

A. MAJOR DUTIES

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

As a trainee microbiologist, performs duties that are designed to orient the incumbent in the mission and work of the laboratory.

Work is selected to provide experience and training in the application of basic professional knowledge and abilities and in the use of scientific methods, procedures, and techniques; to orient and indoctrinate the incumbent in agency programs, policies, and procedures; and to provide a basis for more responsible assignments in the field of microbiology.

Performs experiments which are designed to provide answers for specific research problem areas.

Conducts literature searches for information relevant to the research methods, techniques and procedures.

Uses microcomputers to control equipment, manipulate data, and generate reports.

Maintains cleanliness and general housekeeping in the laboratory including maintenance of supplies and materials.

Records and calculates results, tabulates data, and performs elementary statistics including calculations of means, standard deviations, standard errors, and coefficient of variations.

Maintains equipment and instrumentation in top working condition, performing routine preventative maintenance and minor repairs, and promptly reporting signs of malfunction or need for major repairs.

Maintains inventory of laboratory equipment and chemicals, and assists in performing routine laboratory operations such as media preparation, housekeeping, maintenance of stock cultures, etc.

Maintains official laboratory notebooks (and computerized data base collection files where required), correctly entering results, performing calculations, noting procedural modifications and observations, etc.

B. EVALUATION FACTORS

1. Knowledge Required by the Position (FLD 1-5: 750 points)

Professional knowledge or working experience and training in principles and theories of microbiology, and to a lesser degree, the general principles and theories of chemistry.

Knowledge of standard biological and microbiological methods, procedures, and techniques.

Skill in accurately recording and tabulating results, and performing elementary statistical analyses.

Ability to evaluate and apply published scientific literature to work assignments.

Ability to make close observations, handle and manipulate laboratory equipment, and report findings orally and in writing.

Ability to recognize significance of unexpected results.

2. Supervisory Controls (FLD 2-1: 25 points)

The work is closely supervised, detailed instructions are provided on the use of specific procedures and techniques, and reviews are comprehensive to insure proper application of instructions and methodology.

Results are closely checked for accuracy and to evaluate the development of the employee.

3. Guidelines (FLD 3-2: 125 points)

Guidelines include established methodology, manuals, technical references, and precedent investigations. The supervisor will provide the criteria for selecting the most appropriate guides and references to apply to each problem.

Deviations from guidelines are referred to senior researchers for recommended action.

4. Complexity (FLD 4-2: 25 points)

Assignments are developmental in nature and consist of a variety of studies designed to provide the incumbent with experience and training in applying established microbiological and biochemical theories to on-going research projects.

The work requires professional judgment in recognizing unexpected results; selecting, applying and making minor adjustments to established protocols and methods; and insuring that research data and analyses are precise and reliable.

5. Scope and Effect (FLD 5-1: 25 points)

The work involves the performance of specific experiments, analyses and measurements primarily designed to expose the incumbent to methods, standard practices and the specialized research projects.

Work results facilitate the work of others and have little impact beyond the immediate laboratory.

**6. Personal Contacts and
7. Purpose of Contacts (FLD 1a: 30 points)**

Personal contacts are with coworkers in the laboratory, and with other microbiologists, chemists, and biological and physical science technicians within the immediate work unit or other laboratories at the location. Occasionally, contacts with scientists outside the location may be required.

Contacts are to report results and obtain information on how to perform the work.

8. Physical Demands (FLD 8-2: 20 points)

The work sometimes requires standing for prolonged periods of time.

9. Work Environment (FLD 9-2: 20 points)

Work is performed primarily in a laboratory. Incumbent is exposed to irritant chemicals on an irregular basis; on such occasions, special safety precautions are required and the incumbent uses protective clothing and gear such as laboratory coat, safety glasses and gloves.

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: 1,020 points
(GS-5 Range: 855 – 1,100 points)

September 26, 1996