Geographic Information Systems Officer

Alternate title

Land Information Systems Officer; Spatial Information Systems Officer; Spatial Information Systems Technician; Surveying Technologist

Description

Geographic Information Systems Officers collate and manage spatial data in a geographic information system and provide technical and analytical support for evironmental management, exploration and mining, land ownership and titles, urban and regional planning, utilities and asset management, and demographic marketing.

Typical duties

- compile and analyse a range of spatial data including aerial photography, satellite imagery, existing digital data using a geographic information system (GIS);
- link spatial data for land administration purposes;
- apply modelling techniques to spatial data for specific applications eg. Flood monitoring, population growth, slope analysis;
- prepare, edit and revise cartographic data for the preparation, reproduction and publication of maps and digital products.
- Produce cartographic and analytical data to assist management of specific assets and features.eg. public utilities (such as electricity poles, bus shelters), environmental management (such as vegetation, erosion), non government facilities (such as sporting venues)

Personal requirements

- aptitude for analysis and computing;
- effective communication and problem-solving skills;
- interested in the environment;
- able to produce detailed and accurate work;
- able to work as part of a team.

Qualification

- Diploma of Spatial Information Services (GIS)
- Advanced Diploma of Spatial Information Services
- Bachelor of Science, majoring in spatial science or in geographical information science
- Bachelor of Engineering (Surveying and Spatial Information Systems)
- Bachelor of Arts, majoring in geographical information science

Entry pathway

To become a Geographic Information Systems Officer you usually have to complete a diploma, advanced diploma or associate degree in geographic or spatial information systems or surveying. However, entry to this occupation may be improved if you have a degree with a major in geographic or spatial information systems.

Entry to the diploma and advanced diploma courses usually requires Year 12 with English and mathematics. Entry to the associate degree and degree courses usually requires completion of your HSC/VCE or equivalent with prerequisite subjects, or assumed knowledge, in one or more of English, English literature, discrete mathematics and applicable mathematics. The various institutions have different prerequisites and some have flexible entry requirements or offer external study. Contact the institutions you are interested in for more information as requirements may change.

Job prospects

Federal, State, Territory and local government organisations, statutory authorities and private companies involved in land use, planning and management are the major employers of geographic information systems officers. Employment prospects are good for many specialist skills, ranging from systems development (designing and building geographic databases, spatial management and analysis tools, and web delivery systems) to the application of geographic information systems to provide specialist solutions in environmental, business and development activities.

With the wide application of geographic information systems in science and commerce, there is a growing demand for Geographic Information Systems Officers.

This may vary from region to region.

Related Jobs

- Geographer
- Hydrographer
- Science Field Officer

Further information

- Surveying & Spatial Sciences Institute (Head Office) [www.spatialsciences.org.au/]
- Australasian Institute of Mining and Metallurgy [www.ausimm.com.au/]
- Australian Institute of Geoscientists [www.aig.asn.au/]

Revised January 2013