

SURVEYING TECHNICIAN

Job Description: Survey technicians assist surveyors and other mapmakers in obtaining and computing data relevant to measuring the Earth's features. They may work for an engineering or construction company, or for local, state, or federal agencies. They collect field data using sophisticated measuring equipment. Most of the data is captured through global positioning or geographical information systems. Tasks include:

- Adjusting and operating surveying instruments;
- Performing calculations to determine earth curvature corrections, atmospheric impacts on measurements, etc.;
- Recording survey measurements and descriptive data using notes, drawings, sketches, and inked tracings;
- Searching for section corners, property stakes, and survey points; and
- Positioning and holding the vertical rods, or targets, that surveying equipment operators use for sighting to measure angles, distances, and elevations.

Depending on experience, surveying technicians may direct and supervise the work of subordinate members of surveying parties. Surveyors and surveying technicians play an important role for energy companies involved with oil and gas exploration and extraction, coal mining, pipelines and transmission, wind energy, and others.



Needed Skills and Education: Surveying technician jobs are typically entry-level positions for surveyors who have achieved post-secondary formal education. A number of educational institutions, including vocational-technical institutes and community colleges, offer one or two-year surveying technician/surveying programs. Senior survey technicians may have bachelor's degrees and significant work experience. Surveying technicians need high levels of skill in drawing diagrams, charts and maps; explaining charts and maps; planning land and water surveys; preparing technical or research reports; and surveying and measuring land.

Wages: The average annual wage for a surveying technician in North Dakota is \$41,520. This is slightly below the national average annual wage of \$42,680. In North Dakota, the beginning hourly wage is \$12.43, which increases to \$30.97 with experience and training. There is an increasing demand for surveying technicians in North Dakota and a stable demand nationally.

Other information: Every state requires survey technicians to be licensed. The National Council of Examiners for Engineering and Surveying offers a 4-step national licensing process for surveying technicians. Candidates must first complete the appropriate level of education, then pass a Fundamentals of Surveying exam, followed by gaining the necessary amount of work experience, and finally passing the NDEES' Principals and Practices of Surveying exam. As with other careers, military service offers excellent training and experience as a surveying technician.

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