

GUILFORD COUNTY SCHOOLS JOB DESCRIPTION

JOB TITLE: PROGRAMMER/ANALYST I ACCOUNTABILITY AND RESEARCH

GENERAL STATEMENT OF JOB

Under general supervision, employee is responsible for reviewing, overseeing and participating in information system projects which include designing detailed and intricate computer applications according to user requests or defined needs; diagnosing and resolving operational problems in programs, writing necessary interfaces, incorporating web-based access and developing formats for various reports or documents. Employee is also responsible for providing logistical and procedural support for GCS formative assessment/state accountability programs in the Guilford County Schools including, but not limited to, preparing answer sheets for school distribution, scanning answer documents, monitoring the timely receipt and maintenance of GCS formative assessment/state accountability data, and assisting with the inventorying, ordering, and handling of test materials. Work involves assisting personnel in the use and understanding of computer software and databases, including instruction, establishing system parameters and defining requirements, and requires knowledge of data collection and reporting procedures. Employee must exhibit effective time management in order to meet critical deadlines as well as work on several tasks simultaneously. Employee must exercise tact and courtesy with a number of colleagues. Employee reports to the Chief Accountability and Research Officer.

SPECIFIC DUTIES AND RESPONSIBILITIES

Designs and develops enterprise-wide computer applications utilizing database design techniques, web-based applications and communication methods.

Writes, tests, de-bugs, and maintains computer programs using various programming languages, query methods or standard report writers.

Uses query or business intelligence tools to create ad hoc queries and complex reports.

Uses web development tools to write interactive web applications that support, interface with or provide end user access to various computer applications.

May troubleshoot hardware and software problems, determines cause of error or stoppage and applies corrective steps in cases where problems can be corrected.

Develops and manages system security and backup/recovery procedures for computer applications.

Assists users by printing special reports and forms, restoring databases, and resolving communications problems.

PROGRAMMER-ANALYST I – ACCOUNTABILITY AND RESEARCH

Sets up computer equipment for pre- and post-administration of state tests; ensures current installation and function of testing software; maintains operability of testing hardware; provides upkeep and calibration of testing scanners.

Precodes testing program answer sheets and prepares them for distribution to schools.

Scans answer documents of various tests and produces reports based on the results using appropriate.

Prepares data files and associated reports for distribution to appropriate departments, schools, and central office administrators.

Troubleshoots hardware and software problems in the Accountability and Research Division; determines causes of error or stoppage; applies corrective techniques in cases where problems can be corrected, arranges for repair or replacement of faulty equipment, or refers complex problems to higher-level technical support.

Develops timelines for project implementation including resources needed and personnel involved.

Maintains security of all testing materials ordered and received; monitors the quantities of consumable materials used and on hand so that sufficient amounts are available to complete test administrations; maintains and orders and needed technology supplies; orders test materials as needed.

Reports data to the NCDPI and Accountability and Research Division in a timely manner, develops databases and spreadsheets when required.

Backs up and documents testing data files on a regular basis; prints reports and forms.

Determines overall quality of testing data and trouble shoots and corrects problems; completes analyses and written summaries of data from testing; maintains and updates data as required by reporting schedules.

Assists with inventorying, storing, packing and distributing materials as needed.

Assists with the receipt of testing materials from the schools after testing has been completed as needed.

Lifts, carries, and moves computer equipment as required.

ADDITIONAL JOB FUNCTIONS

Performs other related work as required.

PROGRAMMER-ANALYST I – ACCOUNTABILITY AND RESEARCH

MINIMUM TRAINING AND EXPERIENCE

Bachelor's degree in computer science or a related field, and 1 to 3 years of experience in computer programming; or any equivalent combination of training and experience which provides the required skills, knowledge, and abilities.

SPECIAL REQUIREMENTS

Must possess a valid North Carolina Driver's License.

MINIMUM QUALIFICATIONS OR STANDARDS REQUIRED TO PERFORM ESSENTIAL JOB FUNCTIONS

Physical Requirements: Must be physically able to operate a variety of machinery and equipment, including computers, scanners, copiers, facsimile machines, calculators, etc. Must be physically able to operate a motor vehicle. Requires the ability to exert up to 40 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 15 pounds of force constantly to move objects, including the human body. Light to Medium Work usually requires walking or standing to a significant degree.

Data Conception: Requires the ability to compare and/or judge the readily observable, functional, structural, or composite characteristics (whether similar or divergent from obvious standards) of data, people, or things.

Interpersonal Communication: Requires the ability to speak and/or signal people to convey or exchange information. Includes giving instructions, assignments, or directions to others.

Language Ability: Requires the ability to read a variety of correspondence, reports, forms, applications, etc. Requires the ability to prepare correspondence, reports, presentations, requisitions, forms, evaluations, budgets, etc., using prescribed formats and conforming to all rules of punctuation, grammar, diction, and style. Requires the ability to speak before groups of people with poise, voice control, and confidence.

Intelligence: Requires the ability to apply principles of logical or scientific thinking to define problems, collect data, establish facts, and draw valid conclusions; to interpret an extensive variety of technical instructions in mathematical or diagrammatic form; and to deal with several abstract and concrete variables.

Verbal Aptitude: Requires the ability to record and deliver information, to explain procedures, to follow oral and written instructions. Must be able to communicate effectively and efficiently in standard English.

Numerical Aptitude: Requires the ability to utilize mathematical formulas; to add, subtract, multiply, and divide.

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Form/Spatial Aptitude: Requires the ability to inspect items for proper length, width, and shape.

Motor Coordination: Requires the ability to coordinate hands and eyes rapidly and accurately in using office equipment.

Manual Dexterity: Requires the ability to handle a variety of items such as office equipment and hand tools. Must have minimal levels of eye/hand/foot coordination

Color Discrimination: Requires the ability to differentiate between colors and shades of color.

Interpersonal Temperament: Requires the ability to deal with people beyond giving and receiving instructions. Must be adaptable to performing under stress and when confronted with emergency situations.

Physical Communication: Requires the ability to talk and hear: (Talking: expressing or exchanging ideas by means of spoken words. Hearing: perceiving nature of sounds by ear.) Must be able to communicate via telephone.

KNOWLEDGE, SKILLS, AND ABILITIES

Considerable knowledge of mainframe computer components, connectivity and operating systems.

Considerable knowledge of various methods and approaches to debugging system and program errors.

Considerable knowledge of several programming languages and of Job Control Language.

Considerable knowledge of web-based programming tools.

Considerable knowledge of microcomputer applications and interface methods.

Considerable knowledge of query tools.

General knowledge of network communications programming for incorporating data from various databases and computer platforms.

Considerable knowledge of department standards and procedures regarding programming and security.

Considerable knowledge of system development methodology.

Ability to evaluate the performance of hardware/software and make recommendations for improvement.

PROGRAMMER-ANALYST I – ACCOUNTABILITY AND RESEARCH

Ability to systematically determine the source of problems in a computer system and to take appropriate action.

Ability to translate user requirements into effective program designs.

Ability to determine and document user requirements.

Ability to develop clear, effective instructions for operations staff and for users.

Ability to design, develop and schedule programs to ensure efficient processing.

Ability to maintain complete and accurate records.

Ability to communicate effectively both orally and in writing.

Ability to establish and maintain effective working relationships as necessitated by work assignments.

Significant ability to install and setup software packages that meet the needs of the department.

Capable of performing initial installations and upgrades of computer hardware.

Considerable skill in manipulating, extracting, and evaluating standardized test results and related data including basic statistical analysis.

Ability to utilize time effectively and prioritize tasks.

Ability to effectively work as a member of a high functioning team.

DISCLAIMER

The preceding job description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities, and qualifications required of employees to this job.