

SUPERVISING SYSTEMS AND PROGRAMMING ANALYST

DEFINITION

Coordinates, supervises, and reviews systems analysis, design, and programming work on assigned projects in areas such as business management, accounting, payroll, personnel, budgetary, and educational systems; personally performs the most difficult systems analysis, design, and programming work of the unit.

TYPICAL DUTIES

Supervises a small group of programming staff engaged in analyzing, designing, coding, implementing, maintaining, and modifying information technology systems and applications.

Plans, organizes, schedules, and assigns analysis, design, and programming projects in accordance with project priorities and deadlines.

Reviews work in progress to assure completeness, accuracy, capability among subsystems, and adherence to established project plans and requirements.

Confers with management to define the scope of business problems and to determine the feasibility of using information systems services and resources in their resolution.

Advises management of the overall cost, efficiency considerations, operating advantages and disadvantages, and material and personnel resources associated with the conversion of a specific work function to a computer-based system.

Formulates overall system plans and specifications detailing workflow, manpower distribution, information sources, machine runs, documentation systems, and management controls and reports.

Consults with database, software systems, and operation specialists to identify and resolve unique problems and to assure the integration among systems.

Assists in defining project scopes; gathers estimates for activities and tasks and updates the project plan accordingly.

Communicates with users as necessary to respond to requests for assistance or to explain proper use of highly complex programs.

Provides on-the-job training to assigned staff in systems analysis, systems design, and programming.

Develops training programs for users of information systems and equipment.

Performs the more difficult systems analysis, design, and programming work of the unit.

Prepares and maintains program documentation.

Monitors the maintenance, correction, and improvement of systems and programs.

Ensures data security under the guidelines of District policies and regulations.

Participates in the selection of computer-related hardware, software, and commercial applications programs and services.

May design, develop, and maintain web sites.

Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

A **Supervising Systems and Programming Analyst** is responsible for supervising the work of a small group of programming staff, provides liaison with operating units affected by studies, and personally performs the most difficult systems analysis, design, and programming work of the unit.

A **Systems and Programming Manager** is responsible for managing the work of staff engaged in systems analysis, design, programming development, integration, documentation, testing, and training.

A **Senior Programmer Analyst** performs systems analysis, design, and programming duties involving highly complex computer applications and programs; provides technical direction to programming staff on a project-by-project basis.

SUPERVISION

General supervision is received from the Systems and Programming Manager. General supervision is exercised over assigned programming staff.

CLASS QUALIFICATIONS

Knowledge of:

- Complex computer programming techniques
- Programming languages such as ABAP, C, C++, Visual Basic, Java, COBOL, ACMS, Visual Basic for Applications (VBA), etc.
- Script languages such as Vbscript, Javascript, Jscript, PERL, etc.
- Reporting tools such as MS Access, Crystal Reports, webFOCUS, etc.
- Database systems such as Rdb, Oracle, Access, SQL Server, etc.
- Enterprise Resource Planning (ERP) systems such as SAP, Peoplesoft, Oracle, etc.
- Capabilities of mainframes, application, database, and web servers, and other equipment
- Web page design and development using tools such as SAP portals, .ASP, Dreamweaver, Visual Studio, etc.
- Fourth generation languages such as FOCUS
- Principles of systems analysis, design, and testing
- Concepts and techniques of project management including project control, planning, estimating, resource management, and quality assurance
- Principles of program documentation
- Principles of reports, forms, and screen design techniques
- Information technology concepts and capabilities
- New trends in the field of information technology
- Principles, procedures, and methods used in data acquisition, storage, structuring, and retrieval
- Business procedures and methods
- Principles and practices of business and public administration
- Principles of supervision and training
- English usage, punctuation, and spelling

CLASS QUALIFICATIONS (Cont.)

Ability to:

- Supervise a small group of technical staff engaged in the study, design, analysis, and implementation of complex information systems and applications
- Conduct surveys and feasibility studies
- Analyze highly complex problems in information systems
- Write and code highly difficult and complex programs
- Develop test data and analyze problems in highly complex programs
- Adapt business methods and procedures to information technology
- Fully utilize the commands, functions, and operations commonly used in mainframe, server-based, client-based, and other related software
- Prepare clear and logical system designs
- Communicate highly complex technical concepts both orally and in writing
- Estimates needs for staff and maintain work schedules
- Work effectively and cooperatively with District staff
- Meet project schedules and deadlines
- Provide technical assistance to users and staff members with lower-level technical skills
- Makes presentations on information technology topics
- Communicate highly complex technical concepts both orally and in writing
- Write clear and comprehensive reports and instructions
- Respond to highly complex programming needs/problems accurately and take appropriate action
- Train and evaluate the work of assigned staff
- Learn and apply new concepts in information technology
- Learn the characteristics of new systems and update skills to adapt to changing technology

ENTRANCE QUALIFICATIONS

Education and Experience:

Graduation from a recognized four-year college or university preferably with a degree in management information systems, computer science, computer engineering or a related field **AND** four years of recent full-time paid experience in business applications analysis, design, and programming for medium or large scale, multi-programmed computers. One year of the required experience must have been in a supervisory or project leader capacity. Experience with an Enterprise Resource Planning (ERP) system is desirable.

Special:

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