

Microbiologist GS-403 Coursework Requirements

Applicants with a degree in microbiology meet the basic education requirement. The following examples of qualifying courses apply to applicants: 1) with a major in biology, chemistry, or basic medical science or 2) who are combining education equivalent to a major in one of those fields with experience or other education to qualify. The lists are not all-inclusive.

Microbiology (need at least 20 semester hours)

Creditable courses include:

- General microbiology
- Specific areas of microbiology such as bacteriology, virology, microbial genetics, bacterial genetics, viral genetics, soil microbiology
- Related fields of study commonly associated with microbiology such as mycology, algology, protozoology, parasitology, immunology, serology, molecular genetics, tissue culture
- Courses in applied fields such as environmental, food, dairy, soil, industrial, public health, clinical, and agricultural microbiology
- Courses in related fields when the coursework is directly related or applies to microbiology: taxonomy and systematics, plant, animal, or human physiology or pathology, infectious diseases, epidemiology, ecology, etc...

Courses **not** creditable toward meeting the microbiology requirement include:

- General Biology or any biology course that does not have an emphasis in microbiology
- Anatomy
- Nutrition
- Animal Production
- Reproduction
- Animal Science if not specific to infectious diseases or microbiology

Physical and Mathematical Sciences (need at least 20 semester hours)

Creditable Physical Science courses include:

- Biochemistry
- Immunochemistry
- Organic Chemistry
- Physical Chemistry
- Quantitative Analysis
- Quantitative Chemistry
- Analytical Chemistry
- Physics

Creditable Mathematics courses include:

- College Algebra
- Calculus
- Statistics
- Geometry
- Trigonometry
- Differential Equations

Courses **not** creditable as either Physical or Mathematical Science courses include:

- General and/or introductory mathematics
- General and/or introductory chemistry (courses that cover a variety of topics which may include biochemistry and/or organic chemistry)
- Astronomy
- Most earth sciences (e.g., geology, hydrology, meteorology)