

JOB TITLE: SYSTEMS ANALYST PROGRAMMER, SENIOR

PAY GRADE: CL 28

LAST REVISED: OCTOBER 2018

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are <u>not</u> intended to reflect all duties performed within the job. Additional or different duties from the ones set forth below may be required to address changing business needs/practices.

SUMMARY DESCRIPTION

This position is responsible for all functional and technical aspects of one or more modules of an ERP system used to support and maintain the college business practices, such as Student/Instruction, Human Resources/Payroll, Finance, Financial Aid, and related regulatory compliance reports and procedures. It is also responsible for creating, modifying and maintaining customizations utilized by functional users on multiple campuses. This position is responsible for the successful transition and migration of data, interfaces and customizations to the District's ERP system. To meet these requirements, this position performs advanced analysis, development, coding, testing and documentation of software applications on multiple platforms for academic and/or business purposes, following industry-standard systems development and project management best practices. This position is responsible for all of the functions associated with project management, project liaison, data modeling, and systems development, and for providing future architectural direction of complex, multi-faceted computer systems, applications, and external interfaces on multiple platforms for academic and/or business purposes. Incumbents in this position must frequently consult with staff and coordinate projects for design and modification of ERP modules and bolt-on applications. This position provides technical support, troubleshooting and problem resolution for staff on computer applications; develops and maintains interfaces to external systems; creates, maintains and modifies applications for an evolving business environment and in support of critical functions and operations.

<u>REPRESENTATIVE DUTIES</u> - The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.

- 1. Serves as a leader for projects by coordinating and otherwise involving staff members from multiple organizational units; follows systems development life-cycle techniques, utilizes joint application development processes, employs project management techniques and is knowledgeable about specialized software packages and applications.
- 2. Troubleshoots application errors; isolates problems from symptoms, determines alternatives and develops and implements solutions; works with user community to improve user instructions and training for greater understanding of application functionality.
- 3. Defines the scope and objectives for applications, along with constraints and system requirements; analyzes and defines current organizational functions, processes, sources and uses of information, and other data to determine application needs and requirements.
- 4. Analyzes user business processes and designs applications and solutions to optimize their use of systems; documents work and information flow using organization and data flow charts and other related materials; designs and produces application design specifications and documentation on inputs,



outputs, and data structures.

- 5. Designs inputs, including data entry screens, scanner forms and files; designs outputs, including reports, files, and display screens; designs, develops, and implements logical and physical database structures and corresponding internal relationships.
- 6. Programs and modifies in-house and third party applications by creating and editing .css, HTML, JavaScript, groovy and related files to meet specifications provided by web designers.
- 7. Designs, codes, tests, and maintains application software on ERP administrative systems, sub systems within networked platforms and integrated data management packages that supports the District's business and instructional processes; consults with users on applications and data requirements.
- 8. Coordinates and guides the work of project team member in converting or integrating applications among platforms; installs, integrates, tests, and tunes software according to test results.
- 9. Coordinates and implements data conversions, integration, and transitions; develops user and system documentation; plans and conducts user training, including preparation of training materials.
- 10. Provides technical support, problem resolution, and data research for end users; provides support and training for integrated data management applications.
- 11. Participates in and facilitates planning and implementation of long range systems goals; researches and participates in the development of system requirements, and evaluation and selection of information systems.
- 12. Establishes standard operating procedures (SOP) and provides inputs to and follows support level agreements (SLA).
- 13. Conducts feasibility studies for proposed applications and prepares recommendations for customers; estimates value-added potential in enhanced service, productivity, and financial benefit.
- 14. Maintains up-to-date knowledge of evolving computer technologies, including hardware, software, languages, problem solving techniques, and development tools; prepares periodic briefings on technologies that would have relevance to the District.
- 15. Coordinates with vendors and users to integrate third party software into District systems and databases.
- 16. Designs, codes, tests, and maintains data transformation services for transfer of data between the primary host system and database and auxiliary operating systems, databases, and third party applications.
- 17. May train and provide work direction to assigned student workers and temporary help as assigned.
- 18. Performs related duties as required.

<u>QUALIFICATIONS</u> - The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

Knowledge of:

ERP systems such as Ellucian Banner with Linux operating system.

Programming languages used by the District such as PL/SQL, SQL*Plus, Oracle Forms, Java, css, JavaScript, MySQL, Perl, HTML, HTTP, APIs and Web Services

Program development techniques, procedures, tools, documentation requirements, and System Development Life Cycles (SDLC).

Complex principles and procedures of computer systems, including analysis and design.



Relational database concepts, design techniques, and tools.

Computer file methods, structured testing techniques, with object-oriented software development techniques and tools.

Problem solving and analytical skills.

Complex software applications, operating systems, hardware, telecommunications, and networking principles

Interpersonal skills to facilitate small group processes, conduct training, provide technical support, and apply understandable lines of questioning when trying to understand department needs or problems.

Ability to:

Analyze technical problems and to develop and apply appropriate solutions.

Evaluate user interfaces for compliance with accessibility standards and principles.

Indentify resources necessary to provide any information and assistance required to complete tasks. Develop and implement project plans leading the successful, on-time completion of tasks.

- Conduct information interviews through individual conferences and group processes, and then translate user requirements into computer programs and systems.
- Coordinate systems development functions and steps and follow logical progressions for programming systems.
- Design, program, install, and maintain programs for original and purchased applications and systems, including databases.

Design Database schemas and analyze relational database tables, triggers, and procedures Use entity relationship (ER) and data modeling tools to document designs.

Provide training to online users in use of computer equipment and operating procedures and communicate technical and complex information to non-technical users.

Read, understand and apply information from technical manuals and education code regulations.

Adapt to changing technologies and learn functionality of new equipment and systems.

Prioritize work in order to meet deadlines and schedules.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work. Operate a variety of computer terminals, printers, and peripheral equipment.

<u>Education and Experience Guidelines</u> - Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. Examples of ways to obtain the knowledge and abilities would be:

Education/Training:

Bachelors Degree or 4 years of college with major course work in computer science or a related field.

Experience:

Nine years of increasingly responsible analysis and programming experience. A Bachelor's degree in computer science or related field may be substituted for four years of related experience.

License or Certificate:

Possession of a valid California driver's license.



PHYSICAL DEMANDS AND WORKING ENVIRONMENT - The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment: Work is performed primarily in a standard office setting.

Physical: Primary functions require sufficient physical ability and mobility to work in an office setting; to stand or sit for prolonged periods of time; to occasionally walk, stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate office equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; and to verbally communicate to exchange information.

Vision: See in the normal visual range with or without correction.

Hearing: Hear in the normal audio range with or without correction.