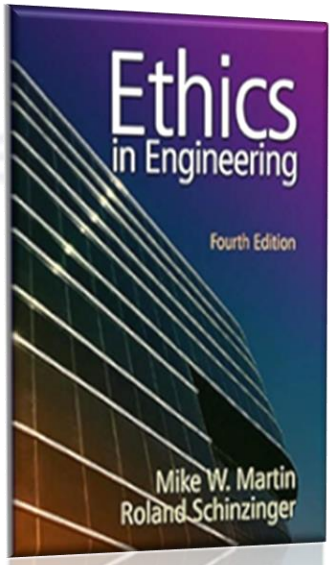
Engineering Ethics (HSS-422) (3+0)



ENGR. SYED RIZWAN ALI
Assistant Professor,
Head of Business Incubation Center,
Bahria University (Karachi Campus)

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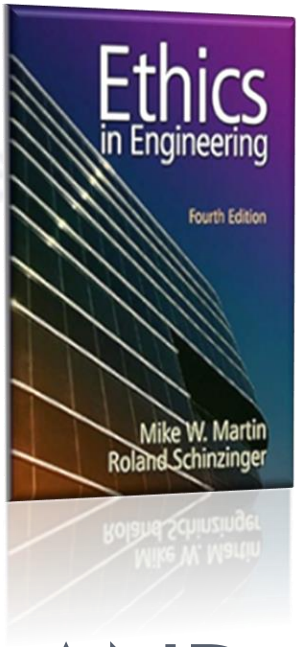


MORAL REASONING AND CODES OF ETHICS

Week No 02

By Engr. Syed Rizwan Ali

Learning Outcomes

In this Lecture will cover ..

- Significant Improvement in Organizational Culture and Ethical Decision-Making Processes.
- Increased Employee Perception of the Company's Ethical Climate.
- Improved Trust and Collaboration with Stakeholders.
- Decrease in Reported Incidents of Unethical Behavior.
- Key Lessons on Leadership and Cultural Change.

MORAL REASONING AND CODES OF ETHICS

Introduction to Moral Reasoning?

❖ **Definition:**

- Moral reasoning is the process of determining right from wrong in a systematic, reflective way, based on ethical principles and values.
- It involves evaluating actions, decisions, and their potential outcomes to make ethical choices.
- This cognitive process is central to navigating complex moral dilemmas and guiding behavior.

Importance of Moral Reasoning

❖ **Importance in everyday life and professional fields:**

- Moral reasoning plays a vital role in both everyday life and various professional fields, guiding individuals and organizations in making ethical decisions that reflect societal values and personal principles.
- Its importance spans multiple dimensions:

In Everyday Life:	In Professional Fields:
✓ Personal Integrity:	✓ Healthcare:
✓ Relationship Building:	✓ Business:
✓ Social Responsibility:	✓ Law and Public Policy:
	✓ Education:
	✓ Science and Technology:

Importance of Moral Reasoning

❖ **In Everyday Life:**

- **Personal Integrity:** Moral reasoning helps individuals align their actions with their values, fostering personal integrity and consistency in ethical behavior.
- **Relationship Building:** It is crucial for resolving conflicts, understanding others' perspectives, and building trust and respect in personal relationships.
- **Social Responsibility:** By considering the broader impacts of one's actions on society, moral reasoning encourages social responsibility and contributes to the common good.

Importance of Moral Reasoning

❖ **In Professional Fields:**

- **Healthcare:** In healthcare, moral reasoning is essential for making decisions that respect patient autonomy, prioritize patient welfare, and navigate complex ethical dilemmas regarding end-of-life care, confidentiality, and informed consent.
- **Business:** In the business world, it guides ethical decision-making in areas like corporate governance, consumer rights, environmental responsibility, and fair labor practices, contributing to sustainable and socially responsible business models.

Importance of Moral Reasoning

- **In Professional Fields:**
- **Law and Public Policy:** Legal professionals and policymakers rely on moral reasoning to create and interpret laws and policies that uphold justice, equality, and human rights.
- **Education:** Educators use moral reasoning to foster an ethical learning environment, promote academic integrity, and prepare students to be morally responsible citizens.

Importance of Moral Reasoning

- **In Professional Fields:**
- **Science and Technology:** Scientists and technologists must consider the ethical implications of their work, including issues of privacy, data security, and the societal impact of innovations like artificial intelligence.

Theories of Moral Reasoning

- **Background:**
- **Consequentialism:** Outcomes determine morality (An action is right or wrong based solely on the outcomes).
- **Example:** In early 2020, as the COVID-19 virus began to spread globally, governments around the world faced the daunting task of deciding how to respond. One of the major decisions was whether to impose lockdowns and strict social distancing measures to slow the spread of the virus.

Theories of Moral Reasoning

- **Background:**
- **Deontology:** Duty and rules define moral actions.
- **Example:** Imagine a situation where a friend confides in you about a personal matter and asks you to keep it a secret.
- Later, another friend asks you about the situation, putting you in a position where revealing the secret could potentially benefit someone or prevent harm.

Theories of Moral Reasoning

❖ **Background:**

- **Virtue Ethics:** Character and virtues guide moral behavior.
- **Example:** A nurse takes extra time to listen and provide comfort to patients, showing empathy and care, which goes beyond the basic requirements of the job. OR
- An employee decides to report unethical practices within their company, driven by a commitment to justice and courage, even if it might lead to personal or professional risk.

Stages of Moral Development

- **Definition:** According to the Prof. Dr. **Lawrence Kohlberg's** theory of moral development outlines how individuals progress through different stages of moral reasoning over time, from a focus on self-interest to an adherence to societal rules, and finally, to a more abstract understanding of universal ethical principles.
- Here's a brief definition of each level with a real-world example:

- Pre-conventional Level
- Conventional Level
- Post-conventional Level

Stages of Moral Development

- **Pre-conventional Level:** At this level, individuals' moral reasoning is based on personal interests and immediate consequences. Moral decisions are made based on the direct outcomes that might affect the individual, such as rewards or punishments.

- **Example:** A child cleans their room only because they know they will receive an allowance for doing so.
- The action is driven by the desire for a reward rather than understanding the intrinsic value of cleanliness or consideration for others' preferences.

Stages of Moral Development

- **Conventional Level:** Here, individuals make moral decisions based on societal norms and the expectations of others. The focus shifts from self-interest to maintaining social order and gaining approval from others.

- **Example:** An employee follows their company's code of conduct strictly to gain the approval of their colleagues and superiors, and because they believe in the importance of rules for a functioning workplace.
- The motivation is to uphold social norms and maintain positive relationships.

Stages of Moral Development

- **Post-conventional Level:** At this level, moral reasoning is based on abstract reasoning using universal ethical principles. Individuals recognize the relativity of personal and societal values and rules, and they make decisions based on principles that apply to all human beings, such as justice, dignity, and equality.

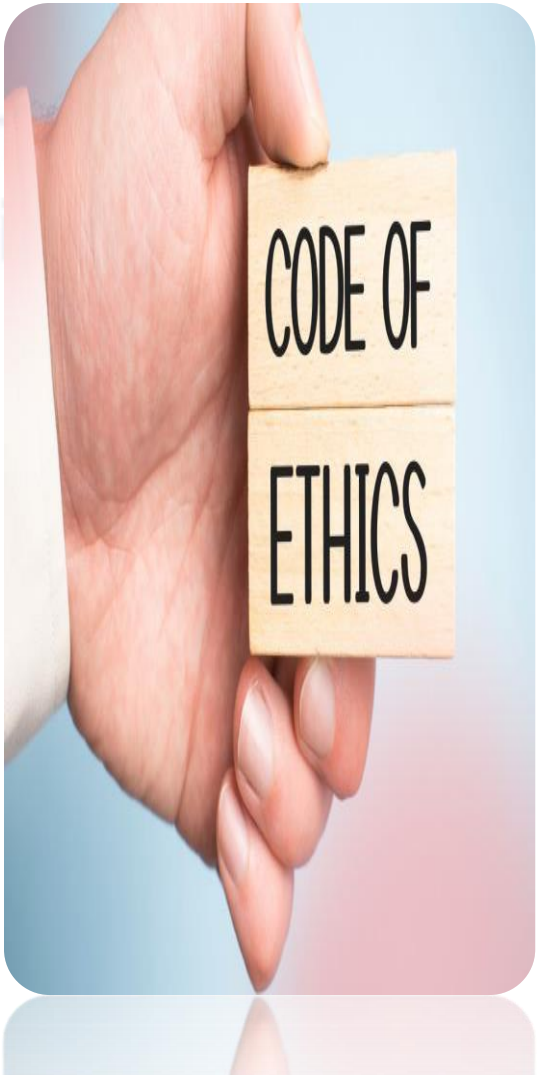
- **Example:** A journalist decides to report on government corruption, despite the risk to their career and potential backlash, because they believe in the principles of transparency and accountability.

Stages of Moral Development

- **Post-conventional Level:**
- **Example:** Their decision is guided by a sense of justice and the belief in a higher ethical standard that transcends specific laws or social approval.

Codes of Ethics: Definition and Purpose

- **Definition:** A code of ethics is a formal document that outlines a set of ethical principles and guidelines designed to help professionals conduct their business in a way that is honest, ethical, and respectful to all stakeholders.
- It serves as a framework for ethical decision-making within an organization or profession.



Codes of Ethics: Definition and Purpose

❖ **Purpose:**

- **Guidance:** To provide clear ethical guidelines and standards for professional behavior, helping individuals navigate complex situations and make ethical decisions.
- **Accountability:** To hold professionals accountable for their actions, ensuring they meet the organization's or profession's ethical standards.
- **Trust:** To build trust among the public, clients, and among professionals themselves by committing to a high standard of ethics.

Codes of Ethics: Definition and Purpose

- **Purpose:**
- **Integrity:** To promote integrity and a sense of responsibility among professionals, ensuring that their actions reflect positively on the profession as a whole.
- **Conflict Resolution:** To offer a basis for resolving ethical dilemmas or disputes that arise, by referring to established principles.

Codes of Ethics: Definition and Purpose

- **Medical EthicsExamples:**
- The Hippocratic Oath is one of the oldest binding documents in history, and its principles are still applied today in medical ethics codes.
- Modern versions of this oath are used by physicians worldwide, emphasizing principles such as non-maleficence ("do no harm"), beneficence (acting in the patient's best interest), confidentiality, and respect for patient autonomy.

Codes of Ethics: Definition and Purpose

❖ **Application:**

- A doctor faces an ethical dilemma about whether to respect a patient's refusal of a life-saving blood transfusion due to their religious beliefs.
- The doctor uses the principles outlined in the medical code of ethics to respect the patient's autonomy while also trying to provide the best possible care within those constraints.

Codes of Ethics: Importance

❖ **Importance:**

- The importance of codes of ethics (often simply referred to as "codes") in professional and organizational contexts cannot be overstated.
- These codes serve multiple critical functions, impacting individuals, professions, organizations, and society as a whole. Below are key points that highlight their significance:

Chronology of The CODE:

- **Important Dates:**
- 12/1996 – First Draft delivered to IEEE-CS/ACM Steering Committee.
- 7/1997 – Published/Open to comments.
- 12/1997 – New revision based on comments.
- 9/1998 – IEEE formal technical review.
- 1998 – Passed a legal review.
- 12/1998 – Approved by ACM and IEEE.

Why have a code of ethics?

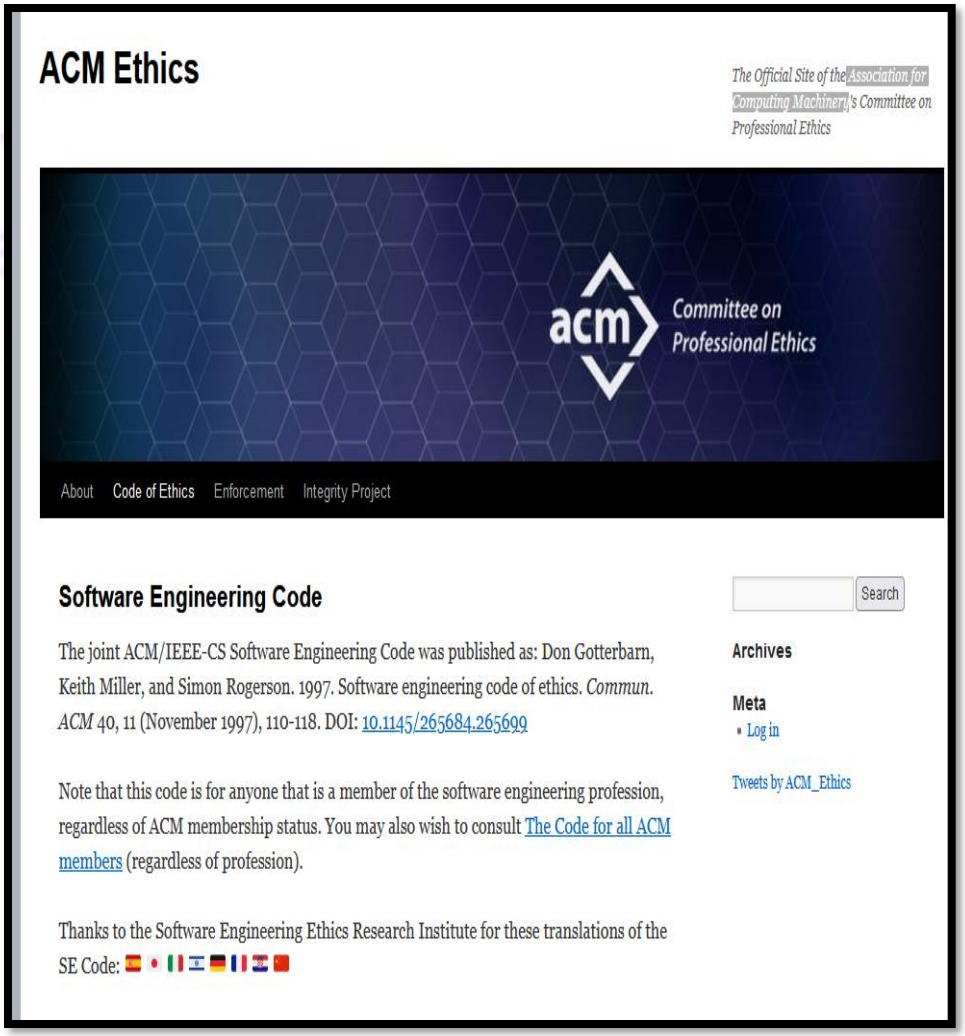
SOFTWARE ENGINEERING CODE

❖ **Engineering Codes:**

- Produced by the institution of **Electrical and Electronics Engineering Computer Society (IEEECS)** and the **Association for Computing Machinery (ACM),** acts as professional standards for teaching and practicing software engineering.
- That have to be adapted/accepted by engineers and should be aware of desirable ideals and personal commitments in engineering.

Where can I find the code of ethics?

- **Association for Computing Machinery (ACM) Engineering Codes:**
- https://ethics.acm.org/code-of-ethics/software-engineering-code/



Steps to Adopt

1. Carefully read the Code of Ethics.
2. Verify that your organization is willing to follow the Code of Ethics.
3. Complete and submit the online application.
4. Incorporate the Code of Ethics into your organization.

Software Engineering Code of Ethics and Professional Practice

- **Public:** SE shall act consistently with the public interest.
- **Client and Employers:** SE shall act in a manner that is in the best interests of their client and employer, consistent with the public interest.
- **Product:** Software engineers shall ensure that their products and related modifications meet the highest professional standards possible.
- **Judgment:** SE shall maintain integrity and independence in their professional judgment.

Software Engineering Code of Ethics and Professional Practice

- **Management:** SE managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance.
- **Profession:** SE shall advance the integrity and reputation of the profession consistent with the public interest.
- **Colleagues:** SE shall be fair to and supportive of their colleagues.

Software Engineering Code of Ethics and Professional Practice

- **Self:** SE shall participate in lifelong learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession.

Principle 1: Products

- 1.01 Ensure adequate software specification
- 1.02 Understand specifications fully
- 1.03 Ensure you are suitably qualified
- 1.04 Ensure all goals are achievable
- 1.05 Ensure proper methodology use
- 1.06 Ensure good project management
- 1.07 Ensure all estimates are realistic
- 1.08 Ensure adequate documentation
- 1.09 Ensure adequate testing and debugging
- 1.10 Promote privacy of individuals
- 1.11 Use data legitimately
- 1.12 Delete outdated and flawed data
- 1.13 Identify and address contentious issues
- 1.14 Promote maximum quality and minimum cost
- 1.15 Follow appropriate industry standards

Principle 2: Public

- 2.01 Disclose any software-related dangers Approve only
- 2.02 safe, well tested software Only sign documents in area
- 2.03 of competence Cooperate on matters of public concern
- 2.04 Produce software that respects diversity
- 2.05 Be fair and truthful in all matters
- 2.06 Always put the public's interests first Donate
- 2.07 professional skills to good causes Accept
- 2.08 responsibility for your own work
- 2.10

Principle 3: Judgement

- Software Engineers shall maintain integrity and independence in their professional judgement."
  - **3.01 Maintain professional objectivity**
  - **3.02 Only sign documents within your responsibility**
  - **3.03 Reject bribery**
  - **3.04 Do not accept secret payments from the client**
  - **3.05 Accept payment from only one source for a job**
  - **3.06 Disclose conflicts of interest**
  - **3.07 Avoid conflicting financial interests**
  - **3.08 Temper technology judgments with ethics**

Principle 4: Client and Employer

- 4.01 Provide services only where competent
- 4.02 Ensure resources are authentically approved
- 4.03 Only use property as authorized by the owner
- 4.04 Do not use illegally obtained software
- 4.05 Honor confidentiality of information
- 4.06 Raise matters of social concern
- 4.07 Inform when a project becomes problematic
- 4.08 Accept no outside work detrimental to the work they perform for their primary employer
- 4.09 Represent no interests adverse to your employer

Principle 5: Management

- 5.01 Assure standards are known by employees
- 5.02 Assure knowledge of confidentiality
- 5.03 protocols Assign work according to
- 5.04 competence Provide due process for code
- 5.05 violations Develop fair ownership
- 5.06 agreements
- 5.07 Accurately describe conditions of
- 5.08 employment Offer only fair and just
- 5.09 remuneration
- 5.10 Do not prevent a subordinate's promotion
- 5.11 Do not ask a person to breach this code

Principle 6: Profession

- 6.01 Associate with reputable people
- 6.02 Promote commitment of this code
- 6.03 Support followers of this code
- 6.04 Help develop an ethical environment
- 6.05 Report suspected violations of this code
- 6.06 Take responsibility for errors
- 6.07 Only accept appropriate remuneration
- 6.08 Be accurate and honest regarding software
- 6.09 Place professional interests before personal
- 6.10 Obey all laws governing your work
- 6.11 Exercise professional responsibility
- 6.12 Promote public knowledge of the subject
- 6.13 Share software knowledge with the profession

Principle 7: Colleagues

- **7.01 Assist colleagues in professional development**
- **7.02 Review other's work only with their consent**
- **7.03 Credit fully the work of others**
- **7.04 Review others work candidly**
- **7.05 Give fair hearing to colleagues**
- **7.06 Assist colleagues' awareness of work practices**
- **7.08 Do not hinder a colleague's career**
- **7.09 Do not pursue a job offered to a colleague**
- **7.10 Seek help with work outside your competence**

Principle 8: Self

- 8.01 Further your own professional knowledge Improve your
- 8.02 ability to produce quality work Improve your ability to
- 8.03 document work Improve your understanding of work
- 8.04 details Improve your knowledge of relevant legislation
- 8.05 Improve your knowledge of this code
- 8.06 Do not force anyone to violate this code Consider
- 8.07 code violations inconsistent with software
- 8.08 engineering

Abuse of Codes

- **Definition:**
- The "Abuse of Codes in Engineering Ethics" can encompass several key issues and topics. While a detailed list could vary based on specific codes, industries, and cases, here is a generalized list to outline the concept.
- ✓ **Misinterpretation of Codes:** Deliberately twisting the language or intent of ethical codes to justify unethical behavior.

Abuse of Codes

- **Selective Application:** Applying codes of ethics inconsistently, favoring certain projects, clients, or outcomes over others without justifiable reasons.
- **Omission of Key Information:** Intentionally leaving out or hiding important data or information in a way that misleads stakeholders or bypasses ethical standards.
- **Conflict of Interest:** Failing to disclose or improperly managing situations where personal interests conflict with professional duties or ethical standards.

Abuse of Codes

- **Bypassing Safety Standards:** Ignoring or circumventing established safety protocols and standards to cut costs, save time, or for personal gain.
- **Fabrication and Falsification:** Making up data, results, or documentation, or altering such information to misrepresent the truth.
- **Plagiarism:** Taking credit for the work of others without appropriate acknowledgment or permission, violating intellectual property rights.

Abuse of Codes

- **Breach of Confidentiality:** Improperly sharing or using confidential or proprietary information without authorization.
- **Unfair Treatment:** Discriminating against individuals or groups, or otherwise engaging in practices that unfairly advantage or disadvantage certain parties.
- **Misuse of Professional Credentials:** Representing oneself with unearned qualifications or misleading others about one's professional capabilities.

Limitations and Justification

- **Limitations of Codes:**
- **Not Exhaustive:** Cannot cover every specific ethical dilemma or situation engineers might face.
- **Interpretation Variability:** Different individuals may interpret the same codes in varied ways, leading to inconsistencies.
- **Rapid Technological Change:** Codes may lag behind the pace of innovation, leaving gaps in guidance for new technologies or situations.

Limitations and Justification

- **Cultural and Global Differences:** Global practice requires codes that transcend cultural differences, yet local relevance may be lost.

❖ **Justification of Codes:**

- **Foundation for Professional Conduct:** Provide a baseline for ethical behavior and decision-making in engineering.
- **Public Trust and Safety:** Ensure engineers prioritize the welfare, health, and safety of the public in their work.

Limitations and Justification

- **Professional Unity and Identity:** Foster a sense of community and shared standards among engineers across different fields.
- **Guidance in Ethical Dilemmas:** Offer a reference point for resolving ethical issues in a consistent and principled manner.

Thanks

Any Question

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