If you have experience and academic credentials in applied science or engineering, a career as a certified technician or technologist is an excellent career option to consider.
There are 14 major disciplines in which engineering technology professionals may be certified in Canada.

They include:

- Bioscience
- Building
- Chemical
- Civil
- Electrical
- Electronics
- Forestry
- Geomatics
- Industrial
- Information Technology
- Instrumentation
- Mechanical
- Mineral Resources
- Petroleum / Geosciences

Technology associations in each province are responsible for granting certifications in specific disciplines based on Canada’s National Technology Benchmarks. Once obtained, certifications are recognized in every province and serve to facilitate interprovincial mobility within Canada.

Labour market demand for technology professionals in Canada is increasing with shortages of technology professionals becoming more and more common in a variety of sectors in different regions. Explore the full range of technology disciplines and related career options and other career resources available through the Canadian Technology Immigration Network (CTIN) at www.ctin.ca.

Introduction

Canada’s certified technicians and technologists, also known as technology professionals, are well-paid, respected members of engineering teams in both the public and private sectors. As leaders in their fields, they enjoy interesting and rewarding careers with excellent potential for advancement.

It is important to note that applied science and engineering technology in Canada is a non-regulated profession, meaning most technicians and technologists are not regulated by provincial laws. That said, however, many employers require or prefer technicians and technologists to be certified. Right to Practice legislation for technology professionals has also been adopted in some, but not all, provinces.
CIVIL ENGINEERING TECHNOLOGY

DISCIPLINE PROFILE — Civil Engineering Technology

Civil engineering technicians and technologists work with scientists, engineers and other professionals, or may work independently in fields such as structural engineering, municipal engineering, construction design and supervision, highways and transportation engineering, water resources engineering, geotechnical engineering and environmental protection. They are often employed by consulting engineering and construction companies, public works, transportation and other government departments and in a broad variety of industries.

Career Options

Examples of specific occupations within Civil Engineering Technology include:

- CONSTRUCTION ESTIMATORS
- CONSTRUCTION INSPECTORS
- CONSTRUCTION MANAGERS
- LANDSURVEY TECHNOLOGISTS
- BRIDGE DESIGN TECHNICIAN
- BUILDING MATERIALS TECHNICIAN
- CONSTRUCTION TECHNOLOGIST
- HIGHWAY TECHNICIAN
- MUNICIPAL ENGINEERING ASSISTANT
- SOIL TECHNOLOGIST
- CIVIL ENGINEERING SPECIFICATIONS WRITER
- STRUCTURAL DESIGN TECHNOLOGIST
- STRUCTURAL INVESTIGATOR
- ENGINEERING, DESIGN AND DRAFTING TECHNOLOGIST

Canada’s certified technicians and technologists, also known as technology professionals, are well-paid, respected members of engineering teams in both the public and private sectors.
On the Job...

Engineering technology professionals employ an applied approach to their work. They evaluate assignments, establish objectives, define problems, and determine procedures and actions to resolve problems. Some tasks that civil engineering technicians and technologists do at work are:

- Develop engineering designs and drawings from preliminary concepts and sketches.
- Prepare construction specifications, cost and material estimates, project schedules and reports.
- Supervise or conduct field surveys, inspections or technical investigations of topography, soils, drainage and water supply systems, road and highway systems, buildings and structures to provide data for engineering projects.
- Conduct or supervise inspection and testing of construction materials.
- May supervise, monitor and inspect construction projects.

Education and Professional Requirements:

Certified engineering technicians and technologists typically come from an applied science or engineering background and have graduated from a certificate, diploma or degree program. Additionally, they must have completed at least two years of working experience in their chosen discipline, with one of those years of experience having been gained in Canada, and must have successfully completed a Professional Practice and Ethics examination.
Obtaining Associate Membership status within a provincial technology association is an important first step to becoming certified in Canada which also offers other benefits. Candidates that obtain Associate Membership are given a letter from their Provincial Association that verifies that they have met certain requirements on the path to certification. This letter may then be used in their employment search to demonstrate their education and/or skills. Associate Membership in a provincial association also provides access to a network of professional piers and mentors that may assist with networking and developing job prospects.

Applying for Certification

To apply for certification as an applied science or engineering technician or technologist candidates must apply directly to the provincial technology association in the province in which they plan to work. The following steps must be completed before certification may be awarded:

- Submission of all supporting documentation (transcripts, resume, professional references, previous job descriptions, etc.) validating required academic and work experience;
- Completion of a Professional Practice Examination;
- Completion of a Technology Report (for certification as a technologist only);
- Meet a language proficiency requirement in one or both of Canada’s official languages.

Only after all supporting documentation is received from an applicant, will the certification arm of the provincial technology association begin evaluation of the academic and engineering technology experience of the candidate. To become a certified engineering technologist or certified technician candidates must have at least two years of satisfactory experience in engineering/applied science technology in which registration is being sought. For internationally trained applicants new to Canada, at least one year of this experience must be obtained in Canada before certification may be awarded.

The application review process determines if additional academic requirements and/or work experience will be required in order to obtain certification. Although timeframes may vary somewhat from province to province, the review process generally takes approximately 3 - 4 months after all documentation is received. Once the review is completed, the provincial association sends the applicant a formal report of the review. In the majority of provincial jurisdictions, any existing deficiencies or gaps in academic or work experience are identified and a personalized program outlining courses or work experience needed to obtain certification are defined.

When all the requirements identified in the file review report are met, the provincial association informs the candidate of his or her new status as a certified member. The new status allows members to automatically become eligible for all benefits reserved for certified members. This includes the right to use one of the protected professional titles and designations applicable to the provincial association in question.

If you have experience and academic credentials in applied science or engineering, a career as a certified technician or technologist is an excellent career option to consider.
Preparing For Employment Success Before You Arrive

Planning and preparing for your new career as much as possible before arriving in Canada is highly recommended. Be sure you understand the provincial job market and specific professional requirements of your occupation. You may be able to start or complete many of these tasks before you arrive in Canada. The following sections provide information and suggestions for getting started to ensure your success upon arrival in Canada.

On-line Self-Assessment

If you have a background in applied science or engineering technology you should try a self-assessment now to see how your education, skills and experience match Canadian requirements for certification. A self-assessment tool is accessible on the CTIN and Technology Registrations Canada websites. The self-assessment is free of charge and can be taken as many times as necessary. Should you decide to apply for certification prior to your arrival the results of the self-assessment may be saved as part of your formal application for certification in Canada. Take the self-assessment now and find out how your skills and experience compare to Canadian benchmarks.


International Qualification Assessment (IQA)

The International Qualifications Assessment (IQA) is an independent Canadian equivalency assessment of academic credentials for people trained outside of Canada. The IQA program evaluates the level and type of credential obtained by prospective immigrants and new arrivals to Canada who have received overseas academic training in the areas of applied science & engineering technology.

The IQA compares international credentials to Canadian criteria using procedures that are clear and consistent with the "Guiding Principles for Good Practice in the Assessment of Foreign Credentials" as published by ACESC, taking into account the diversity of educational traditions around the world.

The program offers internationally-trained technology professionals with a cost-effective means to have their credentials assessed against Canadian criteria. The IQA can provide a competitive advantage when approaching Canadian employers. After successful completion of an IQA, prospective immigrants and new arrivals to Canada are able to demonstrate to prospective employers how their overseas training compares with Technician and Technologist level training in Canada. This can be important differentiator for job seekers in legitimizing their skills and for employers seeking to verify the academic training of internationally-trained applicants. For more information on the IQA program visit www.cctt.ca

The Canadian Immigrant Integration Program

The Canadian government also provides employment and settlement services overseas through its offices located in China, India, the Philippines and the United Kingdom. These services are made available through the Canadian Immigrant Integration Program. For more information about these pre-arrival services visit: www.newcomersuccess.ca/index.php/en/about-ciip

Other General Preparation

- **Research Your Occupation.** Know the name of the specific job or jobs in Canada that you are pursuing and make lists of potential employers using on-line resources and contacts.

- **Collect Necessary Documentation.** Collect copies of relevant documents, and if necessary, have them translated into English in your home country as this is often much less expensive than translation in Canada.

You should bring:

- Degrees, diplomas or certificates from universities, colleges or schools
- Program descriptions related to your studies, and transcripts of grades
- Reference letters and performance reviews from employers
- Work descriptions and letters from professional agencies

Strengthen Your Workplace Skills.

You may need to improve your technical skills or knowledge before you start work in Canada. Explore all of the resources provided in this guide and be sure to visit the CTIN.CA website for more detailed information.
Canadian Language Requirements

Canada has two official languages: English and French. Depending on where you decide to live, you may be required to work in English, French, or in both languages. You should become familiar with the requirements for your occupation in the province where you want to work. Provincial requirements for certification usually include a language assessment.

You will need to have a good grasp of industry and technical terminology and be able to interact in English or French to communicate with your employer and co-workers. In order to work effectively in the engineering technology sector it is recommended that you should have reached a minimum English proficiency level of CLB 7 (Canadian Language Benchmarks: www.language.ca).

Depending upon your language skills, you may need to enroll in training or upgrading programs. Many of the training programs have language level requirements and each may vary in the types of tests they accept and the minimum scores required. Visit the Centre for Canadian Language Benchmarks, provided by Citizenship and Immigration Canada to test your English or French proficiency.

Finding Employment in Canada

Canada is an extremely large country and depending on your skills you could be working in a variety of different provinces or regions in Canada. Petroleum engineering technicians and technologists for example might find work in the provinces of Alberta, Newfoundland and Labrador, Ontario and Quebec which either have significant petroleum reserves or refining capabilities. Food technicians and technologists by comparison are more likely to find work in regional food processing centres located in a variety of provinces including Prince Edward Island, Ontario or Saskatchewan.

Before deciding where to land in Canada you should carefully review the attributes of Canada’s different provinces, their location, their unique labour markets and fully understand the types of industries and employment opportunities located in each.

To learn more about your chosen profession, regional labour markets and employment opportunities, visit the following websites where you will find a wealth of information including salaries, regional employment opportunities, job descriptions, and more.
CTIN has been developed with the specific goal of assisting internationally-trained engineering technology professionals in having their credentials recognized and finding successful employment in Canada.

CTIN’s national network of partners includes provincial regulatory bodies, provincial government immigration departments, community colleges, immigrant settlement organizations and immigrant employment councils. Working together in each province of Canada, CTIN’s partners provide assistance to internationally-trained technology professionals prior to their arrival and after their landing in Canada to help increase their chances of employment success.

To access the many services offered by CTIN it is recommended that you register with the network. When you register the on-line system notifies CTIN partners in the province that you are planning to settle in or if you are already here, that you are actively seeking assistance on the path to finding employment in your chosen technology profession. All information you provide to CTIN will remain confidential and will only be shared with the CTIN partners to advance your preparation and employment success.

Register with CTIN today and begin preparing for your successful technology career in Canada!

Canadian Technology Immigration Network (CTIN)
305-955 Green Valley Crescent
Ottawa, ON Canada
K2C 3V4
Email: info@ctin.ca
Website: www.ctin.ca

Establishing a Network and Building Connections Within Your Profession

In Canada, the majority of job vacancies are not advertised. Get advice and contacts for potential employment from people you may know in Canada, including relatives, friends or neighbours. Working as a volunteer, attending events, and joining clubs and associations are often good ways to meet people, to learn about Canadian workplace culture, to and improve your English/French language and communication skills.

As identified previously, each Canadian province has a technology association responsible for certifying and registering technology professionals and ensuring that their members maintain defined standards of practice. A list of Canada’s provincial technology associations is provided below. You should contact the appropriate association based on the province in which you intend to reside:

Alberta: www.aset.ab.ca
British Columbia: www.asttbc.org
Ontario: www.oacett.org
Quebec: www.otpq.qc.ca
Newfoundland & Labrador: www.aettnl.com
Nova Scotia: www.technova.ca
Prince Edward Island: www.techpei.ca
Manitoba: www.cttam.com
Saskatchewan: www.sastt.ca
New Brunswick: www.nbscett.nb.ca

Register with the Canadian Technology Immigration Network (CTIN)

The Canadian Technology Immigration Network (CTIN) is a one-stop source for career information, programs and assistance to support your successful entry into Canada’s technology professions.