

YUBA COMMUNITY COLLEGE DISTRICT

CLASS TITLE: SENIOR SOFTWARE SPECIALIST

BASIC FUNCTION:

Under the direction of the designated supervisor, perform varied and difficult systems analysis, development and implementation tasks involving computer applications used in administrative, faculty support, and instructional delivery systems in accordance with standards and established procedures.

DISTINGUISHING CHARACTERISTICS:

The Programmer I classification provides basic support to the administrative computing system. Incumbents may also provide assistance to users. Incumbents assigned to the classification of Programmer/Analyst II provide more complex support to various users through configuration, operation, program modification and problem resolution. The Senior Systems Analyst classification provides leadership to all phases of systems software and hardware planning, maintenance, security and operation. The incumbents assigned to the Senior Systems Analyst classification perform difficult systems software analysis and security planning. The Senior Software Specialist classification provides difficult systems analysis, development and implementation tasks.

The

incumbents assigned to the Senior Software Specialist classification have the breadth and depth of knowledge to resolve the most complex application development.

REPRESENTATIVE DUTIES:

Diagnose and resolve the most complex of technical problems which require expert knowledge of hardware, software, and telecommunications. (E)

Analyze and document processes of considerable complexity to determine the feasibility of computer based solutions. (E)

Develop significantly complex computer applications and systems, including all aspects from analysis, through design, development, testing, installation, training, and documentation. (E)

Design, develop, and maintain complex systems utilizing web, telephone, and voice technologies. (E)

Support of the electronic federal and state reporting requirements of the institution. (E)

Develop training materials and provide both group and individual technical and end user training. (E)

Develop and implement procedures for the configuration and operation of the college administrative computing system. (E)

Develop and design complex reports and On-line Analytical Processing (OLAP) cubes to enable efficient on-line analysis of trends. (E)

Advise administrative and academic users on the effective application of information and telecommunication technologies to their professional and instructional requirements. (E)

Serve as a liaison for the college when dealing with local, state, and federal college administrative computer systems agencies. (E)

Remain current on the developments of information technology concepts, tools, techniques, and applications. (E)

Perform routine and data base administration functions including, but not limited to analysis, tuning, and repair. (E)

Maintain a record of work requests and completed tasks. (E)

Other related duties as assigned.

KNOWLEDGE OF:

Operation of computer equipment, including network servers, telecommunications equipment (hubs, routers, switches), and client workstations.

Computer application programs, including word processors, spreadsheets, graphics programs, and desktop publishing programs, HTML authoring tools and techniques.

Computer local area network (LAN) concepts, tools and techniques.

Internet applications (such as email, web browsers, network news, and FTP and CGI programs).

Oral and written communication skills.

Interpersonal skills including tact, patience and courtesy.

Data warehouse concepts including extraction and cleaning of data, structuring data for ease of analysis, and development of reports and OLAP cubes in support of business processes.

Principles and practice of team leadership, providing support to others in the analysis of data processing problems and development of programs and processes that solve the problems.

Modern principles, practices and techniques of information system design, development, testing, deployment and operation.

Recent computer programming languages, including major recent languages (for example: Colleague, Visual Basic, C, Java and UNIX shell scripting languages).

Relational database concepts, tools, and techniques including the use of Structured Query Language (SQL).

Computer hardware and software concepts, systems, and procedures, including UNIX based enterprise servers and microcomputers with a variety of operating systems (e.g., Windows NT, Windows 95, Windows 3.x, and MS-DOS operating systems and Macintosh computers using Mac-OS Versions 7.0 - 7.5).

ABILITY TO:

Learn District organization, objectives, policies and operations.

Learn business processes of the college supported by the administrative computer applications, including admissions, registration, records, curriculum and scheduling, student accounts receivable, human resources, payroll and financial systems.

Learn administration, configuration and programming of telephone response systems for use in telephone

registration and other processes.

Learn administration, configuration and programming to support the operation of web interfaces to administrative computing systems.

Learn state reporting requirements, and implications for data collection, extraction and translation.

Use designated computer programming and database query languages, learning new ones as necessary.

Apply modern principles and techniques of computer system development to specific user needs and problems.

Use designated computer programming and database query languages, learning new ones as necessary.

Analyze system and program structures and data flows to isolate and remedy logic and coding errors.

Design, develop, implement and use computer databases.

Develop effective computer based administrative and faculty support and/or instructional delivery systems.

Install, configure, and use Internet server and client application software, including linkages to existing applications.

Write clear and concise system and program documentation.

Work without close supervision; including planning and organizing schedules for working with college staff.

Work effectively with a diverse student/staff population.

Establish and maintain cooperative and effective working relationships with others.

Provide leadership, guidance and technical support to other software staff.

Investigate operational procedures and processes in multiple departments, assessing the ability of current software to support these procedures, and develop recommendations for optimum use of administrative computing software to support the needs of the departments.

Design, develop, implement and use data warehouses.

Develop complex reports and OLAP cubes for use by district staff.

Develop procedures for ongoing tuning, updates and operation of the administrative computing software to assure maximum performance and reliability.

EDUCATION AND EXPERIENCE:

Any combination equivalent to: Bachelors degree in computer science or related field and four years of relevant and increasingly responsible computer programming and telecommunications experience is required. Experience in application development in client/server networks is preferred. Work experience in software design, development or maintenance may be substituted for education, i.e., two (2) years of work experience equates to one (1) year of education. Experience claimed to satisfy requirements above must be current experience.

LICENSES AND OTHER REQUIREMENTS:

Valid driver's license.

ENVIRONMENT:

Office environment.

PHYSICAL ABILITIES:

Dexterity of hands and fingers to operate a computer keyboard.

Hearing and speaking to exchange information.

Seeing to view a computer monitor.