

Microbiologist

Work with bacteria, viruses and fungi in a hospital, a brewery, a water plant or a vaccine lab.

TYPICAL PAY

\$83,000

a year, full time

PAY RANGE

\$53k to \$139k

starting to experienced

TIME TO QUALIFY

4 to 6 years

after high school

DEMAND

Moderate

job outlook

LICENCE NEEDED

No

anyone can do it

WHERE YOU WORK

**Hospital and public health labs,
food and drug companies, brewer...**

How you get there

- 1 High school** Grades 11 and 12
Biology and chemistry are the must-haves. Add math and physics if you can.
- 2 Bachelor of Science in microbiology** 4 years
Four years. Many schools start you in general biology and let you specialize in second year. Aim for a co-op or honours thesis stream.
- 3 First lab job** 1 to 2 years
Quality control, testing or research assistant work. You learn sterile technique properly here, not in class.
- 4 Master's or PhD, if you want to lead** 2 to 6 years
Needed for research scientist roles and for directing a clinical lab.
- 5 Clinical fellowship, if you want a hospital lab** 2 years
Two years of supervised hospital training after a PhD, then a certifying exam in medical microbiology.

Pros and cons

- + Real stakes: your result changes someone's treatment or stops a bad batch
- + Jobs exist in every city, not just research hubs
- + Employers in food, water and drugs are recession resistant
- Entry-level work is repetitive and closely scripted
- Shift work, including nights and weekends, in hospitals and plants
- Senior roles usually need a PhD, which is five or more extra years

Optional boosts

Clinical microbiology. Molecular methods. Sterile manufacturing. Fermentation science.

Good to know

Canada helped map the first coronavirus genome of 2020

Scientists at the Michael Smith Genome Sciences Centre in Vancouver sequenced the virus behind the 2020 outbreak of severe acute respiratory syndrome in about six days, a record at the time.

Winnipeg has a level 4 lab

The National Microbiology Laboratory in Winnipeg is one of a small number of facilities in the world cleared to work with the most dangerous known viruses, including Ebola.

Where these numbers come from

Job Bank: Microbiologist in Canada, wages (updated November 2025)
Canadian Association for Clinical Microbiology and Infectious Diseases
Canadian Society of Clinical Chemists, laboratory medicine training
Chemical Institute of Canada

Numbers checked September 2026. Pay figures are typical full-time annual amounts in Canadian dollars, based on Government of Canada Job Bank wage data and published salary grids. They vary by province, employer and experience. Tuition is for domestic students. Sources, links and the click-through version: <https://career.help/ca/careers/microbiologist>



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