

## The Five Branches of Professional Surveying

### Legal Boundary



Legal boundary surveyors provide an expert opinion on the location of boundaries using historical research, a knowledge of statute and common law, and the latest technology in measurement and data processing.

### Geographic Information Management



Geographic information managers oversee the development, implementation, and operations of a geographic information system with computers, GPS units, surveying instruments and mapping software.

### Geodetic



Geodetic surveyors measure and represent the Earth and its gravitational field, polar motion, tides, and the movement of its crust in three-dimensional space.

### Photogrammetric



Photogrammetric surveyors create accurate scale models where distances and heights can be measured and mapped from ground stations, aircraft and satellites.

### Hydrographic



Hydrographic surveyors measure and chart the physical features of rivers, lakes and oceans from mobile survey platforms such as boats, barges and aircraft.

## If Geomatics Is Your Choice You Can Expect...

- Everyday use of applied geography, engineering, science, physics, computer programming and mathematics.
- Investigative reporting and mapping.
- Dispute resolution among property owners.
- Forensic science investigations.
- Application of the latest software and hardware for data collection and mapping.
- Opening new frontiers of knowledge through information and data collection.
- A wide range of workplace environments throughout Canada and abroad.
- Travel and work platforms that include aircraft, marine vessels and vehicles.
- A career that allows you to grow professionally and personally while building wealth.
- A full and rewarding life-long career.

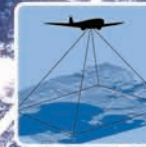
## Benefits of Membership

- Recognition as an "Ontario Land Surveyor" and/or "Ontario Land Information Professional" creates credibility as a professional with employers and the public.
- Mobility of professional credentials to other provinces under the terms of the Mutual Recognition Agreement.
- Belonging to a respected professional organization where members abide by a Code of Ethics and maintain Standards of Practice.



Association of Ontario Land Surveyors

## Your future as a Geomatics Professional



Association of Ontario Land Surveyors

1043 McNicoll Avenue  
Toronto, Ontario M1W 3W6  
Phone: 416.491.9020 Fax: 416.491.2576  
admin@aols.org  
[www.aols.org](http://www.aols.org)

[www.aols.org](http://www.aols.org)



## What is Geomatics?

Geomatics is a scientific term referring to the integrated approach of measurement, analysis and management of Earth-based and spatial data. This data comes from many sources, including Earth orbiting satellites, air and sea-borne sensors and ground-based instruments.

If you are interested in the physical nature of our world, in knowing where things are and how they relate to each other and in using modern technology, then Geomatics is the perfect career choice for you.

## Academic Requirements for Professional Surveyors in Ontario

The Association of Ontario Land Surveyors requires a degree in Geomatics or Geomatics Engineering from universities such as Ryerson, York, New Brunswick, Calgary, Laval or another course of study equivalent in content and level of difficulty.

University programs require an Ontario Secondary School Diploma (OSSD) with credits in Calculus, Algebra and Geometry, Physics, Chemistry and English. Relevant course credits may be transferred from community college programs.

## Association of Ontario Land Surveyors (AOLS)

The AOLS is the governing body for professional surveyors in Ontario. Members can practise under one or more of five branches: Legal Boundary (Cadastral), Geographic Information Management (GIM), Geodesy, Photogrammetry and Hydrography.

## Articles of Agreement

After the academic requirements are met, a candidate must be employed by, and sign a term of Articles of Agreement with a Supervising Professional, who is an Ontario Land Surveyor (OLS) or other person approved by the Academic and Experience Requirements Committee (AERC) to obtain a minimum of 1-1/2 years of practical training and work experience. During the articling period, a candidate is required to pass an examination covering current Ontario Statutes pertinent to the profession. A candidate who has completed a Masters Degree, or Doctorate, related to Geomatics, or who has prior geomatics-related work experience may apply for a reduction in articles of up to 6 months.

## Professional Exam

After the term of articles is completed, the Articled Student is required to pass both an oral and written professional exam to become an Ontario Land Surveyor.

## Geomatics Student Awards Program

### AOLS Educational Foundation

Awards are presented annually to qualified students enrolled in the Geomatics Engineering Program at York University, the Geomatics Option of the Civil Engineering Program at Ryerson University, the Geomatics Program at the University of Waterloo, the Survey Engineering Technician Program at Loyalist College and the Geomatics Program at Fleming College. Other awards may be added at the discretion of the Educational Foundation.

## Career Opportunities

The demand for land information professionals is very high and is expected to increase. Geomatics careers continue to grow in geospatial mapping, location-based services, navigation, remote sensing, natural resources management, energy, mining, hydrography, urban and rural planning, environmental management, land and engineering surveying, marketing, satellite positioning, digital mapping, image analysis, information management and transportation.

## Other Provincial Surveying Associations and the Association of Canada Lands Surveyors

The AOLS is a signatory to a Mutual Recognition Agreement between the Association of Canada Lands Surveyors and surveying associations in all of the other provinces. Under this agreement, a licensed surveyor from any jurisdiction may achieve membership in another jurisdiction by demonstrating, through an examination or completion of an assignment, knowledge of local jurisprudence and local land registration systems.

## Geomatics Technicians and Technologists

Survey professionals employ geomatics technicians and technologists who have graduated from geomatics diploma programs at community colleges such as Fleming, Loyalist and Niagara.