A SunCam online continuing education course

Ethics & Professional Obligations

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COURSE DESCRIPTION & INTRODUCTION

The intent of this course is to review the professional obligations of engineers as they relate to the requirement to protect the health, safety, and welfare of the public. This course is based on the third section of the National Society of Professional Engineers (NSPE) Code of Ethics. This course will present the areas where professional obligations impact our careers on a daily basis and how adhering to them maintains the integrity of our profession.

Why Professional Obligations?

While completing your continuing education requirements is a necessity for license renewal in the states requiring it, understanding and embracing our professional obligations is crucial for our ethical practice. In a world where unethical behavior is increasingly being exposed, it is important to reaffirm our commitment to ethical conduct in not only our personal, but also our professional lives. Some states require engineers to take more than 1 hour of ethics. Regardless, the state engineering boards continue to see the need to require engineers in their state to pause and take some time to reflect on what it means to conduct themselves ethically in all their work. Unfortunately, you have likely seen the lack of ethics in the fellow engineers, contractors, clients, attorneys, and regulators that you work with. Consequently, you may have been tempted to follow some of their unethical examples. However, are you willing to bet your license, livelihood, and reputation on not being reported because that is what you are really doing when you fail to remain ethical? Therefore, we need to remind not only ourselves… but our associates and staff… of the reasons for ethical conduct. This course serves as a reminder of our responsibilities and the importance of maintaining the highest standards in all aspects of our work.

Introduction

Some straightforward questions: Are you familiar with your professional obligations? Do you consistently act in accordance with them? These aren't trick questions but are essential reflections for every professional to consider.

The Merriam-Webster Dictionary defines obligation as "something one is bound to do or for which one is held accountable." As engineers, our obligations are not just to our

employers or clients but also to the public and the profession itself. It's imperative that we understand these duties and integrate them into our daily practices.

Question: Just how ethical do you believe yourself to be? That's an easy question to answer, right? But… for a better assessment… what do all of your co-workers think of your ethics? Would your answer be different than theirs? And, following that line of thought, what do you think of your co-workers' ethics? One more question… when was the last time your company had all of the staff together for a discussion of the company's ethics requirements? If you can't remember the last time, perhaps now is a good time to recommend doing so. Also, does your company even have a written ethics policy?

Please note that in this course text, all excerpts from the NSPE Code of Ethics for Engineers are formatted in ***bold italics***. The link for the NSPE Code of Ethics is: https://www.nspe.org/resources/ethics/code-ethics. *Note: You may need it for the test.*

NSPE QUICK REVIEW

For Professional Engineers, the National Society of Professional Engineers (NSPE) addresses the Code of Ethics for Engineers which was last updated July 2019. The Code consists of three parts: ***I. Fundamental Canons, II. Rules of Practice, and III. Professional Obligations***. If you have never read the NSPE Code of Ethics for Engineers, I recommend you do so now. It will not take much of your time because it is only two pages in length.

Section I deals with the ***Fundamental Canons*** that are applicable to all Professional Engineers. There are six canons applicable to an engineer's professional duties listed, and they don't provide for any exceptions, exemptions, or allowable excuses for not complying with these duties. The canons are very concise and definitive. Quoting from the July 2019 NSPE Code are the 6 canons below:

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.

Now that we have reviewed the Fundamental Canons, we can start discussing the Rules of Practice. What? There's more to the Code of Ethics? Why, yes, there is more and you're going to love it….

RULES OF PRACTICE REVIEW

The ***NSPE Rules of Practice*** actually expand the concepts found in the Fundamental Canons. Each of the 5 Rules brings different situations to light that an engineer may face and addresses how that situation should be handled. Nothing is ever as simple as it seems.

Rule 1. Engineers shall hold paramount the safety, health, and welfare of the public.
Rule 2. Engineers shall perform services only in the areas of their competence.
Rule 3. Engineers shall issue public statements only in an objective and truthful manner.
Rule 4. Engineers shall act for each employer or client as faithful agents or trustees.
Rule 5. Engineers shall avoid deceptive acts.

And now, for even more fun… the NSPE addresses *your* professional obligations.

PROFESSIONAL OBLIGATIONS

The NSPE Professional Obligations provide detailed "shall" and "shall not" directives that dictate how we must conduct ourselves. They are not optional! ***Note that the test questions are based on the NSPE Code of Ethics, Section III, Professional Obligations.***

Honesty and Integrity

1. Engineers shall be guided in all their relations by the highest standards of honesty and integrity.

Honesty and integrity are non-negotiable aspects of our professional lives. This requirement is composed of six aspects which are summarized below. Engineers must:

a. Acknowledge all errors and must not distort or alter the facts regardless of how minor it may seem.
b. Advise our clients and/or employers when we believe a project will not be successful.
c. Not accept any outside employment that conflicts with our employer unless approved by our employer.
d. Not try recruiting an engineer from another employer using false or deceptive actions.
e. Not promote our own interests at the expense of harming the reputation of the engineering profession.
f. Treat each person with dignity, respect, fairness, and without discrimination.

It's important that we avoid breaking the above standards, even if it might seem beneficial in the short term.

Remember: Honesty is the best policy, and integrity builds lasting trust.

Serving the Public Interest

2. Engineers shall at all times strive to serve the public interest.

As professionals, our work often has a direct impact on our community. This requirement has five aspects which are summarized below:

a. Engineers should participate in civic affairs, provide guidance to students, and promote the safety, health, and well-being of our community.
b. Engineers shall not sign or seal plans/specifications that do not comply with engineering standards. If a client or employer requires such actions, the engineer must notify the proper authorities and terminate their service.
c. We are encouraged to advance public knowledge and appreciation of engineering accomplishments.

d. Engineers should promote ‘sustainable developments’ to protect the environment.
e. You must continue your professional development and education throughout your career.

Remember: Your work should benefit not just your clients but society as a whole.

Avoiding Misconduct and Deception

3. Engineers shall avoid all conduct or practice that deceives the public.
Being a professional engineer, you must conduct yourself properly and honorable. This requirement has three aspects which are summarized below:

a. You must not issue statements containing any material misrepresentation of fact or omitting a material fact.
b. You may advertise to hire staff but you must remain honest about the job and the benefits.
c. You may write articles for the public or press but never imply credit for any of the work by others.

Avoiding misconduct isn't just about following the rules, but more about embodying the ethical standards expected of the engineering profession. By keeping these standards, you can maintain the integrity of your work and the trust placed in you by the public.

Remember: Ethical conduct is essential for maintaining the profession's integrity.

Confidentiality Issues

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.
This one is pretty obvious for obvious reasons.

a. You cannot discuss any confidential information, projects, or processes without the consent of the applicable client, employer, or public body.

b. Without the prior consent of all parties, we cannot participate in or represent an adversary or competitor using information gained in a previous employment. We must protect confidential information diligently, be cautious about where and with whom we discuss work-related matters and prevent any accidental disclosures.

Remember: Protecting confidential information is a sign of professionalism and respect.

Conflicts of Interest

5. Engineers shall not be influenced in their professional duties by conflicting interests.

As an engineer, you cannot receive outside benefits for your work. Therefore, you shall NOT:

a. Accept financial gain, gifts, or other rewards from anyone for you to specify the use of a specific product.
b. Accept commissions or other financial rewards, directly or indirectly, from clients, suppliers, contractors, or other parties for work that you are responsible for.

Remember: Always act in the best interest of your client and the public.

Ethics in Our Employment

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.

You cannot try to obtain employment or an advancement or get professional engagements by untruthfully criticizing other engineers. Our reputation and capabilities should stand on their own merits, skills, and integrity—not by undermining others. Additionally, this requirement has three aspects which are summarized below:

a. You cannot accept payment/commissions for reaching a particular outcome. This may tempt you to manipulate results or overlook important considerations to obtain a financial reward. This can lead to biased decisions that are not in the best interest of the client or the public.

b. You cannot accept part-time engineering work without ensuring that this is consistent with your employer's policies and ethical considerations. Moonlighting without your employer's knowledge can create conflicts of interest and may violate your employment agreement.
c. You cannot use the equipment, supplies, laboratory, or office facilities of your employer to moonlight.

Remember: Always avoid criticizing others for advancement.

Ethics in Our Relationships

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.
The engineering profession is built on collaboration and sub-contracting relationships with other engineers and professionals. Do not engage in disparaging any engineer's reputation, practice, or employment. Engaging in gossip, spreading unfounded allegations, or intentionally sabotaging a colleague's work is unethical and detrimental to our profession.
Also, engineers shall:

a. Not review the work of another engineer for the same client without the knowledge of that engineer, unless their employment has been terminated.
b. Only review and evaluate the work of other engineers as part of their duties for governmental, industrial, or educational entities. In these cases, evaluations should be conducted fairly, impartially, and based on merit.
c. Engineers in sales or industrial positions can make engineering comparisons of their products with those of other suppliers. However, these comparisons should be honest, accurate, and not misleading. Misrepresenting a competitor's product to make your own appear superior is unethical.

Also note that should you discover that an engineer is cutting corners on safety standards or not complying with engineering standards, you should report this to the relevant regulatory bodies rather than engaging in a smear campaign. This protects the public interest while maintaining professional integrity.

Remember: Always respect the professional reputation of others.

Personal Responsibility

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.

Personal responsibility requires engineers to:

a. Comply with state registration laws in the practice of engineering. Engineers operating without a proper license or violating regulatory requirements not only risks legal consequences but also undermines the public trust.
b. Never use an association with a non-engineer, corporation, or partnership as a "cloak" for unethical acts. For example, if an unlicensed individual wants to offer engineering services by presenting themselves as part of your organization, you must not allow this misrepresentation. You must prevent your professional license from being used to legitimize unethical or illegal activities.

Remember: Take pride in your professional actions, comply with all legal requirements, and never allow your credentials to be misused.

Recognize Credit Due

9. Engineers shall give credit for engineering work to those to whom credit is due, and will recognize the proprietary interests of others.

This requirement has four aspects which are summarized below:

Engineers:

a. Shall name those who are individually responsible for designs, inventions, writings, or other contributions. For instance, when presenting a project that involves a team, ensure that all members are recognized for their specific contributions. This transparency enhances you and your team's credibility and morale.
b. Must recognize that designs provided by a client remain the property of the client. Duplicating or modifying the client's proprietary designs for use with other clients

without express permission is unethical and may violate intellectual property laws. Always seek consent and respect confidentiality agreements.

c. Should ensure that everyone working on a project that could generate copyrights or patents, enter into an agreement as to who will own the rights to the intellectual property.
d. Note that engineers' designs, data, records, and notes referring exclusively to an employer's work are the employer's property.

Remember: Acknowledge the contributions of all team members, respect intellectual property rights, and ensure that all agreements regarding ownership are clear and honored.

Summary

Ethics is something that you must commit to each and every day, because it is so tempting to take the easy way out, taking a quick shortcut, or making a simple omission when deadlines or budgets are involved. The bad news is that each one of us will be tempted often… and perhaps daily. The good news is that decision is ours alone to make.

Unfortunately, the consequences of bad decisions may not be limited to us, our family, or even our company. With smart phones and security cameras being everywhere, our actions can rapidly be exposed on local news or public media via Meta, X, YouTube, or other apps even when we thought no one was watching. But there it is… our photo, text message, or email… for all to see and react to. And, once it's out there, it's there forever, to be retrieved later at a most inconvenient time in what's left of your career.

REMEMBER: Most of our problems involve thinking…

Acting without thinking.

-or-

Thinking without acting.

