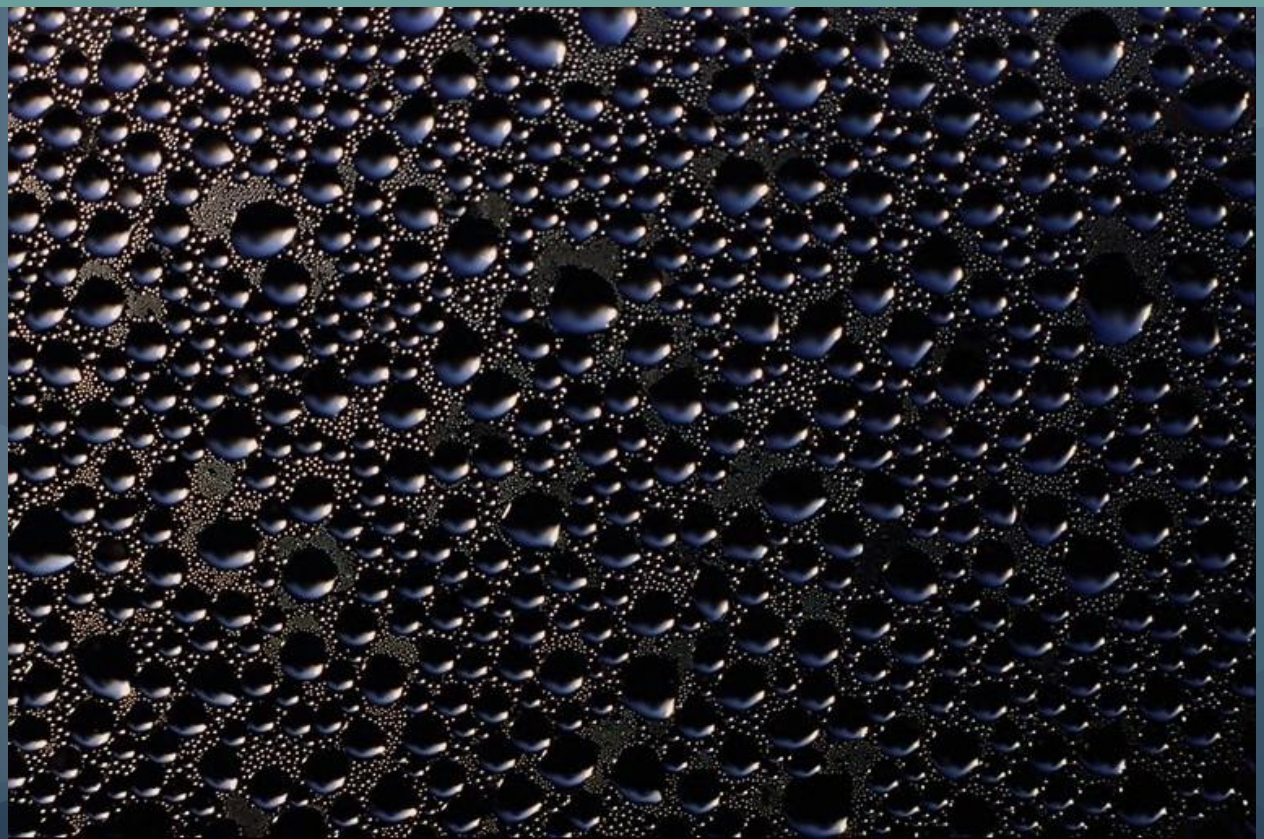
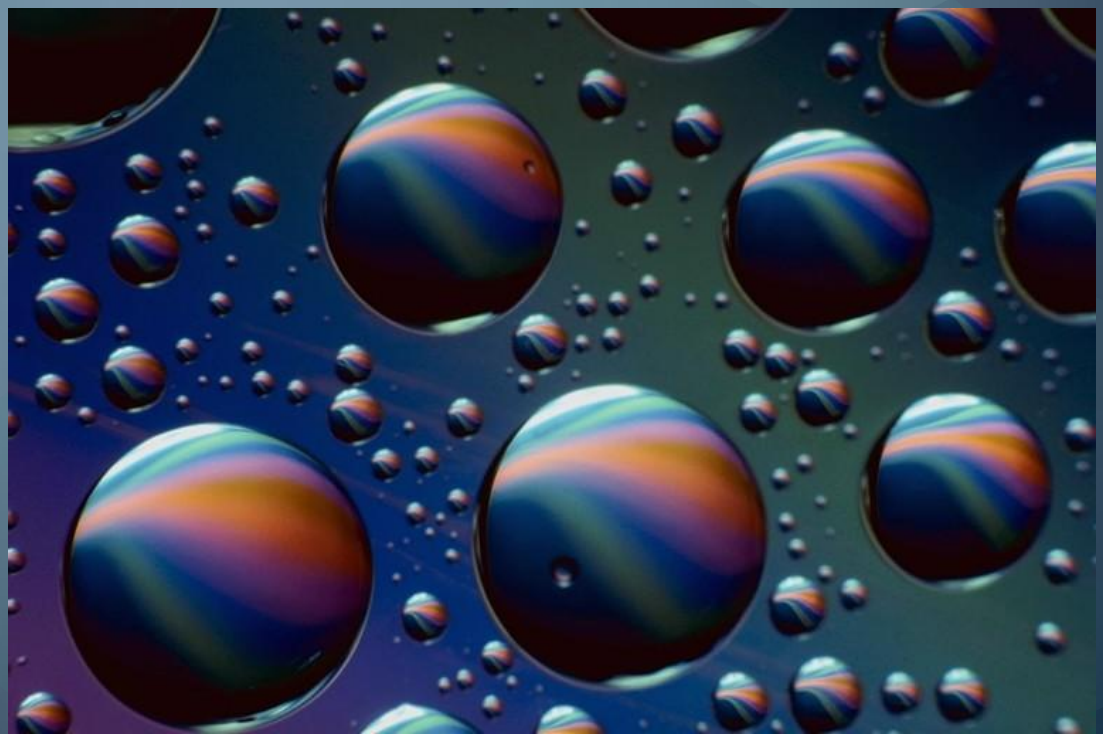
TESTING WATER . . . AND ETHICS

Analysis of Ethical Issues



Telling the Truth

- Engineers shall be objective and truthful in professional reports, statements, or testimony.
- They shall include all relevant and pertinent information in such reports, statements, or testimony.

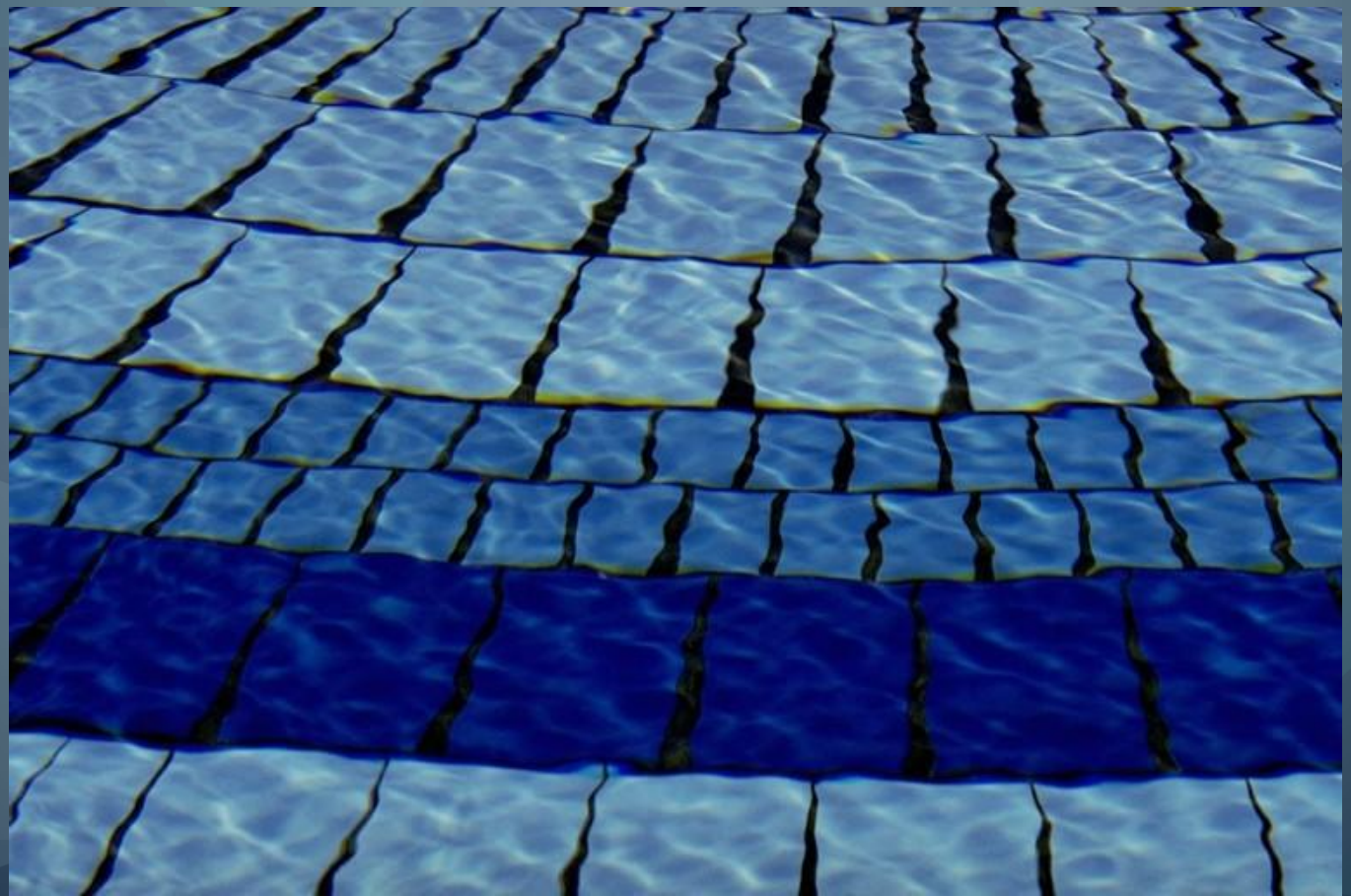


Protecting the Public

- Engineers shall hold paramount the health, safety and welfare of the public.

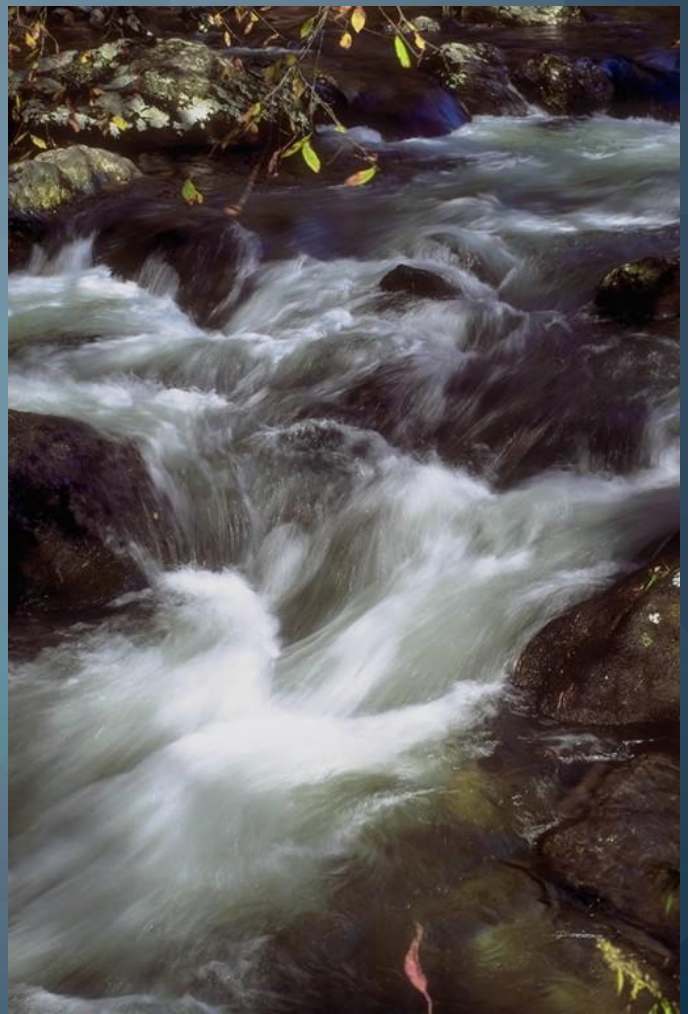
Loyal Employee

- Engineers shall act in professional matters for each employer or client as faithful agents or trustees.



Obligation and Sacrifice

- Ethical obligations are often in conflict with our personal organizational goals.



Professionalism

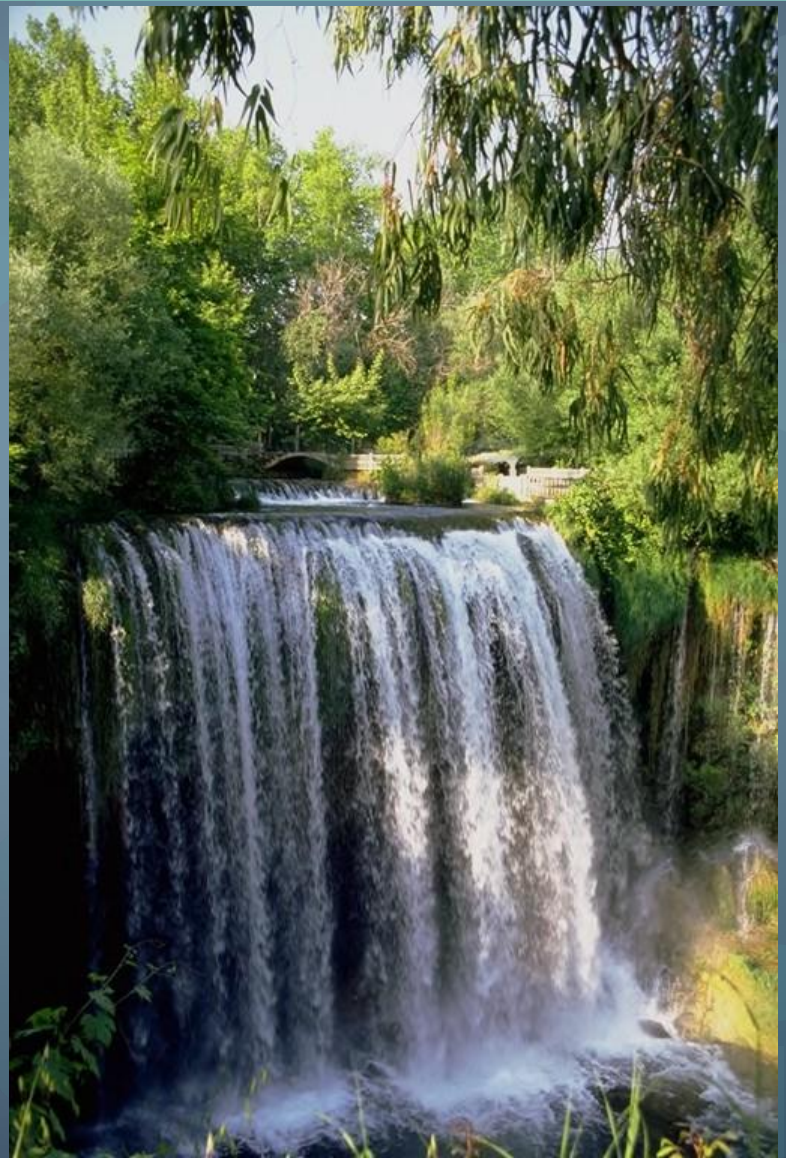
- A profession is an occupation with these characteristics:
  - Specialized knowledge and skills;
  - Acquired by lengthy, formal instruction;
  - Substantial theoretical basis of knowledge;
  - Professional autonomy; and
  - Serves an important social need.

Codes of Ethics

- A professional code of ethics represents a consensus in the profession about how members of the profession should conduct themselves.
- Codes of ethics typically begin with a statement of the profession's core values.
- One of the rewards of a career in engineering is the opportunity to use the knowledge gained by a difficult college curriculum for projects that genuinely benefit people.
- Being a good engineer is not easy.

The IPP Method is to:

- Identify,
- Prepare,
- And Plan.



Identify

- ***Facts*** → One of the easiest ways to make a bad decision is to get the facts wrong or misinterpret them or fail to find crucial facts about the problem.
- ***Stakeholders*** → Stakeholders are individuals, groups, or organizations that have something significant to gain or lose (something at stake) in the resolution of the problem.
- ***Standards*** → Professional codes of ethics are an important source of ethical standards for engineers.

Identify

- ***Resources*** → A good engineer makes use of available resources in designing a solution to a problem. Engineers who try to solve ethical problems on their own are making the job harder by not drawing upon the knowledge of others.
- ***Key Concepts*** → Part of the problem may concern the clarification of key concepts in the ethical issue or in a proposed solution.

Prepare

- **Develop Alternatives** → Ethical problems rarely have only one solution worth considering. The aim is to develop a number of responses to the problem that represent potentially viable solutions.
- **Evaluate Alternatives** → Evaluate alternatives using the ethical standards identified and the interests of the major stakeholders. Sometimes it is useful to draw up a chart with obligations and interests in columns and major stakeholders in rows, so that each alternative can be evaluated systematically.

Plan

- **Choose the Best Alternative** → This is partly a matter of judgment, since it is unlikely that the alternative you choose will meet all of your ethical obligations and other goals.
- **Strategy and Tactics** → Once an alternative is chosen, a plan must be developed to put it into action.