

Surveyor



Alternate title Geomatic Engineer

Description Surveyors accurately measure, define and record land and geographic information for the regulation, ownership and planning of land and water.

Surveyors generally spend a lot of their time working outdoors collecting information and analysing data. Office work includes further analysis of data, preparing plans and reports. Surveyors work in both rural and urban environments.

Typical duties

- Collect information about land such as, identification of property boundaries, ownership/tenue details, land features (topography, watercourse, extent of erosion, vegetation details, location of buildings and infrastructure, roads etc).
- Prepare plans for the development/redevelopment eg subdivision proposal, road alignment and infrastructure.
- Set out the alignment for construction work eg. Building, roads.
- Prepare plans for land ownership eg unit title/strata title/community title.
- Accurately monitor changing conditions associated with erosion, water levels, mining, vegetation, earth movement.
- Thoroughly understand and apply relevant legislative provisions (acts, regulations, codes of practice etc).

Personal requirements

- good at mathematics;
- good organisational skills;
- able to work accurately and neatly;
- good health and good eyesight (corrected is acceptable);
- able to work as part of a team;
- able to work independently.

Qualification The names of qualifications may vary from institution to institution and include:

- Bachelor of Surveying;
- Bachelor of Engineering (Surveying and Spatial Information Systems);
- Bachelor of Applied Science (Geomatics);
- Bachelor of Applied Science (Surveying);
- Bachelor of Geomatic Engineering



An Australian Government Initiative



Entry pathway To become a surveyor you usually have to study surveying or geomatic studies at university. To get into these courses you usually need to pass your HSC/VCE or equivalent. Prerequisite subjects, or assumed knowledge, in one or more of mathematics extension and one science subject are normally required. The various universities have different prerequisites and some have flexible entry requirements or offer external study. Contact the universities you are interested in for more information as requirements may change.

Students who do not meet the tertiary entrance requirements can first undertake a TAFE diploma or advanced diploma in spatial information services, then apply to university.

Job prospects Surveyors are employed in engineering firms, mining and construction companies, government departments and private practices. Licensed surveyors may work for larger survey firms or may practise as partners in small firms. Larger firms have more scope for specialisation.

The introduction of new technology such as satellite-positioning systems, electronic-distance and angle-measuring equipment, land and geographic information systems, remote-sensing equipment and the use of computers and computer graphics, has reduced the time required for surveying field work.

The vacancy level for Surveyors is average. Vacancies arising from job changing (Surveyors changing employers) are expected to provide 20 per cent of vacancies, compared with 77 per cent from job openings (Surveyors leaving the occupation) and 3 per cent from new jobs

Specialisation Surveyors may work in related fields such as photogrammetry, geographic information systems or remote sensing and as project managers or financial advisers. After spending some years in the field, they often become managers, or they may specialise as one of the following:

- Cadastral/Land Surveyor
- Engineering Surveyor
- Geodetic Surveyor
- Hydrographic Surveyor
- Mine Surveyor
- Remote Sensing Surveyor
- Topographic Surveyor

Further information

- Institution of Surveyors [www.isaust.org.au/]
- Spatial Sciences Institute (Head Office) [www.spatialsciences.org.au/]
- Australian Spatial Information Business Association (National Office) [www.asiba.com.au/]