

# The Islamia University of Bahawalpur

## Faculty of Engineering

### Course Outline: Professional and Social Ethics

#### General Information:

<b>Course:</b>	<b>Professional and Social Ethics</b>	<b>Instructor</b>	Engr. Muhammad Shahid
<b>Course Code</b>	HS-361	<b>Office</b>	Office No.02, Department of Civil Engg.
<b>Credit Hours</b>	2 (Theory)	<b>Email</b>	Muhammad.shahid@iub.edu.pk
<b>Contact Hours</b>	2	<b>Contact No.</b>	+92-313-2773362
<b>Pre-Requisite(s)</b>	-	<b>Office Hours</b>	Mon - Fri (11:30 am 1:00 pm)

#### Course Description:

This course introduces Introduction to Professional & social Ethics: Definitions - Ethics, Professional Ethics, Engineering Ethics, Business Ethics; Ethics & Professionalism. Need and scope of Engineering and Professional Ethics through Case Studies. Development of Engineering Ethics & Major issues in Engineering & Professional Ethics, Moral Reasoning & Ethical Frameworks: Ethical Dilemma: Resolving Ethical dilemmas and making Moral Choices. Codes of Ethics (of local and international professional bodies). Moral Theories: Utilitarianism, Rights Ethics and Duty Ethics, Virtue Ethics Self-Realization & Self Interest. Ethical Problem-Solving Techniques: Line drawing, flow Charting, Conflict Problems. Case Studies and applications. Contemporary Professional Ethics, Professional Responsibilities. Risk and Safety as an Ethical Concern for Engineers Workplace Responsibilities and Ethics: Teamwork, confidentiality and conflicts of interest, Whistle blowing, Bribe and gift, risk and cost - benefit analyses, gender discrimination and sexual harassment. Environmental Ethics. Computer Ethics & the Internet. Honesty: Truthfulness, trustworthiness, academic and research integrity, critique codes of ethics.

#### Course Learning Outcomes (CLOs):

Upon successful completion of this course, the student will be able to:

CLOs	Description	Domain	PLOs
CLO-1	Understand religious, national, or international codes of ethics for engineers.	C-2	PLO-6
CLO-2	Understand workplace responsibilities and ethics	C-3	PLO-8

#### Relation of CLOs to the Program Learning Outcomes (PLOs):

	1	2	3	4	5	6	7	8	9	10	11	12
	Engineering Knowledge	Problem Analysis	Design & Development of Solutions	Investigation	Modern Tool Usage	The Engineer and Society	Environment and Sustainability	Ethics	Individual and Team Work	Communication	Project Management	Life Long Learning
CLO1						√						
CLO2								√				

**Assessment of CLOs:**

	CLO1	CLO2
Quizzes	√	√
Midterm Exam	√	
Final term Exam		√
Others (Projects/presentations)		

**Textbook(s)/Reference Books:**

1. “Ethics in Engineering” 4th edition, by Mike W. Martin, Roland Schinzinger, McGraw-Hill, New York, 2005
2. “Engineering Ethics: Concepts and Cases”, 4th edition, by Charles E. Harris, Michael S. Pritchard, Michael J. Rabins, Wadsworth, 2008.
3. The Seven Habits of Highly effective people by Stephan r. Covey Principle Centered Leadership Stephan r. Covey

**Lecture Plan:**

Topics	Week	CLOs
Ethics and Professionalism: scope of engineering ethics, accepting and sharing responsibility, responsible professionals and ethical corporations.	Week 1	CLO 1
Moral reasoning and code ethics: resolving ethical dilemmas, making moral choices, codes of ethics.	Week 2	CLO 1
Moral frameworks: utilitarianism, rights ethics and duty ethics, virtue ethics, self-realization and self-interest.	Week 3	CLO 1
Engineering as social experimentation, engineers as responsible experimenters.	Week 4	CLO 1
Commitment to safety: Safety and risk, the concept of safety, accountability of risk.	Week 5	CLO 1
Commitment to safety: uncertainty in design, risk-benefit analysis, personal risk, public risk and public acceptance.	Week 6	CLO 1
Seminar on “Workplace responsibilities and Ethics”	Week 7	CLO 1
<b>Mid Term Exam</b>	<b>Week 8</b>	<b>CLO 1</b>
Workplace responsibilities and rights: team works, confidentiality and conflicts of interest	Week 9	CLO 2
Workplace responsibilities and rights: professional rights of engineers, employee rights, whistleblowing	Week 10	CLO 2
Honesty: truthfulness and trust worthiness, research integrity, consulting engineers, expert witnesses and advisers	Week 11	CLO 2
Environmental ethics: engineering, ecology and economics, ethical frameworks	Week 12	CLO 2
Global issues: multination corporations, computer ethics and internet, defense industry issues	Week 13	CLO 2
Engineers and technological progress: optimism, pessimism, realism, shared responsibility and control of technology.	Week 14	CLO 2

<b>Topics</b>	<b>Week</b>	<b>CLOs</b>
Morally creative leaders, participation in professional societies,	Week 15	CLO 2
<b>End Semester Exam</b>	<b>Week 16</b>	CLO2

#### **Grading Policy vis-à-vis CLO Mapping**

Assignments, Quizzes, Projects/presentations etc.	10%	CLO1 to CLO2
Midterm	15%	CLO1
Final	25%	CLO2

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