

Specification for Class of

MICROBIOLOGIST 1

**Abolished Effective July 1, 2007**

Definition: Performs standardized microbiological procedures.

Distinguishing Characteristics: This class is usually used to introduce recent college graduates to a variety of professional disciplines of microbiology. Complexity of assignments is often directly related to the incumbent's progressing knowledge of specific techniques.

Typical Work

Performs a variety of standardized bacteriologic and serologic examinations with supervisory review of methods, accuracy, and quantity of output;

Performs plate counts for pollution monitoring;

Identifies species of pollen and algae in air and water samples;

Identifies parasites such as roundworms, mites, amoeba and protezoa in tissue and fecal specimens;

Carries out primary isolation techniques of microorganisms; prepares media and reagents;

Assists in serologic testing by preparing antigen emulsions; pipetting serums and making preliminary readings of test results;

Performs animal inoculations;

Records results and assembles data for interpretation; keeps records;

Performs plate counts, coliform counts, somatic cell counts, antibiotic tests, and phosphatase tests on dairy and food samples;

Performs microscopic, serological and biochemical procedures on bacteria referred by private or public laboratories for initial identification or confirmation; compiles and maintains records of the characteristics of the organisms identified;

Processes a variety of clinical specimens to identify pathogenic bacteria; processes nose and throat cultures to identify such organisms as Group A beta hemolytic streptococcus, Corynebacterium, diphtheria, genital specimens for gonococcus; makes preliminary identification on the basis of gross morphology, microscopic examination, and biochemical tests;

Isolates and identifies organisms causing food poisoning by using cultural, biochemical and microscopic analyses; tests for botulism toxins in foods by special and specific preparations of materials and intraperitoneal injections into mice;

Analyzes blood, tissue and fecal specimens to identify parasites such as anaplasma, roundworms, mites, and coccidia;

Cultures, isolates and identifies M. tuberculosis and related organisms; performs growth rate studies, pigment production studies, biochemical tests and animal inoculation for the purpose of identifying mycobacteria;

Carries out primary isolation techniques of microorganisms; prepares media and reagents;

Identifies species of pollen and algae in air and water samples;

Performs other work as required.

#### Knowledge and Abilities

Knowledge of: pathogenic bacteria; immunology; parasitology; mycology; serologic diagnosis; water and milk bacteriology, virology, and chemistry; laboratory terminology, techniques, and equipment; report preparation.

Ability to: make routine standard tests in bacteriology, virology, and serology; understand and follow oral and written instructions and formulae.

#### Minimum Qualifications

A Bachelor's degree with a major in microbiology or a major in another laboratory science provided that at least 20 semester credit hours or 30 quarter credit hours in microbiology are included.

MICROBIOLOGIST 1

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Revised July 14, 1972 Revises definition, distinguishing  
characteristics and minimum qualifications Revised March 15, 1985  
General revision