



CAREER MAP

for Internationally Educated

GEOSCIENTISTS



Association of Professional
Geoscientists of Ontario

Access to the Geoscience Profession in Ontario

*This career map was updated in June 2011. The information in this career map is a summary of information available on the APGO website. Please visit the APGO website at **www.apgo.net** for the most detailed and current information about applying for membership.*

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This career map is for internationally educated geoscientists. Geoscience is a regulated profession in Ontario. You must be a registered member of the Association of Professional Geoscientists of Ontario (APGO) to work as a professional geoscientist in Ontario. This career map describes the process to become a registered member of APGO.

Immigrating to Canada

The APGO recommends that you apply for registration before you immigrate. If you are not able to apply before immigrating to Ontario, you should apply as soon as possible upon your arrival. On the APGO website, you will find links to a variety of resources that can help you during the registration process and while searching for employment at **<http://www.apgo.net/int-assistance.htm>** and **<http://www.apgo.net/int-links.htm>**.

If you plan to immigrate to Canada and work in geoscience, it is important to prepare early by becoming familiar with job search techniques, by conducting research on the industries and companies in which you are interested, and by improving and documenting your skills and knowledge, including your English or French language skills.

PROFESSIONAL GEOSCIENCE

Geoscience is the study of the Earth and its systems. Geoscientists engage in two main types of work: one involves discovering, developing, and producing metallic and non-metallic minerals, rocks, nuclear and fossil fuels, precious stones, and water resources; the other type of work focuses on preserving the natural environment by assessing the potential impacts of human activities and development on groundwater and other natural systems. Examples of activities carried out by professional geoscientists include the following:

- Surface mapping and sampling
- Underground mapping and sampling
- Three-dimensional geoscientific interpretation and geostatistical modeling
- Terrain and terrain stability analysis
- Geological surveys
- Petrology and mineralogy
- Mineral exploration
- Mineral property valuation
- Oil and gas exploration
- Groundwater studies
- Environmental assessment
- Site remediation
- Provision of expert testimony
- Teaching of geoscience and supervision of geoscience students

THE ASSOCIATION OF PROFESSIONAL GEOSCIENTISTS OF ONTARIO (APGO)

The Association of Professional Geoscientists of Ontario (APGO) has over 1,600 practicing members. It protects the public by ensuring that Ontario geoscientists work to professional standards and demonstrate ethical behaviour in accordance with the *Professional Geoscientists Act, 2000* and the Code of Ethics for Professional Geoscientists. The APGO maintains rigorous standards for the accreditation and regulation of professional geoscientists in Ontario. In addition, members are required to participate in APGO's program of continuing professional development to ensure their technical skills and knowledge stay up-to-date.

By law, you must be a registered member of APGO to practise as a professional geoscientist in Ontario. Professional geoscientists in Ontario use the abbreviation “P.Geo.” after their names. You cannot use this abbreviation unless you are a member of APGO. Also, you must be a member of APGO to use any title on your business card or resumé or when interacting with members of the public that suggests you are offering professional geoscience services. Examples of such titles include the following:

- Geoscientist
- Geologist
- Geophysicist
- Geochemist
- Earth Scientist
- Hydrogeologist
- Mine Geologist
- Environmental Geologist
- Environmental Geoscientist
- Vice President, Director, or Manager of Exploration

APGO offers four main membership categories. These are:

1. **Practicing** – Practicing members are fully certified to work as professional geoscientists in Ontario.
2. **Temporary** – This membership is required for visiting professionals who work in Ontario on a time-limited assignment. If you are a visiting expert, you may be required to work in collaboration with a practising member registered in Ontario.
3. **Limited** – This membership permits the member a limited scope of practice. The limitation is noted on the member’s registration certificate and does not require the same academic qualifications as a practising membership.
4. **Non-practicing** – Non-practicing members no longer practice professional geoscience.

For more information on how to become a registered geoscientist in Ontario, contact:

Association of Professional Geoscientists of Ontario

60 St. Clair Ave. East, Suite 913

Toronto, ON M4T 1N5

Telephone: 416-203-2746

Fax: 416-203-6181

Email: info@apgo.net

www.apgo.net

REQUIREMENTS FOR REGISTRATION

To qualify for registration with APGO and certification as a Professional Geoscientist, you must:

- Be of good character;
- Be at least 18 years old;
- Meet the knowledge requirements; these are normally met by a four-year bachelor's degree in an area of geoscience from a Canadian university or the equivalent, as determined by the Registration Committee. Learn more about the knowledge requirements on the APGO website at <http://www.apgo.net/knowledge-req.htm>;
- Have at least 48 months of acceptable geoscience work experience; 12 months of this experience must be acquired in a Canadian work environment or the equivalent, as determined by the Registration Committee. Learn more about the work experience requirement at <http://www.apgo.net/work-experience.htm>; and
- Pass the Professional Practice and Ethics examination; learn more about this exam at <http://www.apgo.net/ethics.htm>.

You do not need to be a Canadian citizen or permanent resident in Ontario to apply for registration.

If you are a practicing member of another provincial or territorial professional geoscientist regulatory body in Canada, you do not need to have your qualifications reassessed when you apply for membership with APGO.

Language Proficiency Requirement

You do not need to pass a fluency test to qualify for membership with APGO. However, to be successful in the Professional Practice and Ethics examination and to be able to complete the experience requirement, you will need advanced oral and written communication skills in either English or French. In your application form, you will be asked to make a declaration regarding your language fluency.

APPLICATION PROCESS

If possible, you should start the application process for registration with APGO before you come to Canada. For complete information, visit the APGO website at <http://www.apgo.net/int-register-how.htm>.

Step 1) Complete Your Application for Registration

Your first step is to complete an application for registration. You can apply online on APGO's website or download an application package at <http://www.apgo.net/register-how.htm>.

Step 2) Have Your Academic Credentials Evaluated by World Education Services (WES)

Before or after you come to Canada, you should arrange to have your international academic credentials evaluated by World Education Services. You should request a course-by-course evaluation. If your transcripts or course descriptions are not in English or French, you can arrange to have them translated through WES. WES will evaluate your degree and determine its equivalency to a degree granted by a Canadian university. WES will then send an evaluation report directly to the APGO. The assessment takes about a week. For more information, please visit www.wes.org/ca.

Step 3) Send Your Course Descriptions to APGO

Your next step is to send official descriptions of the university courses you completed to APGO. You can send photocopies by mail or, if your university has detailed online descriptions in English of the courses you completed, you can just give APGO the website URL. If your course descriptions are not in English, you also need to provide APGO with translations. To find a certified translator in Ontario, visit the website of the Association of Translators and Interpreters of Ontario (ATIO) at www.atio.on.ca. APGO requires the original translations with proof of the translator's certification.

Once they have received WES's evaluation report and your course descriptions, the APGO Registration Committee will review your academic credentials and make a decision about whether your academic credentials meet the knowledge requirement for registration. This review takes approximately two months after all your documents have been received.

If the Registration Committee decides that you do not meet the knowledge requirements for licensing with APGO, the Committee may ask you to:

- Write one or more confirmatory or technical examinations; these examinations give you the opportunity to confirm the equivalency of your degree and/or help you address gaps in your professional geoscience knowledge;
- Complete specified university courses;
- Provide additional information; and/or
- Attend an interview with members of the Registration Committee where you will have an opportunity to talk about your knowledge of geoscience.

You may qualify for registration without writing any additional examinations or taking any further university courses if you:

- Have completed a four-year bachelor's degree in an area of geoscience, or the equivalent, that fulfills the knowledge requirements, as determined by the Registration Committee; or

- Have completed postgraduate studies (M.Sc. or Ph.D) in geoscience at a Canadian university and have fulfilled the knowledge requirements, as determined by the Registration Committee; or
- Have 10 years or more of qualifying work experience acceptable to the Registration Committee, which you obtained in the last 15 years, and which demonstrates knowledge in any area of academic deficiency identified by the Registration Committee.

Step 4) Document Your Work Experience

To qualify for membership and registration with APGO, you need to have at least 48 months of acceptable work experience in professional geoscience within the last 10 years. At least 12 months of your qualifying work experience must be obtained in Canada or in an equivalent work environment, as determined by the Registration Committee. Learn more about the work experience requirement on the APGO website at <http://www.apgo.net/work-experience.htm>.

You may be granted up to 12 months credit for geoscience work experience that you gained before you completed your bachelor's degree but after you completed your second year of university. You may also receive up to 12 months additional credit for geoscience work experience gained while completing a master's program (with thesis) and a further 12 months credit for geoscience work experience gained while completing a Ph.D. program.

To demonstrate your work experience, you need to complete the APGO Work Experience Record form and email it to APGO. In addition, your work experience must be independently verified by at least three referees, who each need to complete a referee form. Your referees must email their completed referee form together with your completed Work Experience Record form directly to APGO. These forms are available on the APGO website at <http://www.apgo.net/register-how.htm>.

Of your three referees, at least one must be a practicing professional geoscientist registered with a geoscience regulatory body in Canada. Another must be either a professional geoscientist registered in Canada or a professional engineer (P.Eng.) registered with a Canadian engineering regulatory body who is qualified to practice professional geoscience. Your third reference can be anyone who knows you well.

When you complete your Work Experience Record form, you should refer to the following criteria, which the APGO Registration Committee will consider when assessing your work experience:

- Practical experience in the application of geoscience theory;
- Practical experience in understanding geoscience processes and systems;
- Management of geoscience projects;
- Communications skills; and
- Awareness of societal implications of geoscience.

Geoscientist-in-Training (GIT) Program

The Geoscientist-in-Training (GIT) program is an internship and mentoring program for applicants who have an acceptable degree in geoscience but who either do not have 48 months of acceptable work experience and/or do not have 12 months of Canadian work experience or equivalent experience, as determined by the Registration Committee. To qualify for this program, you must meet all the knowledge requirements for registration, including writing any confirmatory or technical examinations that you are assigned by APGO. You must also provide one character reference. Your character reference can be anyone who knows you well.

Participating in the GIT program has the following benefits:

- It helps you demonstrate to employers that you are committed to becoming registered as a professional geoscientist in Ontario;
- It helps ensure that you get the work experience you need to fulfill the experience requirement for registration, as APGO will review your progress and make suggestions about gaps in your experience that you need to fill;
- It provides you with mentoring opportunities;
- It entitles you to receive APGO publications and other information;
- It encourages you to become involved in the profession and to participate in the APGO's programs and functions; and
- It makes you eligible for APGO's insurance plans.

Please indicate on your registration application if you wish to apply for the GIT program.

Appeal of Registration Committee Decisions

The Registration Committee will review your academic credentials, work experience, and references and will decide if you meet the knowledge and work experience requirements for registration with APGO. This review takes approximately two months after all of your documents have been received. If the committee decides that you do not meet the requirements, the Committee will let you know what you need to do to meet these requirements.

If you are not satisfied with a decision of the Registration Committee, you may appeal the decision to a special appeals committee. Contact APGO for more information about the appeal process.

Step 5) Pass the National Professional Practice and Ethics Examination (PPE)

You must write and pass the National Professional Practice and Ethics (PPE) examination within two years of submitting your application for a practising or limited membership. All applicants for professional registration with one of Canada's 10 provincial/territorial geoscience regulatory bodies must write this exam, which covers ethics, professional practice, business law, professional liability, and responsibilities to the public. You can write the exam in either English or French. You may be exempt from the PPE exam if you have written and passed a PPE examination with another Canadian geoscience regulatory body.

The three-hour exam includes 120 multiple-choice questions and a short essay. One hundred questions are standard across Canada, and the remaining 20 questions are based on provincial contexts. The exam is offered four times a year, in January, April, July, and November. You can arrange to write the exam in many overseas locations. You must send in your application to write the exam at least 60 days before the exam date you prefer. Information on the PPE exam and suggested textbooks and study material are available on the APGO website at <http://www.apgo.net/ethics.htm>.

You must achieve a grade of 65% to pass the PPE. If you do not pass the first time you write it, you have two more opportunities to write the exam. However, if you fail the exam three times, your application file is closed. You can re-apply to APGO again at a later date. In this case, you will have to pay the application fee again.

FEES AND COSTS

The following fees and costs are for 2011 and are in Canadian dollars; 13% Harmonized Sales Tax (HST) may be applicable to some fees. Fees are subject to change without notice. For the most up-to-date information, visit the APGO website at <http://www.apgo.net/fees.htm>.

Application Fee (Practising Member)	\$275
Temporary Application Fee	\$275
Application Fee (Geoscientist-in-Training)	\$100
Professional Practice & Ethics (PPE) Exam Fee	\$250
PPE Exam Re-write Fee – Essay Portion	\$100
Confirmatory and Technical Exam Fee	\$250
Annual Membership Dues (Practising Member)	\$400
Annual Membership Dues (Geoscientist-in-Training)	\$140

Third Party Costs

University Transcript Fee	Variable
World Education Services Credential Evaluation	\$210 + translation costs

LABOUR MARKET INFORMATION

Geoscience is a global profession; Ontario geoscientists work locally, nationally, and internationally. Many geoscientists licensed in Canada obtained their original training overseas. Internationally educated geoscientists will find that their knowledge and experience are readily recognized in Ontario, provided they are equivalent.

The labour market for professional geoscientists in Ontario varies according to your area of practice and the industries where you want to work. In general, professional geoscientists are expected to continue to be in demand in Ontario's globally competitive, knowledge-based economy. Average earnings in geoscience are higher than the provincial average for most occupations.

Employment prospects for geoscientists appear to be good as the world population is increasing and global requirements for minerals, fuels, and fresh water continue to rise. The public's desire for an improved environment and for greater public safety has led to an increased demand for geoscientists who specialize in the evaluation of natural hazards, the rehabilitation of disturbed land, and the safe disposal of hazardous wastes, as well as in remote sensing and land use planning.

Currently, unemployment levels for professional geoscientists in Ontario are low. However, the need for geoscientists changes with world demand for metals, materials, and fuels. The job market is competitive, and good jobs are not easy to find. In many employment settings, professional geoscientists must also demonstrate management and leadership skills, and the ability to work effectively in teams.

Some internationally educated geoscientists may have difficulty finding employment in their field in Ontario. This may be because:

- They don't meet the requirements for full licensure with APGO;
- They have inadequate English (or in some areas of Ontario, French) language communication skills;
- They are unfamiliar with Canadian workplace practices and culture; and/or
- They lack personal contacts and networking opportunities within the field of geoscience.

Key Industries for Geoscientists in Ontario

Professional geoscientists work for large and small companies, in education and government, and as independent practitioners and consultants. Industries that employ geoscientists include:

- Mining and mineral exploration
- Oil and natural gas exploration and development
- Geological mapping and government services
- Water resource exploration, utilization, management, and protection
- Land use and site investigation work
- Remediation of contaminated sites
- Industrial minerals, e.g., sand and gravel, crushed stone, cement, dimension stone, and other construction materials
- Geological hazards assessment and risk assessment

For more information about the Ontario labour market, visit the following websites:

- Ontario labour market information at <http://www.tcu.gov.on.ca/eng/ojf/index.html>
- Working in Canada at www.workingincanada.gc.ca

This information is also available in the Ontario Job Futures binder at public libraries or at HRSDC Employment Resource Centres in your community in Ontario.

CONTACTS AND RESOURCES

For more information on the profession of geoscience in Canada, contact:

Geoscientists Canada

4010 Regent Street, Suite 200

Burnaby, BC V5C 6N2

Telephone: 604-412-4888

Fax : 604-433-2494

E-mail: info@ccpg.ca

www.ccpge.ca

Canadian Federation of Earth Sciences

Box 2369

Wolfville, NS B4N 2N5

Telephone: 902-542-6125

Email: ekosters_cfes@magma.ca

<http://www.geoscience.ca>

The following international and Canadian institutions and associations are involved in geoscience:

Canadian Institute of Mining, Metallurgy and Petroleum

CIM National Office

3500 de Maisonneuve Blvd W., Suite 1250

Montreal, PQ H3Z 3C1

Telephone: 514-939-2710

Fax: 514-939-2714

Email: cim@cim.org

<http://www.cim.org>

International Association of Hydrogeologists

Website: <http://www.iah.org>

IAH Canadian National Chapter

<http://www.iah.ca>

Ontario Groundwater Association

48 Front Street East

Strathroy, ON N7G 1Y6

Telephone: 519-245-7194

Fax: 519-245-7196

<http://www.ogwa.ca>

Ontario Mining Association

5775 Yonge Street, Suite 520

North York, ON M2M 4J1

Telephone: 416-364-9301

Fax: 416-364-5986

<http://www.oma.on.ca/en>

Prospectors and Developers Association of Canada

135 King Street East
Toronto, ON M5C 1G6
Telephone: 416-362-1969
Fax: 416-362-0101
Email: info@pdac.ca
<http://www.pdac.ca>

For information on credential assessment, contact:

World Education Services

2 Carlton Street, Suite 1400
Toronto, ON M5B 1J3
Telephone: 416-972-0070
Toll-free: 1-866-343-0070
Fax: 416-972-9004
Email: inquiry@wes.org
www.wes.org/ca

To find a certified translator, 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: info@atio.on.ca
<http://www.atio.on.ca>

For information on where and how to get help with settlement in Ontario, including information about English language classes and services that can help you find a job in your field, visit www.settlement.org.

For information about mining in Ontario, visit the website for the Ministry of Northern Development, Mines and Forestry at <http://www.mndmf.gov.on.ca>.

For information about regulated professions in Ontario, contact:

Government of Ontario

Ministry of Citizenship and Immigration

Global Experience Ontario

163 Queen Street East, 2nd Floor

Toronto, ON M5A 1S1

Tel: 416-327-9694 or 1-866-670-4094

Telecommunication Device for the Deaf

416-327-9710 or 1-866-388-2262

Fax: 416-327-9711

Email: <mailto:GEO@ontario.ca>

<http://www.ontarioimmigration.ca/en/geo/index.htm>

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REGISTRATION PROCESS

The process for reviewing applications is the same for both a Canadian educated applicant and an internationally educated applicant. However, it is necessary to seek more information about the university credentials of the internationally educated applicant, due to a potential lack of familiarity by the APGO with a particular degree program and its equivalency to recognized programs in Canada.

