

Ethics In Engineering

Semester 5 - Professionalism & Corporate Ethics

(303193304)

Responsible Professionals and Ethical Corporations

Learning Objectives

By the end of this lecture, students should be able to:

- To understand the interconnected roles of individual engineers and engineering corporations in upholding ethical standards.
- To identify the characteristics and responsibilities of an ethically responsible engineering professional.
- To recognize the principles and practices that define an ethical engineering corporation.
- To appreciate how individual ethics and corporate ethics mutually influence each other.

Topics to be Covered

1. Introduction
2. Key Concept/Definitions
3. Content
4. Example
5. Activity
6. Conclusion
7. Learning outcome

Introduction

- The ethical landscape of engineering is shaped by a dual responsibility: the individual engineer's commitment to professional integrity and the corporation's commitment to ethical conduct.
- Neither can fully operate without the other. Responsible professionals need supportive ethical environments, and ethical corporations depend on the integrity of their employees.
- This subtopic explores how these two pillars – individual and organizational ethics – combine to ensure engineering serves the public good responsibly.

Key Concepts/Definitions:

- **Professionalism:** The conduct, aims, or qualities that characterize a profession or a professional person, often involving specialized knowledge, a commitment to public service, and adherence to ethical standards.
- **Ethical Culture:** The shared values, beliefs, and practices within an organization that guide ethical decision-making and behavior.
- **Corporate Social Responsibility (CSR):** A self-regulating business model that helps a company be socially accountable—to itself, its stakeholders, and the public. This involves operating in ways that enhance society and the environment, instead of contributing negatively to them.

Key Concepts/Definitions:

- **Whistleblowing Policy:** An official company policy that outlines procedures for employees to report illegal or unethical practices internally without fear of retaliation.
- **Code of Ethics (Professional):** A set of principles designed to guide the conduct of professionals in a particular field, often established by professional bodies.
- **Code of Conduct (Corporate):** A set of rules outlining the responsibilities of employees, expected behavior, and acceptable practices for an organization.
- **Stakeholder Theory:** A management theory that emphasizes the importance of balancing the interests of all stakeholders (employees, customers, suppliers, community, environment, shareholders) in corporate decision-making.

Building an Ethical Engineering Ecosystem

A. Characteristics of a Responsible Engineering Professional:

Competence & Continuous Learning: Staying updated with technology and best practices; recognizing limitations.

Integrity & Honesty: Being truthful in all professional dealings, avoiding conflicts of interest, reporting accurately.

Objectivity & Impartiality: Making decisions based on facts and sound engineering judgment, free from bias or undue influence.

Building an Ethical Engineering Ecosystem

- **Commitment to Public Safety & Welfare:** Prioritizing the well-being of the public and the environment above all else.
- **Respect for Intellectual Property:** Acknowledging and protecting the intellectual contributions of others.
- **Confidentiality:** Protecting sensitive information learned in a professional context.
- **Professional Courage:** Willingness to challenge unethical directives or report misconduct (whistleblowing) when necessary.
- **Accountability:** Taking ownership of actions and their consequences.

Content

B. Principles and Practices of Ethical Corporations:

Strong Ethical Leadership: Management setting the tone for ethical behaviour from the top down.

Clear Codes of Conduct and Ethics: Explicitly stating expected behaviours and values for all employees.

Ethics Training & Education: Regularly educating employees on ethical dilemmas, company policies, and relevant laws.

Robust Reporting Mechanisms: Providing safe, confidential channels for employees to report ethical concerns without fear of retaliation (e.g., ethics hotlines, whistleblowing policies).

Fair Employment Practices: Ensuring equitable treatment, diversity, and safe working conditions.

Content

- **Transparency & Accountability:** Being open about operations, impacts, and holding itself accountable for its actions.
- **Environmental Stewardship:** Implementing sustainable practices, minimizing pollution, and developing eco-friendly solutions.
- **Quality Assurance & Product Safety:** Prioritizing the design and production of safe, reliable, and high-quality products/services.
- **Community Engagement:** Contributing positively to the communities in which they operate.
- **Compliance with Laws and Regulations:** Adhering to all local, national, and international laws.

Content

C. The Synergy Between Professionals and Corporations:

- Ethical professionals contribute to an ethical corporate culture.
- Ethical corporations provide the necessary support, policies, and environment for professionals to act ethically without fear.
- A breakdown in ethics at either level can lead to significant consequences (e.g., individual negligence supported by corporate pressure, or corporate malfeasance enabled by silent professionals).

Activity (for discussion)

- **"Corporate Ethics Case Study"**: Present a case study of a corporation facing an ethical dilemma (e.g., Volkswagen emissions scandal, a company accused of human rights violations in its supply chain). Discuss what went wrong from both a corporate and individual professional perspective, and how it could have been handled ethically.
- **"Create Your Own Code"**: In small groups, ask students to draft 3-5 key ethical principles they believe should be in a code of conduct for a new engineering startup.
- **"Role-Play Ethical Dilemma"**: Assign roles (e.g., a junior engineer, a project manager, a CEO) in a scenario where an ethical compromise is being considered due to budget cuts. Discuss how each role might approach the situation ethically.

Conclusion

- The integrity of the engineering profession relies equally on the moral compass of individual engineers and the ethical framework of the corporations they work for.
- Responsible professionals are the frontline guardians of ethical conduct, while ethical corporations provide the systemic support and values that enable such conduct to flourish.
- Together, they form an indispensable alliance that ensures engineering progress benefits society and adheres to the highest standards of integrity and social responsibility.

Learning Outcomes

- Students will be able to articulate the core responsibilities of an ethical engineering professional.
- Students will be able to identify key characteristics and practices of an ethical engineering corporation.
- Students will understand the interdependence between individual and corporate ethics in engineering.
- Students will be able to analyze real-world scenarios through the lens of individual professional responsibility and corporate ethical culture.

Related Video to the Topic

- **Title Suggestion:** "Corporate Ethics vs. Individual Ethics in Engineering" or "Building an Ethical Engineering Culture"
- **Link Suggestion:**
 - Search YouTube for talks or documentaries on corporate social responsibility in the tech or engineering sector.
 - Look for videos from institutions discussing ethical leadership, or interviews with engineers discussing professional dilemmas.
 - *Example Search Query:* "Ethics in business engineering" or "corporate social responsibility in engineering"

Thank You