Iowa Department of Administrative Services – Human Resources Enterprise
Job Classification Description

Information Technology Specialist 5

Definition

In the areas of systems management/programming, network coordination, database management, business applications programming, and education, initiates/manages plans for major changes of existing systems or installation of new systems and coordinates the work with other IT functional areas; performs related work as required.

> *The work examples and competencies listed below are for illustrative purposes only and not intended to be the primary basis for position classification decisions.*

Work Examples

Assists supervisor by performing such duties as instructing employees, answering questions, distributing and balancing the workload, and checking work; may make suggestions on selection, promotions, and reassignments.

Analyzes, as a project leader, the most complex and involved agency operations/procedures; studies system components and determines feasibility of adapting to automation; evaluates potential operational/procedural changes and prepares cost/time estimates for completion.

Reviews proposals for automation and develops preliminary plans; presents recommendations to customers and explains/discusses system operation, purpose, implementation and maintenance.

Directs/coordinates system development, implementation, training and maintenance activities; monitors development projects and reports on activity schedules, progress and performance; evaluates completed systems for documentation and performance.

Evaluates alternative methods of program development and makes recommendations on platforms and programming tools to be used; performs/directs the development of complex programming code.

Develops and conducts training for products and software for an individual or groups.

Analyzes system management processes (availability, change, configuration, problem, project, network and storage management, capacity planning, system performance, data modeling, charge back, service information, disaster recovery and systems security) and evaluates alternatives and potential changes.

Coordinates required system outages with customers and establishes/monitors service level agreements and system performance/availability goals.

Oversees/participates in the systems planning and procurement process; evaluates alternatives and provides hardware/software product samples; consults with customers and prepares specifications and proposals; evaluates proposals, makes recommendations and coordinates the procurement of the required hardware, software or service.

Administers multiple system management processes including the availability/allocation of system storage space, system resources (e.g., network, data, programs, and objects) and system access.

Directs/participates in the installation/upgrade of information system components (hardware/software) and develops installation plans (configuring, tuning, placing, testing and training users).

Develops training programs/plans for customers and technical staff.

Directs/participating in the performance tuning of hardware configurations, systems/application software and operational procedures.

Oversees/coordinates professional consulting activities.

Oversees/performs design and customization; interprets program specifications and develops reports, templates, programming code and spreadsheets; prepares documentation to support the use of information systems in achieving the agency mission.

Develops/documents standards, policies and procedures (e.g., customer service problem resolution, administrative functions and other system management processes) for mainframe and PC based applications.

Directs, executes, and implements technology projects, including multi-agency or enterprise-level projects, using accepted software development lifecycle methodologies and tools. Utilizes software development lifecycle methodologies and techniques for systems analysis, requirements, design, development, and testing.

Competencies Required

Knowledge:

- Customer Service – Principles and processes for providing customer services, including customer needs assessment, meeting quality standards for services, and evaluating customer satisfaction.

- Computers and Electronics – Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

- English Language – The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

- Engineering and Technology – The practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

- Administration and Management – Business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

- Telecommunications – Transmission, broadcasting, switching, control, and operation of telecommunications systems.

Abilities:

- Oral Expression – Communicate information and ideas in speaking so others will understand.

- Written Comprehension – Read and understand information and ideas presented in writing.

- Written Expression – Communicate information and ideas in writing so others will understand.

- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.

- Inductive Reasoning – Combine pieces of information to form general rules or conclusions.

- Oral Comprehension – Listen to and understand information and ideas presented through spoken words and sentences.

- Information Ordering – Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).

- Fluency of Ideas – Come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).

- Originality – Come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.

- Category Flexibility – Generate or use different sets of rules for combining or grouping things in different ways.

- Problem Sensitivity – Tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.

Skills:

- Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

- Active Listening – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

- Reading Comprehension – Understanding written sentences and paragraphs in work related documents.

- Active Learning – Understanding the implications of new information for both current and future problem-solving and decision-making.

- Judgment and Decision Making – Considering the relative costs and benefits of potential actions to choose the most appropriate one.

- Systems Analysis – Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.

- Service Orientation – Actively looking for ways to help people.

- Complex Problem Solving – Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

Minimum Qualification Requirements

Applicants must meet at least one of the following minimum requirements to qualify for positions in this job classification:

1) Graduation from an accredited four-year college or university with a degree in any field, and experience equal to three years of full-time work in: operating a multi-job computer; installing, operating, and coordinating computer-based networks; installing/maintaining database management systems; developing business application processes; developing/operating system programs; installing/maintaining personal computers, Local Area Networks, and/or servers; managing operating systems; developing/delivering information management training; providing Information Technology (IT) customer service; designing/administering websites; or executing technology projects (e.g., systems analysis, requirements, design, development, and testing).

2) All of the following (a and b):
   a. Three years of full-time work experience in: operating a multi-job computer; installing, operating, and coordinating computer-based networks; installing/maintaining database management systems; developing business application processes; developing/operating system programs; installing/maintaining personal computers, Local Area Networks, and/or servers; managing operating systems; developing/delivering information management training; providing Information Technology (IT) customer service; designing/administering websites; or executing technology projects (e.g., systems analysis, requirements, design, development, and testing); and
   b. A total of four years of education and/or full-time experience (as described in part a), where thirty semester hours of accredited college or university coursework in any field equals one year of full-time experience.

3) All of the following (a and b):
   a. Three years of full-time work experience in: operating a multi-job computer; installing, operating, and coordinating computer-based networks; installing/maintaining database management systems; developing business application processes; developing/operating system programs; installing/maintaining personal computers, Local Area Networks, and/or servers; managing operating systems; developing/delivering information management training; providing Information Technology (IT) customer service; designing/administering websites; or executing technology projects (e.g., systems analysis, requirements, design, development, and testing); and
   b. Certification by an authorized educational institution/major computer or software producer in an area directly related to one of the computer specialty fields described in part a.

4) All of the following (a and b):
   a. Three years of full-time work experience in: operating a multi-job computer; installing, operating, and coordinating computer-based networks; installing/maintaining database management systems; developing business application processes; developing/operating system programs; installing/maintaining personal computers, Local Area Networks, and/or servers; managing operating systems; developing/delivering information management training; providing Information Technology (IT) customer service; designing/administering websites; or executing technology projects (e.g., systems analysis, requirements, design, development, and testing); and
   b. Eighteen semester hours of accredited post-high-school coursework in one of the specialty fields described in part a.

5) Current, continuous experience in the state executive branch that includes six months of full-time work as an Information Technology Specialist 4.

Effective date: 11/22 SA