

Position Statement

Rationale for Technical Confirmatory Examinations

Summary

As the regulatory body for a self-regulated profession, PEO regulates the practice of professional engineering by establishing and maintaining standards of qualification and standards of practice to protect the public interest. These standards of qualification apply to all applicants for licensing.

PEO's assessment of an applicant's academic qualifications for licensing is based on the requirement for each of them to have undergone an examination program to confirm the depth and breadth of the knowledge leading to their degree in engineering or applied sciences relevant to engineering.

PEO can achieve an institution-independent confirmation of each applicant's academics in several ways, including an assignment of technical examinations by the Academic Requirements Committee.

Discussion

Under the authority of the *Professional Engineers Act*, PEO exists to serve and protect the public interest by regulating the practice of professional engineering in Ontario.

Requiring individuals to be licensed to perform certain acts or types of work is necessary because permitting unqualified people with no professional accountability to do them would endanger the public. Licensure is at the core of the Canadian philosophy of proactively preventing public harm by limiting professional practice to only those who have demonstrated the necessary knowledge, practical skills and professional integrity. It is based on the premise that it is better to prevent incompetent and/or unethical practitioners from ever practising without supervision, than to redress the harm after it has occurred. PEO's most important mechanism for protecting the public from unsafe or unscrupulous engineering work is licensure.

Through its licensing processes, PEO must ensure that every applicant for a licence meets the academic requirements for licensing.

PEO's assessment of an applicant's academic qualifications for licensing is based on the requirement for each of them to have undergone an **examination program to confirm the depth and breadth of the knowledge** leading to their degree in engineering or applied sciences relevant to engineering.

PEO requires an institution-independent assessment that is not self-reported, confirming the breadth and depth of each applicant's academics. It can be achieved in several ways:

 The depth and breadth of the academics of graduates of programs accredited by the Canadian Engineering Accreditation Board (CEAB) have been confirmed by the CEAB accreditation process endorsed by Council.

- An applicant having a degree accredited by a country that has signed the "Washington Accord" is recognized as generally having the required depth of knowledge. However, PEO's Academic Requirements Committee (ARC) checks the program content against PEO's syllabi of examinations for that discipline to ensure there are no gaps in the expected breadth of knowledge, and that the examinations on the transcripts show sufficient depth. (Not all of the Washington Accord signatories guarantee that graduates of accredited programs have been examined to a depth of knowledge that would be considered the minimum required for licensing. This is why Engineers Canada recommends that the regulators "look to exempt" graduates of these programs from examinations, rather than exempt them outright.)
- An applicant having a postgraduate degree in the same discipline as his or her undergraduate degree that includes a set of relevant technical graduate courses may also be assessed as likely to have confirmed the breadth and depth of their required knowledge.
- An applicant who demonstrates during an interview with PEO's Experience Requirements
 Committee sufficient depth and breadth in his or her experience is also assessed as likely to
 have confirmed his or her depth and breadth of academic knowledge.
- An applicant who successfully passes a set of assigned PEO technical examinations is considered to have confirmed the depth and breadth of their required knowledge.

ARC's system of assessing foreign academic credentials is the most sophisticated in Canada. It is the fairest to the applicant, and produces the most consistent outcomes. Because the academics of every applicant are individually peer-reviewed, the assessment process is fair, consistent and flexible.

As a regulator in the public interest, PEO cannot protect the public from incompetent and irresponsible practice unless it verifies that applicants for licensure have:

- undergone a rigorous formation process that ingrains the cognitive processes of analysis, design, problem solving, risk assessment and mitigation, which are essential to the practice of professional engineering, and
- acquired the breadth and depth of necessary scientific and technical knowledge to practise engineering within their intended scope(s) of practice.

Only an individual assessment of each applicant's academic qualifications can achieve these results.