Computer Engineering Ethics
Lecture 1:
Intro to Ethics and Professionalism

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Morals, Ethics, and Laws

- Morals are values that a person adheres to based on personal conviction.
- Ethics are standards of behavior expected from an individual by a group / society, and violating them would be frowned upon.
- Laws are rules about what you can or cannot do. They are enforced by the government.

What is a Profession?

- A profession is different from a mere "occupation" in the following aspects:
  - Requires extensive Training,
  - Requires vital knowledge and skills,
  - Control of services,
  - Autonomy in the workplace, and
  - Claim to ethical regulation.

Professional Ethics

- The set of standards adopted by professionals insofar as they view themselves acting as professionals.

- Examples of professions: Medicine, Pharmacy, Law, Architecture, Accounting… and Engineering.

Herbert Hoover on the Engineering Profession

… It is a great profession. There is the fascination of watching a figment of the imagination emerge through the aid of science to a plan on paper. Then it moves to realization in stone or metal or energy. Then it brings jobs and homes to men. Then it elevates the standards of living and adds to the comforts of life. That is the engineer's high privilege…

Herbert Hoover [continued]

… The great liability of the engineer compared to men of other professions is that his works are out in the open where all can see them. His acts, step by step, are in hard substance. He cannot bury his mistakes in the graves like the doctors. He cannot argue them into thin air or blame the judge like the lawyers. He cannot, like the architects, cover his failures with trees and vines…

Herbert Hoover [continued]

… He cannot, like the politicians, screen his shortcomings by blaming his opponents and hope that the people will forget…

… The engineer simply cannot deny that he did it. If his works do not work, he is damned.

Engineering Ethics

- The responsibilities and rights that aught to be endorsed by those engaged in engineering.
- Desirable ideals and personal commitments in engineering.
- The study of the decisions, policies, and values that are morally desirable in engineering practice and research.

Why study Engineering Ethics?

Desirable outcomes

- increased ethical sensitivity,
- increased knowledge of relevant standards of conduct,
- improved ethical judgment, and
- improved ethical will-power (that is, a greater ability to act ethically when one wants to).

Why study Engineering Ethics?
Practical Skills

- Moral awareness, *recognizing moral issues*
- Moral reasoning, *assessing arguments on opposite sides of moral issues*
- Moral coherence, *forming consistent viewpoints*
- Moral imagination, *alternative responses & creative solutions*
- Moral communication, *express & support your views*