GIS (GEOGRAPHIC INFORMATION SYSTEM) SPECIALIST

JOB DESCRIPTION

Classification Responsibilities: A GIS (Geographic Information System) Specialist creates, develops, and maintains GIS databases, shape/coverage/layer data, and linkages to various databases. A GIS Specialist may be assigned to a department or unit, and coordinates GIS data or information that may have specific department/unit or Citywide implications. Duties include entering data into the GIS, providing GIS support to an assigned area, creating reports, and producing maps. The GIS Specialist performs programming and analytical project responsibilities which include: planning, developing, analyzing, and performing quality control functions to geographic related systems in support of the City's GIS; and may provide guidance and instruction to other City employees on GIS applications and practices. By assignment, this class may supervise or mentor GIS Technician classes. This class performs related duties as required.

Distinguishing Features: This class is distinguished from the GIS Technician classes by the responsibility of developing and performing complex spatial analyses and multiple database queries, and performing full supervisory duties *(by assignment)* of GIS Technician classes. This class is supervised by a GIS Supervisor, IT Engineer II, Management Assistant II, or administrative supervisor, depending on assignment. By assignment, this class may be required to be available on a 24-hour basis to cover emergency situations. This class is FLSA exempt-administrative.

QUALIFICATIONS

Employee Values: All employees of the City of Mesa are expected to uphold and exhibit the City's shared employee values of Knowledge, Respect, and Integrity.

Minimum Qualifications Required. Any combination of training, education, and experience equivalent to graduation from an accredited college or university with a Bachelor's Degree in GIS, Geography, Planning, Engineering, Computer Science, or closely related field. Good (1 - 3 years) experience working with GIS or a closely related field. A minimum of one-year experience in any of the following: ESRI technologies (ArcGIS Desktop and extensions, ArcGIS Server, ArcObjects), Intergraph, Microstation, personal geodatabases, SharePoint, or AutoCAD. Experience in using Microsoft Windows XP or Windows 10.

Special Requirements. Must possess a valid Class D Arizona Driver's License by hire date *(by assignment)*. Because of the confidential, sensitive nature of Public Safety assignments involving information systems, successful completion of an extensive background investigation and polygraph may be required *(by assignment)*.

Substance Abuse Testing. Due to the safety and/or security sensitive nature of the assignment, individuals in this classification shall be subject to pre-employment or pre-placement alcohol, drug and/or controlled substance testing as outlined in City policy and procedures *(Police Department Assignment)*.

Preferred/Desirable Qualifications. Experience in using Microsoft Access, Microsoft Excel, MSSQL is highly desirable. Experience in Visual Studio, C#, MapObjects, ArcFM, ArcSDE, Model Builder, Spatial Analyst, Network Analyst, 3D Analyst, Python, Computerized Maintenance Management System (CMMS), or Data Interoperability is desirable.

ESSENTIAL FUNCTIONS

One position may not include all of the essential functions, knowledge and abilities listed, nor do the listed examples include all the knowledge and abilities which may be found in positions of this classification.

Communication: Communicates with the general public, management, and other City employees. Provides recommendations and specifications through formal presentations of findings in order to communicate to management and ITD GIS technical staff. Prepares written reports with clearly-organized thoughts, and using proper sentence structure, punctuation, and grammar, in order to document work completed, procedures, issues related to GIS data, and status reports. Graphically communicates through maps and other visual presentation formats. Presents facts clearly and accurately. Performs problem resolution, documentation, and testing related to enterprise GIS and supported systems such as CMMS, CAD Dispatch, and Customer Information Systems (CIS).

Manual/Physical: Operates a motor vehicle requiring a standard Class D Arizona Driver's License to make field inspections, measurements, and field checks on completed work *(by assignment)*. Operates a variety of standard office equipment such as a personal computer (PC), telephone, calculator, printer, and plotter. Enters data into a computer terminal, PC, or other keyboard device requiring continuous or repetitive arm-hand-eye movement. Remains in a sitting position for extended periods of time. Distinguishes colors to input land and utility GIS data *(by assignment)*. Performs fine hand movements in the accurate use of drafting instruments. Meets scheduling and attendance requirements.

Mental: Oversees the process to convert paper and/or digital data into the City's GIS format. Performs quality assurance on converted GIS data to ensure conformance with City standards. Performs math calculations for GIS data analysis and map development. Develops new GIS applications. Seeks job-related knowledge through own initiative, by attending training courses, conferences, etc. Plans work and thinks conceptually, observes and evaluates trends, analyzes data, draws logical conclusions, and makes sound decisions and recommendations. Develops short- and long-term plans/goals regarding geographic mapping-related information. Comprehends and makes inferences from written material such as journals, trade papers, and specification sheets to evaluate new data and information systems. Makes recommendations to improve GIS functionality.

Knowledge and Abilities:

Knowledge of:

ESRI GIS software, such as ArcGIS Desktop and extensions, Geoprocessing Tools, and GIS data management, etc.;
digitizing and data manipulation procedures for GIS;
geodatabase design;

computer system designs;
project management tools;
network concepts; and
testing procedures, backup and recovery procedures, and security.

Ability to:

become familiar with industry-specific terminology and symbology such as Fire and Medical Department, Water/Wastewater, or Planning and Zoning;
learn existing GIS systems and business functions for an assigned area;
study procedures and operational methods, and make recommendations for improving efficiency and accuracy;
analyze complex problems, determine resolutions, and recommend action;
acquire knowledge and keep abreast of new technology trends through seminars, trade journals, and professional organizations;
recommend appropriate training and provide training to team members;
develop and test computer applications, using the City's preferred development tools for the recruited position;
plan how to accomplish assigned tasks;
work with a team or individually to identify and prioritize tasks needed to accomplish a project;
develop contingency plans for multiple tasks and projects;
establish and maintain effective working relationships with all City departments/units;
act as project leader on small projects, develop and use project management skills and tools;
contribute ideas;
maintain and update GIS data and related databases using GIS and other software;
complete mapping tasks in a timely manner and prioritize mapping requests;
apply quality control/quality assurance standards and practices to GIS data;
complete spatial analysis and database queries;
demonstrate continuous effort to improve operations, decrease turnaround times, streamline work processes, work cooperatively and jointly to provide seamless customer services; and
assist with Web development projects, which may include working on project teams with other City personnel.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included do not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.