

*Code: 1457*

*Title: GEOGRAPHIC INFORMATION SYSTEMS (GIS) ANALYST-SENIOR*

**SUMMARY:** This classification supervises and participates in the design and implementation of complex spatial-analytical models, products and services, including database management and thematic mapping, using Automated Mapping/Facilities Management and/or Geographic Information System (AM/FM/GIS) programs in a relational database environment. This classification also performs independent and cooperative AM/FM/GIS systems analysis, design, implementation and maintenance, and performs related administrative and project-coordination work.

**DUTIES/RESPONSIBILITIES:** (Work assignments may vary depending on the department's needs and will be communicated to the applicant or incumbent by the supervisor.)

Leads other technical staff and participates in the production of AM/FM/GIS and related products and services;

Meets with service requestors of products or services to better define their needs or identify problems encountered;

Performs or programs complex GIS analysis, programming and processing tasks through use of design analysis routines for determining the presentation of data;

Develops and implements complex AM/FM/GIS analysis procedures;

Directs development and implementation of quality control procedures for AM/FM/GIS programs, procedures, services and products;

Creates and documents new and revised AM/FM/GIS systems applications, programs and data sets;

Maintains job control and related documentation for budget tracking and planning purposes;

Assists division manager in the development and maintenance of departmental long-term plans, programs and budgets;

Participates in GIS database design, development and modification program with other technical staff;

Leads others in complex special AM/FM/GIS projects;

Evaluates and makes recommendations to management for acquisition of AM/FM/GIS software, hardware and peripheral equipment;

Assigns, reviews and evaluates the work of assigned staff;

Coordinates, reviews and approves the work of other staff engaged in unique or complex AM/FM/GIS projects;

Trains staff in AM/FM/GIS processing and database maintenance functions.

#### **KNOWLEDGE & SKILLS:**

Knowledge of:

- principles, techniques and applications of AM/FM/GIS data, imagery, metadata, programming and analysis, geographic database management, cartographic illustration, graphics programs, and quality-control for information automation, maintenance, processing, delivery and display;
- performing and programming spatial analysis and/or queries with AM/FM/GIS or other software;
- AM/FM/GIS computer hardware, software and peripheral devices;
- programming language(s) appropriate to area of assignment;
- database design and application in a distributed processing environment;
- cartography, map-reading, spatial geometry and mathematics;
- computer-based mapping and digitizing procedures;
- principles and practices of project planning, management, and budgeting;
- effective supervision, training, and communication techniques.

Skill in:

- analyzing, designing, revising and documenting AM/FM/GIS systems applications, programs and databases;
- developing and applying quality control measures in a GIS environment;
- identifying, analyzing, and resolving programming problems applicable to AM/FM/GIS systems, to include problem-avoidance;
- using appropriate programming language(s);
- operating and applying AM/FM/GIS computer hardware, software and peripheral devices;
- project planning, management, control and budgeting;
- supervising, training and communicating effectively.

MINIMUM QUALIFICATIONS:

EITHER:

(1) A Bachelor's degree from an accredited college, university or technical school in Geographic Information Systems (GIS), Automated Mapping/Facility Management (AM/FM), Computer Aided Drafting (CAD), remote sensing, cartography, geography, planning or landscape architecture and two (2) years of technical experience in geographic information processing (e.g., AM/FM, CAD/CADD, GIS, etc.).

OR:

(2) An Associate's degree from an accredited college, university or technical school in Geographic Information Systems (GIS), Automated Mapping/Facility Management (AM/FM), Computer Aided Drafting (CAD), remote sensing, cartography, geography, planning or landscape architecture and four (4) years of technical experience in geographic information processing (e.g., AM/FM, CAD/CADD, GIS, etc.).

OR:

(3) Six (6) years of technical experience in the support and maintenance of a computerized AM/FM/GIS or CAD/CADD database, which included the production of maps, plats and cartographic reports, products and services.

OR:

(4) Two (2) years of experience with Pima County as a Geographic Information Systems (GIS) Analyst.

OTHER REQUIREMENTS:

Licenses and Certificates: Some positions may require a valid Arizona driver's license at the time of appointment or prior to completion of initial/promotional probation.

Special Notice Items: Some positions may require satisfactory completion of a personal background investigation, polygraph examination and/or pre-/post-appointment drug-testing by law enforcement agencies due to need for access to law enforcement, corrections or Courts facilities, property and associated confidential and sensitive information, documents, communications and database systems.

Physical/Sensory Requirements: Physical and sensory abilities will be determined by position.

This class specification is intended to indicate the basic nature of positions allocated to the class and examples of typical duties that may be assigned. It does not imply that all positions within the class perform all of the duties listed, nor does it necessarily list all possible duties that may be assigned.