INFORMATION SYSTEMS ANALYST/PROGRAMMER

DEFINITION

Under general supervision of the Manager of Technology Applications, performs systems design and modification, data-base administration, programming, and hardware and software modifications of a routine to complex nature in support of College administrative and academic functions; and performs related duties as required or assigned.

CLASS CHARACTERISTICS

This is a professional level class with the incumbent competent to perform varied analytical programming work in both the business and academic support areas. Software applications will vary, depending upon assignment; however, all positions are characterized by systems design, programming user interface and extensive documentation.

EXAMPLES OF DUTIES (Illustrative Only)

- Gathers, reviews, and analyzes information regarding user systems and requirements; develops or modifies automated systems to fulfill these needs (E)
- Analyzes business requirements and implements electronic solutions to automate processes and workflow; ensures effective computer systems and applications security (E)
- Researches and analyzes new technology and applications; conducts feasibility studies; participates in designing, coding, and testing of new system software and applications (E)
- Coordinates application development; develops system cost requirements and proposed timeframes (E)
- Simulates software problems, tests and evaluates alternative solutions; recommends and implements appropriate application designs (E)
- Codes programs in the appropriate language, and/or modifies commercial software to meet designated needs (E)
- Plans and develops test data to validate new or modified applications (E)
- Designs user interfaces including forms, documents, and screens (E)
- Configures hardware, document systems, and performs backup as required (E)
- Troubleshoots hardware and software problems as needed (E)
- Writes program documentation user procedures, instructions, and assists users in implementing new or modified applications (E)
- Maintains records and prepares periodic and special reports of work performed (E)
- Maintains current knowledge of technology, new computer applications and system enhancements (E)
- Recommends software applications for assigned area of expertise (E)
- May direct the work of others on a project basis
- Performs related duties as required or assigned

(E) = designates essential function
QUALIFICATIONS

Knowledge of:

- Advanced computer programming languages and tools, principles, techniques and procedures
- Project management and business communication techniques
- Operating principles and characteristics including best practices and techniques used in programming, development, design, and the operation of databases, computer systems, and software applications
- System integration to ensure compatibility and operational efficiency
- Security concepts including security of databases, systems, applications, and user authentication
- Customer service standards, practices, and procedures
- Project management and business administration procedures including basic accounting and statistics

Skill in:

- Analyzing systems and problems, developing new or modified applications to meet varied needs, and ensuring integration with new or modified software applications
- Analyzing system requirements and selecting appropriate software solutions
- Developing logical procedures and tests to validate program design
- Investigating, troubleshooting and resolving system and application issues
- Preparing clear and concise records, reports, and documentation for workflow logical processes, interfaces, security controls, reports of work performed, and other written materials
- Coordinating projects and services to meet technology needs
- Translating user needs into operational applications, instructing 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 priorities and maintaining timelines and effective working relationships with those contacted in the course of work

Ability to:

- Create project development plans and specifications
- Develop computer system software and application project plans
- Design, code, test, and implement new software and applications
- 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
- Trace, identify, and resolve system issues
Other requirements:

- Possession of and ability to maintain a valid California driver's license and a safe driving record during the course of employment
- Must be willing to work days, evenings, and weekends at various campus sites

Desirable:

- Ellucian Colleague ERP practices and procedures
- Interface experience with systems such as Astra, Trackit, and SARS
- SQL Server knowledge and experience
- Microsoft .net framework, C# and Visual Studio, HTML, CSS and JAVA
- Google application knowledge with docs and sites
- Shell Scripting with PerlScript and Python
- Project management with system integration and implementation

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.

Established: September 8, 1997
Revised: October 14, 2013