

Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly West Bengal University of Technology)

Syllabus for B. Tech in Electrical Engineering

(Applicable from the academic session 2018-2019)

Name of the course	VALUES AND ETHICS IN PROFESSION		
Course Code: HM-EE-401	Semester: 4th		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	Examination Scheme		
Theory: 3 hrs/week	Mid Semester Exam: 15 Marks		
Tutorial: 0 hr/week	Assignment & Quiz: 10 Marks		
Practical: 0 hrs/week	Attendance: 05 Marks		
Credit Points: 3	End Semester Exam: 70 Marks		
Objective:			
1.	To inculcate Human values to grow as a responsible human beings with a proper personality.		
2.	To instill Professional Ethics to maintain ethical conduct and discharge professional duties.		
Pre-Requisite			
1.	Not applicable		
Unit	Content	Hrs	Marks
1	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.	5	
2	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	5	
3	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.	8	
4	Engineers’ responsibility towards safety and risk for sustainable development: The 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.	5	
5	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.	7	
6	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.	5	

Text books:

1. Professional Ethics & Human Values, Premvir Kapoor, Khanna Publishing House, Delhi (AICTE Recommended Textbook).
2. A text book on professional Ethics & Human values, R.S. Naagarazan, New Age international Publishing.
3. Engineering Ethics, M. Govindarajan, S. Natarajan , V.S. Senthilkumar, Prentice Hall India.
4. Human value and professional Ethics, Jayshree Suresh, B.S. Raghvan, S. Chand Publishing

Reference books:

1. Ethics in Science and Engineering, James G. Speight & Russel Foote, Wiley.

Course Outcome:

After completion of this course, the learners will be able to

1. illustrate different aspects of human values, ethics, engineers' responsibility and duties
2. explain different principles, different theories and laws of engineering ethics and social experimentation
3. identify different factors in the light of Engineers' responsibility towards safety and risk
4. correlate ethics of different work environment.
5. explain the need for intellectual property rights.

Special Remarks (if any)

The above mentioned outcomes are not limited. Institute may redefine outcomes based their program educational objective.