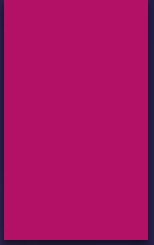# CSE 3421
Software Engineering Ethics

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Why This Lesson?

To make software engineering a beneficial & respected profession and the efforts be used for good

Who are the software engineers?
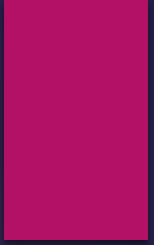
Software engineers are those who contribute by-

▶ Teaching

▶ Analyzing

▶ Specification generation

▶ Designing

▶ Development

▶ Testing

▶ Maintenance

Software Engineers in focus

Because of their role in developing software system, software engineers have significant chances to-

▶ Do good or cause harm.

▶ Enable others to do good or cause harm

▶ Influence others to do good or cause harm

ACM/IEEE Code of Ethics

- Software Engineering Code of Ethics and Professional Practice was jointly approved by ACM and IEEE-CS.

- **Eight** principles, engaging all possible aspects

- In accordance with their commitment to the health, safety and welfare of the public, software engineers shall adhere to those eight principles.

8 Key Principles

1. Public
2. Client and Employer
3. Product
4. Judgment
5. Management
6. Profession
7. Colleagues
8. Self

1. Public

Software engineers shall act consistently with the public interest.

- ▶ Always put the public interest first.
- ▶ Disclose any software-related dangers.
- ▶ Cooperate on the matters of public concern.
- ▶ Produce software that respects diversity.
- ▶ Approve only safe and well tested software

2. Client and Employer

Software engineers shall act in a manner that is in the best interests of their client and employer consistent with the public interest.

▶ Only use property as authorized by the owner.

▶ Honor confidentiality of information.

▶ Provide services only where competent.

▶ Inform when a project might see failure.

▶ Accept no outside work detrimental to the primary employer

3. Product

Software engineers shall ensure that their products and related modifications meet the highest professional standards possible.

- ▶ Ensure adequate software specification and understand them fully.

- ▶ Ensure all goals are achievable and estimates are realistic.

- ▶ Strive for high quality, acceptable cost, and reasonable schedule.

- ▶ Ensure adequate documentation, testing, debugging and review.

- ▶ Use data legitimately and remove flawed/ outdated data

4. Judgment

Software engineers shall maintain integrity and independence in their professional judgment

▶ Do not accept secret payment from the client.

▶ Do not engage in any deceptive financial practices.

▶ Disclose those conflicts of interest that can not be avoided.

▶ Maintain professional objectivity while handling related documents.

5. Management

Software engineering managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance .

- ► Assign work according to competence.

- ► Offer fair and just renumeration.

- ► Accurately describe the terms & conditions of employment.

- ► Do not prevent a subordinate's promotion.

- ► Do not ask anyone to breach this code.

6. Profession

Software engineers shall advance the integrity and reputation of the profession consistent with the public interest

- ▶ Place professional interest before personal.

- ▶ Exercise professional responsibility.

- ▶ Promote commitment of this code and develop an ethical environment.

- ▶ Associate with reputable people.

- ▶ Share software knowledge with other professionals

7. Colleagues

Software engineers shall be fair to and supportive of their colleagues.

- ▶ Assist colleagues in professional development.

- ▶ Review other's work with their consent.

- ▶ Give full credit to the work of others.

- ▶ Do not hinder a colleague's career.

- ▶ Seek help from them outside your competence

8. Self

Software engineers shall participate in lifelong learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession.

- Improve your professional skill and knowledge.

- Improve own ability to produce quality work.

- Improve knowledge about the policy and legislations related to work.

- Do not violate this code

Thank You