

## **GEOGRAPHIC INFORMATION SYSTEMS TECHNICIAN**

**DEFINITION:** Under general supervision, performs specialized work of moderate difficulty in database maintenance to ensure reliable and accurate geographic information services to assigned programs or departments; produces hard copy digital maps and spatial analyses using Geographic Information System (GIS) software; performs related work as assigned.

**ESSENTIAL FUNCTIONS:** This list is ILLUSTRATIVE ONLY and is not a comprehensive listing of all functions and tasks performed by incumbents of this class.

### **TASKS:**

Performs maintenance of large geographic information database files including adding, deleting, correcting, and archiving data from various sources and database information systems such as land parcels, tables, and projects; collects, verifies and organizes potential GIS data; creates digital images of maps and photographic pictures using format scanners; inspects graphic and attribute information to find logical inconsistencies with the data and to ensure data validity; performs updates to the GIS data; produces digital map input maps using digitizing board; performs limited spatial analyses using GIS software.

Provides oral and written information and responds to inquiries from public and private agencies as well as programs and departments regarding maps, etc.; assists users and user groups in determining and communicating information needs; installs, upgrades and tests geographical information system software and other related software; may assist in the maintenance and administration of Local Area Networks (LAN); assists users of geographic information systems databases with generation of ad hoc reports; may troubleshoot problems with computer hardware and software; refers major problems to technical personnel.

### **KNOWLEDGE, SKILLS AND OTHER CHARACTERISTICS:**

Knowledge of methods, principles and practices used in map preparation and cartography.

Knowledge of the principles, standards, terminology and trends in Geographic Information Systems and related software such as ARC/INFO, ARC View, etc.

Knowledge of large database file maintenance.

Knowledge of modern office procedures and practices.

Knowledge of filing, indexing, cross referencing methods.

Knowledge of uses of common office materials and machines in a modern information processing environment.

Skill in operating a computer keyboard proficiently; within the GIS context.

Skill in reading and interpreting a wide variety of documents, including maps, base maps, aerial photography, site plans, construction plans, applicable policies and procedures, and hardware and software instructions.

Skill in performing mathematical calculations associated with the work.

Skill in communicating effectively, orally and in writing.

Skill in establishing and maintaining cooperative and effective relationships with those contacted in the course of work.

**PHYSICAL REQUIREMENTS AND WORK ENVIRONMENT:** Majority of work is performed indoors with occasional field visits. Work also requires manual dexterity; prolonged sitting and standing; flexibility to work for prolonged periods on digitizer. May require lifting, carrying and moving computer equipment and peripherals weighing up to 50 pounds with potential exposure to dirt, heat and humidity when installing computer cabling in ceilings or crawl spaces.

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**MINIMUM QUALIFICATIONS:**

- A high school diploma or GED; supplemented by a minimum of twelve (12) college credits in Geographic Information Systems (GIS) Technology, Computer Science; and two (2) years of experience working with Geographic Information Systems.

**PREFERRED QUALIFICATIONS:**

- An Associate's degree in Geographic Information Systems (GIS) Technology, Computer Science, Urban Planning or related field.
- Graduation from a technical school with an emphasis or course work in GIS technology, Computer Science, Urban Planning or related field.
- Experience in working with GIS and Global Positioning Systems (GPS).
- Certification in GIS/GIT applications.

**SPECIAL REQUIREMENTS:**

- Possess a valid state driver's license.

**Supplemental Requirements:**

Incumbent must obtain a Navajo Nation Vehicle Operator's Permit within 90 days of date of hire.

Depending upon the needs of the Nation, some incumbents of the class may be required to demonstrate fluency in both the Navajo and English languages as a condition of employment.