

# Bachelor of Medical Science (660AA.6)

Please note these are the 2021 details for this course

## Domestic students

Selection rank	60 <b>Note:</b> The selection rank is the minimum ATAR plus adjustment factors required for admission to the program in the previous year. This is an indicative guide only as ranks change each year depending on demand.
Delivery mode	On campus
Location	Bruce, Canberra
Duration	3.0 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Science
UAC code	
English language requirements	An IELTS Academic score of 6.0 overall, with no band score below 6.0 (or equivalent). <a href="#">View IELTS equivalences</a>

## International students

Academic entry requirements	To study at UC, you'll need to meet our academic entry requirements and any admission requirements specific to your course. Please read your course admission requirements below. To find out whether you meet UC's academic entry requirements, visit our <a href="#">academic entry requirements page</a> .
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[View UC's academic entry requirements](#)

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<b>Duration</b>	3.0 years
<b>Faculty</b>	Faculty of Science and Technology
<b>Discipline</b>	Academic Program Area - Science
<b>CRICOS code</b>	046613B
<b>English language requirements</b>	An IELTS Academic score of 6.0 overall, with no band score below 6.0 (or equivalent). <a href="#">View IELTS equivalences</a>

# About this course

## Find your perfect solution with a career in medical science

If your career goal is to gain employment in a biological or medical research laboratory, or perhaps a government regulatory laboratory, then studying the Bachelor of Medical Science is ideal. Providing a focused grounding on the interactions between chemical and biological science, as well as key disciplines in medical science, you'll become experienced and proficient in medical science laboratory skills, specifically those used in research laboratories.

You'll flourish under the guidance of UC's expert teaching staff, who all have extensive experience in medical and biomedical research and are members of UC's prestigious Centre for Research in Therapeutic Solutions. Highly practical and alive with Work Integrated Learning (WIL) opportunities, you'll graduate with a confident knowledge of the workings of a laboratory and the necessary skills to secure your first employment role in medical science. Or if further study is your planned next step, the course is the perfect pathway for entry into postgraduate medicine or other allied health specialties.

## Study a Bachelor of Medical Science at UC and you will:

- gain a breadth of medical laboratory expertise
- become proficient in the laboratory environment
- cultivate a background in chemical and biological sciences and their interaction
- become equipped with the skills required to work in a regional laboratory environment or as a specialist in a specific

discipline.

## Work Integrated Learning

WIL is embedded in this course and you'll undertake a range of practical activities designed to prepare you for a sustainable career in medical science, such as exposure to entrepreneurship in science and pitching ideas for funding and patenting, guest lectures by esteemed industry professionals and work placements in an area of medical science of particular interest to you.

Previous students have undertaken internships with pathology laboratories, federal and ACT government regulatory departments, pharmacies, biotech start-ups, technical support laboratories, companies within the university sector, and bodies including the Office of the Gene Technology Regulator (OGTR), Food Standards Australia New Zealand, Therapeutic Goods Administration, ACT Health and Allied Health Research.

You'll also have the opportunity to take part in collaborative work where you'll team up with one of the research activity academics at UC's Centre for Research in Therapeutic Solutions, or another approved professional institution, to develop a research project and report on its outcomes.

If you'd like to study overseas, summer or winter term internships to a host of international destinations can be applied for, as well as a faculty-led Medical Sciences program in China.

## Career opportunities

- Biotechnologist
- Medical scientist
- Cardiac technologist
- Laboratory technician
- Pathology technician
- Research scientist
- Research officer
- Science educator

## Course-specific information

High-achieving students may be eligible to enrol in the Bachelor of Applied Science (Honours) course to develop a deeper understanding of, or extend their career in, medical research.

Students interested in pursuing careers in medicine, physiotherapy, pharmacy or science education will need to complete further study for accreditation in these fields.

# Admission requirements

Admission to this course is based on an entrance rank. A rank can be achieved by the following means:

- Year 12 ATAR
- other Australian Qualification

- work experience
- overseas qualification

We also offer a number of entry initiatives that give you the opportunity to gain entry to the University via alternate pathway programs and admissions schemes.

More information is available on our Alternative Entry page: <http://www.canberra.edu.au/future-students/applications/apply-now/alternative-entry>

## Assumed knowledge

ACT: Chemistry (T) and Mathematics (T) majors. NSW: Chemistry and Mathematics.

## Periods course is open for new admissions

This course is not open for new admissions.

## Credit arrangements

There are currently no formal credit transfer arrangements for entry to this course. Any previous study or work experience will only be considered as part of the application process in accordance with current [course rules and university policy](#).

# Course requirements

## Bachelor of Medical Science (660AA) | 72 credit points

### Required - 60 credit points as follows

[Expand All](#) | [Collapse All](#)

#### Major in Biological Chemistry (MJ0013) | 24 credit points

##### Required - Must pass 21 credit points as follows

Chemistry 1a (1516) | 3 credit points — Level 1

Chemistry 1b (1517) | 3 credit points — Level 1

Immunology (6512) | 3 credit points — Level 3

Integrated Studies of Disease (6517) | 3 credit points — Level 3

Human Biochemistry (6518) | 3 credit points — Level 2

Biochemistry (6530) | 3 credit points — Level 2

Analytical Chemistry (8043) | 3 credit points — Level 2

##### Restricted Choice - Must pass 3 credit points from the following

Genetics and Genomics (10223) | 3 credit points — Level 2

#### Major in Human Biology: From Cells to Organism (MJ0050) | 18 credit points

## **Required - Must pass 15 credit points as follows**

Concepts in Biology (483) | 3 credit points — Level 1

Systemic Anatomy and Physiology (6529) | 3 credit points — Level 1

Human Physiology and the Lifecycle (6532) | 3 credit points — Level 3

Advanced Physiology (8373) | 3 credit points — Level 3

Pathobiology (8797) | 3 credit points — Level 3

## **Restricted Choice - Must pass 3 credit points from the following**

Regional Anatomy and Physiology (6534) | 3 credit points — Level 2

Regional Anatomy and Physiology (9808) | 3 credit points — Level 1

Note:

- The unit code for Regional Anatomy and Physiology changed in 2015 and only the newer code is available for enrolment.

## **Required Units - Must pass 18 credit points as follows**

Mathematical Methods (577) | 3 credit points — Level 1

Data Analysis in Science (1809) | 3 credit points — Level 1

Communication in Science (4732) | 3 credit points — Level 1

Introduction to Microbiology (6510) | 3 credit points — Level 2

Clinical Microbiology (8027) | 3 credit points — Level 3

Molecular and Cellular Biology (8375) | 3 credit points — Level 2

## **Restricted Choice - Must pass 3 credit points from the following**

Research Project in Applied Science (3) (3238) | 3 credit points — Level 3

Analytical Chemistry (8043) | 3 credit points — Level 2

Clinical Chemistry 2 (8072) | 3 credit points — Level 3

Forensic Toxicology and Drug Analysis (8780) | 3 credit points — Level 3

Professional Practice in Applied Science (8783) | 3 credit points — Level 3

Introductory Physics (10000) | 3 credit points — Level 1

Science and Innovation (10107) | 3 credit points — Level 3

- 9632 Research Project in Applied Science has replaced 3238. Students who have previously completed 3238 may still count it towards course completion.

- Unit 6520 has been replaced by 8783 from Semester 1 2017. Students who have completed this unit prior to Semester 1, 2017 may have it counted towards course completion.

## Open Electives - 9 credit points as follows

- Unit Levels: In selecting electives students should note that no more than 30 credit points at Level 1 is permitted for the entire course.

Note:

- Must pass 9 credit points from anywhere in the University.

In addition to course requirements, in order to successfully complete your course you must meet the inherent requirements. Please refer to the [inherent requirements statement](#) applicable to your course

# Typical study pattern

UC - Canberra, Bruce

Standard Full Time, Semester 1 Commencing

### Year 1

#### Semester 1

[Chemistry 1a \(1516\)](#)

[Communication in Science \(4732\)](#)

[Concepts in Biology \(483\)](#)

[Mathematical Methods \(577\)](#)

#### Semester 2

[Chemistry 1b \(1517\)](#)

[Data Analysis in Science \(1809\)](#)

[Systemic Anatomy and Physiology \(6529\)](#)

### Year 2

#### Semester 1

[Biochemistry \(6530\)](#)

[Genetics and Genomics \(10223\)](#)

[Regional Anatomy and Physiology \(9808\)](#)

Open Elective Unit

#### Semester 2

[Analytical Chemistry \(8043\)](#)

[Human Biochemistry \(6518\)](#)

[Introduction to Microbiology \(6510\)](#)

[Molecular and Cellular Biology \(8375\)](#)

### Year 3

#### Semester 1

[Clinical Microbiology \(8027\)](#)

[Human Physiology and the Lifecycle \(6532\)](#)

[Immunology \(6512\)](#)

[Pathobiology \(8797\)](#)

#### Semester 2

[Advanced Physiology \(8373\)](#)

[Integrated Studies of Disease \(6517\)](#)

Two Open Elective Units

# Course information

## Course duration

Standard 3 years full time or part-time equivalent. Maximum 10 years from date of enrolment to date of course completion.

## Learning outcomes

Learning outcomes	Related graduate attributes
To provide a background in chemical and biological sciences and their interaction and the knowledge and skills to keep this knowledge current throughout a professional career	<p>Graduates will be able to anticipate and define new problems; and identify and resolve new problems in new fields.</p> <p>Generic Skills:</p> <p>Problem Solving: have an understanding of how to apply their knowledge and abilities to many different contexts and fields; Professionalism and Social Responsibility: possess self-knowledge and the ability to assess their own performance critically and accurately;</p> <p>Personal Attributes: Graduates are expected to: a. be independent self-directed learners with the capacity and motivation for lifelong learning; and b. be aware of how they best learn.</p>

	AQF: Knowledge and Application of knowledge and skills
To provide the communication and background to prepare graduates for employment in a range of science-based fields and for them to contribute to the workplace	<p>Generic Skills:</p> <p>Communication: Graduates are expected to be able to: a) express knowledge, ideas and opinions in their professional field, both orally and in written form, with confidence and clarity; b) present arguments and ideas effectively; c) actively listen and respond to the ideas of other people; d) negotiate effectively; e) create and present new ideas, and f) be able to function in a multi-cultural or global environment.</p> <p>Analysis and Inquiry: Graduates are expected to: a. demonstrate entrepreneurial skills including creativity, initiative, adaptability, leadership, resourcefulness; and b. have the ability to initiate new ideas, implement decisions and cope with uncertainty.</p> <p>Working Independently and with Others: Graduates are expected to be able to: a. work with others as part of a group; b. take responsibility for carrying out agreed tasks; c. be aware of the different roles and responsibilities of group members; d. evaluate group performance; e. take initiative and demonstrate leadership; and f. respect the rights of others irrespective of their cultural background, race or gender.</p> <p>Personal Attributes: Graduates are expected to: a. be independent thinkers and agents for change; b. have confidence to challenge existing ideas; c. show commitment to ongoing self-development; d. value and respect differing views; e. be confident in themselves and their own skills and knowledge.</p> <p>AQF: Skills</p>
To provide an understanding of the social context of professional employment and the responsibilities that entails	<p>Generic Skills:</p> <p>Professionalism and Social Responsibility: Graduates are expected to: a. act responsibly, ethically and with integrity in the context of their profession and their obligations to society; b. appreciate the social and cultural context of their profession; c. work towards improvement in society; d. understand economic, political, social, and environmental systems with an international perspective; e. act in environmentally sustainable ways; and f. accept service to the community as the primary purpose for professional life.</p> <p>AQF: Application of knowledge and skills</p>

## Majors



- [Major in Biological Chemistry \(MJ0013\)](#)
- [Major in Human Biology: From Cells to Organism \(MJ0050\)](#)

## Awards

Award	Official abbreviation
Bachelor of Medical Science	B MedSc

## Honours

Honours degrees are available for students seeking deeper understanding and seeking extended careers in medical research fields.

## Enquiries

Student category	Contact details
Prospective Domestic Students	Email <a href="mailto:study@canberra.edu.au">study@canberra.edu.au</a> or Phone 1800 UNI CAN (1800 864 226)
Prospective International Students	Email <a href="mailto:international@canberra.edu.au">international@canberra.edu.au</a> or Phone +61 2 6201 5342
Current and Commencing Students	Please contact the University Student Centre by Email <a href="mailto:student.centre@canberra.edu.au">student.centre@canberra.edu.au</a> or Phone 1300 301 727

## Download your course guide



# Scholarships

Find the scholarship that's the right fit for you

[Explore Scholarships](#)

Printed on 03, July, 2025

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CRICOS 00212K

TEQSA Provider ID: PRV12003 (Australian University)

UC acknowledges the Ngunnawal people, traditional custodians of the lands where Bruce campus is situated. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of Canberra and the region. We also acknowledge all other First Nations Peoples on whose lands we gather.