



SENIOR INFORMATION SYSTEMS ANALYST

DEFINITION

Under general direction, performs a variety of difficult to moderately complex professional information technology duties or system analysis through effectively managed technological systems and solutions; coordinates in the design, development, analysis, implementation and maintenance of new and existing technology and information systems, including GIS and specialized computer applications; may provide direct and/or lead supervision to lower level professional, technical or clerical staff.

DISTINGUISHING CHARACTERISTICS

Incumbents in this senior-level classification are distinguished from the Information Systems Analyst by the complex nature of assignments and lead/coordinator roles assigned, which include coordinating the implementation of complex systems. Incumbents may lead a project team or provide expertise in information systems analysis, including definition of user requirements, feasibility studies, design, program specifications, testing, and implementation. They also assist departments in the development of project plans and system integration test plans for new systems or complex enhancements to existing systems. Incumbents have the ability to lead others, monitor schedules, and coordinate activities.

SUPERVISION EXERCISED

May train and provide functional supervision and/or direct supervision of subordinate staff.

EXAMPLES OF DUTIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to this classification.

Research, analyze, design and implement computer applications and information systems based on city and department needs.

Assess and trouble shoot technology problems; modify programs and software to improve service delivery.

Install, operate and maintain software programs; train staff in use of computer hardware and software.

Participate in developing recommendations for new hardware, software, and supplies.

Troubleshoot, analyze and resolve systems and applications hardware and software issues.

Provide technical advice and make recommendations regarding information systems.

Prepare statistical reports; document program and system changes and test programs.

Create, update and maintain GIS data base and web mapping applications; use ESRI software to create presentation graphics.

Maintain records of computer problems, complaints and resolutions.

Consult in partnership with departments to identify and address areas of potential automation of departmental functions.

Design and develop custom reports, screens, scripts, utility programs, menus and directories using standard software and development tools; develop, modify and generate queries, reports and data runs.

Train staff on applications and hardware/software operations and interfaces; provide users application tools, guides, procedures and rules; select and/or prepare training materials and hand-outs; coordinate and conduct training presentations and one-on-one training sessions.

Perform or assist in troubleshooting and diagnosing application and database performance problems using standard tools and utilities; investigate data discrepancies and program errors; analyze bottlenecks in slow-running processes; correct or assist in correcting the problems identified.

May coordinate the preparation of hardware and software specifications for procurement.

Develop test scenarios for complex systems.

Evaluate impact, perform cost/benefit analysis, analyze constraints, and assess risk.

Provide IT support and expertise.

Meet with departments to identify needs and information systems problems; suggest solutions and future directions to resolve issues and to identify needed improvements.

Develop implementation plans that align with and contribute to the attainment of departmental needs.

Provide technical advice and recommend policies, procedures enhancements, and the acquisitions of hardware, software, and services.

Provide supervision or leadership and mentoring lower level staff; coordinate and review the work of others, train and consult; provide input to or evaluate work performance, and facilitate problem solving.

Develop cost and budget analyses.



Conduct analytical studies of complex and sensitive systems or organizational issues; analyze proposals for immediate and long term policy and fiscal impacts on specific departmental operations and on a citywide basis; make recommendations based on findings.

Analyze and develop processes, procedures, work simplification, computer applications and methods of achieving intended outcomes.

Assist in the development of departmental goals, objectives, policies and procedures; recommend and implement changes in information systems and procedures.

Analyze procedures recommending improved methods, resolve and/or recommend resolutions of system and process deficiencies.

Participate in development and implementation of goals, objectives, policies and procedures.

Collaborate with other City staff by providing consultation services in areas of expertise.

Conduct citywide special projects and studies as needed.

Perform other related duties as assigned.

KNOWLEDGE, ABILITIES AND SKILLS

Knowledge of:

City organization, functions, policies, rules and regulations.

Standard office procedures, methods and computer equipment.

Problem-solving techniques and processes.

Computer hardware installation, replacement and repair.

Computer operating and applications software included but not limited to MS Office products, Adobe Acrobat, Adobe Illustrator, Adobe Photoshop and/or other graphics software, drafting, GIS software, and financial operation software systems and databases.

Operating characteristics of information systems equipment including host computers, printers, storage systems, controllers/multiplexers, communication switches, scanners, PC workstations/terminals and related peripheral devices.

Web design procedures and methods.

Principles and concepts of SQL, GIS and ESRI database administration.

Techniques used in project management and computer security.



Principles of architecture, maintenance and operation of digital computer and electrical systems.

Database backup, restoration and recovery of files.

Principles and techniques of software and system quality assurance and control.

Principles and practices of technical problem solving.

Team dynamics and team building.

Principles, practices and techniques of customer service.

Basic systems and network architecture and design concepts and associated hardware, operating system software and protocols.

Methods and practices involved in applications testing, documentation and implementation including quality assurance, conversion, data reconciliation and user training.

Methods and techniques for troubleshooting hardware and software including performing connectivity testing and network analysis and problem resolution.

City ordinances, codes, procedures and practices regarding computer hardware and software.

Methodologies for Information Technology (IT) analysis to evaluate a current or proposed system.

Principles and practices of employee supervision, training, evaluation, motivation and discipline.

Principles and practices of supervision, training and performance evaluation.

Ability and Skill to:

Function effectively with minimal supervision and use independent reasoning to solve complex problems and develop recommendations for action.

Operate office equipment including computers, copying machines and phone systems.

Create, read and interpret electrical/electronic schematics, system network diagrams, plans, blueprints and electrical wiring diagrams.

Maintain the integrity and confidentiality of information.

Apply critical thinking skills to reach sound, logical conclusions regarding user needs and departmental needs.

Design, develop and deliver a variety of reports and analytical tools for customers.



Establish priorities and balance responsibilities for multiple activities to ensure timely, high-quality results.

Install hardware, network and communications systems.

Read and understand schematics and technical instructions and technical manuals, journals, literature and related documents.

Perform complex maintenance tasks on analog and digital equipment.

Identify and solve technology related problems.

Supervise, schedule, and evaluate the work of subordinate personnel.

Promote and maintain a team environment.

Maintain effective working relationships with other staff and customers.

Understand highly complex information technology systems and methodologies.

Make technical oral presentations to technical and non-technical audiences.

Analyze and solve problems at a conceptual level.

Prepare statistical reports.

Plan and organize work to meet schedules and timelines.

Communicate clearly both orally and in writing.

Analyze problems, identify solutions, project impacts of proposed actions and implement recommendations.

Research, collect, compile and analyze information and data and organize work to meet schedules and timelines.

Exercise discretion in confidential matters.

Establish, maintain and promote positive and effective working relationship with employees, public and other agencies.

Plan, organize, review the work of and train and supervise subordinate staff.

Perform duties of an emergency worker in the event of a natural or other disaster.



QUALIFICATIONS

Any combination of education and experience that would provide the required knowledge, abilities and skills is qualifying. A typical way to obtain the qualifications would be:

BA/BS degree in computer science or related field and five (5) years of recent, full-time, and increasingly responsible professional experience in information systems analysis and design, network information technology experience including GIS knowledge.

LICENSE OR CERTIFICATE

Possession of a valid Class C California Driver's License and a good driving record.

ESSENTIAL JOB FUNCTIONS/A.D.A.

Ability to operate computer, calculator, telephone, portable radio, copying machine and cash register.

Ability to understand and respond to the public's and staff's requests for assistance both on the phone and in person.

Ability to prepare reports, perform mathematical calculations, count money and sort/file documents.

Ability to sit for two hours at a time.

Ability to lift up to 25 pounds.

Ability to climb a footstool or ladder for the purposes of retrieving records and/or installing cabling/equipment.

Ability to get from one location to another in the course of doing business.

