

Code: 4215

Title: SOFTWARE ENGINEER SENIOR – CENTRAL IT

SUMMARY: Conducts systems analysis and design. Develops and implements software applications for user departments within Pima County. This classification is distinguished from the Software Engineer by the level of complexity of the applications it is involved with and the element of systems analysis that is included. This classification is unique to the County's centralized Information Technology Department.

DUTIES/RESPONSIBILITIES: (Work assignments may vary depending on the department's needs and will be communicated to the applicant or incumbent by the supervisor.)

Analyzes, designs, configures, installs, tests and monitors complex and diverse software applications for Pima County departments;
Develops functional and detailed technical specifications to ensure software applications meet standards of availability and performance;
Performs product design, analysis and programming activities;
Performs complex debugging, unit testing and beta support on assigned projects;
Consults with other technical staff, contractors and vendors to design software solutions for new applications;
Designs, modifies and implements database systems;
Participates in product design review;
Participates in a team environment to categorize, prioritize and resolve software application issues.
Researches issues identified by QA or product support units;
Codes, tests and debugs new programs and modifies existing programs;
Modifies vendor-supplied utilities and packages to interface with existing systems and equipment;
Conducts research and analysis relevant to area of assignment;
Performs implementation and maintenance of product modules and sub-systems;
Prepares technical documentation of product sub-systems;
Installs or assists in the installation and configuration of software packages and/or equipment;
Conducts research to stay abreast of the latest technology and software development methodologies;
Documents code, applications and operations manuals.

KNOWLEDGE & SKILLS:

Knowledge of:

- principles and techniques of applications programming applicable to area of assignment;
- principles and techniques of block diagramming and flow-charting;
- principles and techniques of database design and development;
- machine language(s) applicable to area of assignment;
- operating principles, capabilities and limitations of information processing systems, modules and sub-routines;
- principles and techniques for the adaptation of office procedures to information processing systems;
- principles and techniques for development and maintenance of data communications, security and privacy measures;
- mathematics and statistical methods applicable to the use of information processing systems;
- research methods including the design, analysis and documentation of results for generating reports;
- effective training and communication techniques.

Skill in:

- developing and preparing program block diagrams and flow-charts;

MINIMUM QUALIFICATIONS:

A Bachelor's degree from an accredited college, university or technical trade school with a major in a Computer or Information Technology discipline or a closely related degree as determined by the Appointing Authority at the time of recruitment, and two years of software development experience.

(Additional education from an accredited college, university or technical trade school/experience may be substituted.)

OTHER REQUIREMENTS:

Licenses and Certificates: Some positions may require specialized certification or licensure relative to assignment at time of appointment or prior to completion of an initial or promotional probation period.

Special Notice Items: Some positions may require satisfactory completion of a personal background investigation, polygraph examination, and/or pre-/post-appointment drug-testing by law enforcement agencies due to need for access to law enforcement, corrections, or Courts facilities, property and associated confidential and sensitive information, documents, communications, and database systems.

Physical/Sensory Requirements: Physical and sensory abilities will be determined by position.

This classification is intended to indicate the basic nature of positions allocated to the class and examples of typical duties that may be assigned. It does not imply that all positions within the class perform all of the duties listed, nor does it necessarily list all possible duties that may be assigned.

Pima County

03/26/00(kf)
Updated 05/29/09(cs)