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Fact Sheets

Internationally Trained Workers: Access to the engineering profession in Ontario

The Engineering profession is regulated in the Province of Ontario by Professional Engineers Ontario (PEO), a regulatory body that ensures public safety by setting standards for admission, issuing licences to practise professional engineering, and regulating the practice of engineering in Ontario. The rules concerning the licensing of professional engineers in Ontario are contained in provincial legislation – the Professional Engineers Act, R.S.O. 1990, Chapter P28 and Regulation 941, R.R.O 1990.

By law, no one is authorized to practise as a professional engineer without a licence (see Note).

There are over 64,000 professional engineers in Ontario and more than 156,000 in Canada. Professional engineers use the abbreviation "P.Eng." after their names. In Ontario, professional engineers specialize in a wide range of engineering activities, in areas including:

- agricultural engineering
- biochemical/biomedical/bioresources engineering
- biological engineering
- chemical engineering
- civil engineering
- computer engineering
- electrical engineering
- engineering physics
- environmental engineering
- geological engineering
- geomatics engineering
- geotechnical engineering
- industrial engineering
- marine engineering
- mechanical engineering

- metallurgical engineering
- mining engineering
- naval architectural engineering
- petroleum engineering
- software engineering
- structural engineering.

Professional engineers work as employees of large or small companies, in education or government, or as independent practitioners in the various fields of engineering.

PEO licenses professional engineers for practice only within Ontario. However, there is an agreement among Canadian provinces and territories that will normally allow you to transfer your licence or obtain another provincial/territorial licence if you need to practise in another province or territory of Canada, or choose to move to another province or territory and become licensed. Each province or territory regulates the practice of professional engineering within that jurisdiction.

NOTE: Not all engineering graduates in Ontario are professional engineers. A professional engineer must have satisfied the requirements set by PEO to earn a licence. However, you can work in engineering without a licence, if a professional engineer supervises and takes responsibility for your work. You cannot use the title "professional engineer", the abbreviation "P.Eng.", or any similar title that may lead to the belief that you are qualified to practise professional engineering unless you are a licensed professional engineer.

Right to Practise in Ontario

Only those who are granted the "professional engineer" licence have the right to practise professional engineering in Ontario.

To become licensed by Professional Engineers Ontario (PEO), you must:

1. Be at least 18 years of age.
2. Be a citizen or permanent resident of Canada.
You can apply to PEO to start the licensing/registration process before you immigrate; however, your licence will only be granted after you receive Canadian permanent residency status and have satisfied the other requirements. (This requirement is under review and may be eliminated in the future.)
3. Be of good character.
You will be requested to answer questions and make a written declaration on your application form, attesting to the absence of any past conduct that would afford grounds

for the belief that you will not practise professional engineering with honesty and integrity. In addition, PEO will solicit opinions about your suitability for PEO membership from referees whose names you provide.

4. Meet PEO's stipulated academic requirements for licensure. This may include writing technical examinations. See below.
5. Pass the Professional Practice Examination. See below.
6. Fulfil engineering work experience requirements. See below.

Application Process

While You Are Still Abroad (Before You Immigrate to Ontario)

You may apply to PEO to begin the licensing/registration process from your country of origin.

You will be required to:

- provide documentary evidence of your qualifications, which PEO will assess, such as,
 - notarized transcript(s),
 - detailed course descriptions, and
 - an experience record; and
- include the appropriate fees to initiate your application for licence.

You will receive information:

- to help you determine whether you will be able to obtain a licence to practise professional engineering in Ontario;
- about how long it may take you to get a licence; and
- which explains the number of technical exams you may have to complete and the associated costs.

To download the application for licence, visit [PEO's website](#) or contact the office at the address provided on page 12, of this fact sheet.

You must submit the following:

- the completed application form with the required supporting documentation; and
- a fee of \$187.25 Cdn., payable to "Professional Engineers Ontario". (Please check the PEO website for the current fee schedule.)

If your academic documents are not in English, you must submit a notarized English translation, as well as the original documents. You must also provide your detailed course descriptions and an experience record for PEO's review.

The academic qualifications assessment should take no longer than two months to complete after PEO has received all the required documents.

Once your documents have been assessed, PEO will advise you concerning what examinations you will be required to write, in the event your assessment reveals any gaps in your academic qualifications for licensing purposes, or in order to confirm that they are equivalent to PEO's academic requirements for licensure. If you do not have the minimum academic requirements, PEO will advise you that you may not be able to qualify to work as a professional engineer in Canada.

As soon as you arrive in Ontario you may continue the licensing process without being required to pay any additional application for licence fee.

When You Arrive in Ontario *There is no guarantee that you will find employment in the engineering field upon arrival in Ontario.*

If you have already had your academic qualifications assessed as described above, you should contact PEO when you arrive to continue the licensing process. You will be asked to provide proof of:

- your full legal name;
- your PEO file number (this appears on all PEO communication to you); and
- your permanent residency status in Canada.

You must also re-submit an official English translation of your documents, certified by a translator from the Association of Translators and Interpreters of Ontario (ATIO), or prepared and certified by a professional engineer.

You will then receive a detailed update on the status of your application and information on the next step in the licensing process.

Application Steps

From Ontario

If you have not already applied to PEO for a licence, follow these steps:

Step 1 – Apply for a Licence

Contact PEO and request an application (see contact information below). If you have access to the Internet, visit [PEO's website](#) to download a copy of the Application Guide and Application for Licence form.

Step 2 – Assess Academic Qualifications

If you do not hold a bachelor's degree in engineering from an accredited Canadian undergraduate degree program, your academic qualifications will be assessed by PEO to determine if you possess equivalent qualifications. You will be asked to submit the following documents and information:

- original, certified diploma(s), degree(s), and full transcript(s), showing courses completed and marks;
- detailed description of each course taken; and
- the full address of the educational and professional institutions relevant to your engineering qualifications.

If your academic documents are not in English, you must submit notarized English translations prepared by a service that is certified by the Association of Translators and Interpreters of Ontario (ATIO), or by a professional engineer.

If your academic qualifications are not accepted by PEO as equivalent, PEO may assign you technical examinations. These examinations are assigned to:

1. give you an opportunity to confirm the equivalency of your degree; or
2. help you remedy identified deficiencies in your academic qualifications.

When technical exams are assigned, PEO will provide you with a list of recommended textbooks on the subject matter to help you prepare. (Special arrangements can be made with PEO's Admissions Department to have technical exams written abroad.) There are also institutions in Ontario that offer preparatory courses to help exam candidates prepare for PEO's technical examinations.

If you are assigned a confirmatory examination program, you may be required to write and pass up to four examinations, which you must complete in two years. If you are assigned an individual (specific) examination program, you may be required to write and pass up to 20 examinations, which you must complete in eight years. For information on the costs for writing examinations, see the section of this fact sheet on Fees and Costs.

If you do not pass your technical examinations, you may be permitted to rewrite them, under certain circumstances. You may also appeal the grade received in an examination. If you appeal

your grade, your examination will be re-marked by another examiner. There is a fee for appealing your examination grade (see Fees and Costs).

Individual (specific) examination program candidates may be asked to submit an Engineering Report as part of their academic requirements. This report should demonstrate to the Academic Requirements Committee (ARC) your ability to define an engineering problem, devise a solution, draw conclusions and make recommendations using engineering principles, consistent with well-established engineering practices. This report must be your own work and must be of an acceptable professional level.

PEO may grant you an exemption from technical examinations (and the Engineering Report) if:

- you have an engineering degree conferred outside Canada that PEO believes to be equivalent to one from an accredited Canadian engineering degree program and you have also completed postgraduate studies in engineering at a Canadian university, in the same discipline as that of your foreign undergraduate engineering degree; or
- you have an undergraduate engineering degree from an institution in a country that has a Mutual Recognition Agreement with the Canadian Council of Professional Engineers. These countries are: Australia, Ireland, New Zealand, the United Kingdom, the United States (after 1989), Hong Kong (1995), and South Africa (1999). (Please note that to be recognized as equivalent, the degree must have been granted during or after the year indicated after the name of the country.)

Step 3 – Professional Practice Examination

Once you have met the academic standards, whether by successfully completing assigned technical examinations or being exempted from exams, the next step is to write the Professional Practice Examination (PPE).

You will be advised when you are eligible to write the PPE and you will be notified of the next opportunity to write it. The exam is offered three times each year in 16 different Ontario cities/towns, and you may choose to write in either English or French. (If you wish to write the exam in French, you must indicate this at the time of applying to write.) You must complete the PPE within two years of the date you become eligible to write it. (Special arrangements can be made with PEO's Admissions Department to have the PPE written abroad.)

The PPE has two parts: Part A covers professional practice and ethics; Part B is on engineering law and professional liability. You must pass both parts in order to pass the PPE.

PEO will provide outlines of the subject matter for both parts of the exam and recommend textbooks to help you prepare. Copies of previous PPEs are available from PEO at a nominal cost (and one previous exam is available at no cost from PEO's website (www.peo.on.ca)). There

are also some institutions in Ontario that provide preparatory courses to help applicants prepare for this exam.

If you do not pass the PPE, you will be permitted to rewrite it. You may also appeal the grade you receive on the examination. If you appeal your grade, your exam will be re-marked by another examiner. There is a fee for appealing your examination grade (see Fees and Costs).

Step 4 – Practical Experience

Under Ontario law, you must complete four years of verifiable, acceptable engineering work experience under the supervision of a professional engineer, of which at least 12 months must be experience gained in a Canadian jurisdiction, before you will be granted your licence as a professional engineer. The mandatory requirement for Canadian experience ensures that you are conversant with Canadian engineering codes, legislation, technical standards and regulations as they pertain to engineering practice in your field.

Your engineering experience will be assessed against the following five criteria:

- application of theory;
- practical experience;
- management of engineering;
- communication skills;
- awareness of the social implications of engineering.

If your academic qualifications satisfy PEO's licensing requirements, all of your engineering experience gained from the date your engineering degree was awarded is eligible for credit toward PEO's four-year experience requirement. In addition, you will normally receive a one-year experience credit for the successful completion of a postgraduate degree in engineering in the same discipline as your undergraduate degree.

Step 5 – Language Proficiency Assessment

There is a legislative requirement for PEO to ensure that all applicants for a licence to practise professional engineering are able to demonstrate good English language proficiency.

Engineering Internship Training (EIT) Program

If you have been assigned a confirmatory examination program, you are eligible to be registered in PEO's Engineering Internship Training (EIT) Program. The EIT Program is designed for applicants who are employed in an engineering capacity. It is not a job search or placement program.

PEO's EIT Program:

- helps you to understand the licensing requirements, particularly the experience required to qualify for a P.Eng. licence;
- offers you the opportunity to obtain detailed, confidential work experience reviews from the EIT Program Manager. At your request, PEO will review your experience upon changing jobs, upon completion of any temporary work assignment, and after obtaining your first six months of engineering experience in Canada;
- helps you demonstrate to employers your commitment to becoming a licensed professional engineer; and
- encourages you to become involved in the profession and to participate in PEO's chapter activities, insurance and investment plans.

PEO's EIT program provides:

- access to the password-protected sections of the PEO website (www.peo.on.ca) for questions and answers of concern to PEO's engineering interns;
- subscription to EngineerMENTOR, PEO's on-line newsletter for engineering interns (available by mail on request);
- on-line discussions with other engineering interns and with professional engineers;
- advice on reporting work experience;
- examples of legal and ethical issues; and
- specialized EIT assistance.

The annual fee for the EIT program is \$53.50. You must notify your PEO Admission Representative or the Manager, EIT Program (eit@peo.on.ca) if you wish to be recorded in the EIT Program.

Labour Market Information

The labour market for professional engineers in Ontario varies according to your area of practice and the industries in which you wish to work. In general, professional engineers are expected to continue to be in high demand in Ontario's globally competitive, knowledge-based economy.

Whereas unemployment levels for professional engineers in Ontario are low relative to the unemployment rate as a whole, it is a very competitive job market and jobs are not easy to find. Average earnings in engineering are higher than the provincial average for all occupations. Increasingly, professional engineers are expected to update their knowledge and technical skills continuously. In many employment settings, professional engineers must also demonstrate leadership abilities and the ability to work effectively in teams.

NOTE: Although engineers are generally in high demand in Ontario, many foreign-trained

engineers have difficulty finding employment in their field in Ontario. This can be caused by various factors, including:

- lack of a professional engineer licence to practise in Ontario;
- academic credentials that are not well understood by Ontario employers;
- lack of good English language communication skills; or
- unfamiliarity with the industry in Canada, resulting in lack of contacts and networking opportunities.

It is important to prepare for your job search early – even before you immigrate – by becoming familiar with job-search techniques, conducting research on the industries and companies in which you are interested, and improving and documenting your skills and knowledge. There are sources of information listed in the contacts section of this fact sheet to help you do this.

Canadian Labour Market Trends

Many of the industries that employ engineers are cyclical in Canada, that is they experience periods of growth and decline. The Canadian government expects that:

- employment in the construction, business services and health sectors will experience above average growth until at least 2004;
- the agriculture, mining, transportation, and utilities industries will experience below average job growth;
- although employment in the manufacturing sector will grow only slightly, there will be some pockets of strong growth, such as in the rubber, plastics, paper products, printing and publishing, and machining industries;
- the forestry and fishing industries will experience a decline in employment levels to 2004; and
- while employment in the communications industry overall will shrink, growth will occur in the telecommunications side of the industry as a result of the development of new technology.

Key Industries for Engineers in Ontario

There are strong sectors in the Ontario economy that rely heavily on the expertise and knowledge provided by professional engineers.

Consulting Engineering

The consulting engineering industry comprises companies and sole practitioners engaged in the practice of professional engineering. They provide services related to technology-intensive projects.

This industry is linked to many other sectors by the expertise it provides in rationalizing, designing and managing facilities expansion and technology development.

Firms must be competitive at a global level. International markets and linkages between Canadian and international firms are assuming increasing importance.

Many projects are delivered as "total business solutions" – sometimes called BOOT (build-own-operate-transfer). This means consulting engineers need to expand their practices and/or strike strategic alliances with other firms to deliver the range of expertise required by clients.

Aerospace Industry

This industry is defined as those organizations involved in the design, manufacture, operation and maintenance of civil, commercial, military and dual-use aircraft and spacecraft and their parts, components, and subsystems.

The aerospace industry is extremely cyclical; as a result, employment can shrink dramatically during lean periods. However, the industry in Canada is currently very healthy and the forecast for the coming years continues to be positive.

There were more than 400 companies active in the Canadian aerospace industry in 1997, concentrated in Quebec and Ontario. Key segments in which Canadian companies are active are commuter aircraft, business aircraft, flight simulators and advanced gas turbine engines. Bombardier is the largest employer in this industry, employing about 1000 engineers and technologists in 1997.

Currently suffering from skill shortages, this industry employs engineers from various disciplines, including:

- aeronautical and aerospace engineers;
- electrical and electronics engineers;
- computer and software engineers;
- systems engineers;
- mechanical engineers; and
- chemical engineers.

The aerospace industry is program- and project-oriented. This means that work is often conducted in teams that are established for a project or program and then disbanded once the project or program is completed. Workers are then reassigned other projects, if available.

Automotive Manufacturing

This industry is defined as the assembly of light vehicles (autos, small trucks, minivans, and sport utility vehicles).

Canadian companies compete on a global level and are under increasing pressure to lower the costs of manufacturing. This pressure has resulted in cost-cutting, international sourcing of parts to obtain the lowest prices, and intense technological change to lower the cost of both products and production processes. Environmental pressures on companies in this industry are also increasing.

The industry is experiencing skill shortages but not generally in the area of engineering. Rather, companies are looking for skilled tradespeople, particularly those who are familiar with new computerized production machinery.

For more information on labour market conditions see Ontario Job Futures on the Human Resources Development Canada (HRDC) website at www.on.hrdc-drhc.gc.ca. In Ontario, this information is available at public libraries or HRDC Employment Resource Centres in your community.

PEO conducts annual salary surveys; detailed results are available on [PEO's website](#).

Fees and Costs (in Canadian Dollars)

Make cheques or money orders payable to Professional Engineers Ontario (PEO).

1. PEO application fee:..... \$187.25 (\$175 + \$12.25 GST)
(must be included with application)

2. Technical Examination Programs.
 - One-time administration fee..... 285.00
 - Each exam 115.00
 - Exam re-marking 100.00

3. Professional Practice Exam 100.00
 - Exam re-marking 200.00

4. Engineering report 225.00

5. Engineering Internship Training
(EIT) Program 53.50 (\$50 + \$3.50 GST)

- 6. Final registration fee 187.25 (\$175 + 12.25 GST)
- 7. Annual membership fee 160.50 (\$150 + 10.50 GST)

All fees are non-refundable.

For More Information

For more information on how to become a licensed professional engineer in Ontario contact:

Professional Engineers Ontario

25 Sheppard Ave. West, Suite 1000
Toronto, ON M2N 6S9

Telephone: (416) 224-1100
Toll Free: 1-800-339-3716 (only in Ontario)
Fax: (416) 224-8168
Toll Free Fax: 1-800-268-0496 (only in Ontario)

Website: www.peo.on.ca

For more information on advocacy and services for engineers contact:

Ontario Society of Professional Engineers

4950 Yonge Street, Suite 1000
Toronto, ON M2N 6K1

Telephone: (416) 223-9961
Toll Free: 1-866-763-1654
Fax: (416) 223-9963
Toll Free Fax: 1-866-763-1655

Website: www.ospe.on.ca

For information on finding a certified translation service, contact:

Association of Translators and Interpreters of Ontario (ATIO)
1 Nicholas Street, Suite 1202
Ottawa, ON K1N 7B7

Tel: (613) 241-2846
Fax: (613) 241-4098
Toll-free: 1-800-234-5030

Email: atio@fox.nstn.ca
Website: www.atio.on.ca/

For information on Ontario university programs in engineering, contact:

Professional Engineers Ontario (see above)

or

Canadian Council of Professional Engineers

180 Elgin St., Suite 1100
Ottawa, ON K2P 2K3

Telephone: (613) 232-2474
Fax: (613) 230-5759

Email: ia@ccpe.ca.
Website: www.ccpe.ca

For information on where and how to get help with settlement in Ontario visit:

www.settlement.org

or contact:

Ontario Council of Agencies Serving Immigrants (OCASI)

110 Eglinton Avenue West, Suite 200
Toronto, ON M4R 1A3

Telephone: (416) 322-4950
Fax: (416) 322-8084

Email: generalmail@ocasi.org
Website: www.ocasi.org/

For a government contact about accessing professions and trades in Ontario:

Government of Ontario

Ministry of Training, Colleges and Universities

Access to Professions & Trades Unit

Tel: (416) 326-5656

Toll Free: 1-800-387-5656

Fax:(416) 326-6265

Email: aptinfo@edu.gov.on.ca

Website: www.equalopportunity.on.ca/eng_g/apt/

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This document was developed in collaboration with the Ontario Ministry of Training, Colleges and Universities, Access to Professions and Trades Unit in April, 2001. Requirements may have changed by the time you apply. Please contact Professional Engineers Ontario before completing your application.

See also:

- News Release: [Ontario government helps foreign-trained professionals contribute to economic growth and job creation](#)
- Background: [Occupational Fact Sheets](#)

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