

# Professionalism & Engineering Ethics

- Professionalism: Acting in a professional manner when carrying out your duties of employment.

- Engineering Ethics: The systematic study of the rules and ideals of the engineering profession



David B. Steinman, P.E.  
•Chief Engineer of the Mackinac Bridge  
•Founder of the National Society of Professional Engineers

# Professionalism

Engineers have always been looked upon to provide professional conduct.

- Organization
- Level headedness
- Thoroughness
- Dedication
- Attentiveness to details
- Promptness
- Taking pride in their profession.

Clients expect these traits of the person they contract for their project.



# Engineering Ethics



## Ethics

- a body of moral principles
- a set of rules and behaviors
- standards, rules and guidelines
- socially approved conduct
- respect for people and rights
- distinguished from matters of legality

## Engineering Ethics

- Standards adopted by the professional community and established companies.

# Herbert Hoover (on Engineering)

“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 grave like the doctors. He cannot argue them into thin air or blame the judge like the lawyers....He cannot, like the politician, 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 forever.”

31<sup>st</sup> President  
1929-1933  
Mining Engineer



# Why follow a code of ethics??

- Engineers should follow a code of ethics because it provides a clear definition of what the public expects from responsible engineers.
- It builds your reputation and the reputation of your profession
- Always ask yourself, “Would you be proud to read about the actions and decisions you made today in tomorrow’s newspaper?”



# NSPE Code of Ethics

## •Preamble

### NSPE Code of Ethics for Engineers

#### Preamble

Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the highest standards of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct.



# NSPE Code of Ethics

## •Fundamental Canons

### I. Fundamental Canons

Engineers, in the fulfillment of their professional duties, shall:

1. Hold paramount the safety, health, and welfare of the public.
2. Perform services only in areas of their competence.
3. Issue public statements only in an objective and truthful manner.
4. Act for each employer or client as faithful agents or trustees.
5. Avoid deceptive acts.
6. Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.



# NSPE Code of Ethics

## •Rules of Practice

### II. Rules of Practice

1. Engineers shall hold paramount the safety, health, and welfare of the public.
2. Engineers shall perform services only in the areas of their competence.
3. Engineers shall issue public statements only in an objective and truthful manner.
4. Engineers shall act for each employer or client as faithful agents or trustees.
5. Engineers shall avoid deceptive acts.



# NSPE Code of Ethics

## •Professional Obligations

### III. Professional Obligations

1. Engineers shall be guided in all their relations by the highest standards of honesty and integrity.
2. Engineers shall at all times strive to serve the public interest.
3. Engineers shall avoid all conduct or practice that deceives the public.
4. Engineers shall not disclose, without consent, confidential information concerning the business affairs or technical processes of any present or former client or employer, or public body on which they serve.
5. Engineers shall not be influenced in their professional duties by conflicting interests.
6. Engineers shall not attempt to obtain employment or advancement or professional engagements by untruthfully criticizing other engineers, or by other improper or questionable methods.



# NSPE Code of Ethics

## •Professional Obligations

### III. Professional Obligations (continued)

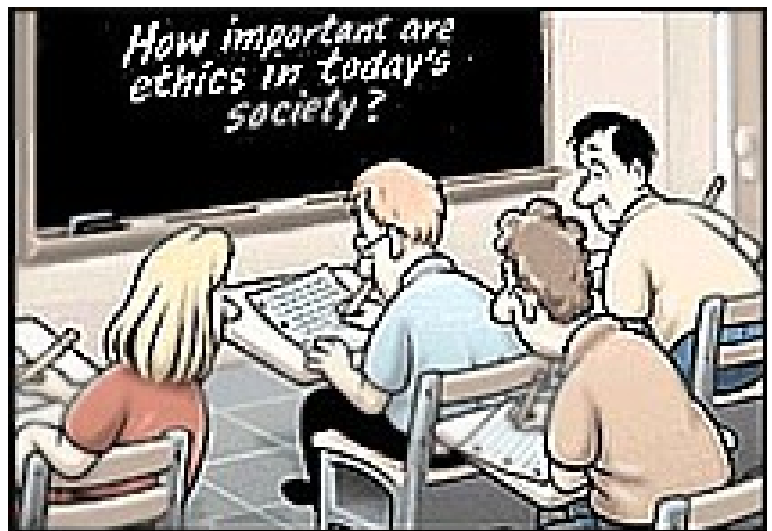
7. Engineers shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice, or employment of other engineers. Engineers who believe others are guilty of unethical or illegal practice shall present such information to the proper authority for action.
8. Engineers shall accept personal responsibility for their professional activities, provided, however, that engineers may seek indemnification for services arising out of their practice for other than gross negligence, where the engineer's interests cannot otherwise be protected.
9. Engineers shall give credit for engineering work to those to whom credit is due, and will recognize the proprietary interests of others.



# Ethical Decision Making

Use the following guidelines to aid in making ethical decisions:

- Gain as much information about the ethical dilemma situation as possible. Don't jump to quick conclusions.
- What general rules or principles underlie your decision? Are you handling similar matters consistently?
- What are the implications of your decision for my employer and the public?
- What does your decision say about your values? What is right, what is fair and what is in your best interest may not be the same.



# Class Discussion Problem



You are the engineer of record on a building project which is behind schedule and urgently needed by your clients. Your boss wants you to certify some roofing construction as properly completed even though you know some questionable installation techniques were used. What should you do??

# Choices??

- A) Certify it and negotiate a raise from your boss for doing so.
- B) Refuse to certify it even though there may be repercussions.
- C) Tell the client about the problems, saying that you'll certify it if they want you to.
- D) Certify it but keep a close watch in the future for problems associated with the roofing installation.



# Another One

Your company has used a certain supplier for steel rebars for years. In an attempt to get your company's business, a rival supplier buys you dinner at a fancy restaurant and sends you backstage passes for a U2 concert. What do you should you do?

# Choices??

- A) Accept the gifts but don't tell your company because you know you can still be unbiased.
- B) Report the gifts to your company and let them decide whether you should keep them.
- C) Don't accept any of the gifts that go beyond legitimate business expenses.
- D) Tell your normal supplier about the gifts and ask them to provide some too so that you won't be biased by the new suppliers gifts.