SOFTWARE SYSTEMS ENGINEERING MANAGER

DEFINITION

Plans, schedules, manages, and reviews the work of staff engaged in, analyzing, installing, customizing, optimizing, troubleshooting, and monitoring large scale, complex application and system software for the District.

TYPICAL DUTIES

- Supervises a group of technical staff engaged in analyzing, installing, customizing, optimizing, troubleshooting, and monitoring complex application and system software such as Enterprise Resource Planning (ERP), database systems, computer operating systems, web servers, application development tools, and systems management tools and utilities.
- Plans and schedules application and system software analysis, design, and implementation activities; assigns projects; reviews progress, and prepares status reports.
- Assures that adequate technical support and advice are provided and policies and procedures are adhered to by the colleges and to the Office of Information Technology.
- Evaluates, selects, and oversees the use of systems management software to monitor system activities at multiple sites.
- Assures that software systems work is coordinated with applications systems work to maximize efficiency of the District's computer and telecommunications systems.
- Provides technical assistance in the complex and technically difficult phases of software systems projects.
- Plans, oversees, and monitors the establishment of system security controls.
- Oversees the evaluation of new software technologies, prepares cost-benefit analyses, and makes recommendations regarding their applicability to the District.
- Develops and revises documentation procedures and standards for assigned technical units.
- Plans, directs, and evaluates system capacity planning studies.
- Maintains and oversees periodic testing of system disaster recovery plans.
- Drafts contract language with software vendors and reviews vendor performance.
- Reviews technical manuals and periodicals for information pertinent to software systems.
- Confers with computer manufacturers regarding hardware/software interface problems.
- Selects and trains staff of assigned technical units.
- Plans, organizes, schedules, and participates in the training of staff relative to system software and new technological processes.
- May act for the Chief Information Officer in his/her absence.
- Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

A **Software Systems Engineering Manager** is responsible for managing the work of technical staff engaged in analyzing, installing, customizing, optimizing, troubleshooting, and monitoring large scale, complex application and system software for the District.

A **Software Systems Engineer** is a member of a technical team responsible for analyzing, installing, customizing, optimizing, troubleshooting, and monitoring large scale, complex application and system software for the District. An employee of this class receives assignments that are geared towards meeting high-level technical goals and objectives and assuring implementation of software that meets those objectives with maximum-effectiveness and efficiency.

SUPERVISION

General supervision is received from the Chief Information Officer. General supervision is exercised over technical staff engaged in application and system software design, implementation, and maintenance.

CLASS QUALIFICATIONS

Knowledge of:

- Technology and methodology of application and system software
- Principles of system planning and process control, documentation, and testing
- Command language scripting in Unix, MS-Windows, etc.
- Programming languages such as ABAP, Visual Basic, Java, C, C++, Cobol, etc.
- Application and system software analysis, testing, and maintenance
- Database systems such as Oracle, SQL Server, Rdb, etc.
- Web page design and development using tools such as SAP Portals, .ASP, Dreamweaver, etc.
- Enterprise Resource Planning (ERP) systems such as SAP, Peoplesoft, Oracle, etc.
- Principles of central user administration, system security, and software transport management
- System security and access control
- Concepts and techniques of project management including project control, planning, estimating, resource management and qualify assurance
- Principles, procedures, and methods used in data acquisition, storage, structuring, and retrieval
- Principles of organization, management, and work simplification
- Principles of supervision and training
- Characteristics and capabilities of servers, networks, and related equipment
- New developments and current trends in application and system software concepts, methodology and technology

Ability to:

Plan, coordinate, and review the work of assigned technical staff
Supervise and coordinate multiple projects of a complex and technical nature
Estimate needs for staff and maintain work schedules
Train staff in the application of new application and system software concepts
Analyze and interpret detailed systems and procedures
Provide technical assistance to users and staff members
Create clear guidelines, procedures, and documentation
Achieve maximum utilization and efficiency of system resources by using software to the best advantage and by modifying software to meet changing needs and requirements
Acquire knowledge of new technologies and software and apply that knowledge to solving operational problems
Analyze and express difficult concepts in oral and written communications
Prepare effective written and oral communications, reports, and presentations
Anticipate conditions, plan ahead, establish priorities, and meet project schedules
Review and evaluate detailed project management plans and project progress
Review and evaluate project deliverables
Motivate, direct, and develop others
Stimulate teamwork and promote cohesiveness to achieve team and project goals
Establish effective working relationships with administrators, staff, project consultants, and vendors

ENTRANCE QUALIFICATIONS

Education:

Graduation from a recognized four-year college or university, preferably with a major in computer science, computer information systems, computer engineering, or a related field.

Experience:

Four years of recent, full-time, paid experience in the analysis, design, and implementation of large scale, complex application and system software. Experience in a supervisory capacity and experience with an Enterprise Resource Planning (ERP) system are desirable.

Special:

A valid Class "C" California driver's license.
Access to an automobile.