

ECS 3361: Social Issues and Ethics in ECS

Lecture 4 PMI and IEEE codes of Ethics

Credits:

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The Free Encyclopedia, <http://en.wikipedia.org>

YouTube

Today's Learning Objectives

- Introduction (PMP certification)
- PMI (Project Management Institute) code of ethics
- IEEE code of ethics
- Conflict resolution techniques
- Ethical situation

Introduction

- PMP (Project Management Professional) Certification demonstrates competence in leading project teams.
- Benefits of the PMP credential are:
 - Improve your management skills/Increase project success
 - Qualify for jobs requiring PMP certification
 - Maximize earning potential
- Typical requirements:
 - A 4-year university degree
 - Three years of project management experience
 - 4500 hours combined experience in several knowledge areas
 - 35 hours of project management education

PMP requirements

- Pass a 200-question Exam (fee is about \$500)
 - Project phases Percentage of questions per phase
 - Project Initiation 13%
 - Project Planning 24%
 - Project Execution, monitoring and control 55%
 - Project closing 8%

Professional conduct/ethics questions can be in any of the phases.
- Maintain credential by
 - Earning 60 PDU's per three-year cycle.
 - Adhering to PMI code of Ethics
- A project manager is responsible for
 - solving project issues,
 - following/initiating procedures,
 - seeking help when dealing with ethical issues.

Project management knowledge areas

Integration: combination and coordination of all plans

Scope: Requirements

Time: Schedule

Cost: Budget and cost control

Quality: Procedures/Metrics

Human Resource: Roles and performance management

Communications: collection and distribution of information

Risk: Risk register and stakeholder management

Procurement: Contracts if outside resources needed

HISTORY OF CODES OF ETHICS

- 1803 First code of professional ethics
(medical ethics by Thomas Percival)
- 1852 ASCE (Civil Engineering)
- 1880 ASME (Mechanical Engineering)
- 1884 AIEE (Electrical Engineering)
 - AIEE + IRE became IEEE in 1963.
- Most Professional organizations have CODES OF ETHICS (PMI, NSPE, BE...)

PMI code of ethics

The cornerstones of the code

Responsibility

Respect

Fairness

Honesty

RESPONSIBILITY

- It is our duty to take ownership for our decisions and actions, and the consequences that result
 - When we discover unethical or illegal conduct, we report it to appropriate body and, if necessary to those affected by the conduct
 - We inform ourselves and uphold policies, rules, procedures and laws that govern our work
 - We make decisions and take actions based on the best interests of society, public safety and the environment
 - We fulfill the commitments that we undertake (integrity)
 - We uphold this code and hold each other accountable to it



RESPECT

- It is our duty to show high concern for ourselves, others and resources (people, money, reputation...) entrusted to us.
 - We negotiate in good faith
 - We do not use our position to influence other's actions to benefit us at their expense (misuse of power)
 - We do not act in abusive manner toward others
 - We respect the property rights of others
 - We inform ourselves and respect cultural differences
 - We use active listening (seek to understand other's points of view)
 - We approach persons with whom we have a conflict or disagreement

FAIRNESS

- It is our duty to make decisions and act impartially and objectively
 - We proactively **disclose any real or potential conflict of interest** to the appropriate stakeholders
 - **We do not use favoritism** (hire/fire, reward/punish, award/deny) and we **do not discriminate** based on gender, race, religion....
 - We make **opportunities equally available** to qualified candidates
 - **We provide equal access to information** to those authorized to have that information (during bidding process for example)

HONESTY

- It is our duty to understand the truth and act in a truthful manner in our communication and our conduct
 - We do not deceive or mislead (stating half truth, using information out of context)
 - We do not engage in dishonest behavior for personal gain
 - We provide accurate information in a timely manner (good and bad)
 - We strive to create an environment in which others feel safe to tell the truth

IEEE Code of Ethics (August 1990)

We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:

1. to accept responsibility in making engineering decisions consistent with the safety, health and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;

IEEE Code of Ethics

2. to avoid **real or perceived conflicts of interest** whenever possible, and to **disclose them to affected parties** when they do exist;
3. to **be honest** and realistic in stating claims or estimates based on available data;
 - (do not guess, ask people who know)
4. to **reject bribery** in all its forms;
 - (bonus to join a competitor?)
5. to improve **the understanding of technology**, its appropriate application, and **potential consequences**

IEEE Code of Ethics

6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;
7. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;
8. to treat fairly all persons and to not engage in acts of discrimination based on race, religion, gender, disability, age, national origin...

IEEE Code of Ethics

9. to **avoid injuring** others, their property, **reputation**, or employment by false or **malicious action**;

10. to **assist colleagues and co-workers in their professional development and to support them in following this code of ethics.**

List of some Engineering Ethics Issues

- Are Engineers in a position to judge the safety of the devices they develop (wireless effect on brain...)?
- Criticism/feedback need to be constructive.
 - Propose improvement, not just criticize.
- How does one know if he/she is treated fairly?
- Is it ethical to try to put a competitor out of business?
- Are engineers morally responsible for the actions of their company?
- Can gift giving be looked at as bribery? (know policy and always seek help from management).

Guidelines to address ethical Dilemmas

Step 1: Determine the **facts** in the situation.

Step 2: Define the **Stakeholders** - those with a vested interest in the outcome.

Step 3: Assess the motivations of the stakeholders by using **effective communication** and personality assessment.

Step 4: Formulate **possible solutions**. Avoid “first impulse” reactions.

Step 5: **Evaluate those solutions** using ethical (theories, code of ethics principles). There may be more than one potential solution.

Guidelines to address ethical Dilemmas

Step 6: **Seek additional assistance**, as appropriate – previous similar cases, trusted peers, management, experts, prayer.

Step 7: Select the **best course of action** - that which satisfies the highest core ethical principles.

Step 8: Propose or implement the selected solution.

Step 9: **Monitor and assess the outcome.**

Step 10: **Learn from any mistakes in order to do better next time**

Conflict Resolution techniques

Conflicts usually occur in a project team because of

1- Schedules and Priorities

2- Resources

3- Technical opinions

The main conflict resolution techniques are:

- A- **Collaborating** (problem solving): solving the **root cause** of the problem so that the problem does not come back.
- B- **Compromising**: finding a solution that brings **partial satisfaction** to all parties
- C- **Smoothing** (accommodating): focusing on **common points** of other views.
- D- **Withdrawal** (avoidance): **avoiding** or postponing addressing the conflict.

Collaborating/Problem solving/Confronting

- Best when:
 - Commitment of other parties is important
 - All parties trust each other
- Advantages:
 - A win-win solution to the problem
 - Shared responsibility of the outcome
- Weaknesses:
 - May require more effort and time. Root cause may not be evident.
 - Need time to build trust

Compromising

- Best when:
 - Involved parties do not know each other well
 - Reach a quick solution
- Advantages:
 - Can be a temporary solution to a complex issue
 - **More practical** when time is a factor
- Weaknesses
 - May result in a lose-lose outcome (no party is satisfied)
 - May **require follow up and monitoring** to make sure agreement is carried out.

Smoothing/Accommodating

- Best when:
 - Issue is not as critical to you than to others
 - Temporary relief from the conflict is important
- Advantages:
 - Helps protect more important interests
 - Builds respect and harmony
- Weaknesses
 - May result in abuse by opponents
 - May affect confidence in the outcome

Withdrawal/Avoidance

- Best when:
 - Issue is not worth the effort
 - You are not prepared to handle the conflict
- Advantages:
 - Helps you focus on more important or urgent issues
 - Low stress approach when conflict is temporary
- Weaknesses
 - Not acting may be interpreted as an agreement
 - May negatively affects relationships or your position.

An Ethical Situation

You and your roommate are both enrolled in the same class. Your roommate spent the weekend partying and did not do the homework that is due on Monday. You did the homework, and your roommate asks to see it. You are afraid he/she will just copy it and turn it in as his/her own work. What is the right thing to do?

- a. Give your roommate the homework.
- b. Give the homework but ask your roommate not to copy from it.
- c. Give the homework and tell the roommate to give you his/her homework next time.
- d. Do not give the homework.
- e. Do not give the homework, but offer hints and ideas to help the roommate.

Homework 4

- On e-Learning. Ten situational multiple choice questions.