

PRINCIPAL PROGRAMMER ANALYST

DEFINITION: Under direction, performs work of considerable difficulty in providing technical assistance to programmers, other data processing personnel and end users in developing and implementing computer systems; has primary technical responsibility for assigned computer projects; develops, coordinates, or presents technical training courses for data processing personnel; performs related work as required.

ESSENTIAL FUNCTIONS: This list is ILLUSTRATIVE ONLY and is not a comprehensive listing of all functions and tasks performed by incumbents of this class.

TASKS:

Designs, develops, maintains and enhances complex computer and related manual systems; conducts feasibility studies; analyzes and documents present work processes and procedures; provides technical advice on the design, implementation and documentation of new and revised programs and systems; analyzes user requirements and works with users in developing new applications or modifying existing systems; writes or assists in the writing of specifications for the development, maintenance or modification of programs; prepares and maintains detailed written specifications and documentation for complex programs; writes the most complex computer programs from specifications.

Writes or modifies the most complex logic changes in computer programs; develops test data and tests routines for entire systems and individual programs; establishes, implements and monitors project schedules for analysis and programming projects; addresses complex programming problems; prepares report and proposals; prepares system flow diagrams; analyzes malfunctions and develops solutions; provides technical assistance to technical programming staff and end users; prepares various user reports and correspondences.

Designs, modifies, implements and maintains physical data bases; may implement, modify and maintain vendor supplied utilities and data base software packages; trains users and technical personnel in various aspects of information processing system; attends advanced training courses; may provide direction or supervision to programmer analysts, or acts as team or project leader.

Provides technical assistance to technical programming staff in developing and implementing computer programs; develops, coordinates or presents technical training courses for data processing personnel; may coordinate and integrate the work of other programmer analysts; may serve as project leader on a data processing project.

KNOWLEDGE, SKILLS AND OTHER CHARACTERISTICS:

Knowledge of advanced computer programming and systems analysis.

Knowledge of data processing software applications.

Knowledge of supervision methods and practices.

Knowledge of principles and techniques in systems and applications programming design and management.

Knowledge of data processing system analysis and design.

Knowledge of data base and file management techniques.

Knowledge of operating principles and capabilities of equipment and application of operating system and other software.

Knowledge of system design, development, and implementation.

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- Knowledge of computer hardware and operating capabilities.
- Knowledge of principles and practices of supervision.
- Skill in planning and implementing automated computer systems and programs.
- Skill in overseeing and performing systems analysis, programming and customizing computer software.
- Skill in providing direction and instruction in the use of computer applications and software.
- Skill in utilizing verbal and written communication.
- Skill in reading, understanding, and interpreting technical manuals.
- Skill in establishing and maintaining effective working relationships.
- Skill in use of programming languages.
- Skill in analyzing user needs.

PHYSICAL REQUIREMENTS AND WORK ENVIRONMENT: Work involves a minimum of physical effort primarily in an office setting with occasional work in the field.

MINIMUM QUALIFICATIONS: A Bachelor's degree in Computer Science or a closely related field; and two (2) years of progressively responsible computer programming and/or systems analysis; or an equivalent combination of education, training and experience which provides the capabilities to perform the described duties.

Depending upon the needs of the Nation, some incumbents of the class may be required to demonstrate fluency in both the Navajo and English languages as a condition of employment.