Paper Name: VALUE AND ETHICS IN PROFESSION

Paper Code: HU 702

Total Contact Hours: 24

Credit: 2

I. Prerequisities:

Ethics in engineering practice is about professional responsibilities of engineers. Professional ethics have been recognized as an important foundation in the practice of engineering for several decades in many industrialized countries. Codes of ethics have been invoked as a basis for professional engineering licensure. Violations of such ethical codes have led to many well-known tragic engineering failures that endangered human life and jeopardized public welfare. As a response to this concern, a new discipline, engineering ethics, is emerging. This discipline will doubtless take its place alongside such well-established fields as medical ethics, business ethics, and legal ethics. Recently, ethics has attracted the attention of several colleges of engineering around the world. In this regard, ethics started merging into engineering curricula for the last two decades. Implementations varied from introducing some ethics case studies into existing courses, to introducing standalone ethics courses.

II. Course Objectives:

1. To provide a values-based approach to ethical professionalism and to provide a method of thinking about and dealing with ethical issues in the work place.

2. To provide a discussion of what a profession is and what it means to act professionally.

3. **To include a discussion of the features of moral reasoning and to provide a case resolution method for dealing with ethical issues of the work place.**

4. **To cover in-depth those values central to moral life of any professional: integrity, respect for persons, justice, compassion, beneficence and No maleficence, and responsibility.**

III. Course Outcome (CO):

Upon completion of the course, students will be able to
1. Discuss real-world controversies in a sophisticated fashion, using critical thinking and argument analysis.
2. Identify the strengths and weaknesses of philosophical principles applied to everyday moral problems.
3. Analyze the coherence in the dynamic relationship between moral principles and moral facts.
4. Read, comprehend, and criticize philosophical analyses of the central problems in environmental ethics (including the proper boundaries of moral concern, the scarcity of natural resources, the policy options available to regulators and legislators, etc.)

IV. CO – PO Mapping :

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 8	PO 9	PO 10	PO 11
CO 1			√									
CO 2				√			√					

CO 3									√			
CO 4					√						√	

V. Syllabus Description :

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Module: 1. Introduction: Definition of Ethics; Approaches to Ethics: Psychological, Philosophical, Social.

Module: 2. Psycho-social theories of moral development: View of Kohlberg; Morality and Ideology, Culture and Morality, Morality in everydayContext.

Module: 3. Ethical Concerns: Work Ethics and Work Values, Business Ethics, Human values in organizations: Values Crisis in contemporary society. Nature of values: Value Spectrum of a good life.

Module: 4. Ethics of Profession:

Engineering profession: Ethical issues in Engineering practice, Conflicts between business demands and professional ideals.Social and ethical responsibilities of Technologists. Codes of professional ethics. Whistle blowing and beyond, Case studies.

Module: 5. Self Development: Character strengths and virtues, Emotional Intelligence, Social intelligence, Positive cognitive states and processes (Self-efficacy, Empathy, Gratitude, Compassion, and Forgiveness).

Module: 6.Effects of Technological Growth:

Rapid Technological growth and depletion of resources, Reports of the Club of Rome. Limits of growth: sustainable development Energy Crisis:

Renewable Energy Resources, Environmental degradation and pollution. Eco-friendly Technologies. Environmental Regulations, Environmental Ethics. Appropriate Technology, Movement of Schumacher; Problems of man, machine, interaction.

Text / Reference Books:

1. Stephen H Unger, Controlling Technology: Ethics and the Responsible Engineers, John Wiley & Sons, New York 1994(2nd Ed)

2. Deborah Johnson, Ethical Issues in Engineering, Prentice Hall, Englewood Cliffs, New Jersey 1991.

3. A N Tripathi, Human values in the Engineering Profession, Monograph published by IIM, Calcutta 1996.

Vi.   Course Description :

Module I :

This module introduces the field of moral philosophy, from which much scholarly knowledge and understanding of ethics derives. It explains that ethics answers the question, 'How should we live?' This module considers some fundamental themes, including ideas about what is 'right' and 'good', and it examines ways of reasoning critically about our feelings. The field of environmental ethics is introduced, but the account presented in this module is also relevant to the theme of development ethics. A variety of key terms are introduced and defined in this chapter.

Module 2 :

In this thought-provoking module, moral perfection, in the sense of moral 'saintliness' is described. It is rational, good or desirable model of personal well-being towards which people should strive. A range of interesting and provocative ideas about normative ethicshave been included. In particular, at some point, 'we must be willing to raise normative questions from a perspective that is unattached to a commitment to any particular well-ordered system of values.'

Module 3:

It is a daunting task to examine the nature of today's value crisis in this gloomy climate. Yet, there is no escape from it either. One must grapple

with it as best as one can. The pervasive crisis has many inter-related dimensions and interleaved layers. Any intellectual probing into it must first untangle this web to identify its main features so that they can be analyzed and cognitively grasped. In this module, this task will begin by examining the nature of the value crisis in different spheres of our life. These spheres may be categorized as individual, societal, intellectual and cultural.

Module 4 :

Everything that engineers do affects the society and its development and, occasionally, the consequences of these actions are not fully thought out, not anticipated, or not fully understood, but the results are undesirable just the same. In order to meet the challenges of the time, engineers must be properly prepared to face the moral, legal and ethical ramifications of their actions. Thus, to meet their responsibilities to society at large and the global community, engineers must be equipped with the knowledge and ability to fully and cogently explain their actions as well as the methods to be used to implement their decisions. Educating young engineers about to enter the practice of their chosen profession how to help arrive to the compromises to be implemented becomes one of the paramount items of contemporary engineering education. Ethical theories are presented as are codes of ethics that different professional societies developed and which provide the structure for this paradigm of professional practice.

Module 5 :

Character strengths formulate the foundation of an individual's personality; positive traits representing an important route towards 'psychological good life'. These qualities help an individual to make a significant contribution to the world and achieve well-being . However, it varies from individual to individual because of moral and cultural values placed on them. The current module aims to investigate how character strengths are related to subjective well-being among youth personnel.

Module 6 :

Today, the role of ethics in technology transfer and development is of great importance. The meaning of ethics and technology which have roles in the formation of modern technology.. Technology transfer is an important issue that should be given the capacity of countries to assess the possibility of application, absorption and its compatibility with local

conditions to increase. In this module, factors and ethical factors in the process of technology transfer and development has been studied.