
CO 1								2			2	
CO 2								2			2	
CO 3								3	-		2	
CO 4								3			2	
CO 5		1-1				- 4		3			2	

Assessment Pattern

Bloom's category	Continuous Assessm	End Semester Exam	
zioom a cutogory	1	2	
Remember	15	15	30
Understood	20	20	40
Apply	15	15	30

Mark distribution

Total Marks	CIE	ESE	ESE Duration
150	50	100	3 hours

Continuous Internal Evaluation Pattern:

Attendance : 10 marks
Continuous Assessment Tests (2 Nos) : 25 marks
Assignments/Quiz : 15 marks

End Semester Examination Pattern: There will be two parts; Part A and Part B. Part A contains 10 questions with 2 questions from each module, having 3 marks for each question. Students should answer all questions. Part B contains 2 questions from each module of which student should answer any one. Each question can have maximum 2 sub-divisions and carry 14 marks.

Course Level Assessment Questions

Course Outcome 1 (CO1):

- 1. Define integrity and point out ethical values.
- 2. Describe the qualities required to live a peaceful life.
- 3. Explain the role of engineers in modern society.

Course Outcome 2 (CO2)

- 1. Derive the codes of ethics.
- 2. Differentiate consensus and controversy.
- 3. Discuss in detail about character and confidence.

Course Outcome 3(CO3):

- 1. Explain the role of professional's ethics in technological development.
- 2. Distinguish between self interest and conflicts of interest.
- 3. Review on industrial standards and legal ethics.

Course Outcome 4 (CO4):

- 1. Illustrate the role of engineers as experimenters.
- 2. Interpret the terms safety and risk.
- 3. Show how the occupational crimes are resolved by keeping the rights of employees.

Course Outcome 5 (CO5):

- 1. Exemplify the engineers as managers.
- 2. Investigate the causes and effects of acid rain with a case study.
- 3. Explorate the need of environmental ethics in technological development.

Model Question paper

QP CODE:		Reg No:
PAGES:3		Name :
APJ ABDU	L KALAM TECHNOLOGICAL UNIVERSITY B.TECH DEGREE EXAMINATION, MO	
Max. Marks:	Course Code: HUT 200 Course Name: PROFESSIONAL F 100 (2019-Scheme) PART A	CTHICS Duration: 3 Hours
	(Answer all questions, each question	carries 3 marks)
1. Define	empathy and honesty.	
2. Briefly	explain about morals, values and ethics.	
3. Interpr	et the two forms of self-respect.	
4. List ou	t the models of professional roles.	
5. Indicat	e the advantages of using standards.	
6. Point o	out the conditions required to define a valid consent?	
7. Identif	y the conflicts of interests with an example?	
8. Recall	confidentiality.	
9. Conclu	ide the features of biometric ethics.	
10. Name a	any three professional societies and their role releva	nt to engineers.
		(10x3 = 30 marks)
	PART B	
(Answ	er one full question from each module, each ques	stion carries 14 marks)
	MODULE I	
11. a) Class	sify the relationship between ethical values and law?	
b) Com	pare between caring and sharing.	(10+4 = 14 marks)
	Or	

12. a) Exemplify a comprehensive review about integrity and respect for others.

b) Discuss about co-operation and commitment.

(8+6 = 14 marks)

MODULE II

- 13.a) Explain the three main levels of moral developments, deviced by Kohlberg.
 - **b)** Differentiate moral codes and optimal codes.

(10+4 = 14 marks)

Or

- 14. a) Extrapolate the duty ethics and right ethics.
 - b) Discuss in detail the three types of inquiries in engineering ethics

(8+6 = 14 marks)

MODULE III

- 15.a) Summarize the following features of morally responsible engineers.
 - (i) Moral autonomy
- (ii) Accountability

b)Explain the rights of employees

(8+6 = 14 marks)

Or

- **16.** a) Explain the reasons for Chernobyl mishap?
 - **b)** Describe the methods to improve collegiality and loyalty.

(8+6 = 14 marks)

MODULE IV

- 17.a) Execute collegiality with respect to commitment, respect and connectedness.
 - b) Identify conflicts of interests with an example.

(8+6 = 14 marks)

Or

- 18. a) Explain in detail about professional rights and employee rights.
 - b) Exemplify engineers as managers.

MODULE V

- 19.a) Evaluate the technology transfer and appropriate technology.
- b) Explain about computer and internet ethics.

(8+6 = 14 marks)

Or

- 20. a) Investigate the causes and effects of acid rain with a case study.
 - b) Conclude the features of ecocentric and biocentric ethics.

(8+6 = 14 marks)

Syllabus

Module 1 - Human Values.

Morals, values and Ethics – Integrity- Academic integrity-Work Ethics- Service Learning- Civic Virtue-Respect for others- Living peacefully- Caring and Sharing- Honestly- courage-Cooperation commitment-Empathy-Self Confidence -Social Expectations.

Module 2 - Engineering Ethics & Professionalism.

Senses of Engineering Ethics - Variety of moral issues- Types of inquiry- Moral dilemmas –Moral Autonomy – Kohlberg's theory- Gilligan's theory- Consensus and Controversy-Profession and Professionalism- Models of professional roles-Theories about right action –Self interest-Customs and Religion- Uses of Ethical Theories.

Module 3- Engineering as social Experimentation.

Engineering as Experimentation – Engineers as responsible Experimenters- Codes of Ethics- Plagiarism-A balanced outlook on law - Challenges case study- Bhopal gas tragedy.

Module 4- Responsibilities and Rights.

Collegiality and loyalty – Managing conflict- Respect for authority- Collective bargaining- Confidentiality-Role of confidentiality in moral integrity-Conflicts of interest- Occupational crime- Professional rights-Employee right- IPR Discrimination.

Module 5- Global Ethical Issues.

Multinational Corporations- Environmental Ethics- Business Ethics- Computer Ethics -Role in Technological Development-Engineers as Managers- Consulting Engineers- Engineers as Expert witnesses and advisors-Moral leadership.

Text Book

- 1. M Govindarajan, S Natarajan and V S Senthil Kumar, Engineering Ethics, PHI Learning Private Ltd, New Delhi, 2012.
- 2. R S Naagarazan, A text book on professional ethics and human values, New age international (P) limited ,New Delhi,2006.

Reference Books

- 1. Mike W Martin and Roland Schinzinger, Ethics in Engineering,4th edition, Tata McGraw Hill Publishing Company Pvt Ltd, New Delhi,2014.
- 2. Charles D Fleddermann, Engineering Ethics, Pearson Education/ Prentice Hall of India, New Jersey, 2004.
- 3. Charles E Harris, Michael S Protchard and Michael J Rabins, Engineering Ethics- Concepts and cases, Wadsworth Thompson Learning, United states, 2005.
- 4. http://www.slideword.org/slidestag.aspx/human-values-and-Professional-ethics.

Course Contents and Lecture Schedule

SL.N	Topic	No. of Lectures					
0		25					
1	Module 1 – Human Values.						
1.1	Morals, values and Ethics, Integrity, Academic Integrity, Work Ethics	1/					
1.2	Service Learning, Civic Virtue, Respect for others, Living peacefully	1					
1.3	Caring and Sharing, Honesty, Courage, Co-operation commitment	2					
1.4	Empathy, Self Confidence, Social Expectations	1					
2	Module 2- Engineering Ethics & Professionalism.	-					
2.1	Senses of Engineering Ethics, Variety of moral issues, Types of inquiry	1					
2.2	Moral dilemmas, Moral Autonomy, Kohlberg's theory	1					
2.3	Gilligan's theory, Consensus and Controversy, Profession& Professionalism, Models of professional roles, Theories about right action	2					
2.4	Self interest-Customs and Religion, Uses of Ethical Theories	1					
3	Module 3- Engineering as social Experimentation.						
3.1	Engineering as Experimentation, Engineers as responsible Experimenters	1					
3.2	Codes of Ethics, Plagiarism, A balanced outlook on law	2					
3.3	Challenger case study, Bhopal gas tragedy	2					
4	Module 4- Responsibilities and Rights.	-1.1					
4.1	Collegiality and loyalty, Managing conflict, Respect for authority	1					
4.2	Collective bargaining, Confidentiality, Role of confidentiality in moral integrity, Conflicts of interest	2					
4.3	Occupational crime, Professional rights, Employee right, IPR Discrimination	2					
5	Module 5- Global Ethical Issues.						
5.1	Multinational Corporations, Environmental Ethics, Business Ethics, Computer Ethics	2					
5.2	Role in Technological Development, Moral leadership	1					
5.3	Engineers as Managers, Consulting Engineers, Engineers as Expert witnesses and advisors	2					