VETASSESS

Information sheet

# Microbiologist

**ANZSCO: 234517** **Group A**

### About this document

- The following Information Sheet is for your reference only and should be used as a guide to assist with your Skills Assessment application to VETASSESS. This information is subject to change.
- Please note that a Skills Assessment of the qualification involves assessment of both the qualification level and content. Qualifications are assessed according to the guidelines published by the Australian Government Department of Education.
- The employment assessment involves determining the skill level and relevance of the tasks undertaken.
- Integrity checks may be conducted to verify the qualification and employment claims made in an application.

## Job description

A Microbiologist studies microscopic forms of life such as bacteria, viruses and protozoa.

## Occupations considered suitable under this ANZSCO code:

- Bacteriologist (Non-medical)

Closely-related occupations in ANZCO Unit 2345

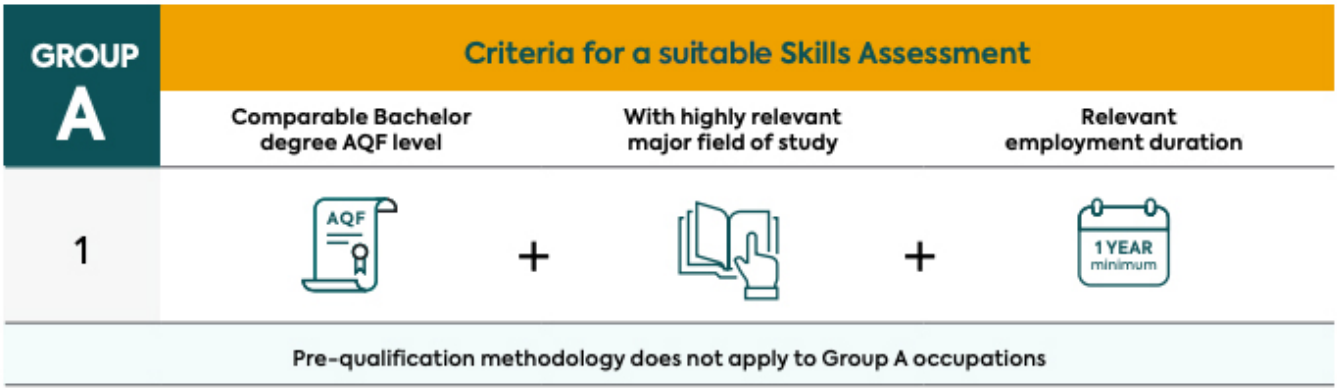
- Biotechnologist
- Life Scientists nec (not elsewhere classified)
- Life Scientist (General)
- Biochemist
- Botanist »Marine Biologist
- Zoologist

## Occupations not considered under this ANZSCO code:

- Clinical Research Scientist

# Microbiologist is a VETASSESS Group A occupation

This occupation requires a qualification assessed as comparable to the educational level of an Australian Qualifications Framework (AQF) Bachelor degree or higher, in a field highly relevant to the nominated occupation.




The information below describes the available pathways for a Skills Assessment under**Group A**. Please note that in order to achieve a suitable Skills Assessment Outcome, a suitable assessment for both qualifications and employment is required.

**Pathway 1**

This pathway requires a qualification assessed as comparable to the education level of an Australian Qualifications Framework (AQF) Bachelor degree or higher degree and in a field highly relevant to the nominated occupation.

Bachelor degree or higher degree includes AQF Master Degree or AQF Doctoral Degree.

In addition, it is essential for applicants to meet the following employment criteria:

- at least **one** year of post-qualification employment at an appropriate skill level, undertaken in the last five years,
- working 20 hours or more per week, and
- highly relevant to the nominated occupation.

## Qualification

This occupation requires a qualification with a highly relevant field of study in Microbiology, Microbiology and Immunology, Molecular Genetics, Biomedical Science, Biotechnology, Medical Laboratory Sciences.

*This includes qualifications assessed at AQF Bachelor, Master and Doctoral level.

The qualifications in the fields listed below may be accepted on a case-by-case basis if the program consists of specialised Microbiology subjects and precedes at least one year of highly relevant employment in that specific knowledge area.

- Animal and Veterinary Biosciences
- Environmental Science
- Marine Science
- Forensic Biotechnology
- Chemistry/Biochemistry
- Food Science and Technology
- Engineering Science (Microbiological Research)
- Life Science

## Employment

Highly relevant tasks include:

- Studying the growth and characteristics of micro-organisms, such as bacteria, algae and fungi, and the effects they have on plants, animals and humans to develop medical, veterinary, industrial, environmental and other practical applications
- Designing and conducting experiments, making observations and measurements, researching information, analysing data, preparing or supervising the preparation of laboratory reports and scientific papers, presenting findings at scientific meetings and conferences, and supervising the work of staff

Other highly relevant tasks may include:

- Conducting research on microscopic organisms such as bacteria, virus, and fungi for their use in basic and applied research; in line with appropriate regulatory restrictions for biological safety, biosecurity and containment of microorganism;
- Working in the laboratory settings, carrying out and monitoring scientific experiments on a microscopic level, or microbiological diagnostic testing;
- Communicating the outcomes of research activity by means of peer-reviewed scientific publications, reports and reviews, and giving oral presentations to scientific, client and community audiences where appropriate;
- Developing procedures to improve quality of microbiological test methods and processes and contribute to assay development in industrial microbiology laboratories;
- Development, validation and implementation of new methods/technologies into the QC/QA operational departments;
- Evaluating and researching microbiology laboratory procedures (such as but not limited: methods verification, validation, etc.), recommending improvements for laboratory tests, and providing assistance to the lab management for grant application and reports;
- Engaging in professional interactions amongst the discipline, including membership of a microbiological society or professional body.

## Employment Information

This field of science is closely related to other life sciences such as molecular biology and biochemistry. Microscopic organisms include fungi and Bacteriophage. Microbiologists work in several fields including, but not limited to, medicine, research, and university teaching.

Although their work is also required in industries such as pharmaceuticals, food processing, and biotechnology, employment should involve novel scientific research, experimental and methodology development.

In Australia, Microbiologists are employed in nearly every industry, including food, health, agriculture, pollution control, biotechnology, and pharmaceuticals. This can be in a laboratory or field setting.

## Policy regarding work in Quality Assurance/ Quality Control roles:

Employment focused on Quality Control or Quality Assurance can be assessed positively under this occupation providing that the role involves specialised tasks including:

- Proven ability to work independently or under minimum supervision and use initiative skills to make decisions;
- Demonstrated abilities in utilising microbiological research and analytical skills;

- Supervising and training Technicians/Lab Assistant;
- Writing laboratory reports and editing or developing procedures.