

A. MAJOR DUTIES

Typical, but not all-inclusive, duties are illustrated by performance of any combination of the following:

Assists in one or more phases of the research process by performing a variety of technical duties, in a laboratory environment, common to the assigned area of work.

Performs routine and recurring techniques and studies using a variety of specialized equipment.

Maintains, calibrates and modifies equipment and automated systems used for test and evaluation procedures.

Collects, prepares, evaluates, and verifies samples and supporting records; maintains records and locates and compiles data and other information from various sources.

Keeps detailed records of experimental data. Tabulates, statistically analyzes and summarizes data using personal computers and software packages.

Maintains inventory of chemicals, prepares solutions and reagents for use in the laboratory, and safely disposes of waste material (both chemical and biological).

Keeps work-site in a neat and orderly manner.

B. EVALUATION FACTORS

1. KNOWLEDGE REQUIRED BY THE POSITION (FLD 1-4: 550 pts)

Knowledge of the basic principles of physical science (e.g., chemistry, physics, etc.) of the research being conducted in order to assess readings and measurements taken, tests executed, observations made, work completed and samples collected; and understand and relate the significance of the results to the objective of the overall research assignment.

Practical knowledge of the processes, methods, and procedures related to the specific area of research necessary to perform a full range of duties in area of assignment.

Knowledge and understanding of the application of instrumentation used in analyses so that prescribed procedures can be modified to accommodate existing sampling and analytical conditions.

Working knowledge of analytical chemistry in order to prepare reagents, buffers, and standards, and to analyze samples, evaluate changes proposed for methods or in procedures and suggest ways to improve methods and techniques.

Skill in the operation and maintenance of equipment systems common to the specific area of research being conducted in the laboratory including calibrating and synchronizing to achieve desired results.

Ability to follow assigned protocols and recognizes and report abnormal or unexpected results.

Skill in keeping exact and detailed records of data obtained from experiments.

Ability to use personal computers and software packages in the data collection, analysis, and presentation processes.

Knowledge of safe laboratory procedures.

2. SUPERVISORY CONTROLS (FLD 2-3: 275 pts)

The supervisor or other designated authority initially provides direction on the priorities, objectives, and/or deadline for kinds of work previously performed by the unit and therefore covered by precedent. Assignments new to the organization or unusual assignments may be accompanied with a general background discussion, including advice on the location of reference material to use.

The technician identifies the work to be done to fulfill project requirements and objectives, plans and carries out the procedural and technical steps required, seeks assistance as needed, independently coordinates work efforts with outside parties, and characteristically submits only completed work. The technician seeks administrative direction or decision from higher authority on the course to follow when encountering significant technical or procedural problems with the work.

Review is usually in the form of an assessment as to how the technician resolved technical and related administrative problems encountered. Accuracy of the data produced, quality of observations made, and the sufficiency of steps employed in planning and executing the work assigned is customarily accepted without detailed review.

3. **GUIDELINES** (FLD 3-2: 125 pts)

Procedures for doing the work have been established and a number of specific guidelines are applicable.

Incumbent uses judgment in selecting the appropriate guideline because of the number, similarity, linkage, and overlapping nature of the guides. The guidelines contain criteria to solve the core question or problem contained in the assignments, though the applicability may not be readily apparent, i.e., the guides often require careful study and cross-referencing.

4. **COMPLEXITY** (FLD 4-2: 75 pts)

Assignments consist of performing a variety of routine tasks or one or more complex duties related to regular and recurring technical work, operating a variety of pieces of equipment or one or more complex equipment systems commonly associated with the work site, and/or performing a full variety of the standardized technical support and technical duties associated with the work.

Performance of the assignments requires making choices when, for example, executing a number of types of sequential, related steps or assembling several pieces of equipment. Incumbent exercises independence in recognizing differences, choosing the right course of action, and then selecting and executing the proper task sequences for completing the work.

Incumbent deals with facts, e.g., spots readings which are outside the normal range of tolerance or acceptability, or determines how best to present raw data. Incumbent determines what needs to be done to update or complete records and documents and initiates action to acquire needed information from others as indicated by situations encountered in the work.

5. **SCOPE AND EFFECT** (FLD 5-2: 75 pts)

Work involves executing specific tasks and procedures. Completed assignments constitute a complete segment of assignments with broader scope, e.g., daily collects data for use by others involved in research.

Work affects the accuracy, reliability, or acceptability of further procedures, processes or services, e.g., the ability of the scientist to complete with accuracy a phase of the research process.

6. **PERSONAL CONTACTS and** (2b: 75 pts)
7. **PURPOSE OF CONTACTS**

Personal contacts are with employees in the agency, inside and outside of the immediate organizations, e.g., personnel from higher level organizational units, or, occasionally, resource individuals from State or local government units, or other Federal agencies.

The purpose of personal contacts is to: plan and coordinate work efforts; discuss technical requirements of equipment with manufacturers and resolve problems concerning the work or the peculiar needs of the organization; interpret data obtained and explain its purpose and significance; or reach agreement on operating problems such as recurring submission of inaccurate, untimely, incomplete or irrelevant data. The persons contacted are usually working toward a common goal and generally are reasonably cooperative.

8. **PHYSICAL DEMANDS** (FLD 8-2: 20 pts)

The work requires some physical exertions, such as regular and recurring walking or bending. In many situations the duration of the activity (e.g., continuous testing of samples) contributes to the arduous nature of the job. In other situations, there may be special requirements for agility or dexterity such as exceptional hand/eye coordination.

9. **WORK ENVIRONMENT** (FLD 9-2: 20 pts)

The work requires moderate risks or discomforts which require special safety precautions, e.g., working around moving parts, machines, with irritant chemicals, bacteria, or obnoxious odors. The incumbent is required to use protective clothing or gear such as masks, gowns, goggles, gloves.

**Physical Science Technician
GS-1311-06**

Standard Job #1311-06

C. OTHER CONSIDERATIONS (Check if applicable)

- Supervisory Responsibilities (EEO Statement)
- Training Activities - Career Intern, Student Career Experience Program
- Motor Vehicle or Commercial Driver's License Required
- Pesticide Applicators License Required
- Safety/Radiological Safety Collateral Duties
- EEO Collateral Duties
- Drug Test Required
- Vaccine(s) Required
- Financial Disclosure Required
- Special Physical Requirements/Demands
- Other:

TOTAL POINTS: 1,215 points
(GS-6 Range: 1,105-1,350 points)