Canadian Professional Engineering Registration and Accreditation System

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Canadian Council of Professional Engineers
The Canadian Engineering registration system is a quality assurance system
The presentation is a review of the important elements of the system
Agenda:
1. Responsibility for engineering in Canada
2. Assessment systems
3. Licensing process
Vision of Professional Engineers

o Public protection is foundation principle
o Continual improvement of standards (training and licensing processes)
o Licensure system is shared vision
o Reduce barriers to practice and mobility for national and international engineers
o Sustain the right to self regulated practice
Professional Engineer - Canada
Canada has 12 independent licensing organizations
Professional engineer registration requires adequate academic and experience qualifications
Each person is assessed by a licensing organization.
The Engineering Profession in Canada

1. Self regulated professions.
2. Provinces create the legislative framework
3. Provinces responsible for licensing, discipline and enforcement
4. Right to title and Right to practice; all those practicing engineering must be registered.
Self Regulated Professions

- Members earn the right to self regulation
- Resources (people and funds) from membership
- Province establishes legislative framework
- Professional associations – create staff and volunteer organizations to manage registration, discipline, education etc.
- The national organization – provincially funded with some federal government funding
Summary of Engineering Profession in Canada

• 160,000 registered Professional Engineers in the 12 jurisdictions
• Provincial associations are responsibility for registration (review academic & experience)
• National academic and experience standards
• Academic standards and registration best practices facilitated through multi-association organization (CCPE)
Evolution of Canadian licensing system:

- Academic assessment and limited experience assessment done by educators
- Established a national organization to guide standards for academic and non-academic assessment methods
- Regular reviews of accreditation and qualification systems → guidelines
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National Standards for registration:

– Education
– Practical competency & experience
– Continuing competency and professional development

Multi stakeholder input

– Individuals, industry, educational institutions, associations, government
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- publishes national standards and guidelines
- carries out advocacy role for the profession in Canada

Provincial Associations
- provide people and input to national body
- apply the national guidelines within the framework of their legislation
- review applications and register individuals
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- leadership for national and international systems, issues and initiatives

Operation of CCPE

- committees, task teams focused on professional systems or specific issues
- standards and guidelines (best practices)
- recommendations for policy and programs
CCPE Assessment Systems:

- CCPE has 2 Boards to establish standards.
  * Accreditation (CEAB)
  * Qualification (CEQB)
- Boards formed from provincial reps.
- Boards establish the standards and guidelines \(\rightarrow\) provinces implement within their legislative framework
- CEQB brings emerging disciplines to the attention of the regulatory bodies.
Registration Standards -- Education:

1. Accreditation Board (CEAB) plus Deans
   - Academic standard for Canadian universities
2. Qualification Board (CEQB)
   - Syllabus for exam program for non-CEAB programs
3. CCPE
   - Evaluate Foreign degrees for equivalency
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**Education Standards:**

1. **CEAB**
   - accredited Canadian University list

2. **CCPE Committee (FEQC)**
   - foreign degree list (recognized or substantially equivalent)
   - immigration application assessments
Quality Academic
- continual review and improvement of accrediting processes for Canadian programs
- incorporate knowledge of other systems in licensure programs
- improve methods and materials for training applicants
International Agreements
The CCPE works with other countries national licensing organizations on a number of initiatives
- review of others academic standards
- recognition of academic standards
- recognition of professional level
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**Mutual Recognition Agreements (4):**

2. Washington Accord (Recognition based on equivalency of accrediting organizations) - Ireland, U.K. Australia, New Zealand, Hong Kong, U.S. South Africa, Japan
Mutual Recognition Agreements (4):

3. Between CTI (France) – substantially equivalent engineering programs and reciprocity of professional designations.

4. NAFTA – Canada, U.S., Mexico. (Implemented by Canadian associations and Texas)
<table>
<thead>
<tr>
<th>Education</th>
<th>Accreditation Method</th>
<th>Academic Acceptance</th>
<th>Academic Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Eng. Degree</td>
<td>CEAB review</td>
<td>Yes (accredited)</td>
<td>None</td>
</tr>
<tr>
<td>Recognized Degree</td>
<td>CEAB, mutual recognition</td>
<td>Yes – P.E.</td>
<td>None</td>
</tr>
<tr>
<td>Foreign Eng. Degree</td>
<td>Washington Accord; List, Non-List</td>
<td>No</td>
<td>Exempt; Exams or upgrade</td>
</tr>
<tr>
<td>Technical Diploma</td>
<td>Not accepted by CEAB</td>
<td>No</td>
<td>Exams or degree</td>
</tr>
</tbody>
</table>
Registration Standards - Experience:

Qualification Board (CEQB) establishes guidelines for

– Admission to the Practice of Engineering
– Engineer in Training
– Code of Ethics
– Professional Practice Exam
– Continuing Professional Development
Quality Experience
- continual improvement of systems for validating experience
- continue to improve standards and methods for ethics and professionalism training
- work with CM's to build programs for training new graduates and continuing competence
Creating policies for registration:

National Standards

Provincial licensing association

Provincial policies

Provincial Laws
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Applying policies for registration:

Individual applies for registration to a province

Provincial licensing association assesses qualifications

Assess exams or experience

no yes

→ Register
Mobility - National

The Canadian licensing bodies have a national agreement that provides mobility and expedited licensing of Canadian engineers. Basis for mobility is conformity to national guidelines and standards for registration. Final authority within each jurisdiction.
Mobility – International

CCPE and some Provinces are actively pursuing mutual recognition agreements with other countries and states.

Barriers are regional legislative differences, lack of knowledge of other systems
Summary:
• Right to self regulation sustained
• CCPE - national council directed and supported by provincial licensing bodies
• The accreditation process & standards used by all licensing bodies.
• Creation of recognition and mobility programs with several countries.
Summary (cont’d)

• Success based on relationships across provinces and across all levels of government.
• CCPE expanding the quality, content, depth and accessibility of information on foreign degrees.
• CCPE studying registration methods and impact on foreign trained engineers.
• Provinces review registration policy regularly.
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