

Code: 1456

Title: GEOGRAPHIC INFORMATION SYSTEMS ANALYST

SUMMARY: This classification designs and implements 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 distributed relational database environment.

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

Performs or programs complex GIS analysis and processing tasks by using ARC Macro Language (AML), ARC/INFO routines and/or LISP programs and Visual Basic for Applications to produce complex reports, maps and related GIS products and services;

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

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

Identifies data-linkage needs and develops software interfaces for data exchange among distributed databases;

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

Develops and/or implements quality control procedures for AM/FM/GIS programs, procedures, services and products;

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

Plans and sequences processing steps for database maintenance, automation and quality control;

Participates with technical staff in hardware/software needs analysis and database design;

Evaluates and makes recommendations to management for acquisition of computer hardware and software;

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

May directly supervise staff.

KNOWLEDGE & SKILLS:

Knowledge of:

- principles, techniques and applications of AM/FM/GIS programming and analysis, geographic database management, cartographic illustration, computer-based graphics programs, and quality-control for information automation, maintenance, processing and display;
- AM/FM/GIS computer hardware, software and peripheral devices;
- performing and programming spatial analysis and/or queries with AM/FM/GIS or other software;
- programming language(s) appropriate to area of assignment;
- relational database design and application in a distributed processing environment;
- cartography, map-reading, geometry and mathematics;
- computer-based mapping and digitizing procedures;
- principles and practices of project planning and management;
- effective leadership, 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 problems/needs applicable to AM/FM/GIS systems;
- using appropriate programming language(s);
- operating and applying AM/FM/GIS computer hardware, software and peripheral devices;
- project planning, management and control;
- leading, training, and communicating effectively.

MINIMUM QUALIFICATIONS:

EITHER:

(1) A Bachelor's degree from an accredited college or university in Geographic Information Systems (GIS), Automated Mapping/Facility Management (AM/FM), Computer Aided Drafting (CAD), remote sensing, cartography, geography, planning, landscape architecture, programming, computer science, management information systems.

OR:

(2) An Associate's or higher-level degree, diploma or certification from an accredited college, university, vocational or technical school in programming, Computer Aided Drafting (CAD), computer science, management information systems, cartography, geography or remote sensing AND two 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:

(3) Four 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 years of experience with Pima County as a Geographic Information Systems Technician.

OTHER REQUIREMENTS:

Licenses and Certificates: Some positions require a valid Arizona Class D driver license at the time of application or prior to completion of initial or promotional probation period. Failure to obtain/maintain the required licensure shall be grounds for termination.

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.