



GIS ANALYST I/II

Class specifications are intended to present a description of the range of duties performed by the classification. Specifications are not intended to reflect all duties performed. Classifications will perform other related duties as assigned.

Definition:

Under general direction, this position performs a variety professional level duties in the operation, maintenance, database development, analysis and applications design of the City's geographic information system (GIS). The GIS Analyst serves as a technical resource for City-wide users

Classification Characteristics:

GIS Analyst I: This is the entry level of the GIS Analyst series. This class is distinguished from the GIS Analyst II by the performance of the less complex analytical functions and duties assigned within the series. The GIS Analyst I is typically used as a training class. Positions in this class are flexibly staffed and may advance to the GIS Analyst II level when training and experience is sufficient to perform at the full journey level. This position receives general supervision and may receive technical and functional supervision from higher level staff.

GIS Analyst II: This is the full journey level position in the GIS Analyst series. This class is distinguished from the GIS Analyst I by the performance of the full range of duties assigned including exercising independent judgment within established guidelines and regulations. Positions in this class are flexibly staffed and are normally filled by advancement from the GIS Analyst I level, or when filled from the outside, have prior experience. This position receives general direction and may exercise technical and functional supervision over lower level staff.

Essential Functions:

- Maintain the City's geographic information system; prepare a variety of maps, drawings, spreadsheets, data files and documentation; compile data for input into the system; develop, edit, automate and validate data layers; update and enhance the GIS database utilizing a variety of software; maintain the integrity of the GIS database; perform quality control check to ensure the accuracy of the data.
- Develop computer macros, scripts and programs for data integration and extraction of the GIS database and for automating repetitive tasks, administer ARC/Info and mapping activities.
- Design, create, plan, update and maintain maps, drawings, plans, spreadsheets, data files and documentation related to GIS.
- Perform maintenance of GIS-related hardware, including plotters, scanners, workstations, digitizers and GPS equipment; schedule back-ups as needed.
- Consult with other City departments regarding GIS needs and requirements, including identifying, designing and developing GIS applications, strategies and procedures; make strategic recommendations.

- Serve as a technical resource to City departments, including providing assistance and training in the proper use of GIS data and systems; recommend, troubleshoot and provide support for GIS software, databases and other related applications.
- Maintain the security of confidential, sensitive and proprietary information being processed; ensure the archival and safe storage of program and data files; maintain files in accordance to the City's retention schedule, including a log of all archived and stored data.
- Attend meetings, conferences, workshops and training sessions and review publications to remain current on principles, practices and new developments pertinent to GIS; monitor changes in GIS technology and applications to recommend improvements and upgrades to the City system.
- Prepare a variety of written correspondence, reports, procedures, policies and other materials.
- Participate in the development and administration of the GIS program budget.
- Maintain accurate records and files related to the GIS function.

GIS Analyst I Qualifications:

Knowledge of:

- GIS concepts and analytical techniques, including computerized mapping and digital data conversion.
- GIS software including ArcInfo, Arcview, ArcIMS, ArcSDE, ArcPad, ArcGIS Server and Spatial Analyst.
- Complex relational database management and principles.
- Principles and practices of troubleshooting computer hardware, software and network problems.
- Mathematics including algebra, geometry and trigonometry as applied to the computation of distances, angles and areas.
- Verbal and written communication skills including proper grammar.
- Modern office procedures, methods and computer software.
- Pertinent Federal, State and local laws, codes and regulations.

Ability to:

- Learn principles and practices of identifying technology needs and issues.
- Learn methods and techniques of research and program analysis.
- Administer contracts with outside service providers; monitor work quality and progress of work provided by outside service providers.
- Perform complex and difficult queries and analysis.
- Perform responsible work involving the use of judgment, flexibility, sensitivity and personal initiative.
- Effectively manage multiple projects and priorities.
- Research, analyze and evaluate programs, policies and procedures.
- Organize, consolidate and report statistical data.
- Prepare complex correspondence, memoranda and reports.
- Learn Federal, State and local laws, rules and regulations governing area of responsibility.
- Understand and follow oral and written instructions.
- Communicate clearly and concisely, both orally and in writing.

- Establish and maintain cooperative working relationships with those contacted in the course of work, including City staff and the public.
- Maintain physical condition, audio-visual discrimination and perception and mental capacity appropriate to the working conditions and the performance of assigned duties and responsibilities.

Experience and Training: *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

Experience:

Two years of responsible experience working with geographic information systems.

Training:

Equivalent to a Bachelor's Degree from an accredited college or university with major coursework in Geographic Information Systems, Geography, Computer Science, Cartography or a related field.

License or Certificate:

Possession of a California Class C Driver's License.

GIS Analyst II Qualifications:

Knowledge of:

- GIS concepts and analytical techniques, including computerized mapping and digital data conversion.
- GIS software including ArcInfo, Arcview, ArcIMS, ArcSDE, ArcPad, ArcGIS Server and Spatial Analyst.
- Complex relational database management and principles.
- Principles and practices of troubleshooting computer hardware, software and network problems.
- Effectively manage multiple projects and priorities.
- Mathematics including algebra, geometry and trigonometry as applied to the computation of distances, angles and areas.
- Technology, hardware and software and current applications related to GIS systems, including database management, mapping and report generation.
- Principles and practices of identifying technology needs and issues.
- Methods and techniques of research, program analysis and report preparation.
- Verbal and written communication skills including proper grammar.
- Research, program analysis and report preparation.
- Federal, State and local laws, rules and regulations governing area of responsibility.

Ability to:

- Understand the organization and operation of City departments as necessary to assume assigned responsibilities.
- Perform complex and difficult queries and analysis.
- Interpret and apply City and departmental policies and procedures.
- Perform responsible and difficult work involving the use of independent judgment, flexibility, sensitivity and personal initiative.

- Work independently in the absence of supervision.
- Administer contracts with outside service providers; monitor work quality and progress of work provided by outside service providers.
- Research, analyze and evaluate programs, policies and procedures.
- Organize, consolidate and report data.
- Independently prepare complex correspondence, memoranda and reports.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain cooperative working relationships with those contacted in the course of work, including City staff and the public.
- Maintain physical condition, audio-visual discrimination and perception and mental capacity appropriate to the working conditions and the performance of assigned duties and responsibilities.

Experience and Training: *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

Experience:

Three years of increasingly responsible experience in the design and development of geographic information systems and applications.

Training:

Equivalent to a Bachelor's Degree from an accredited college or university with major coursework in Geographic Information Systems, Geography, Computer Science, Cartography or a related field.

License or Certificate:

Possession of a California Class C Driver's License.

Working Conditions:

Work primarily in an office environment including sustained posture in a seated position for prolonged periods of time; standing and moving around work area. Subject to frequent interruptions and contact in person and on the telephone. Position requires grasping objects, repetitive hand movement and fine coordination including use of a computer keyboard. Occasionally stoop, bend, kneel, crouch, reach and twist. Speaking and acute hearing is required for responding to in-person and telephone inquiries. Vision is required for normal office work. The need to lift, carry, push and pull objects weighing up to 25 pounds is required.