

UNSW  
GSOE9510  
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LECTURE OUTLINE  
**Ethics, in engineering & elsewhere**

definition: ethics — **your behaviour** — affect ‘other’ — ‘should/ought’

Ethics is fundamental to

- your behaviour [exercise: *Define moral autonomy.*]
- interaction → co-operation

**Knowing is not the same as doing.**

Ethics is central to *professions*, which *self-regulate*. [exercise: *Define profession.*]

- allow innovation
- legal regulation is inadequate, because ...

Engineers deliberately changes how people live and, so, cause ethical issues in which they must be involved.

Engineering is global, transcending any one tradition, & affects all.

Ethical issues related to engineering include

- managing risk & uncertainty;
- competence;
- distribution of costs not matching that of benefits;
- integrity of records, ...; and
- human relationships with ....

And recall that technology is un-natural.

How **should** you conduct yourself as a professional engineer?

Ethics is difficult.

— features vague & imprecise definitions; conflicting demands;  
arbitrary & inconsistent assumptions about the goal. → CONFLICTS!  
not engineers’ preferred structures!

Some ‘philosophical’ systems can help identify ethical issues & appropriate responses.

- *virtues*
- *duties / responsibilities*
- *utilitarianism*
- *rights*

They all **require a primary axiom to define goodness**.

They provide different perspectives but lead to similar conclusions.

Possible ‘first principle’ to guide an engineer’s professional behaviour:

- legalism
- obedience
- selfishness
- ‘personal’ morality

which give society little reassurance! Better is

- mutually agreed, professional standards (*Code of Ethics*)

Possible motives to conform to ethical principles:

- fear of consequences
- religion
- loyalty to ...
- altruism
- professional expectations

*implicit social contract*: Society trusts engineers to protect what society values.

But *accountability* may be remote.

**Merit the trust you are given!**

What is your guide & motivation? What you do **is your responsibility** & defines your reputation.