Get started on a career in the biotechnology, food and biomedical industries through this associate degree program.

The Associate Degree in Applied Science is designed to give you the core laboratory and scientific skills to be eligible for a range of roles within these diverse sectors.

The program offers two major streams: food science and biomedical science. Both areas are undergoing rapid technological advancements worldwide.

This program may also provide you with a pathway into a range of science-related undergraduate degree programs.

Industry connections
In the final year, you will undertake professional practice where you address an issue in the workplace. You’ll be allocated a place in a laboratory where you’ll spend approximately 80 hours performing tasks as part of the project.

You’ll research the workplace to understand its structure and functions. You will use problem-solving skills and report on work-based projects or activities.

Career outlook
Depending on the stream you select, this program offers you a qualification in either food science or biomedical science.

The food science stream will give you the practical skills needed to work in the food industry, in particular laboratory-based food handling and processing.

The biosciences stream is a broad-based training program for students who want a technical career in diagnostics, medical research, veterinary, biological research or biotechnology laboratories.

Both streams offer entry points to industries where rapid technological change is opening up new opportunities.

Professional recognition
Food science students are eligible for student membership of the Australian Institute of Food Science and Technology. Graduates are eligible for associate membership.

Biomedical science students are eligible for student membership of the Australian Society for Microbiology and the Australian Institute of Medical Scientists. Graduates are eligible for associate membership.

Pathways
Graduates of the food science stream who achieve a grade point average (GPA) of at least 2.0 out of 4.0 are guaranteed entry with two years of credit (equivalent to 192 credit points) into the Bachelor of Science (Food Technology and Nutrition). Graduates with a GPA under 2.0 may apply and may be eligible for some credit if they are successful in gaining a place.

Graduates of the bioscience stream who achieve a GPA of at least 2.0 out of 4.0 are guaranteed entry with two years of credit (equivalent to 192 credit points) into the Bachelor of Science (Biological Sciences). Graduates with a GPA under 2.0 may apply and may be eligible for some credit if they are successful in gaining a place.

Graduates of the bioscience stream who achieve a GPA of at least 2.0 out of 4.0 are guaranteed entry with credit for 10 courses (equivalent to 120 credit points) into one of the following degrees:
- Bachelor of Biomedical Science
- Bachelor of Biomedical Science (Laboratory Medicine)
- Bachelor of Pharmaceutical Sciences
Program structure

Year 1
You’ll develop technical skills and knowledge in a broad range of applied sciences. You’ll also gain scientific reading, writing and research skills.

By the end of the first year you’ll be able to perform confidently in a biological, chemical or food laboratory.

Year 2
In second year you’ll begin to specialise in your chosen stream.

Food science students will learn to manufacture, evaluate and test a variety of food products for quality and safety, and study human nutrition.

Biomedical stream students will learn to isolate, purify, amplify and characterise DNA and perform techniques such as chromatography and electrophoresis. You’ll become competent at tissue and cell culture as it is applied in biotechnology and medical laboratories.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
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<tr>
<td>Scientific Research Skills</td>
<td>Microbiology (AD)</td>
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<tr>
<td>Chemistry</td>
<td>Data Analysis (AD)</td>
</tr>
<tr>
<td>Biochemical Principles</td>
<td>Professional Practice in Applied Science</td>
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<tr>
<td>Health and Nutrition</td>
<td>Stream course</td>
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<tr>
<td>Introduction to Genetics and Microbiology</td>
<td>Stream course</td>
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<tr>
<td>Introduction to Food Science and Technology (AD) OR Introduction to Medical Science</td>
<td>Stream course</td>
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<table>
<thead>
<tr>
<th>Food science stream</th>
<th>Biosciences stream</th>
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<tr>
<td>– Food Science (Proteins, Lipids and Carbohydrates)</td>
<td>– Cell Biology and Tissue Culture</td>
</tr>
<tr>
<td>– Food Safety &amp; Quality</td>
<td>– Molecular Biology and Genetics</td>
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<tr>
<td>– Applied Nutrition (AD)</td>
<td>– Medicines Drugs and Poisons</td>
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Entrance requirements
Successful completion of an Australian Year 12 senior secondary certificate of education or equivalent.

Prerequisites
Current Year 12 prerequisite units 3 and 4 – a study score of at least 20 in Mathematics (any) and a study score of at least 20 in Biology or Chemistry; and a study score of at least 20 in any English (except EAL) or at least 25 in English (EAL).

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.