

PROGRAMMER ANALYST

DEFINITION

Analyzes, designs, writes, codes, debugs, tests, modifies, maintains, and documents complex computer applications and programs or segments of highly complex programs. Programming responsibilities span a range of servers and client computing devices.

TYPICAL DUTIES

- Consults with college and central offices administrators regarding existing systems, their adaptability to information technology, and desired results.
- Advises users of revisions to existing methods, forms, records, and reports in order to adapt them to information technology.
- Formulates and defines computer systems requirements and recommends techniques for processing data.
- Writes, codes, and makes modifications to complex programs.
- Writes and maintains batch and on-line computer programs for mainframes, servers, and personal computers.
- Creates job control language for batch operations.
- Develops test data for complex programs, reviews results of testing for accuracy and completeness, and corrects errors in program logic.
- Conducts feasibility studies by compiling, summarizing, and analyzing work processes and procedures to determine adaptability to information technology.
- Designs forms, screens, and reports.
- Prepares block diagrams, detailed flowcharts, and related documentation describing operations to be performed by computer systems.
- Provides technical assistance for and assists in the training of assigned programming staff.
- Prepares and maintains program documentation.
- Assists in systems analysis and programming on the most complex projects.
- Analyzes operations problems and takes corrective action.
- Communicates with users as necessary to respond to requests for assistance or to explain proper use of complex programs.
- Ensures data security under the guidelines of District policies and regulations.
- Adopts new programming language(s) or technology(ies) to current environment.
- May design, develop, and maintain web sites.
- May assist in the evaluation of new equipment and methods.
- Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

A **Programmer Analyst** performs systems analysis, design, and programming duties involving complex computer applications and programs or segments of highly complex programs; may provide technical assistance to assigned programming staff.

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.

An **Assistant Programmer Analyst** performs routine programming duties and performs progressively more difficult assignments in problem analysis and systems design under the work direction of journey-level programming staff.

SUPERVISION

General supervision is received from supervisory programming staff. Functional supervision may be exercised over Assistant Programmer Analysts.

CLASS QUALIFICATIONS

Knowledge of:

- Complex computer programming techniques
- Programming languages such as C, C++, Visual Basic, Java, ABAP, COBOL, ACMS, Visual Basic for Application (VBA), etc.
- Script languages such as Vbscript, Javascript, Jscript, PERL, etc.
- Reporting tools such as MS Access, Crystal Reports, webFOCUS, etc.
- Capabilities of mainframes, database, web servers, and other equipment
- Enterprise Resource Planning (ERP) systems such as SAP, Peoplesoft, Oracle, etc.
- Database systems such as Rdb, Oracle, Access, SQL Server, etc.
- Principles of systems analysis, design, and testing
- Principles of program documentation
- Fourth generation languages such as Focus
- Web page design and development using tools such as .ASP, Dreamweaver, Visual Studio, SAP Portals, etc.
- Principles of report, screen, and form design
- Information technology concepts and capabilities
- New trends and developments in the field of information technology
- Business systems, procedures, and methods
- Principles, procedures, and methods used in data acquisition, storage, structuring, and retrieval
- Principles of training
- English usage, punctuation, and spelling

CLASS QUALIFICATIONS (Cont.)

Ability to:

- Analyze complex problems in information systems
- Write and code difficult and complex programs
- Develop test data and analyze problems in programs
- Prepare block diagrams and flowcharts
- Write clear and logical program documentation
- Write clear, logical reports, and instructions
- Analyze existing manual and computerized procedures and make recommendations on improvements
- Prepare clear and logical system designs
- Respond to complex programming needs/problems accurately and take appropriate action
- Provide technical assistance to users and staff members with lower-level technical skills
- Fully utilize the commands, functions, and operations commonly used in mainframe, server-based, client-based, and other related software
- Express complex concepts orally, schematically, and in writing
- Work effectively and independently on assigned projects
- Adapt business methods and procedures to information technology
- Work effectively and cooperatively with District 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** two years of recent full-time paid experience in business applications analysis, design, and programming for medium or large scale, multi-programmed computers. Experience with JavaScript, COBOL, and/or ACMS programming languages is preferred. Experience with an Enterprise Resource Planning (ERP) system is desirable.

Special:

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