Diploma of Laboratory Technology (Biotechnology)

Specialise in molecular biology, develop a broad-ranged knowledge of scientific principles and gain practical laboratory experience to start your career in the biotechnology industry.

As a biotechnologist you’ll apply your knowledge of living systems to solving important practical issues including controlling disease and making the environment safer.

You’ll provide technical support to scientists working in research, production and testing positions in government and commercial laboratories.

Note: Programs may change as training packages are updated.

Industry connections
In your second year, you’ll complete a 10-day work placement organised by RMIT.

The placement will take place in laboratories ranging from small research labs to large biotechnology companies.

Career outlook
Graduates work as technicians in biotechnology laboratories and provide technical support for scientists working in:

- medical research
- vaccine production
- agriculture
- diagnostic screening
- commercial plant propagation
- food microbiology.

Professional recognition
Graduates are eligible for membership with the Australian Society for Microbiology and AusBiotech.

Pathways
Graduates with a grade point average (GPA) of at least 2.0 out of 4.0 may be eligible to apply for credit of up to one year into the following programs, if they are successful in gaining a place:

- Bachelor of Biomedical Science
- Bachelor of Science (Biotechnology)
- Bachelor of Biomedical Science (Laboratory Medicine)
- Bachelor of Pharmaceutical Sciences.

The completion of the Certificate IV in Tertiary Preparation science stream may provide a pathway into this program (certain criteria must be met).

For local fee information:
www.rmit.edu.au/programs/c5282
Program structure

Year 1
You'll build your foundation in biochemistry, biology, chemistry, computing, mathematics, occupational health and safety and scientific communication.

You’ll develop general laboratory skills such as microscopy, aseptic techniques, chemistry techniques and the use of laboratory instruments.

In chemistry you’ll become skilled at preparing solutions that meet strict quality control standards. You’ll also learn to use specialised equipment and how to work safely with potentially dangerous chemicals.

Year 2
You’ll do specialised study in areas relevant to a research lab such as molecular biology, tissue culture, genetics, chromatography, electrophoresis and quality assurance.

You’ll extract DNA from bacteria and other cells which you’ll amplify (using a technique called PCR), separate (using electrophoresis techniques), stain and examine. You’ll learn how to use a biohazard cabinet and aseptically grow human cells in a flask outside the body.

Elective units Group A
(complete all 12 units)

<table>
<thead>
<tr>
<th>Core units (Mandatory)</th>
<th>Elective units Group A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement and monitor environmentally sustainable work practices (MSAENV472B)</td>
<td>Perform aseptic techniques (MSL973004A)</td>
</tr>
<tr>
<td>Communicate with other people (MSL913001A)</td>
<td>Recognise healthy body systems (HLTAAP001)</td>
</tr>
<tr>
<td>Provide information to customers (MSL915001A)</td>
<td>Perform microscopic examination (MSL973007A)</td>
</tr>
<tr>
<td>Process and interpret data (MSL924001A)</td>
<td>Apply electrophoretic techniques (MSL975008A)</td>
</tr>
<tr>
<td>Analyse data and report results (MSL925001A)</td>
<td>Prepare, standardise and use solutions (MSL974001A)</td>
</tr>
<tr>
<td>Use laboratory application software (MSL924002A)</td>
<td>Apply routine chromatographic techniques (MSL975009A)</td>
</tr>
<tr>
<td>Maintain laboratory/field workplace safety (MSL944001A)</td>
<td>Perform chemical tests and procedures (MSL974003A)</td>
</tr>
<tr>
<td>Plan and conduct laboratory/field work (MSL913002A)</td>
<td>Perform tissue and cell culture techniques (MSL975013A)</td>
</tr>
<tr>
<td>Apply quality system and continuous improvement processes (MSL934002A)</td>
<td>Perform biological procedures (MSL974006A)</td>
</tr>
<tr>
<td></td>
<td>Perform molecular biology tests and procedures (MSL975014A)</td>
</tr>
<tr>
<td></td>
<td>Perform microbiological tests (MSL975001A)</td>
</tr>
<tr>
<td></td>
<td>Produce research reports and make presentations (FNSICGEN501B)</td>
</tr>
</tbody>
</table>

Entrance requirements
None

Additional information
Non-Year 12 applicants may submit additional information if they would like it to be considered. For semester 1 intake, this can be completed through the VTAC Personal Statement online.