



**University of Texas at El Paso
Job Description**

Job Code: 4550
Job Title: GIS Analyst
Department: Regional Geospatial Service Center
Reports to: Center Director
FLSA Status: Exempt
Prepared by: Human Resources
Creation/Revision Date: October 18, 2010

Summary: Collects, analyzes, and interprets geographic information data, aerial photographs, and satellite data. Collect data using global positioning system and incorporate with data provided by geodetic surveys. Researches, studies, and prepares maps and other spatial data in digital or graphic form for a variety of field in engineering, science, education and social sciences. Knowledge of geographic information system (GIS) both its theory and applications and the knowledge of using GIS software.

Note: The primary accountabilities below are intended to describe the general content of and requirements of this position and are not intended to be an exhaustive statement of duties. Incumbents may perform all or some of the primary accountabilities listed below. Specific tasks or responsibilities will be documented in the incumbents' performance objectives as outlined by the incumbents' immediate supervisor or manager. This position is security-sensitive and subject to Texas Education Code §51.215, which authorizes the employer to obtain criminal history record information. Must possess a valid driver's license issued by the State where the applicant resides and must be insurable as defined in the UT System BPM 16-05-02, as applicable to the performance of essential duties and responsibilities of the position.

Statement of Duties and Responsibilities:

- Provides GIS, database, and mapping support as a member of various project teams.
- Performs and assists in GIS tasks associated with modeling, analyses and mapping.
- Produces detailed map graphics for a diversity of projects using various graphics and software applications.
- Manages individual project tasks related to GIS, database design and management, mapping, and data acquisition.
- Participates as a team member on various projects.
- Works on multiple projects simultaneously and under tight deadlines.
- Works in a production-oriented environment.
- Builds and updates digital databases.
- Collects information about specific features of the Earth using GPS, aerial photography and other digital remote sensing techniques.
- Compiles data required for map preparation, including aerial photographs, survey notes, records, reports, and original maps.
- Delineates aerial photographic detail such as control points, hydrography, topography, and cultural features using precision stereoplottting apparatus or drafting instruments.
- Determines guidelines that specify which source material is acceptable for use.
- Determines map content and layout, as well as production specifications such as scale, size, projection, and colors, and direct production to ensure that specifications are followed.
- Examines and analyzes data from ground surveys, reports, aerial photographs, and satellite images to prepare topographic maps, aerial-photograph mosaics, and related charts.
- Identifies, scales, and orients geodetic points, elevations, and other planimetric or topographic features, applying standard mathematical formulas.
- Inspects final compositions to ensure completeness and accuracy.
- Prepares and alters trace maps, charts, tables, detailed drawings, and three-dimensional models of terrain analysis using stereoscopic plotting and computer graphics equipment.
- Revises existing maps and charts, making all necessary corrections and adjustments.



Selects aerial photographic and remote sensing techniques and plotting equipment needed to meet required standards of accuracy.

Studies legal records to establish boundaries of local, national, and international properties.

Perform ground truthing, identify, record, and verify all relevant features.

May design and evaluate algorithms, data structures, and user interfaces for GIS and mapping systems.

Knowledge of all Microsoft Office software and able to learn and use institutional software systems.

Complies with all State and University policies.

Other duties may be assigned.

Supervisory Responsibilities: Carries out supervisory responsibilities in accordance with the organization's policies and applicable laws.

Qualifications: To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Minimum Education required: Bachelor's Degree.

Minimum Experience required: Three years of experience, related to the statement of duties and responsibilities; or equivalent combination of education and experience. Knowledge of ArcInfo, ArcGIS, and/or ArcView use to support projects including data creation, data editing/modification and analysis. Knowledge of ESRI data models including ArcInfo coverages, shapefiles, and geodatabases. Excellent written and communication skills. Strong cartographic skills. Experience collecting data using GPS units and developing GIS applications. Solid understanding of GIS concepts and practices. Solid knowledge of spatial data transformation, management, manipulation, modeling, and analysis.

Physical Demands: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to sit; use hands to feel; reach with hands and arms and to talk or hear. The employee is occasionally required to stand; walk and stoop, kneel, crouch or crawl. The employee must occasionally lift and move up to 25 pounds.

Work Environment: The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The noise level in the work environment is usually moderate.