

INFORMATION SYSTEMS ANALYST/PROGRAMMER

DEFINITION

Under general supervision of the Manager, Technology Applications, performs systems design and modification, data base administration, programming, and hardware and software selection and modification of a routine to complex nature in support of College administrative and academic functions for mainframe, local area network and personal computer applications; and performs related duties as required or assigned.

CLASS CHARACTERISTICS

This is a professional level class with the incumbent competent to perform varied analytical and programming work in both the business and academic support areas. Hardware usage will vary from mainframe to personal computers and local/wide area networks. Software applications will also vary, depending upon assignment; however, all positions are characterized by systems design, programming, user interface and extensive documentation and training.

EXAMPLES OF DUTIES (Illustrative Only)

- Gathers and analyzes information regarding either administrative and/or academic user systems and requirements and develops or modifies automated systems to fulfill these needs
- Conducts feasibility studies
- Develops system, hardware and cost requirements and proposed time frames
- Simulates hardware and software problems, tests and evaluates alternative solutions, and recommends and implements appropriate applications design and hardware acquisitions
- Develops program logic and processing steps
- Codes programs in the appropriate language, and/or modifies commercial software to meet designated needs
- Plans and develops test data to validate new or modified applications
- Designs input and output forms, documents, and screens
- Configures hardware, documents systems and performs backup as required
- Troubleshoots hardware and software problems as needed
- Writes program documentation, user procedures and instructions and assists user departments and staff in implementing new or modified programs and applications
- Conducts software training in an individual or organized classroom setting for college staff computer users to ensure the most effective use of hardware and software
- Tracks and evaluates adopted systems and programs
- Performs file transfers between mainframe, local and remote systems, confers with user department staff regarding assigned functional program areas
- May direct the work of others on a project basis
- Maintains records and prepares periodic and special reports of work performed
- Maintains current knowledge of technology and new computer applications
- Recommends hardware and software applications for assigned area of expertise
- Performs related duties as required or assigned

QUALIFICATIONS

Knowledge of:

- Computer programming principles, techniques and procedures for either administrative and business applications or academic applications
- Operating principles and characteristics of the mainframe computer system and it's connection to the colleges local/wide area network
- Personal computer hardware and software utilized by the College Systems analysis and design procedures and techniques
- Batch and on-line applications
- Methods of form and document design
- Techniques for instructing others in software usage job planning, prioritizing and scheduling techniques
- Basic accounting, statistics, business administration, word processing, graphics and office procedures
- Major operating systems used in administrative systems 4 GL programming languages

Skill in:

- Analyzing systems and problems and developing new or modified applications to meet varied needs
- Analyzing system requirements and selecting appropriate hardware and software solutions
- Developing logical procedures and developing tests to validate program design
- Troubleshooting hardware and software problems and debugging programs and applications
- Preparing clear and concise program documentation, user procedures, reports of work performed, and other written materials
- Translating user department needs into operational applications instructing user department staff in the operation of new or revised computer applications, including explaining system concepts to non-technical users
- Exercising sound judgment within established guidelines
- Establishing and maintaining effective working relationships with those contacted in the course of work

Ability to:

- Read, analyze and interpret technical manuals, procedures and instructions
- Define problem areas, collect and evaluate data, and make appropriate recommendations
- Make arithmetic calculations accurately and rapidly
- Communicate effectively, both orally and in writing
- Attend to and analyze detailed information
- Exercise discretion and safeguard the confidentiality of information
- Understand and follow oral and written directions
- Effectively interact with other staff, operating departments, and representatives from vendors
- Trace, identify, and resolve hardware and software malfunctions

QUALIFICATIONS (continued)

Other requirements:

- Must possess a valid California driver's license and a safe driving record
- Must be willing to work days, evenings, and weekends at on- and off-campus locations

Education and Experience:

A typical way of gaining the knowledge and skills outlined above is:

Equivalent to two years of college level course work with major course work in computer science, business procedures and accounting, mathematics, or a closely related field and three years of increasingly responsible experience in programming business and/or academic applications for a mainframe computer system.