

Week 2- Module 2

Regulation of the Engineering Profession

Law, Ethics and Professional Practice -

ENGI3500

WINTER 2025



**WE ARE
HUMBER**

Learning Objectives

- Professional Engineers Ontario
 - History & Background
 - What & Why
 - Elements of self regulation
- Professional Engineers Act
 - Exploring different aspects of it
 - What are the 'objects' of the Act?
 - The regulations under the Act
 - Licensing and registration
 - NPPE and CPD
 - Complaints and Discipline
 - The Engineering Seal
 - Certificate of Authorization (CofA)
 - Council and Governance
- Ontario Society of Professional Engineers OSPE

Introduction

- The regulation of the engineering profession is of paramount importance as it serves to ensure the **safety, competence, and ethical conduct** of individuals practicing engineering and the public.
- Engineering professionals play a critical role in designing, constructing, and maintaining infrastructure, technologies, and systems that **directly impact public safety and well-being**.
- Regulatory frameworks establish **minimum educational and experience requirements, licensure processes, and codes of ethics** that engineers must adhere to, thereby safeguarding the public from substandard or unsafe practices.

Provincial Regulators

- Engineering in Canada is defined as a ***Self-Regulated profession***, meaning the profession has the authority to govern itself given the specialized knowledge and skillsets required.
- Through the permission to self-regulate, the Professional Engineering Industry utilizes the elements of ***Right to Title*** and ***Scope of Practice***.
- Other examples of self-regulated professions include Architects, Certified Engineering Technicians & Technology, Certified General Accounting, Forestry, Geoscience, Law, and a variety of health professionals such as medical doctors (The College of Physicians and Surgeons of Ontario – licensing body in Ontario)

Engineering Practice in Ontario

The regulation of professional engineering in Ontario is overseen by Professional Engineers Ontario (PEO), the regulatory body responsible for licensing and regulating the practice of professional engineering in the province.



**Professional Engineers
Ontario**

<https://www.peo.on.ca/>

Key Elements of Self-Regulation

Right to Title

- The "right to title" refers to the legal authorization granted to licensed professional engineers to use specific titles or designations, such as "Professional Engineer" or "P.Eng." This right is exclusive to individuals who have met the education, experience, and examination requirements set by the regulatory body for professional engineering in a particular jurisdiction.
- The purpose of this right is to protect the public by ensuring that only qualified and licensed individuals can represent themselves as professional engineers.

Key Elements of Self-Regulation

Scope of Practice

- The "scope of practice" outlines the range of activities and responsibilities that licensed professional engineers are authorized to perform based on their education, training, and experience. It defines the professional boundaries within which an engineer can operate competently and safely. The scope of practice is typically determined by the regulatory body and is designed to safeguard public welfare.
- The purpose of this right is to prevent unqualified individuals from engaging in activities that may pose risks to public safety.

Engineering Practice in Ontario

- Established on **June 14, 1922**, Professional Engineers Ontario (PEO) is the licensing and regulating body for professional engineering in the province. PEO operates under the authority of the Professional Engineers Act to serve and protect the public interest by setting and upholding high academic, experience and professional practice standards for the engineering profession (PEO, 2023).
- Individuals licensed by PEO are the only people permitted by law to undertake and assume responsibility for engineering work in Ontario (PEO, 2023).

Engineering Practice in Ontario.

The following outlines key aspects of the regulation of professional engineering in Ontario:

- Professional Engineers Act (R.S.O. 1990, c. P.28).
- Licensing and Registration.
- Professional Practice and Ethics.
- Complaints and Discipline.
- Continuing Professional Development (CPD).
- Scope of Practice.
- Council and Governance.

The Professional Engineers Act

- In Ontario, regulation of engineering practice dates to 1937, when the Professional Engineers Act was amended and the engineering profession was "closed" to non-qualified individuals; that is, licensure was made mandatory for anyone practicing professional engineering. The provincial government determined that it would be in the public interest to restrict the practice of engineering to those who were qualified, and the right to practice was "closed" to those not licensed by PEO as a result of the failures of bridges and buildings, which had been designed by unskilled individuals (PEO, 2023).

The Professional Engineers Act

The Professional Engineers Act was amended in 1946, 1949, 1960, 1969, 1984, 2010 and 2017. Each amendment strengthened PEO's ability to regulate professional engineering practice, by, among others:

- Expanding the scope of professional engineering to encompass modern developments, including different classes of licensure; enabling PEO to pass regulations relating to a Code of Ethics, professional conduct, negligence and incompetence, and detailing sanctions for incompetence and professional misconduct; regulating engineering partnerships and corporations; recognizing the need to grant licences to practice in Ontario to those living outside the province; and
- Defining a formal complaints procedure. (PEO, 2023).

The Professional Engineers Act

Principal object

(3) The principal object of the Association is to regulate the practice of professional engineering and to govern its members, holders of certificates of authorization, holders of temporary licences, holders of provisional licences and holders of limited licences in accordance with this Act, the regulations and the by-laws in order that the public interest may be served and protected. R.S.O. 1990, c. P.28, s. 2 (3); 2001, c. 9, Sched. B, s. 11 (2).

The Professional Engineers Act

Additional objects

(4) For the purpose of carrying out its principal object, the Association has the following additional objects:

1. To establish, maintain and develop standards of knowledge and skill among its members.
2. To establish, maintain and develop standards of qualification and standards of practice for the practice of professional engineering.
3. To establish, maintain and develop standards of professional ethics among its members.
4. To promote public awareness of the role of the Association.
5. To perform such other duties and exercise such other powers as are imposed or conferred on the Association by or under any Act. R.S.O. 1990, c. P.28, s. 2 (4).

The Professional Engineers Act

Professional Engineers Act - R.S.O. 1990, CHAPTER P.28:

- **Regulation 260/08 of the Act:** Performance standards for engineering services
- **Regulation 941/90 of the Act:** Broad governance, licensing, ethics, and disciplinary measures
- **Regulation 22/13:** Standards for the use of professional seals

The Professional Engineers Act

Regulation 941/90 of the Act

Regulation 941 of the Professional Engineers Act, amended to O.Reg. 71/15, is a regulation made to provide additional details and guidance for implementation of the Act. For example, the Regulation prescribes the process to be followed when electing professional engineers to Council. With respect to professional practice, the Regulation prescribes a Code of Ethics, defines incompetence and professional misconduct, addresses the requirement for practitioners to report unsafe situations and unethical practices, and states that all license holders shall have a seal and describes its use (PEO, 2023).

The Professional Engineers Act

Regulation 260/08 of the Act

Regulation 260 of the Professional Engineers Act establishes performance standards for professional engineers, initially relating to general review of construction of a building as provided for in the building code and to demolition. It was expanded in 2014 to include standards for design of certain buildings, engineering evaluation reports under the Safe Drinking Water Act, 2002, and environmental site assessments. It was further revised in 2016 to reference PEO's Practice Standard for Review of Tower Cranes as required by the Occupational Health and Safety Act (PEO, 2023).

The Professional Engineers Act

In this course you are not expected to “memorize” the Professional Engineers Act. You will be required to navigate the act to review and assess ethical and misconduct situations to better understand the role of the Professional Engineer and the Regulator.

As we progress through the course, we will explore the following:

- Professional Misconduct (Section 72 of the Regulation - O. Reg. 941).
- Code of Ethics (Section 77 of the Regulation - O. Reg. 941).

Licensing and Registration

- In Canada, the professional engineer (P.Eng.) designation represents the highest standards of engineering knowledge, experience and professionalism in the country (PEO, 2023).
- Individuals may only call themselves a professional engineer, or a P.Eng., if they possess a P.Eng. licence from the Canadian province or territory in which they reside. To become a P.Eng. in Ontario, the person must be licensed by Professional Engineers Ontario (PEO) (PEO, 2023).

Licensing and Registration

- Section 12(3)(a) of the Professional Engineers Act, is known as the “**industrial exception**”. The industrial exception allows unlicensed people to carry out engineering work on their employers’ machinery or equipment that is used to manufacture products.
- The exemption permits unlicensed persons to do work covered by the definition of professional engineering if they are doing it for their employer on equipment owned and used by their employer for the work that the employer does.
- The repeal of section 12(3)(a) was proposed as one of the amendments made under the Open for Business Act, 2010, however in 2017 the repeal was cancelled and cannot be proclaimed.

Licensing and Registration

Section 12(3)(a) of the Professional Engineers Act in Ontario permits non-licensed individuals to perform acts that would otherwise require a professional engineering license, provided these acts are done under the supervision and responsibility of a licensed professional engineer. This ensures that the work meets the required safety, ethical, and professional standards without the individual themselves being licensed. It enables organizations to involve non-licensed staff in engineering activities while maintaining accountability and adherence to professional standards through the oversight of a licensed engineer.

Licensing and Registration

To apply to become a P.Eng, you must meet the following:

- Be at least 18 years old;
- Be of good character;
- Hold an undergraduate engineering degree from a Canadian Engineering Accreditation Board (CEAB)-accredited program (or possess equivalent qualifications). Those without a degree from an accredited program will be required to participate in the Technical Examination Process.
- Successfully complete the National Professional Practice Exam (NPPE).
- Demonstrate at least 48 months of verifiable, acceptable engineering experience which must be acquired under a validator.

Licensing and Registration: Student Membership Program

<https://engineeringstudents.peo.on.ca/>

- student website with information about engineering news/presentations/surveys and issues, and how to obtain your license;
- invitations/email notices for local events/presentations offered by PEO chapters and other organizations (including student pricing, in some cases);
- opportunities to have your questions about licensure and engineering answered by PEO and members of the engineering community; and
- access to PEO's official journal, Engineering Dimensions through your post-secondary School's Engineering Society.

National Professional Practice Exam (NPPE)

- The National Professional Practice Examination (NPPE) is a 2.5 hour, closed-book, on-line exam on ethics, professional practice, engineering law and professional liability. Eligible applicants may write the NPPE at any time (within the time frame provided by PEO) as they acquire 48 months of engineering work experience required for licensure. To reduce the time to licensure, applicants are encouraged to write the NPPE early in the time frame provided by PEO.
- The NPPE is held five times a year (January/February, April, June, August/September and November). The exam is conducted via remote proctoring, meaning applicants will write the exam from their homes.
- The NPPE confirms knowledge of professionalism, law, and ethics. Twelve engineering and geoscience self-regulatory organizations in Canada currently use the NPPE. The NPPE follows all relevant standards detailed in the Standards for Educational and Psychological Testing to ensure that the exam program is valid, reliable, and fair (psychometrically defensible).

Continuing Professional Development (CPD)

- Beginning January 1, 2023, continuing professional development (CPD) is a requirement for professional engineers and limited licence holders to maintain their licence every calendar year.



Continuing Professional Development (CPD)

- The new requirements are based on the voluntary Practice Evaluation and Knowledge (PEAK) program that has been piloted for more than five years. The new mandatory PEAK program supports PEO's public interest mandate by helping to ensure that licence holders practise competently and ethically.
- The new requirements outlined in the new regulation section 51.2 of Regulation 941 under the Professional Engineers Act in Ontario took effect on January 1, 2023. This regulation section describes an annual requirement for continuing education and professional development and how PEO will administer, monitor and enforce this requirement. (PEO, 2023)

Continuing Professional Development (CPD)

The program is laid out in three steps to be completed annually. The three elements of the program are:

- **Practice Evaluation**—A self-administered assessment consisting of a practice status declaration and either a: Practice Evaluation Questionnaire—for a "practising" licence holder* to determine their target CPD hours for the year (which will be a personalized target of up to 30 hours). Non-practising Survey—for a "not practising" licence holder* to describe their non-practising situation and possibility of practising again.
- **Professional Practice Module**—A self-paced learning module for every licence holder (both practising or not practising) that covers regulatory topics such as professional practice, engineering ethics and regulatory processes.
- **Continuing Professional Development Report**—A reporting mechanism for a "practising" licence holder* to respond to their personalized CPD target for the year, as determined by the Practice Evaluation Questionnaire (PEQ, 2023).

Complaints and Discipline

- The Discipline Committee (DIC) hears and determines allegations of professional misconduct or incompetence against a PEO licence holder (professional engineer “P.Eng.”, temporary licence, provisional licence or a limited licence) or a holder of a Certificate of Authorization.
- The DIC’s jurisdiction is triggered upon a decision of the Complaints Committee, Council, or Executive Committee to refer a matter to the DIC for determination. The DIC also hears applications by licence holders who apply for licences or Certificates of Authorization after a prior revocation and suspension. The parties to a discipline proceeding are set out in the Professional Engineers Act (PEO, 2023).
- Anyone is permitted to file a complaint against a practitioner should they feel malpractice or unethical behaviours have occurred.

The Engineer's Seal

- Affixing the seal on documents and drawings indicates they are final for the intended purpose and have been prepared by or under the supervision of a person licensed to practise professional engineering who is assuming responsibility for them. By sealing documents and drawings, licence holders acknowledge that they assume professional responsibility for the design, opinions, judgments or directions given in the documents and drawings (PEO, 2023).
- Section 53 of the act sets out the proper use of the seal. The seal must be signed and dated by the licence holder. Clients and other parties should not accept a document that has been sealed but has not been signed or dated (PEO, 2023).



(PEO, 2023)

Certificates of Authorization (CofA)

- In Ontario, professional engineers must obtain a certificate of authorization, in addition to professional engineering membership, to offer or engage in public services within the engineering practice.
- Applicants for certificates of authorization, including individuals, partnerships, and corporations, need to meet specified requirements outlined in the Professional Engineers Act, and the registrar has the authority to refuse, suspend, or revoke certificates based on past conduct, failure to meet criteria, or other reasonable grounds.
- All certificate holders are mandated to maintain professional liability insurance, with minimum coverage requirements specified in the regulations. While some exceptions exist, professional engineers should stay informed about the current professional liability insurance requirements outlined in provincial statutes and regulations.

Council and Governance

- PEO council is made up of both elected professional engineers and members appointed by the office of the Attorney General of Ontario. Not all of the appointed members are professional engineers. Council provides the overall direction for the association and the profession. Together with council, PEO operates with an elected president and an appointed registrar (PEO, 2023).
- In overseeing PEO's activities and carrying out its public interest mandate, Council must ensure that it and PEO abide by relevant statutes, regulations, by-laws and policies. Collectively, these documents set out PEO's governance framework and principles (PEO, 2023).

Council and Governance

In this governance model, Council's role is to engage actively at a strategic level, rather than at an operational or tactical level. Strategic engagement means providing:

- Input for and approval of a strategic plan;
- Enterprise risk management;
- Policy development;
- Financial oversight; and.
- Approval of operating plans tied to PEO's strategy.

Council approves strategic priorities that explicitly align with and improve PEO's role as a regulator charged with protecting the public interest. It has directed PEO to adopt a risk model to measure and report on the protection of the public interest.

The CEO/Registrar is responsible for PEO's implementation of Council decisions and policies. The work of both Council and the CEO/Registrar is also supported by committees and various forms of consultation as required and appropriate (PEO, 2023).

The Engineer's Seal



Professional Engineers
Ontario

How to use your professional engineer's seal

Answering most commonly asked questions about the seal



Regulating and advancing engineering practice to protect the public interest.



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Faculty of Applied Sciences & Technology

Ontario Society of Professional Engineers

The Ontario Society of Professional Engineers (OSPE) was founded in 2000 as a separate advocacy body for engineers, distinct from Professional Engineers Ontario (PEO), which regulates licensure. OSPE focuses on advancing the interests of engineers through advocacy, career services, and professional development, ensuring their voice in shaping public policy and industry practices.



<https://ospe.on.ca/>

Homework Before Next Class

- Research and list all self-regulated professions in Canada.
- Complete assigned chapter readings in the Critical Path:
 - Section 72 & 77 of the Professional Engineers Act
- Review the following “The "Industrial Exception" Becomes Permanent in Ontario (machinerysafety101.com)” What are your thoughts about this regulations?
- Don't forget to complete this week's entry in your logbook!

References

- Marston, Donald L. 2019. *Law for Professional Engineers: Canadian and Global Insights*. 5th ed. New York: McGraw-Hill Education.
- Professional Engineers Ontario. (2023). *About PEO*.
<https://www.peo.on.ca/about-peo>

Professional Engineers Act

- <https://www.ontario.ca/laws/statute/90p28>

THANK YOU.



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