IMPERIAL COMMUNITY COLLEGE DISTRICT

CLASS TITLE: SENIOR COMPUTER PROGRAMMER/DATA ANALYST

BASIC FUNCTION:

Under direction of the Director of Application Services, provide support in analyzing computer data and information; determine data integrity, test data accuracy test data accuracy and reliability; develop computer software applications to provide data analysis function and reports for institutional use. Design, develop, test and implement system programs and database level language scripts, analyze ERP system(s) for a variety of institutional data processing needs; research, write and maintenance end user documentation to support programs and operational/business procedures; instruct ERP system end users on the proper operation and provide expertise and consultation services to college Administration, classified staff, and faculty.

DISTINGUISHING CHARACTERISTICS:

The Senior Computer Programmer/Data Analyst is the advanced-level class of this professional series. Incumbents either perform complex work independently or serve as a project leader for specialized projects and as a Lead Data Analyst for continuous end user and functional leads support. Assigned projects require advanced-level skills in specialized programming techniques and languages, as well as distinctive data and system analysis proficiency. The Computer Programmer/Data Analyst is the experienced-level professional class. Incumbents perform a variety of programming and system/data analysis tasks in support of District instructional, operational, and administrative functions.

REPRESENTATIVE DUTIES:

Be part on the planning and implementation of long-range system goals, and assist in the preparation of proposals for all phase of systems planning, development and implementation.

Analyze user business processes and designs application/solutions to help streamlining the operations.

Defines the scope and objectives for applications, along with constrains and system requirements.

Detects, analyzes, and defines data needs for various organizations in the college; collect, process, and employ end user inputs, information, or other data to determine ERP system needs and requirements.

Coordinate and implement data conversion, integration and transitions.

Coordinate and guide the work of lower level functional users in using applications and provide training if necessary.

Support college institutional research by providing proper information and data.

Support technology and learning services by providing technical assistance in computer software applications and data analysis.

Design, program, maintain and debug existing programs and data structures to meet end user needs; provide for proper maintenance of assigned programs; identify increased reporting capability, records maintenance and/or data manipulation requirements.

Design, program, maintain and analyze new programs, scripts and data structures to accommodate current and future needs; consult with system end users to detect and define existing needs and requirements, propose and discuss alternative approaches, and resolve questions and issues; assure file conversion and cross-operating platform file manipulation as appropriate.

Write code and modify programs using available fourth generation programming languages on UNIX and/or Windows Platforms; code and modify UNIX, Windows and DOS based programs/scripts using applicable programming language; code user interface applications for data collection and queries; code analytical and statistical applications; assure data integrity for interdepartmental reporting procedures.

Test, debug and evaluate ERP system performance; identify and rectify potential program failures.

Design and maintain database and file structures used by the institution ERP system; establish, link, join and relate data within tables via scripts; maintain flow charts or narrative description of program flow, purpose and operation; examine output data from program operations to verify and assure accuracy and completeness of data.

Maintain permanent contact with end users from various departments to discuss and analyze ERP system performance and efficiency; consult with end users to discuss desired system data output and user expectation; respond to diversified questions and issues from faculty and staff concerning ERP System processes and business practices.

Write and maintain ERP System operations documentation for end users and operators and provide training if necessary; assure documentation contains steps to initiate programs and routines to remedy interruptions in program runs.

Consult with Information Systems staff regarding system design, problems and developments and other related matters.

Maintain current knowledge of developments, issues and advancements in data processing equipment, software and programming.

Operate a variety of computer equipment including mini-computers, microcomputers, peripheral devices and test equipment.

Perform related duties as assigned.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

Principles and techniques of databases and ERP System structures, and computer programming.

Relational database Management Systems - RDBMS [PROGESS, Oracle 9i, SQL, MS Access, etc.]

Database and system management techniques and concepts of relational database programming methods and techniques; database ERP system theory and maintenance.

Designated/Available system programming languages and techniques of interactive and structured programming. [Visual Basic, C, C#, C++, COBOL, Java, HTML, etc.]

Principles of computer technology including operating systems such as Microsoft Windows and UNIX.

MS Windows O/S software development environment [Windows XP, Windows 2003 server, etc.]

UNIX O/S software development environment [Sun Solaris, SCO Unix, etc.]

Database Management Tools [P:L/SQL Developer, Oracle 9i Developer Suite, TOAD, Oracle PL/SQL developer, etc.]

Program coding, testing and debugging procedures; technical aspects of field of speciality.

Record keeping and documentation techniques.

ABILITY TO:

Perform critical thinking to diagnose the cause of data inaccuracy.

Perform software development to construct applications to test data integrity and consistency.

Perform software development to construct interactive or non-interactive applications to correct data inaccuracy and inconsistency.

Perform software development to generate various critical reports for community college use.

Perform under short time schedules.

Maintain comprehensive records and provide proper documentation of the applications developed.

Develop databases, programs and procedures necessary to integrate and/or implement the System.

Test system fully to determine its operational reliability.

Demonstrated ability to work wit users in identifying their data access/query/reporting needs.

Perform local problem resolution and/or functional analysis for Banner users.

Applies a high degree of expertise and advanced knowledge of computer programming techniques to independently analyze. Design, develop and maintain effective computer applications programs which will facilitate and expedite the processing of complex administrative data.

Analyze System needs for instructional and administrative functions and develop workable automation solutions; consult with end users to define specific coding needs and develop solutions.

Perform local problem, resolution and/or functional analysis for IVC users.

Analyze situations accurately and adopt an effective course of action.

Design and implement system programs/scripts for a variety of college data processing needs including instructional and administrative functions; create and maintain interactive integrated database programs and systems.

Apply techniques of programming and data structuring/analysis to precise problems or requests.

Establish and maintain cooperative and effective working relationships with others.

Articulated oral and written communication skills, and excellent customer service skills.

Meet schedules and time lines; plan and organize work.
Interpersonal; skills using education, ethic, tact, patience, and courtesy.

EDUCATION AND EXPERIENCE: B.A./B.S. degree in computer science or information systems from an accredited four year university including completion of course work in programming languages and relational databases system and five of working experience in analysts, design and developing applications for computer systems with languages as C, C++, C# Java, Visual Basic and Cobol, enterprise Asset Data Management system as Oracle, Progress, Ms SQL, Access and middleware (JDBC,ODBC) are required.

Recommended experience in SCT Banner product.

Recommended experience in Oracle products, Windows NT/2003 Server, and Sun Solaris environments.

WORKING CONDITIONS: Duties are primarily performed while sitting at a computer terminal or while discussing issues with college personnel in an office or meeting room environment. Incumbents are subject to frequent contact with District and campus staff and administrators and demanding project timelines.

PHYSICAL DEMANDS: Incumbents regularly sit for long periods of time, walk short distances on a regular basis, occasionally travel to other offices or locations to attend meetings or pick up and/or deliver materials, use hands and fingers to operate an electronic keyboard or other office machines, speak clearly and distinctly with others; see to read fine print and operate computer; hear and understand voices over telephone and in person; lift, carry, and/or move objects weighing up to 10 pounds.