

INFORMATION SYSTEMS ANALYST SERIES

E231 – INFORMATION SYSTEMS ANALYST III

FLSA Status – Non-Exempt

EEO Code – B/Professional

Class Code – E231

GENERAL DEFINITION OF THE SERIES

The Information Systems Analyst series performs professional level information systems duties in support of City internal customers and external customers' computer systems across multiple platforms and technologies. These positions perform highly technical duties in support of the City's communication systems including voice, data and cellular systems; provide technical support and assistance to City information systems or communication systems users; and perform a variety of duties relative to assigned areas of responsibility.

INFORMATION SYSTEMS ANALYST I (E500)

DISTINGUISHING CHARACTERISTICS

The Information Systems Analyst I is the entry-level class in the Information Systems Analyst series. This class is distinguished from the Information Systems Analyst II by the performance of more routine tasks and duties assigned to positions within the series including support of the least complex systems. Since this class is typically used as a training class, employees may have only limited or no directly related work experience.

SUPERVISION RECEIVED AND EXERCISED

This position receives immediate supervision from the Information Systems Director and may receive assignments and direction from higher classification Information Systems Department staff. This position does not have supervisory responsibilities.

QUALIFICATIONS

Knowledge of:

- Basic theories and applications of computer science;
- Basic principles and practices of information systems programming;
- Personal computer hardware and software components;
- Basic methods and techniques used in the installation, trouble shooting, upgrading and problem resolution of information systems hardware and software;
- Operational characteristics of various computer programs, networks, software packages and programming languages;
- Basic methods and techniques of communications software installation;
- Basic principles and practices of communications hardware and software systems;
- Telecommunication service requirements, methods, terminology and billing;
- Principles and practices of software troubleshooting;
- Current technology of wired and wireless voice and networked data communications;

Principles and practices of electronic telephone station equipment operation and

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- interaction with lines and line features;
- Principles and practices of testing, maintaining, and repairing communications hardware and software;
- Principles and practices of voice mail operation, programming, mail box creation and system administration; and
- Principles and practices of customer service.

Ability to:

- Provide technical support for the implementation and maintenance of various systems hardware and software components;
- Create various reports, charts, and other materials from multiple layers of data stored in City databases;
- Respond to and identify user needs and determine solutions;
- Learn methods and techniques of systems analysis, design, development, and programming;
- Learn to recommend, design, implement and install computer software or telecommunication system applications;
- Learn to apply a wide variety of computer programming languages;
- Learn to install, troubleshoot, and upgrade City information systems;
- Learn to evaluate, test, implement, and support new operating systems;
- Learn to analyze and assess the technological needs of City departments;
- Learn to monitor, maintain, and administer a variety of operating systems;
- Troubleshoot communication equipment problems;
- Operate a variety of communications systems and equipment;
- Perform routine systems analysis duties;
- Communicate clearly and concisely, both orally and in writing;
- Establish and maintain effective working relationships with those contacted during the course of work; and
- Maintain effective audiovisual discrimination and perception needed for making observations, communicating with others, reading, writing, and operating assigned equipment.

INFORMATION SYSTEMS ANALYST II (E231)

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DISTINGUISHING CHARACTERISTICS

This is the full journey level class within the Information Systems Analyst series. Employees within this class perform the full range of duties as assigned. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Information Systems Analyst III in that the latter supports, administers, and maintains large or complex systems and may serve in a project lead capacity on specialized information systems or communication systems projects.

SUPERVISION RECEIVED AND EXERCISED

The Information Systems Analyst II receives general supervision from the Information Systems Director.

QUALIFICATIONS

In addition to the qualifications for Information Systems Analyst I:

Knowledge of:

- Data structures, design and programming;
- Methods and techniques of system analysis design, development, and programming;
- Principles and procedures of quality assurance and security related to computer information systems or communication systems;
- Methods and techniques of file manipulation and data validation;
- Principles and practices of computer science and information systems;
- Methods and techniques of statistical analysis, research and report design;
- Principles and concepts of network technology;
- Principles and practices of software troubleshooting;
- Methods and techniques of communication software installation;
- Principles and practices of communications hardware and software systems;
- Principles and practices of software troubleshooting;
- Principles and practices of communications project coordination;
- Principles and practices of trunking call carrying capacities, traffic loading, and interpretation of traffic studies;
- A variety of computer and network operating systems; and
- Methods and techniques used in the installation, troubleshooting, problem resolution and maintenance of information systems hardware and software.

Ability to:

- Recommend, implement and install computer or communication system hardware and software;
- Apply a wide variety of computer programming languages;

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- Detect, isolate and resolve information systems problems;
- Analyze and assess the technological needs of City department;
- Train users in new hardware and software;
- Develop, install, and troubleshoot and upgrade City information systems;
- Evaluate, test, implement, and support new operating systems;
- Analyze and assess the technological needs of City departments;
- Independently perform a variety of responsible systems analysis duties;
- Monitor, maintain and administer a variety of network operating systems;
- Provide detailed technical specifications for acquiring new or updated computer systems;
- Oversee and coordinate new installation, system moves, and service upgrade projects; and
- Manage communication network traffic and maintain network routing.

INFORMATION SYSTEMS ANALYST III (E230)

DISTINGUISHING CHARACTERISTICS

This is the advanced journey level class in the Information Systems Analyst series. Employees perform the most difficult and responsible types of duties assigned to classes within this series including maintaining large or complex City systems, and serving in a project lead capacity on specialized information systems or communication systems projects. Employees at this level are required to be fully trained in all procedures related to assigned area of responsibility.

SUPERVISION RECEIVED AND EXERCISED

This position receives direction from the Information Systems Director and may provide lead direction to assigned project staff.

QUALIFICATIONS

In addition to the qualifications for Information Systems Analyst II:

Knowledge of:

- Principles of lead supervision;
- Personal computer and network architecture;
- Principles, practices, methods and techniques of providing information systems;
- Relational database concepts and principles;
- Methods, techniques, principles and practices of integrating a variety of operating systems across multiple platforms;
- Operational characteristics of specialized systems including geographical information systems;
- Advanced methods and techniques of evaluating client information technology or

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voice and data communication system requirements;
Advanced programming techniques including integrated database management applications;
Operational characteristics and capabilities of database management systems;
Basic principles, practices, methods and techniques of leading information systems and telecommunication systems projects;
Methods and techniques of evaluating client information technology or voice and data communication requirements;
Advanced methods and techniques of system analysis design programming and software installation;
Advanced principles and practices of computer science and information systems;
Advanced principles and practices of information systems programming;
Advanced principles and practices of information systems or communication systems hardware and software troubleshooting;
Networking protocols, standards, security and technology;
Operational characteristics of multiple operating systems and platforms;
Operational characteristics of local and wide area networks; and
Methods and techniques of designing, developing, installing and maintaining local and wide area networks.

Ability to:

Lead, organize, and review the work of professional and technical Information Systems Department and external customers' staff;
Perform highly advanced programming and database management duties;
Design, develop, install and troubleshoot and upgrade City information systems or communication systems;
Oversee quality assurance and security procedures for computer systems;
Serve as project leader on assigned information systems or communication systems projects;
Perform highly advanced systems analysis and programming duties;
Install, test, and configure hardware and software applications and programs; and
Design, evaluate, test, implement and maintain a variety of operating systems and supporting hardware and software applications;

EXAMPLES OF WORK FOR THE INFORMATION SYSTEMS ANALYST SERIES—Any one position may not include all of the duties listed nor do the listed examples include all tasks, which may be found in positions of this series.

1. Install and maintain computer systems hardware and software; provide technical assistance to system users in accordance with applicable information systems policies, procedures, methods and techniques.

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2. Perform system analysis duties in the design, development, implementation and maintenance of information systems and supporting computer hardware and software applications. Develop optimum software configurations to achieve operating system functional goals; prepare and update user manuals and system documentation; troubleshoot and rectify computer system problems; evaluate new software/hardware and recommend changes as needed.
3. Participate in the evaluation and testing of system upgrades; install or upgrade in-house or vendor system software applications; troubleshoot hardware and software related problems; monitor overall systems performance to ensure achievement of system upgrade objectives.
4. Perform system maintenance activities on various files; monitor system disks for space; maintain system security; reset user passwords; grant or revoke system access;
5. Respond to requests from users regarding system operations; provide assistance to programming and operations personnel in the utilization of software and in resolving related systems problems.
6. Assist in implementing report generation programs; prepare a variety of accurate technical reports on operations and activities;
7. Create various reports, charts, and other materials from multiple layers of data stored in City databases; assist in database maintenance and quality control;
8. As assigned, provide support to local area networks; create and modify user accounts; maintain electronic mail access; install and configure hardware and software; enable local area network connection; maintain file servers; monitor network performance; troubleshoot network problems; coordinate maintenance and repair with information systems or vendor staff.
9. As assigned, perform database administration duties; provide support to programming staff in planning, designing, and implementing databases; maintain database security and user access; design, create, and maintain tables, files, libraries, and indexes to support computer applications using database management systems; monitor database performance and troubleshoot problems; monitor and maintain space allocation for databases and files.

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10. As assigned, serve a project lead over all aspects of assigned information systems or communication system projects; evaluate and assess client needs; identify and allocate resources including staff, equipment, materials; set project priorities, goals and objectives.
11. Perform highly technical duties in support of the City's telecommunication services including voice, data and cellular systems; plan, design, and implement communications projects; coordinate activities with internal and external resources.
12. Plan and coordinate telecommunications projects; inventory current lines, circuits, hardware and software; confer with client to determine service needs and technical details of hardware and software required; design solution and develop system specifications; research and analyze available services; prepare recommendations on services to be performed; provide cost estimates and present recommendations.
13. Coordinate and oversee installation of communications infrastructure cabling and installation; review projects within internal and external staff including information systems staff, engineers, facilities managers and other involved groups.
14. Plan, prioritize, delegate, and review the work of assigned staff; establish schedules and methods for achieving goals and objectives; review work products; make corrections, and coordinate staff training and development as appropriate.
15. Prepare and present project progress reports for department management or committee; identify problems and issues; recommend solutions.
16. Oversee quality assurance procedures for information system or communication services; review new application software for compliance with applicable quality assurance standards before implementation.
17. Monitor and control communications equipment, devices and peripherals; assign and program communications equipment; coordinate major equipment repairs; locate vendors and ship parts as needed for repairs; arrange for vendor to perform on-site repairs.
18. Coordinate user training, education, and problem-solving sessions; develop training materials; counsel users on programs and services; conduct training programs; develop documentation for user problems solving including system and user manuals.

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19. Attend and participate in professional group meetings; stay abreast of new trends and innovations in the field of information systems or telecommunication systems technology.

20. Perform related duties and responsibilities as required.

PHYSICAL DEMANDS

Essential and marginal functions may require maintaining physical condition necessary

for sitting for prolonged periods of time; moving computer equipment (up to 50 lbs) using hand trucks and proper lifting techniques; extensive use of computer keyboard; extensive verbal and electronic communication with system users; near visual acuity for performing programming or software installation functions. Reasonable accommodation will be made to qualified individuals with a disability and known limitations.

WORKING CONDITIONS

The Information Systems Analyst I, II, and III perform work in an office environment and have exposure to computer screens. These positions are subject to 24-hour call back for emergency situations and hours beyond the normal work schedule may be required

Approved By _____ **Date** _____
(Department Director)

Adopted By _____ **Date** _____
(Signature of City Manager)

Established: 7/98 (Information Services Specialist, LAN Administrator, and WAN Administrator)

Revised: 6/00 (Information Systems Analyst I, II, III Series)

Revised 05/01

Revised 06/08