

Have you ever drawn someone a map of how to get to your house? Was it accurate enough so the person did not get lost? Imagine how difficult it is to make a real map, showing the hills and valleys in the land, making sure that everything shown is in the right relationship to everything around it.

Mapping topographic detail is part of the job of a geomatics technologist or technician. As a geomatics technologist or technician, you could specialize in hydrography, photogrammetry, remote sensing, control surveys, geographic information systems (GIS), site improvements surveys, construction and engineering surveys, global positioning surveys, cartography and mapping.

You might conduct field surveys in association with professional engineers or professional land surveyors. Using modern surveying and mapping instruments and equipment, you collect, interpret and record information about specific geographic areas and their features. You may also be heavily involved in engineering and construction activities.

As a geomatics technologist or technician, you use a variety of manual and electronic surveying equipment to:

- Stake out buildings and other structures such as bridges, dams, tunnels, refineries and other engineering works
- Make calculations and field layouts of horizontal, vertical and spiral curves when conducting detailed surveys on projects such as highways, urban streets and railways
- Conduct underground, open pit and tunnel surveys, and produce plans from these surveys
- Do hydrographic surveys to control shoreline and off-shore subsurface contours, and to determine watersheds
- Prepare detailed drawings, charts, plans, survey notes and reports
- Extract surveying and specific 'user-defined' information from remotely-sensed images
- Use receivers to monitor earth orbiting satellites to determine geographic positions

Where Will You Work?

Employment opportunities may be found throughout the world and are offered in many disciplines. You could find yourself in private enterprise, various levels of government, surveying and engineering firms, oil and gas industry or offshore surveying.

You usually work in a team environment with engineers, surveyors and other techs. You work indoors, often using computers to compile and analyze data, and outdoors, conducting surveys and supervising the activities of technicians. You should have an interest in all-weather hiking and/or climbing to be best suited for fieldwork. Travel is a big factor, unless you have a position with a local firm.

Related occupations include civil technologist, mining technologist, forest resources technologist, city planner, draftsman, computer operator/programmer and instrument technician.

How Much Will You Earn? ¹

Technologist:	\$48,000/yr
Technician:	\$43,000/yr
GradTech:	\$29,000/yr

How Does the Future Look?

The employment outlook is expected to be above average. With the rapid changes in technology, the outlook for geomatics is both exciting and challenging, and should provide a rewarding career.

How Can You Get Started?

In high school, be sure to take courses in English, mathematics, physics, computers and earth sciences.

Post secondary options are listed on the reverse side...

TechWORKS! on the web...

techworks.asttbc.org

turn over for more info!

GEOMATICS TECHNOLOGY

What Will You Need?

To pursue this career you must be able to think visually about geometric forms, and you must be able to perceive pertinent detail in objects and drawings. You need to be in good physical condition, and have good motor coordination and finger dexterity.

You should enjoy working with equipment and instruments at tasks requiring precision, analyzing information and finding innovative solutions to problems, taking a methodical approach to work and supervising and coordinating the work of others

Post Secondary Possibilities

COLLEGE	PROGRAM	ACCREDITED STATUS	DISCIPLINE
BCIT	Geomatics	Technologist	Geomatics

- Programs listed are those accredited by the Applied Science Technologists & Technicians of British Columbia (ASTTBC); check www.asttbc.org for updates on accredited programs.
- Check with your career facilitator or counsellor for other sources of information applicable to education options for this technology.
- ¹ Salary figures indicated in the 'How Much Will You Earn?' section are extracted from ASTTBC's Member Compensation Survey or other Canadian sources applicable to the specific technology discipline. These figures are **representative only**; actual figures will vary depending on academic training, practical experience, job responsibilities and location of employment.
- The TechWORKS! web site is an important online resource and provides links to career information that will be of interest to students pursuing a career in technology.

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