Why do I need to take a course in engineering ethics? I am an ethical person.

Short Answer: Because engineering ethics is not the same as personal ethics.

Three Aspects

1. Common Morality
2. Personal Morality
3. Professional Ethics

Common Morality

• The dominant set of moral ideas in our culture, based historically on Judeo/Christian Morality

Two Levels

• First order: Principles and judgments about what is right and wrong (acts themselves)
• Second order: Principles about how we judge individuals (people who perform the actions) These are influenced by intention, voluntary/involuntary, and culpable/inculpable ignorance.
Example
- An action can be wrong (killing) but an individual might not be blameworthy, or as blameworthy, because the individual was
  - 1) forced to do it
  - 2) believed the action was right
  - 3) did not intend to do it

Personal Morality
- Usually this is closely related to Common Morality but may differ, especially in controversial areas. You may think Euthanasia is ok even though common morality says (or has said) it is wrong.

Professional Ethics
- Professional Ethics are governed by impersonal standards that are created by their profession, stated in codes, and enforced by law.
- Professional standards are supposed to enable engineers to better serve the public.
- These standards are applied to all engineers regardless of their personal morality.

Engineering Ethics
- Focuses on behavior (first order) not an intent or motivation (second order).
- Allows individuals to accommodate their own personal values to some extent. One can refuse services if it violates personal values.
- Are not independent of common morality.
- May not be detailed enough (ie, be honest)

Harry’s case
- Harry works for a large manufacturer in the town of Greenville. His company employs half of this town, which is an otherwise economically depressed part of the country. Harry discovers his company is dumping carcinogenic chemicals into the local lake. The lake is the town’s main source of drinking water. Harry is told that the company dumps these chemicals because disposing of them lawfully is so expensive that it would force the company to fold or move overseas.
Should Harry report his employers to the authorities?

**Considerations**
- Obligation to protect public health, safety, and welfare
- Obligation to neighbors to not harm their economic livelihood
- Obligation to protect employer’s interests
- Obligation to self to protect career

**Creative Middle Ways**
- Find a third course of action that will allow you to satisfy all/more of the obligations.
- In Harry’s case, find an inexpensive way to recycle the chemicals for continued use in manufacturing. Technical solutions are often “creative middle ways”.

**Sally’s case**
- Sally is working for a regulatory agency that reviews plans developed by engineers. She reviews Judy’s plans, but wonders how/why they have Judy’s signature when Judy has been in Africa for 3 months, out of touch. Judy is licensed as an engineer. In the design package, she sees signatures by Karen on parts of the work. Karen is not licensed.

**Continued**
- The project is of major importance to the community and needs urgent implementation. Should Sally raise questions about Judy’s level of involvement with the design?

**MN code of ethics for PEs**

---

*Some content may require further context or translation for full comprehension.*
Major categories of Rules of Conduct

- Personal Conduct
- Conflict of Interest
- Improper Solicitation of employment
- False or Malicious Statements
- Knowledge of Improper Conduct by Others
- Action by Other Jurisdiction
- Employment on Basis of Merit
- Misconduct

Ethical Violations

- Plan stamping
- Kickbacks
- Unlicensed practice
- Working Outside Area of Expertise
- Negligent
- Gifts
- Truthful & complete statements, reports
- Lapsed license & signed documents
MN Licensure Cases

- Keep continuing education records – see case of Andrew Dahmen, Sept. 2009
- Robert Heil, Lapsed License, 2008
- Arlen Heathman, Negligence, 2008
- Marquis X. Erickson, Kickbacks, 2004

NRCS situation

- TAA system has all working under Brach’s PE license
- Area engineers review work required to be performed by PEs, such as TSPs. Same standard for reviewer as for designer.
- Don’t sign preliminary plans; put “DRAFT” on prominently