

# Surveying Technician



**Alternate title** Cartographic Drafter, Tracer; Surveying Associate; Technician (Surveying)

**Description** Surveying technicians collect and analyse information and develop plans for surveyors and related professionals. They provide the basic information required for land development and redevelopment, including such activities as road-building, construction projects and subdivision of land.

In addition the information prepared by survey technicians supports a range of professions such as emergency services, military, hydrography, environmental and engineering.

Surveying technicians work indoors and outdoors, may be required to travel, work in both rural and urban environments.

**Typical duties**

- collect and analyse survey data, source maps, photographs, computer records
- take measurements and make observations from aerial photographs
- take measurements associated with the management of natural resources and mining activities
- draw up plans by recording information, making calculations and plotting information into the required format - this is done either by hand or on a computer using a computer-aided design (CAD) program
- make maps showing features and associated information
- set out marks to locate construction activities
- store data in geographic information systems (GIS) and undertake activities such as enquiries, reports and plot production
- operate and manage land-information computer systems.

**Personal requirements**

- normal colour vision;
- technical aptitude;
- aptitude for mathematics, science and computers;
- ability to supervise small teams of workers;
- ability to work accurately and neatly;
- able to work as part of a team.



- Qualification** The names of qualifications may vary from institution to institution and include:
- Certificate III in Spatial Information Services
  - Certificate IV in Spatial Information Services
  - Diploma of Spatial Information Services
- Entry pathway** To become a Surveying Technician you usually have to complete a diploma or advanced diploma in spatial information services. Entry to these courses usually requires completion of Year 12 with mathematics or mathematical methods. As subjects can vary between institutions, you should contact your chosen institution for full details.
- Job prospects** Surveying technicians are employed by surveying or drafting companies, engineering firms, natural resource management firms, mining companies and government departments. Some technicians are self-employed as consultants and their clients may include land brokers, solicitors, surveyors, engineers, construction companies and mining companies. It is also possible for people in this occupation to work outside Australia in developing countries.
- Demand for surveying technicians depends to a significant extent on population growth and the level of activity in the construction and mining industries. There is also an increasing demand for surveying technicians in the emerging areas of sustainability, environment management, climate change and emergency management.
- Specialisation** Surveying technicians may specialise in surveying, survey drafting, land information, photogrammetry, remote sensing, hydrographic surveying, mining surveying, land development, spatial or geographic information systems, or engineering and construction surveying.
- Related Jobs**
- Cartographic Technician
  - Geoscience Technician
  - Science Field Officer
  - Hydrographic Technician
- Further information**
- Consulting Surveyors National [[www.acsnational.com.au/](http://www.acsnational.com.au/)]
  - Surveying & Spatial Sciences Institute [[www.spatialsciences.org.au/](http://www.spatialsciences.org.au/)]
  - Destination spatial [[www.destinationspatial.org/](http://www.destinationspatial.org/)]

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