

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

## Information Technology Specialist 3

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### Definition

In a training capacity, learns systems programming, database management, or to develop/deliver information management courses; at the experienced level, performs multiple business applications programming, system design/problem solving focusing on personal computer and LAN networks, coordinates system/network operations on multiple shifts, or leads two or more employees in the operation of a help desk; 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

Coordinates the availability/allocation of resources for a major component of an information system; evaluates the impact of workload on resource availability and prepares written/oral instructions; creates/maintains backup of critical information and develops procedures for distribution of system output; coordinates required system outages with customers and provides management/users with reports concerning resource usage.

Handles customer complaints and resolves customer service level problems.

Installs, upgrades, tests and documents information system components (e.g., workstations, terminals, peripheral devices, user applications, utility programs and other software).

Determines the symptoms/causes of process problems involved in information processing systems and resolves using appropriate tools.

Participates in the procurement process for information systems; evaluates automation alternatives, provides hardware/software product samples, prepares detailed product specifications and evaluates vendor proposals.

Interprets program specifications; develops/modifies Warnier diagrams, flow charts, or pseudo code; utilizes CASE tools, to depict the logical flow of programs.

Develops code-using languages/tools outlined in program specifications.

Tests programs and reviews results of test data; create labels, lists, and files in various media types, or to execute and test programs.

Develops test databases and files to be used in a testing environment; tests/processes sample data.

Learns/performs limited systems management duties in availability management, capacity planning, system performance, change management, charge back, configuration management, information services disaster recovery, problem management, project management, network management, information systems security, storage management and skills planning.

Develops, under the guidance of a higher-level information technology professional, application systems and applies business process analysis; prepares program specifications, data flow diagrams and designs documents, forms, record layouts, etc.

Learns how to develop and administer information management training courses.

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

Attends information technology classes and reviews technical literature/vendor product descriptions.

## 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.
- 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 one year 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; or designing/administering websites.
- 2) Graduation from an accredited four-year college or university with a degree in computer science, computer applications, software engineering, computer engineering, management information systems, business analytics, or cyber security.
- 3) All of the following (a and b):
  - a. One year 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; or designing/administering websites; 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.

- 4) All of the following (a and b):
  - a. One year 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. Either of the following:
    - i. 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; or
    - ii. 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 2.

*Effective date: 04/23 SA*