

Alberta's Engineering Industry



Professional Engineering

Standards of engineering are high in Canada and engineers are required to be provincially licensed for professional practice. In Alberta, the Association of Professional Engineers and Geoscientists of Alberta (APEGA) is the body that regulates the practice of professional engineering.

Applicants can begin the licensing procedure either before or after arriving in Alberta. Those who are not yet permanent residents or citizens of Canada should apply as foreign licensees. The requirements include:

- meeting APEGA's academic and experience requirements
- demonstrating good character and reputation
- passing the National Professional Practice Examination
- proving English language competency

Consulting Engineering

A major component of the engineering industry in Alberta is the consulting engineering sector. The sector is aggressive, proactive and dynamic and has become strong as a result of an active Alberta economy. Consulting Engineering includes single, dual and multi-disciplined firms offering engineering and technical services, generally without procurement and construction.

Firms in Alberta are experienced in many disciplines:

- civil, municipal and structural engineering
- geological and geo-technical engineering

- mechanical, electrical and process engineering for hydrocarbon resource development and upgrading
- petroleum and reservoir engineering
- transportation and environmental engineering

A number of Alberta firms are exporting consulting engineering services. There is special emphasis in areas such as:

- hazardous waste and environmental engineering
- hydrocarbon exploration, development, production, processing and upgrading
- permafrost and cold weather engineering
- pipeline and SCADA (supervisory control and data acquisition)
- public infrastructure, transportation planning and systems engineering
- thermal power generation and cogeneration
- water supply, water resources management, water and waste treatment

Consulting Engineers of Alberta provides technology-based consulting services to governments and private sector clients in Alberta, across Canada and in numerous countries worldwide.

Technicians and Technologists

The Association of Science and Engineering Technology Professionals of Alberta (ASET) is the professional organization for applied science, engineering technicians and technologists in Alberta. Representing approximately 16,500 members, ASET evaluates the qualifications of individuals and issues professional credentials accordingly, based on national standards and related to education and demonstrated competency. With amendments to the Engineering, Geological and Geophysical Professions Act in October 2009, ASET is now a self-regulating professional association with qualified members permitted to practice engineering independently, within existing codes and standards.

ASET members represent a wide range of sectors and engineering disciplines including civil, mechanical, avionics, biomedical, chemical, computer, electrical, environmental, geological, instrumentation, oil and gas, and telecommunications. Members are recognized by the designations: Professional

Technologist (Engineering) (P.Tech(Eng)), Registered Engineering Technologist (R.E.T.), Certified Engineering Technologist (C.E.T.), Certified Technician (C.Tech.), or Technician or Technologist in Training (T.T.).

Many employers specifically ask for ASET membership when conducting searches for technicians and technologists. In addition, many employers have a differentiated pay scale for certified technicians and technologists. By recognizing ASET membership, companies are essentially pre-screening qualified applicants.

ASET works closely with APEGA to advance the relationship that exists between engineers and technologists in the workplace.

Useful websites:

Government/Job Sites:

Jobs in Alberta: www.AlbertaCanada.com/jobs

Alberta Learning Information Service: www.alis.alberta.ca/jobpostings

Associations:

Association of Canadian Engineering Companies (ACEC): www.acec.ca

Association of Professional Engineers and Geoscientists of Alberta: www.apega.ca

Association of Science and Engineering Technology Professionals of Alberta: www.aset.ab.ca

Consulting Engineers of Alberta: www.cea.ca

Engineers Canada: www.engineerscanada.ca

Government of Alberta ■

www.AlbertaCanada.com/immigration

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