

**SR. INFORMATION TECHNOLOGY ANALYST****DEFINITION**

Under general supervision, performs the more difficult, complex and specialized professional, technical and analytical duties including: analysis of customer and system requirements; development, implementation, and maintenance of complex enterprise and departmental computer systems and networks; this class may coordinate, direct, and review the work of other professional and support IT staff but is not considered a supervisory class; performs related work as assigned. Incumbents will be assigned to one of the following options: Database Administration, Office Systems, Operating Systems, Enterprise/Department Applications, or Networking/Telecommunications.

**DISTINGUISHING CHARACTERISTICS**

This class is an advanced specialist level in the Information Technology Analyst series. Positions at this level are distinguished from the Information Technology Analyst I/II in that it requires a greater level of professional expertise in a specialized area of information technologies. Incumbents are expected to independently perform a full range of complex and difficult Information Technology Analyst duties at an advanced level. Successful performance requires thorough knowledge of and demonstrated proficiency in the technologies appropriate for the specific option to which assigned. The incumbent should exercise initiative and sound independent judgment within established guidelines. This class may provide lead direction or limited supervision to professional and support staff, but is distinguished from Supervising Information Technology Analyst in that the latter is the first full supervisory level in the Information Technology Analyst series.

**EXAMPLES OF DUTIES (Illustrative Only)**

- May provide lead direction, training, work review and evaluation to a small staff; organizes and assigns work, sets priorities and follows up to ensure coordination and completion of assigned work.
- May provide input into performance evaluations and disciplinary matters.
- May counsel staff; recommend appropriate discipline and other personnel actions.
- Plans, determines requirements, designs, builds, tests, implements, maintains and enhances complex and specialized business, department or Countywide systems.
- Analyzes, designs, tests and implements assigned complex projects which may encompass multiple technologies.
- Integrates complex or specialized information technologies.
- Acts as liaison between vendors, technical support and system users to resolve system, network or telecommunications problems; designs, coordinates and implements corrective measures.
- Designs and models enhancements and other modifications against hardware and software configurations to optimize the utilization of resources.
- Determines needs, develops plans and implements solutions to meet the needs of customers.
- Researches to determine feasibility, advises and recommends appropriate uses of information technology.
- Develops and implements comprehensive test plans to ensure that information technology components are tested and debugged.
- Resolves complex technical problems; provides training and assistance to staff in area of specialty.
- Monitors and enforces security procedures.
- Installs third party software; modifies software as necessary to meet specific customer requirements; installs vendor supplied maintenance and enhancements.
- Determines proper installation parameters for software/hardware for smooth integration, transition and efficiency.

- Provides assistance and training for customers as needed.
- Monitors and collects data on system performance.
- Plans, develops and implements backup and recovery procedures.
- Determines and adjusts thresholds for system resources.
- Participates in and/or directs projects related to assigned specialty.

## **QUALIFICATIONS**

### **Knowledge Of:**

#### **All Options**

- Principles of computer and information processing.
- Business systems applications.
- Principles and techniques of software and systems quality assurance and control.
- Principles and practices of technical problem solving.
- Principles, processes, and techniques of project management and related software.
- Methods of long-term technology assessment and deployment.
- Principles, practices and techniques of providing customer service.
- Design, installation and maintenance of enterprise, distributed, client/server and desktop computer systems.
- Principles and practices of producing effective project and technical documentation.
- Restart and recovery concepts.
- Information technology standards.
- Current trends and technological advancements.
- Supervisory principles and practices including work planning and scheduling, work review and evaluation, employee training and discipline, and team dynamics and team building.

#### **Database Administration Option**

- Database management systems (DBMS).
- Application of business requirements to database design.
- Logical data schema.
- Database CASE tools.
- Data/file management tools.
- Database utilities.
- Methods and techniques of file and data backup and recovery.
- Database security methods and techniques.
- Physical control standards and procedures.

#### **Office Systems Option**

- Countywide office systems standards, policies and procedures.
- Fundamentals and concepts of designing customer hardware, software, and connectivity solutions to meet specific customer business requirements.
- Principles and practices of training, instructing and supporting customers.
- Concepts of installation, configuration, and testing of internal hardware components.
- Planning required for installation and testing of systems in diverse customer environments.
- Office systems maintenance, monitoring and troubleshooting methodologies.
- Architecture of operating systems and network operating systems.
- LAN/WAN logical and physical design.
- Applied integration of office systems hardware and software in an enterprise-wide environment.
- Office systems software internal functions and customer interfaces.
- Communication techniques to convey hardware and software issues to customers.
- Installing and configuring desktop OS/NOS/office systems software.

### **Operating Systems Option**

- Fundamentals and concepts of enterprise, distributed, network, client/server and desktop computer operating systems.
- Computer systems configurations.
- Operating systems architecture, structure, operations, and utilities.
- Operating systems and systems utilities version control principles.

### **Enterprise/Department Applications Option**

- Definition of technical specifications from customer and business requirements.
- Business systems analysis and business planning process.
- Practices of effective communication of technical issues to customer and client community.
- Systems development life cycles.
- Systems and program design and analysis.
- Principles and techniques of programming.
- Programming languages, utilities and job control language.
- Development and use of proper test plans and procedures.
- Customer acceptance testing.
- Principles and practices of training, instructing and supporting customers.
- Website design concepts and standards.
- Website development languages, tools, and techniques.
- Web based application design, tools and techniques.

### **Networking / Telecommunications Option**

- Networking topology and architecture.
- Logical and physical network design.
- LAN/WAN network hardware and software vendors and products.
- Data communication concepts and principles.
- Internet and Intranet architecture.
- Network security policies, techniques and procedures.
- Network documentation, configuration, maintenance and diagnostic procedures and techniques.
- Designing, building, managing and maintaining Internet Protocol (IP) telephony systems.
- Data and voice network design.
- Network switching concepts and facilities.
- Architecture and design of telecommunications switches and voicemail systems.
- Programming of switches and voicemail systems.
- Global communications systems and local carriers.
- Troubleshooting and repair of telecommunications equipment.
- Telecommunications vendor operating policies and procedures.

### **Skill In:**

#### **All Options**

- Recognizing problems, developing recommendations and solutions, and managing corrections within assigned specialty.
- Making technical oral presentations to technical and non-technical audiences.
- Coordinating activities with vendors, clients and staff.
- Understanding complex and specialized information technology systems and issues.
- Interpreting, applying rules and explaining policies and procedures.
- Using sound independent judgment within established guidelines.
- Preparing clear and concise reports, correspondence, documentation and other written materials.

- Communicating effectively, orally and in writing, with Information Services management, professional and support staff, system users and vendors.
- Establishing and maintaining effective working relationships with those contacted in the course of the work.
- Planning, organizing, coordinating, and directing the work of assigned staff.
- Promoting and maintaining a team environment.

**Special Requirements:**

May be required to work on-call, weekends and irregular hours. Applicants must pass a criminal history and background check which may include contact of prior employers and personal references, and fingerprinting for purposes of searching local, state and national fingerprint files through the Department of Justice and Federal Bureau of Investigation to disclose any criminal record.

**Education and Experience:**

**EITHER** 1) A Bachelor's degree from an accredited college or university with major coursework in computer science, information systems or a closely related field, **OR** ) Two years, (60+ semester units or 90+ quarter units), of college-level coursework in computer science, information systems or a closely related field, **AND** two years of professional level experience working in one or more of the following fields: systems analysis, systems engineering, programming, database administration/analysis, operating systems, office systems, network analysis/management or a similar field.

**AND**

Five years experience working in one or more of the fields noted above. At least two years of experience must have been in a multi-platform information systems environment.

**OR** 2) Two years experience at a level equivalent to, and meeting the minimum qualifications of, the County's class of Information Technology Analyst II.

**NOTE:** The above qualifications are a typically accepted way of obtaining the required knowledge and skills.