



Microbiologist

STANDARD OCCUPATIONAL CODE 19-1022.00

What They Do

Investigate the growth, structure, development, and other characteristics of microscopic organisms, such as bacteria, algae, or fungi. Includes medical microbiologists who study the relationship between organisms and disease or the effects of antibiotics on microorganisms.

Is This For You?

Work Interests are described in the following categories (compatible with Holland's Model). People who tend to succeed in this career are:

Realistic - Enjoy work activities that involve practical, hands-on problems and solutions.

Investigative - Interested in science and logic. They like to analyze, evaluate, and solve problems, and enjoy learning and understanding the causes of events.

Work Values are aspects of work that are satisfying to you. The following work values are generally associated with this career:

Recognition – Offer advancement, potential for leadership, and may be considered prestigious.

Achievement – Results oriented occupation that allows employees to use their strongest abilities, giving them a feeling of accomplishment.

Independence – Allow employees to work on their own and make decisions.

Abilities reflect a person's aptitude to acquire skills and knowledge. The following abilities are important for success in the career:

- Inductive Reasoning
- Written Comprehension
- Category Flexibility
- Deductive Reasoning
- Information Ordering
- Problem Sensitivity

Skills You Need

- Science – Using scientific rules and methods to solve problems
- Reading Comprehension – Understanding written sentences and paragraphs in work related documents
- Writing – Communicating effectively in writing as appropriate for the needs of the audience
- Active Listening – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times
- Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems

Education & Training

Microbiologists need a **bachelor's degree in microbiology, biology, or agricultural science.**

Where They Work

The South Dakota Industries which employ the largest number of microbiologists are:

- State Government Educational Services
- State Government
- Federal Government
- Architectural and Engineering Services
- Medical Equipment and Supplies Manufacturing

SD Employment & Wages

2016 Workers	2026 Workers	Numeric Change	Percent Change	Average Demand for Workers	Average Annual Wage
60	70	10	13%	10	\$71,650

Activities: what you might do in a day

- Cultivate micro-organisms for study, testing, or medical preparations
- Prepare biological samples for testing or analysis
- Research microbiological or chemical processes or structures
- Classify organisms based on their characteristics or behavior
- Analyze biological samples
- Research diseases or parasites
- Prepare scientific or technical reports or presentations
- Supervise scientific or technical personnel
- Monitor environmental impacts of production or development activities

Additional References

Career OneStop

www.careeronestop.org

O*Net Online

online.onetcenter.org