



PDHonline Course R100 (2 PDH)

Professional Ethics 101

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PDH Online | PDH Center

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Course Description

Licensed professionals such as engineers and land surveyors hold a privileged position within society, with a unique responsibility for public health, safety, and welfare. Accordingly, the services provided by professional engineers and land surveyors require honesty, impartiality, fairness and equity. This course presents an overview on the professional codes of ethics for engineers and land surveyors, discusses their responsibility to society, describes the professional misconducts associated with design profession, and provides a list of nine steps to ethical engineering decisions. In addition, this course defines three types of conflicts of interest and suggests six rules of thumb to help engineers eliminate or minimize conflicts of interest in their professional practice.

This course includes a multiple-choice quiz at the end, which is designed to enhance your understanding of the course materials.

Learning Objectives

At the conclusion of this course, the student will:

- Become familiar with professional codes of ethics for engineers and land surveyors;
- Understand the conflicts of interest and how to avoid them;
- Know the various types of professional misconduct; and
- Be aware of their duties and responsibilities as licensed professionals.

Table of Contents

Course Description	2
Learning Objectives	2
Introduction	4
Professional Codes of Ethics.....	4
NSPE Codes of Ethics for Engineers	7
NSPS Creed and Canons for Land Surveyors	14
Licensees' Responsibility to Society	15
Engineers' Creed	18
Avoiding Conflicts of Interest	19
Health, Safety and Welfare	21
Competing Obligations	21
Ethics Versus Law	22
Professional Misconduct	23
Steps to Ethical Engineering Decisions	25
Course Summary	27
References	27

Professional Ethics 101

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Introduction

Licensed professionals such as engineers and land surveyors hold a privileged position within society, with a unique responsibility for public health, safety, and welfare. Accordingly, the services provided by professional engineers and land surveyors require honesty, impartiality, fairness and equity. This course presents an overview on the professional codes of ethics for engineers and land surveyors, discusses their responsibility to society, describes the professional misconducts associated with design profession, and provides a list of nine steps to ethical engineering decisions. In addition, this course defines three types of conflicts of interest and suggests six rules of thumb to help engineers eliminate or minimize conflicts of interest in their professional practice.



Professional Codes of Ethics

In the realm of professional ethics, a profession is a disciplined group of individuals who adhere to certain ethical standards. This group positions itself as possessing special knowledge and skills in a widely recognized body of learning derived from education and training at a high level, and is recognized by the public as such. Examples of such groups include American Bar Association, the Association of American Physicians and the National Society of Professional Engineers. Among engineering communities, there are more specialized professional groups such as the American Society of Civil Engineers (ASCE), the Institute of Electrical and Electronics Engineers (IEEE), and the American Society of Mechanical Engineers (ASME), to name just a few. Each group is poised to promote knowledge sharing, career enrichment, and skills development among its members.

A code of ethics is sometimes referred to as a code of practice and is adopted by a profession or by a governmental or non-governmental organization to regulate said profession. It prescribes the mission and values of an organization.

Many engineering organizations have adopted codes of ethics to which their members are required to adhere to. Generally, these codes are quite similar and are based on a few fundamental principles which provide guidance to their members in common situations. For example, the National Society of Professional Engineers has the following inspirational preamble and fundamental canons in their Code of Ethics for Engineers:

NSPE Code of Ethics for Engineers

(2018 version)

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.

II. Rules of Practice

(Rules of Practice are presented in another part of this course)

Some codes of ethics expand their ethical guidelines into detailed rules of practice which can extend several pages long while others such as the one adopted by the Institute of Electrical and Electronics Engineers (IEEE) maintains a concise one-page format:

IEEE Code of Ethics

We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:

1. to accept responsibility in making decisions consistent with the safety, health, and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;
2. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;
3. to be honest and realistic in stating claims or estimates based on available data;
4. to reject bribery in all its forms;
5. to improve the understanding of technology; its appropriate application, and potential consequences;
6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;
7. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;
8. to treat fairly all persons and to not engage in acts of discrimination based on race, religion, gender, disability, age, national origin, sexual orientation, gender identity, or gender expression;
9. to avoid injuring others, their property, reputation, or employment by false or malicious action;
10. to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

NSPE Codes of Ethics for Engineers

National Society of Professional Engineers (NSPE) is an organization that serves engineers across the country. Its code of ethics is the oldest among all the engineering codes of ethics. A year after NSPE was founded in 1934, its magazine *The American Engineer* published "*Code for Society: Ethics and Practice Suggestions*". However, it is not clear whether the NSPE's Board of Directors ever adopted the Suggested Code. Over the last eighty plus years, the NSPE Codes of Ethics for Engineers has been an evolving statement of the aspirations and expectations of professional engineers. The followings are several major milestones related to the development of the NSPE Code of Ethics for Engineers according to the NSPE website:

1946 - A joint committee sponsored by the Engineers' Council for Professional Development (ECPD), a coordinating body of technical engineering societies, prepared the *Canons of Ethics for Engineers*, which was approved by the NSPE Board in the same year. ECPD is now the Accreditation Board for Engineering and Technology, also known as ABET.

Canons of Ethics for Engineers

(1946 version)

Forward

Honesty, justice and courtesy form a moral philosophy which, associated with mutual interest among men, constitutes the foundation of ethics. The engineer should recognize such a standard, not in passive observance, but as a set of dynamic principles guiding his conduct and way of Life. It is his duty to practice his profession according to these

Canons of Ethics.

As the keystone of professional conduct is integrity, the engineer will discharge his duties with fidelity to the public, his employers and clients, and with fairness and impartiality to all. It is his duty to interest himself in public welfare, and to be ready to apply his special knowledge for the benefit of mankind. He should uphold the honor and dignity of his profession and avoid association with any enterprise of questionable character. In his dealings with fellow engineers he should be fair and tolerant.

Professional Life

SEC. 1. The engineer will cooperate in extending the effectiveness of the engineering profession by interchanging information and experience with other engineers and students and by contributing to the work of engineering societies, schools, and the scientific and engineering press.

SEC. 2. He will not advertise his work or merit in a self-laudatory manner, and he will avoid all conduct or practice likely to discredit or do injury to the dignity and honor of his profession.

Relations with the Public

SEC. 3. The engineer will endeavor to extend public knowledge of engineering, and will discourage the spreading of untrue, unfair and exaggerated statements regarding engineering.

SEC. 4. He will have due regard for the safety of life and health of public and employees who may be affected by the work for which he is responsible.

SEC. 5. He will express an opinion only when it is founded on adequate knowledge and honest conviction while he is serving as a witness before a court, commission or other tribunal.

SEC. 6. He will not issue ex parte statements, criticisms or arguments on matters connected with public policy which are inspired or paid for by private interests, unless he indicates on whose behalf he is making the statement.

SEC. 7. He will refrain from expressing publicly an opinion on an engineering subject unless he is informed as to the facts relating thereto.

Relations with Clients and Employers

SEC. 8. The engineer will act in professional matters for each client or employer as a faithful agent or trustee.

SEC. 9. He will act with fairness and justice between his client or employer and the contractor when dealing with contracts.

SEC. 10. He will make his status clear to his client or employer before undertaking an engagement if he may be called upon to decide on the use of inventions, apparatus, or any other thing in which he may have a financial interest.

SEC. 11. He will guard against conditions that are dangerous or threatening to life, limb or property on work for which he is responsible, or if he is not responsible, will promptly call such conditions to the attention of those who are responsible.

Canons of Ethics for Engineers (1946 version, Continued)

- SEC. 12. He will present clearly the consequences to be expected from deviations proposed if his engineering judgment is overruled by non-technical authority in cases where he is responsible for the technical adequacy of engineering work.
- SEC. 13. He will engage, or advise his client or employer to engage, and he will cooperate with other experts and specialists whenever the client's or employer's interest are best served by such service.
- SEC. 14. He will disclose no information concerning the business affairs or technical processes of clients or employers without their consent.
- SEC. 15. He will not accept compensations, financial or otherwise, from more than one interested party for the same service, or for services pertaining to the same work without the consent of all interested parties.
- SEC. 16. He will not accept commissions or allowances, directly or indirectly, from contractors or other parties dealing with his client or employer in connection with work for which he is responsible.
- SEC. 17. He will not be financially interested in the bids as or of a contractor on competitive work for which he is employed as an engineer unless he has the consent of his client or employer.
- SEC. 18. He will promptly disclose to his client or employer any interest in a business which may compete with or affect the business of his client or employer. He will not allow an interest in any business to affect his decision regarding engineering work for which he is employed or which he may be railed upon to perform.

Relations with Engineers

- SEC. 19. The engineer will endeavor to protect the engineering profession collectively and individually from misrepresentation and misunderstanding.
- SEC. 20. He will take care that credit for engineering work is given to those to whom credit is properly due.
- SEC. 21. He will uphold the principle of appropriate and adequate compensation for those engaged in engineering work, including those in subordinate capacities, as being in the public interest and maintaining the standards of the profession.
- SEC. 22. He will endeavor to provide opportunity for the professional development and advancement of engineers in his employ.
- SEC. 23. He will not directly or indirectly injure the professional reputation, prospects or practice of another engineer. However, if he considers that an engineer is guilty of unethical, illegal or unfair practice, he will present the information to the proper authority for action.
- SEC. 24. He will exercise due restraint in criticizing another engineer's work in public, recognizing the fact that the engineering societies and the engineering press provide the proper forum for technical discussions and criticism.
- SEC. 25. He will not try to supplant another engineer in a particular employment after becoming aware that definite steps have been taken toward the other's employment.
- SEC. 26. He will not compete with another engineer on the basis of charges for work by underbidding, through reducing his normal fees after having been informed of the charges named by the other.
- SEC. 27. He will not use the advantages of a salaried position to compete unfairly with another engineer.
- SEC. 28. He will not become association in responsibility for work with engineers who do not conform to ethical practices.

1952 - The NSPE Board adopted 15 Rules of Ethical Conduct proposed by its Ethical Practices Committee, presumably to supplement the Canons of Ethics, although this is not explicitly stated.

The fifteen Rules of Ethical Conduct

(1952 version)

- No. 1- It is unethical for an employed engineer to solicit or accept other employment to the detriment of his regular work or interest of his employer,
- No. 2 - An engineer in independent or private practice may be employed by more than one party when the interests of the several parties do not conflict,
- No. 3 - An engineer should not undertake work which he believes will not be successful, without first advising his client of his opinion,
- No. 4- An engineer should not undertake work at a fee that will not permit a satisfactory professional performance,
- No. 5 - It is unethical for an engineer to use plans and specifications prepared by manufacturers, sales agencies, supply houses, or patentees, except to the extent that such plans and specifications pertain only to the production of said manufacturer, sales agency, supply house, or patentee,
- No, 6 - It is unethical for an engineer, employed by a public body, industry, or educational institution to use the instruments, office facilities or laboratory equipment owned by such public body, industry or educational institution to compete with engineers in private or independent practice or commercial testing laboratories without payment for the use of such instruments, facilities or equipment at the current rates,
- No. 7 - It is unethical for an engineer to offer or to pay, either directly or indirectly, any commission in order to secure work, exclusive of securing salaried positions through employment agencies,
- No. 8 - Professional work should come to the engineer on the basis of experience and reputation. Solicitation by lobbying, criticism of competitors, or self-laudation is degrading to the profession and unethical,
- No. 9 - Advertising matter in the form of calendars, rulers, blotters, paper knives and similar gifts, irrespective of value, is undignified and is condemned,
- No. 10 - Advertising in lay publications should be discouraged. Advertising in professional or technical journals is permissible. All advertising should be limited to dignified professional cards which list the name and address of the engineer and they type of work he renders. Listings in directories of general circulation, such as city and telephone directories under special heading indicating the type of professional services offered, are proper, but such listings should not be in bold face type or display.
- No. 11 - It is unprofessional for an engineer to undertake professional work for which he is not qualified,
- No. 12 - Engineering plans and specifications should be definite and specific. They should define the exact requirements clearly and should admit of no double meaning,
- No. 13 - An engineer should not use association with a non-engineer, a corporation or partnership as a cloak for unethical acts, but must accept responsibility for his professional acts,
- No. 14 - It is unethical for any engineer to accept remuneration from either an employee or employment agency for giving employment,
- No. 15 - An engineer who is in sales or industrial employ is entitled to institute engineering comparisons with the products offered by a competitor, but should avoid aspersions upon the character, standing or ability of such competitors.

1957 - The NSPE Board adopted the Rules of Professional Conduct, which were different from the previous Rules of Ethical Conduct published in 1952.

1964 - The NSPE Board adopted the NSPE Code of Ethics to replace the existing Canons of Ethics for Engineers and Rules of Professional Conduct.

NSPE Code of Ethics for Engineers *(1964 version)*

Preamble

The Engineer, to uphold and advance the honor and dignity of the engineering profession and in keeping with high standards of ethical conduct:

Will be honest and impartial, and will serve with devotion his employer, his clients, and the public;

Will strive to increase the competence and prestige of the engineering profession;

Will use his knowledge and skill for the advancement of human welfare.

Section I - The Engineer will be guided in all his professional relations by the highest standards of integrity, and will act in professional matters for each client or employer as a faithful agent or trustee.

- a. He will be realistic and honest in all estimates, reports, statements, and testimony.
- b. He will admit and accept his own errors when proven obviously wrong and refrain from distorting or altering the facts in an attempt to justify his decision.
- c. He will advise his client or employer when he believes a project will not be successful.
- d. He will not accept outside employment to the detriment of his regular work or interest, or without the consent of his employer.
- e. He will not attempt to attract an engineer from another employer by unfair method.

Section 2 - The Engineer will have proper regard for the safety, health, and welfare of the public in the performance of his professional duties. If his engineering judgment is overruled by ...

(Sections 3 to 14 are omitted for clarity)

Section 15 - The Engineer will cooperate in extending the effectiveness of the profession by interchanging information and experience with other engineer and students, and will endeavor to provide opportunity for the professional development and advancement of engineers under his supervision.

- a. He will encourage his engineering employees efforts to improve their education.
- b. He will encourage engineering employees to attend and present papers at professional and technical society meetings.
- c. He will urge his engineering employees to become registered at the earliest possible date.
- d. He will assign a professional engineer duties of a nature to utilize his full training and. experience, insofar as possible, and delegate lesser functions to sub professionals or to technicians.
- e. He will provide a prospective engineering employee with complete information on working conditions and his proposed status of employment, and after employment will keep him informed of any changes in them.

1981 - The format (preamble plus 15 sections) of the 1964 Code of Ethics was used until 1981 when a new code format (preamble plus 3 parts) was adopted by the NSPE Board.

NSPE Code of Ethics for Engineers *(January 1981 version)*

Preamble

Engineering is an important and learned profession. The members of the profession recognize that their work 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. In the practice of their profession, engineers must perform under a standard of professional behavior which requires adherence to the highest principles of ethical conduct on behalf of the public, clients, employers and the profession.

I. Fundamental Canons

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

1. Hold paramount the safety, health and welfare of the public in the performance of their professional duties.
2. Perform services only in areas of their competence.
3. Issue public statements only in an objective and truthful manner.
4. Act in professional matters for each employer or client as faithful agents or trustees.
5. Avoid deceptive acts in the solicitation of professional employment.

II. Rules of Practice

1. Engineers shall hold paramount the safety, health and welfare of the public in the performance of their professional duties.
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 in professional matters for each employer or client as faithful agents or trustees.
5. Engineers shall avoid deceptive acts in the solicitation of professional employment.

(Details of each rule are omitted for clarity)

III. Professional Obligations

(Details of each obligation are presented in another part of this course)

2003 - The NSPE Board approved a new section (III.9.e.) to the Code of Ethics that reads: *"Engineers shall continue their professional development throughout their careers and should keep current in their specialty fields by engaging in professional practice, participating in continuing education courses, reading in the technical literature and attending professional meetings and seminars."*

2006 - The NSPE Board approved a new section (III.2.d.) to the Code of Ethics that reads: *"Engineers shall strive to adhere to the principles of sustainable development in order to protect the environment for future generation."*

2018 - The NSPE House of Delegates approved a change to the 2007 NSPE Code of Ethics to move NSPE Professional Development Code Section III.9.e. to a new NSPE Code Section III.2.e.

As you can see, the NSPE Code of Ethics has evolved significantly since the 1940s. Provisions have been altered regarding competitive bidding, advertising compensation for services, and professional development. Most recently the code has added clauses specifically to promote "sustainable development" to protect the environment for future generations. NSPE places a greater emphasis on sustainable development and provides more details in this area than any other codes of ethics. This code applies to all holders of the Professional Engineer's license.

NSPS Creed and Canons for Land Surveyors

National Society of Professional Surveyors (NSPS) is an organization that serves the professional surveying community in the United States and its territories. Its code of ethics contains a pledge and seven canons.

NSPS Creed and Canons

As a Professional Surveyor, I dedicate my professional knowledge and skills to the advancement and betterment of human welfare.

I pledge:

To give the utmost of performance;

To participate in none but honest enterprise;

To live and work according to the laws of humankind and the highest standards of professional conduct;

To place service before profit, honor and standing of the profession before personal advantage, and the public welfare above all other considerations;

In humility and with need for Divine Guidance, I make this pledge.

Canon 1.

A Professional Surveyor should refrain from conduct that is detrimental to the public.

Canon 2.

A Professional Surveyor should abide by the rules and regulations pertaining to the practice of surveying within the licensing jurisdiction.

Canon 3.

A Professional Surveyor should accept assignments only in one's area of professional competence and expertise.

Canon 4.

A Professional Surveyor should develop and communicate a professional analysis and opinion without bias or personal interest.

Canon 5.

A Professional Surveyor should maintain the confidential nature of the surveyor-client relationship.

Canon 6.

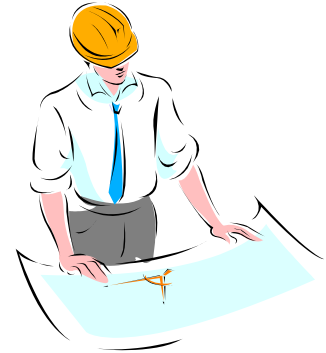
A Professional Surveyor should use care to avoid advertising or solicitation that is misleading or otherwise contrary to the public interest.

Canon 7.

A Professional Surveyor should maintain professional integrity when dealing with members of other professions.

Licensees' Responsibility to Society

The practice of engineering and land surveying does not exist outside the domain of societal interests. As licensed professionals, engineers and land surveyors shall hold paramount the safety, health and welfare of the public in the performance of their professional duties. In their Code of Ethics, the National Society of Professional Engineers proclaims the following obligations to their members:



1. Engineers shall be guided in all their relations by the highest standards of honesty and integrity.
 1. Engineers shall acknowledge their errors and shall not distort or alter the facts.
 2. Engineers shall advise their clients or employers when they believe a project will not be successful.
 3. Engineers shall not accept outside employment to the detriment of their regular work or interest. Before accepting any outside engineering employment, they will notify their employers.
 4. Engineers shall not attempt to attract an engineer from another employer by false or misleading pretenses.
 5. Engineers shall not promote their own interest at the expense of the dignity and integrity of the profession.
2. Engineers shall at all times strive to serve the public interest.
 - a. Engineers are encouraged to participate in civic affairs; career guidance for youths; and work for the advancement of the safety, health, and well-being of their community.
 - b. Engineers shall not complete, sign, or seal plans and/or specifications that are not in conformity with applicable engineering standards. If the client or employer insists on such unprofessional conduct, they shall notify the proper authorities and withdraw from further service on the project.
 - c. Engineers are encouraged to extend public knowledge and appreciation of engineering and its achievements.
 - d. Engineers are encouraged to adhere to the principles of sustainable development in order to protect the environment for future generations.
 - e. Engineers shall continue their professional development throughout their careers and should keep current in their specialty fields by engaging in professional practice, participating in continuing education courses, reading in the technical literature, and attending professional meetings and seminars.

3. Engineers shall avoid all conduct or practice that deceives the public.
 - a. Engineers shall avoid the use of statements containing a material misrepresentation of fact or omitting a material fact.
 - b. Consistent with the foregoing, engineers may advertise for recruitment of personnel.
 - c. Consistent with the foregoing, engineers may prepare articles for the lay or technical press, but such articles shall not imply credit to the author for work performed by others.

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.
 - a. Engineers shall not, without the consent of all interested parties, promote or arrange for new employment or practice in connection with a specific project for which the engineer has gained particular and specialized knowledge.
 - b. Engineers shall not, without the consent of all interested parties, participate in or represent an adversary interest in connection with a specific project or proceeding in which the engineer has gained particular specialized knowledge on behalf of a former client or employer.

5. Engineers shall not be influenced in their professional duties by conflicting interests.
 - a. Engineers shall not accept financial or other considerations, including free engineering designs, from material or equipment suppliers for specifying their product.
 - b. Engineers shall not accept commissions or allowances, directly or indirectly, from contractors or other parties dealing with clients or employers of the engineer in connection with work for which the engineer is responsible.

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.
 - a. Engineers shall not request, propose, or accept a commission on a contingent basis under circumstances in which their judgment may be compromised.
 - b. Engineers in salaried positions shall accept part-time engineering work only to the extent consistent with policies of the employer and in accordance with ethical considerations.
 - c. Engineers shall not, without consent, use equipment, supplies, laboratory, or office facilities of an employer to carry on outside private practice.

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.
 - a. Engineers in private practice shall not review the work of another engineer for the same client, except with the knowledge of such engineer, or unless the connection of such engineer with the work has been terminated.
 - b. Engineers in governmental, industrial, or educational employ are entitled to review and evaluate the work of other engineers when so required by their employment duties.
 - c. Engineers in sales or industrial employ are entitled to make engineering comparisons of represented products with products of other suppliers.

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.
 - a. Engineers shall conform with state registration laws in the practice of engineering.
 - b. Engineers shall not use association with a nonengineer, a corporation, or partnership as a "cloak" for unethical acts.

9. Engineers shall give credit for engineering work to those to whom credit is due, and will recognize the proprietary interests of others.
 - a. Engineers shall, whenever possible, name the person or persons who may be individually responsible for designs, inventions, writings, or other accomplishments.
 - b. Engineers using designs supplied by a client recognize that the designs remain the property of the client and may not be duplicated by the engineer for others without express permission.
 - c. Engineers, before undertaking work for others in connection with which the engineer may make improvements, plans, designs, inventions, or other records that may justify copyrights or patents, should enter into a positive agreement regarding ownership.
 - d. Engineers' designs, data, records, and notes referring exclusively to an employer's work are the employer's property. The employer should indemnify the engineer for use of the information for any purpose other than the original purpose.

Engineers' Creed

To inspire their members to serve the best interest of the public and to strive for excellence in their profession, the NSPE adopted the following Engineers' Creed in 1954:

Engineers' Creed

As a Professional Engineer, I dedicate my professional knowledge and skill to the advancement and betterment of human welfare.

I pledge:

To give the utmost of performance;

To participate in none but honest enterprise;

To live and work according to the laws of man and the highest standards of professional conduct;

To place service before profit, the honor and standing of the profession before personal advantage, and the public welfare above all other considerations.

In humility and with need for Divine Guidance, I make this pledge.

Avoiding Conflicts of Interest

Many ethical dilemmas and violations involve conflict of interest. Conflicts of Interest (COI) are situations that have the potential to undermine the impartiality of a person because of the possibility of a clash between the person's self-interest and professional interest or public interest. There are three types of COI:

1. Actual Conflict of Interest
2. Apparent Conflict of Interest
3. Potential Conflict of Interest

An actual conflict of interest is one where the person making the decision or someone close to him, like a spouse, child, etc., would benefit from his decision. Suppose, for example, that a professional engineer is a school board member and his sister-in-law is applying for an administrative job in that school system. He votes to hire her for this lucrative position. That's an actual or real conflict of interest, since he might be voting for her not because she is the best one for the job, but because he wants his brother to benefit from her income.

An apparent conflict of interest is one where no prohibited benefit exists, but it might appear to a reasonable person that one does. For instance, an architect participating in a decision-making process which awards a contract to a company employing over 1,000 persons including his brother may appear to have a conflict of interest, even though his brother does not have any ownership in that company.

A potential conflict refers to a situation that does not necessarily constitute or appear to constitute a COI but where there is a reasonable possibility of an actual or apparent COI coming into play. For example, Tim works at company X, which has as a supplier company Y, and Tim's daughter Debby is considering applying for a job at Y. This is not yet an actual or apparent conflict because Debby has not yet moved her job plans forward. But (depending on a variety of facts not provided in this example) the potential for a conflict is there.

A professional must strive to avoid conflicts of interest because they may lead to abuse of the trust that people have in professionals. The following are six general rules of thumb to help a design professional eliminate or minimize conflicts of interest in their practice:

1. A licensed professional shall conscientiously avoid conflict of interest with their employer or client and shall promptly inform their employer of any business association, interests, or circumstances which could influence their judgment

or the quality of their services. When unavoidable, the engineers shall, in writing, disclose the full circumstances to their employer or client, and assure that the conflict will in no manner influence the professional engineers' judgment or the quality of their services.

2. A licensed professional shall not accept compensation, financial or otherwise, from more than one party for services on the same project or for services pertaining to the same project unless the circumstances are fully disclosed to and agreed to by all interested parties.
3. A licensed professional shall not solicit or accept financial or other valuable considerations, directly or indirectly, from material or equipment suppliers, or their representatives, for specifying their products.
4. A licensed professional shall not solicit or accept gratuities, directly or indirectly, from contractors, their agents, or other parties in connection with work for which they are responsible.
5. A licensed professional in public service as a member, advisor, or employee of a governmental body or department shall not participate in considerations or actions with respect to matters involving them or their organization's private or public engineering practices.
6. A licensed professional shall not solicit or accept a contract from a governmental body on which a principal or officer of their organization serves as a member.

Health, Safety and Welfare

Some organizations require their members to complete certain number of continuing education hours in the area of Health, Safety and Welfare (HSW). While it is relatively simple to identify topics related to health and safety, it is difficult to determine a universal understanding of what epitomizes the “welfare” of people. Different interpretations, and hence different ways of ensuring welfare, can be derived from the same code of ethics. These varied interpretations exist because of varying needs of individual societies and different cultural expectations. For example, one society may argue that advancing public welfare comes through strict protection of the environment, while another might realize the same objective through rapid industrialization.

Competing Obligations

Besides two different ideas of public welfare interests that might be incompatible with each other, you may encounter an ambiguous ethical term that contains contradiction within itself, or directly contradicts other fundamental ethical principles that are to be upheld by engineers and land surveyors. When this happens, you need to decide which obligation is more important among the competing ones for the given situation. For example, if promoting a certain idea of public welfare could clash with public health and safety, you may want to give more weight to the latter when considering your course of action.

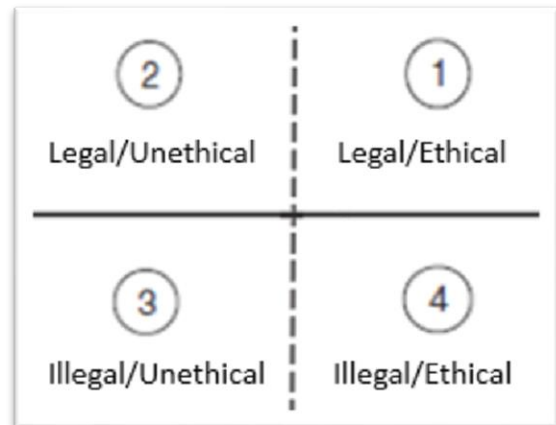
Ethics Versus Law

Ethical guidelines usually set higher standards for licensed professionals than the law. Law can be seen as a set of “codified” ethics. In other words, law is the minimum ethical standard. However, law is not enough to serve alone as ethical guidelines because of the following limitations:

- Law is made by lawmakers and thus reflects political motivations rather than ethics/justice. Sometimes, an ethical behavior may be illegal in certain rare situations (e.g. in the case of a whistle blower.)
- Law cannot possibly address all topics and areas of life, and therefore cannot predict every ethical issue or violation; and
- Law often lags behind more recent standards of appropriate/ethical behavior, i.e., environmental protection and sustainable development.

The following diagram illustrates four legal and ethical domains/quadrants. Illegal behaviors/activities are below the solid line while unethical behaviors/activities are on the left side of the dash line.

As a licensed professional, you should strive to operate at all times in Quadrant 1 (legal/ethical), and avoid activities in Quadrants 2 and 3. When facing an ethical dilemma, you may follow the 9 steps to ethical engineering decisions listed on Page 24. In a rare situation where all other possible legal remedies have been exhausted, it is highly recommended for you to consult with someone who specializes in ethics analysis before ever stepping into Quadrant 4.



Professional Misconduct

Knowing what you cannot do is more important than knowing what you can do.

The following list contains detailed descriptions and discussion of various types of professional misconduct prohibited by professional societies and state licensing boards:

1. Failing to comply with laws and regulations. An example of this could be a violation of a building code provisions in the design of a hospital.
2. Exercising undue influence on a client for improper financial gain.
3. Offering or receiving a kickback from a third party. Kickbacks include money, goods, and services.
4. Fee-splitting with an unqualified third party. For example, a licensee should not share his fee with a city official who helped him secure the project.
5. Practicing without moral fitness. Having good moral character is a part of initial licensure requirement.
6. Willfully making or filing a false report or failing to file a report required by the laws and rules. This includes obstructing such filing or inducing someone to do so.
7. Violating confidentiality. A licensee cannot reveal personally identifiable facts, data or information obtained in a professional capacity without the prior consent of the client, except as authorized or required by law.
8. Practicing or offering to practice beyond the areas of a licensee's competence is certainly an unprofessional conduct. However, there is an exception to this rule: a licensee can do so in an emergency where a person's life or health is in danger.
9. Delegating professional responsibilities to a person when the licensee knows or has reason to know that such person is not qualified, by training, by experience or by licensure, to perform them.
10. Performing professional services which have not been duly authorized by the client. You should always seek the client's authorization for an additional service if you expect to be compensated for the additional service.
11. Advertising improperly. You cannot advertise or solicit work in a manner that is not in the public interest. This includes false or misleading claims in your advertisements.
12. Failing to respond in a timely manner to the Board. Whenever you receive written communications from the Board, you are normally required to

respond within 30 days and to make available any relevant records with respect to an inquiry or complaint.

13. Violating any terms of probation or conditions or limitations imposed on the licensee by the Board.
14. Being associated with any fraudulent activity.
15. Failing to report in writing to the owner or to the owner's designated agent any unauthorized or improperly authorized substantial disregard, by any contractor of plans or specifications for construction or fabrication, when professional observation or supervision of the work is provided for in the agreement between the owner and the design professional or when supervision of the work is under the control of the design professional.
16. Certifying by affixing the licensee's signature and seal to documents for which the professional services have not been performed by, or thoroughly reviewed by, the licensee; or failing to prepare and retain a written evaluation of the professional services represented by such documents in accordance with the board requirements.
17. Failure by a licensee to maintain for the period prescribed by the Board all preliminary and final plans, documents, computations, records, and professional evaluations prepared by the licensee, or the licensee's employees, relating to work to which the licensee has affixed his seal and signature.
18. Having a substantial financial interest, without the knowledge and approval of the client or employer, in any products or in the bids or earnings of any contractor, manufacturer, or supplier on work for which the professional has responsibility.
19. Improper sharing of fees for professional services with any person other than: a partner, employee, associate in a professional firm or corporation, subcontractor or consultant.
20. Accepting any form of compensation from more than one party for services on the same project without fully disclosing the circumstances and receiving approval from all interested parties.
21. Failing to avoid actual conflicts of interest.
22. Renewing or reactivating a license without completion of the required continuing education hours.

As a licensed professional, you also need to periodically review the Board Laws and Rules and understand the professional misconduct prohibited by your licensing board.

Steps to Ethical Engineering Decisions

In its publication "*Ethics Reference Guide*", the National Society of Professional Engineers recommends the following nine steps to ethical engineering decisions:

1. Stop and Think

- a. Stop with the hustle and bustle and quietly reflect on the situation.
- b. Stop and review relative information about the situation
- c. Stop and take a step back to look at the big picture.
- d. Think if the situation will result in losing employment, a client or worse.
- e. Think if there are similar situations other engineers have encountered.
- f. Understand why this situation has presented itself to you.
- g. Who benefits and who gets penalized from the situation?

2. Clarify goals

- a. Clarify if this is an ethical or legal situation or both.
- b. What is the most desired outcome?
 - i. Obtaining a contract
 - ii. Looking good for self-promotion
 - iii. Increase income
 - iv. Prestige
 - v. Peace and quiet

3. Determine facts known and unknown

- a. From reviewing the relative information on the situation are there missing facts that can be researched?
- b. Are there reliable resources that can be consulted
- c. Are there legal resources that would shed light on the situation
- d. Are there ethical resources that can be researched

4. Develop options

- a. Identify the alternate approaches
- b. Outline the options

5. Consider foreseeable results of options

- a. From the tabulated options are there risks that can be applied to each
- b. Are there benefits
- c. Consider a simple scoring system to help highlight the best option

- d. Are you being honest with yourself?
6. Refer to the NSPE Ethics Resources
 - a. NSPE Code of Ethics
 - b. NSPE Board of Ethical Review Cases (over 500 situations)
 7. Refer to state registration law for guidance
 - a. Review the specific registration law of your home state.
 - b. Review the specific registration law of the state where the project is located.
 8. Consult with respected staff or outside professionals
 - a. Discuss the situation with trusted professionals
 - b. Discuss the situation with the legal counsel of the state boards
 - c. Discuss the situation with a close friend or relative
 - d. Discuss the situation with a Professional Society executive of NSPE or State or Chapter Society.
 9. Decide the course of action and take it
 - a. After going through the eight steps above, a clear picture of what is expected from a professional in the situation will become clear. In the most professional way act on the decision.
 - b. Professionally and respectfully decline the assignment.
 - c. Refer the work to another professional who will not be placed in the same situation.
 - d. Inform the authorities if necessary

Course Summary

To safeguard the life, health, property and welfare of the public, licensed professionals must adhere to the standards of professional conduct and the codes of ethics related to their professions.

References

The following resources are used to develop this course:

1. *Code of Ethics for Engineers* - the National Society of Professional Engineers
2. *Code of Ethics* - the Institute of Electrical and Electronics Engineers
3. *Codes, Rules and Regulations of the State of New York (NYCRR)*
4. *Creed and Canons* - National Society of Professional Surveyors
5. *Ethics Reference Guide* - the National Society of Professional Engineers