

**Ethics** (from the [Ancient Greek](#) "*ethikos*", meaning "arising from habit"; also **Morality**), a major branch of [philosophy](#), is the study of [value](#), or [morals](#) and [morality](#). It covers the [analysis](#) and employment of [concepts](#) such as [right](#), [wrong](#), [good](#), [evil](#), and [responsibility](#). It is divided into three primary areas: *meta-ethics* (the study of the concept of ethics), *normative ethics* (the study of how to determine ethical values), and *applied ethics* (the study of the use of ethical values).

### **Ethics of production**

This area of business ethics deals with the duties of a company to ensure that products and production processes do not cause harm. Some of the more acute dilemmas in this area arise out of the fact that there is usually a degree of danger in any product or production process and it is difficult to define a degree of permissibility, or the degree of permissibility may depend on the changing state of preventative technologies or changing social perceptions of acceptable risk.

**Engineering ethics** is the field of [applied ethics](#) which examines and sets standards for [engineers'](#) obligations to the [society](#), their clients, employers and the profession. This article addresses the subject for both [Professional engineers](#) and other engineers.

Engineering does not have a single uniform system, or standard, of ethical conduct across the entire profession. Ethical approaches vary somewhat by discipline and jurisdiction, but are most influenced by whether the engineers are independently providing professional services to clients, or the public if employed in government service; or if they are employees of an enterprise creating products for sale.<sup>1</sup>

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<sup>1</sup> The entire article consists of excerpts taken from Wikipedia

In the [United States](#) the first are usually [licensed](#) Professional engineers, are governed by statute, and have fairly consistent codes of professional ethics. The latter, working as engineers in industry, are governed by various laws including [whistleblowing](#), and [product liability](#) laws, and often rely on principles of [business ethics](#) rather than engineering ethics.

This is an example from the [American Society of Civil Engineers](#) (ASCE):

### "Fundamental Canons

1. Engineers shall hold paramount the safety, health and welfare of the public and shall strive to comply with the principles of sustainable development in the performance of their professional duties.
2. Engineers shall perform services only in areas of their competence.
3. Engineers shall issue public statements only in an objective and truthful manner.
4. Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.
5. Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.
6. Engineers shall act in such a manner as to uphold and enhance the honor, integrity, and dignity of the engineering profession and shall act with zero-tolerance for bribery, fraud, and corruption.
7. Engineers shall continue their professional development throughout their careers, and shall provide opportunities for the professional development of those engineers under their supervision." [\[5\]](#)

(ASME): "Engineers shall hold paramount the safety, health and welfare of the public in the performance of their professional duties." [\[11\]](#)

### Other ethical issues

There are several other ethical issues that engineers may face. Some have to do with technical practice, but many others have to do with broader considerations of business conduct. These include: [\[6\]](#)

- [Quality](#)
- Ensuring legal compliance
- [Conflict of interest](#)
- [Bribery](#) and [kickbacks](#)

- Treatment of [confidential](#) or [proprietary information](#)
- Consideration of the employer's assets
- Relationships with clients, consultants, competitors, and contractors
- Gifts, meals, services, and entertainment
- Outside employment/activities ([Moonlighting](#))