

I. NATURE OF WORK:

An IT Systems Technical Specialist is the full performance level of work planning, designing and developing improvements and new or advanced systems or applications across an entire area of specialization in application, communication, database, or operating systems software technology. Employees in this classification do not supervise.

Employees in this classification receive general supervision from an IT Systems Technician Supervisor or other data processing administrator.

The IT Systems Technical Specialist is differentiated from the full performance level specialist in application, communication, database and operating systems in that those specialists are generally responsible for developing, maintaining and modifying individual systems while the IT Systems Technical Specialist is responsible for systems software technology across a variety of systems. The IT Systems Technical Specialist is differentiated from the IT System Technical Specialist Supervisor on the basis of supervisory responsibility. The IT Systems Technical Specialist Supervisor directly supervises IT Systems Technical Specialists.

II. EXAMPLES OF WORK: (Examples are illustrative only)

Plans, designs and develops improvements and new or advanced systems or applications across an entire area of specialization in application, communication, data base or operating systems software technology;

Performs in-depth analysis of various information technology alternatives to include consideration of technical matters, costs and compatibility with existing hardware or software, and prepares related narrative reports and technical documents;

Develops the structure, methodology and use for major elements of an information technology discipline for use across hardware and software such as data element dictionary, operating system customization user screen definition and use, program development tools and program generators;

Monitors the use of the particular information technology discipline in order to determine advances and changes necessary to achieve desired goals;

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Provides expert technical advice and guidance to information technology staff such as programmers, systems analysts, operators, technical support specialists, network specialists, database specialists, vendors and supervisory personnel and to departmental management regarding future directions, customization, software or hardware enhancements and software or hardware purchase recommendations in designated area of specialization;

Advises management in matters related to designated area of specialization to maintain efficient and effective information support functions by recommending solutions or alternatives to problems, new projects and changes in objectives in consideration of factors such as availability of resources, cost effectiveness and overall program policies and objectives;

Analyzes, designs and models broad projects and studies requiring critical resolution of difficult information technology issues in designated area of specialization;

Performs special assignments such as feasibility studies which involve long-range planning and an understanding and evaluation of diverse technical options in designated area of specialization to determine the course of current and future information technology solutions, methods and standards;

Keeps abreast of the state-of-the-art in the specific information technology discipline by reviewing technical journals, attending technical classes, conferences and user groups and maintaining regular communication with hardware and software vendors;

Performs other related duties.

### III. REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Knowledge of the principles and practices of information systems planning, analysis, design, programming, budgeting, operations and maintenance;

Knowledge of computer and communications systems software design characteristics and capabilities;

Knowledge of third generation or other generally accepted computer programming languages;

Knowledge of the functions and capabilities of multipurpose, multi-tasking computer systems and related data communication systems;

Skill in planning and evaluating new or revised systems software;

Skill in assessing the impact of new or revised systems hardware and software on available or planned resources;

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Skill in preparing narrative reports and feasibility studies of information technology alternatives;

Skill in applying inductive and deductive reasoning to reach logical solutions to systems software technology issues;

Ability to understand complex information technology principles, theories and solutions;

Ability to communicate effectively and to establish and maintain effective working relationships with peers, users, vendors and industry specialists.

### IV. MINIMUM EDUCATION AND EXPERIENCE REQUIREMENTS:

Education: A bachelor's degree from an accredited college or university in Computer Science, Computer Information Technology, Management Information systems or other information technology-related field to include coursework in application, communication, database or operating systems software technology.

Experience: Three years of experience designing, developing, testing, implementing and maintaining application, communication, database or operating systems software.

Notes 1. Thirty credit hours from an accredited college or university in Computer Science, Computer Technology, Management Information Systems or other information technology-related field to include coursework in application, communication, database or operating systems software technology may be substituted for the required education.

2. An additional year of experience, designing, developing, testing, implementing and maintaining application, communication, database or operating systems software may be substituted for the required education.

3. Experience operating multipurpose, multi-tasking computer systems; or scheduling, controlling input

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and output or maintaining a tape library to process data on multipurpose, multi-tasking computer systems; or evaluating, implementing and maintaining microcomputer hardware and software; or converting data from project specifications by developing program code using third generation or other generally accepted computer programming languages may be substituted for high school on a year-for-year basis.

V. LICENSES, REGISTRATIONS AND CERTIFICATES:

Not applicable.

DATE ADOPTED: July 1, 1998

Class specifications are broad descriptions covering groups of positions used by various State departments and agencies. Position descriptions maintained by the using department or agency specifically address the essential job functions of each position.