



CLASS SPECIFICATION

04/13/06

SYSTEMS PROGRAMMER, 1455

Summary of Duties: Evaluates, develops, maintains, implements, and modifies operating and control system software; and related systems performs hardware and software studies; develops and maintains applications to assist in the installation, integration, maintenance and repair of hardware or software systems; provides technical assistance to other Information Technology (IT) personnel and user divisions or departments; may apply sound supervisory principles and techniques in building and maintaining an effective work force; may do the more difficult and complex systems software work; fulfills equal employment opportunity responsibilities; and does related work.

Distinguishing Features: The class of Systems Programmer is distinguished from other classes by the responsibility for hardware, software, data, security and computer systems development, configuration, integration, implementation, modification, and maintenance. An employee of this class is responsible for complex systems control programs controlling an Internet Protocol network and system hardware. An employee of this class receives assignments in broad objective terms. The work may be reviewed while in process or in terms of the status of completion, but final review is in terms of the attainment of the objectives desired. A Systems Programmer must use considerable initiative and ingenuity in the effective development, application and testing of systems programming methods and procedures.

Examples of Duties:

- Integrates hardware, database, and applications programs for large Enterprise Systems;
- Evaluates, tests, modifies, implements and troubleshoots multiprogramming software that may require collaboration with hardware and software vendors;
- Develops requests for proposals, bids, and procurement specifications for system software and hardware;
- Generates, implements, integrates, modifies and maintains software in house;
- Develops and maintains operating system procedures and documentation for use by systems, operations, and programming personnel;
- Integrates, establishes procedures and insures useability of software and hardware facilities;
- Analyzes requirements and designs on-line and real-time systems which use network connected personal computers;
- Researches operating systems techniques and methods to extend the capabilities of computers to improve computers throughout;
- Performs comparative hardware configuration analysis and long-range hardware-software planning;
- Analyzes, establishes conventions for use, and prepares guidelines for the use of job control language and scripting languages;

- Analyzes, designs or recommends IT Disaster Recovery procedures, solutions and testing, and facilitates Business Resumption Planning;
- Studies and recommends improved access methods for Storage Area Network (SAN) storage, Network Area Storage (NAS), or direct access devices;
- Provides guidance and consultant service to other IT personnel and user division or departments in the use of systems software and systems hardware facilities;
- Manages project schedules and budgets;
- May do the more difficult and complex systems software work;
- May supervise such work; and
- May occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications:**A knowledge of:**

- Capabilities, uses, characteristics, and limitations of electronic computers and peripheral equipment, operating software systems, software such as assemblers, generators, subroutine libraries, compilers and vendor written application programs;
- Assembly language and one or more problem oriented languages such as COBOL, Assembler, Java, C/C++, C#, Perl and associated programming aids;
- Security related software, application security software, network security, identity management and control software;
- Local Area Networks (LANs), Wide Area Networks (WANs), Metropolitan networks, and IP Protocols;
- Mainframe and Enterprise relational database systems;
- Project management principles and practices;
- Table development techniques reflecting constraints of access time and storage space limitations;
- Use and development of systems and program flow charts;
- Procedures followed in, together with the ability to apply, methods of program validation and means of correcting programming errors;
- Forms design, and the arrangement of data on tape and disc for maximum accessibility; and
- Safety principles and practices, a working knowledge of supervisory principles and practices including the laws and regulations related to equal employment appointment and affirmative action.

The ability to:

- Interpret proposed systems and procedures developed by systems analysts and to prepare logic flowcharts and computer instructions that utilize storage and processing time efficiently;
- Prepare documentation, procedures, tests, corrections, and take other steps necessary for the planned implementation and modification of programs;
- Define and prepare Disaster Recovery requirements for Mainframe and distributed systems;
- Identify security exposures and provide mitigation controls;
- Maintain and support web application environments;
- Modify and integrate software systems and application programs to meet changing data processing requirements;

- Perform system backups, system tuning and monitoring;
- Work tactfully and effectively with personnel affected by new procedures; and
- Analyze and explain oral and written statements concerning a variety of computer programs.

Requirements: A bachelor's degree from a recognized four-year college or university; and two years of full-time paid systems programming experience in either (1) computer systems, including mid-range or large scale computers; or (2) planning, designing, implementing and configuring distributed systems/applications operating over large multi-segmented local and wide area networks serving local and remote facilities; or

Four years of full-time paid experience with the City of Los Angeles as a Programmer Analyst or in a class which is at least at that level of which three years must have been in programming/debugging with C/C++, Java, Assembler, COBOL, VB.NET, C#, Perl or command languages for distributed and large scale computers and/or networks.

License: A valid California driver's license may be required.

Physical Requirements: Strength to lift up to five pounds and occasionally over 15 pounds; good speaking and hearing ability; and good eyesight.

Persons with medical limitations may, with reasonable accommodations, be capable of performing the duties of some of the positions in this class. Such determination must be made on an individual basis in light of the person's limitations, the requirements of the position, and the appointing authority's ability to effect reasonable accommodations to the person's limitations.

As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties and responsibilities of any individual position shall be.