UNIVERSITY OF CANBERRA

Bachelor of Science (Biomedical Science) (NPB001.1)

Please note these are the 2023 details for this course

Domestic students

Selection rank	60 **Note:** 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	368093
English language requirements	An IELTS Academic score of 6.0 overall, with no band score below 6.0 (or equivalent). View IELTS equivalences

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 academic entry requirements page.

	View UC's academic entry requirements
Delivery mode	On campus
Location	Bruce, Canberra
Duration	3.0 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Science
CRICOS code	106359K
English language requirements	An IELTS Academic score of 6.0 overall, with no band score below 6.0 (or equivalent). View IELTS equivalences

About this course

Understand health and the human body

Gain an understanding of the human body and the various cellular and molecular principles that underpin human health. Our Bachelor of Science (Biomedical Science) is a flexible, cross-disciplinary degree that gives you the freedom to follow your interests. With 8 open elective units, you can choose to explore areas like environmental science, human nutrition, pharmacy, sports science or data analysis. Enhance your employment prospects by diversifying your knowledge and broadening your skills, while getting the opportunity to study what interests you the most.
You'll develop a strong, foundational knowledge of core science principles in chemistry, biology and professional practice, while establishing critical thinking, scientific reasoning, data analysis, and communication skills specific to biomedical science.

The Specialist Major in Biomedical Science will introduce you to the structures and functions of the human body, and how humans interact and respond to their environment. You'll progress from the isolated genetic, cellular and molecular principles underlying human function, to understanding the major body systems and how these are regulated to maintain human health. Students can tailor their studies to match their interest, through a selection of advanced units in biochemistry, physiology, infectious disease or genetics and genomics.

Study a Bachelor of Science (Biomedical Science) at UC and you will

- Gain a wide-range of scientific knowledge and technical skills, with a deep understanding of biomedical science.

- Select and apply tools to conduct scientific investigations relevant to a range of disciplines, with a particular focus on biomedical science.
- Collect scientific data individually or collaboratively, within legal, ethical and social frameworks, using key laboratory and clinical competencies.
- Develop critical thinking and data analysis skills to solve a range of local and global real-world problems.
- Evaluate current and emerging ethical and cultural issues that arise in contemporary science and exhibit cross-cultural competence and social responsibility.
- Critically analyse, synthesise and integrate scientific knowledge, literature, data, or arguments for effective communication to a range of audiences.

Work-integrated learning

Step out of the classroom and into the real-world. Professional practice units are embedded into this degree, which allows you to conduct real-life experiments. Work with the latest technologies and clinical practices in a range of laboratories in industry or government settings, or explore our own labs by undertaking research projects with support from UC researchers.

Career opportunities

Our Bachelor of Science (Biomedical Science) will help you progress into any of the following career pathways:

- Allied Health Technician
- Biomedical Scientist
- Clinical Laboratory Technician
- Health Technology Assessor
- Pathology Scientific Officer
- Research Scientist
- Research Officer
- Scientific Evaluator
- Science Policy Officer

Course specific information

The UC Bachelor of Science (Biomedical Science) provides a flexible pathway towards many career opportunities. Whilst your biomedical specialisation can open the door to postgraduate research, your elective choices can act as a pathway to Allied Health programs such as Physiotherapy, OT, Speech Pathology, Dietetics and Podiatry.

Professional accreditation

Not applicable.

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.

Assumed knowledge

Year 12 Biology (T)/Human Biology (T), Chemistry (T) and Mathematical Methods (T) or equivalent.

Periods course is open for new admissions

Year	Location	Teaching period	Teaching start date	Domestic	International
2025	Bruce, Canberra	Semester 1	03 February 2025	✓	✓
2025	Bruce, Canberra	Semester 2	28 July 2025	✓	✓
2026	Bruce, Canberra	Semester 1	16 February 2026	✓	✓
2026	Bruce, Canberra	Semester 2	10 August 2026	✓	✓
2027	Bruce, Canberra	Semester 1	15 February 2027	✓	✓
2027	Bruce, Canberra	Semester 2	09 August 2027	✓	✓

Credit arrangements

A credit transfer arrangement is available for this course for the following institutions:

University Of Canberra College

Diploma of Science (31144)

Course requirements

Bachelor of Science (Biomedical Science) (NPB001) | 72 credit points

Expand All | Collapse All

Required - 48 credit points as follows

Core Major in Science (CM0029) | 24 credit points

Required - Must pass 24 credit points as follows

Professional Orientation (Science) (11718) | 3 credit points — Level 1

Professional Practice 1 (Science) (11719) | 3 credit points — Level 2

Professional Practice 2 (Science) (11720) | 3 credit points — Level 3

Professional Evidence (Science) (11721) | 3 credit points — Level 3

Biological Concepts (11722) | 3 credit points — Level 1

Data Analysis Skills for Science (11723) | 3 credit points — Level 1

Chemical Concepts (11724) | 3 credit points — Level 1

Contextual Physics with Mathematics (11725) | 3 credit points — Level 1

Specialist Major in Biomedical Science (SM0080) | 24 credit points

Required - Must pass 15 credit points as follows

Integrated Physiology (11726) | 3 credit points — Level 3

Mechanisms of Disease (11727) | 3 credit points — Level 2

Foundations of Inheritance, Diversity and Evolution (11732) | 3 credit points — Level 1

Fundamentals of Biochemistry (11733) | 3 credit points — Level 2

Genetics and Genomics (11736) | 3 credit points — Level 2

Restricted Choice - 9 credit points as follows

Part A - Must pass 3 credit points from the following

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

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

Foundations of Anatomy and Physiology (10298) | 3 credit points — Level 1

Note:

- Students should take 10298 unless they plan to complete BM0025 Breadth Major in Health & Movement, in which case they should take 9808 (S1 entry) or 6529 (S2 entry)

Part B - Must pass 3 credit points from the following

Health Patterns of Disease (8576) | 3 credit points — Level 2

Epidemiology and Principles of Research (8580) | 3 credit points — Level 3

Part C - Must pass 3 credit points from the following

Excitable Tissue Physiology (11729) | 3 credit points — Level 3

Infectious Diseases (11730) | 3 credit points — Level 3

Biochemistry and Metabolism (11734) | 3 credit points — Level 2

Advanced Genetics and Genomics (11737) | 3 credit points — Level 3

- 1. From Sem 2, 2023, students must complete a minimum of 18 credit points (6 units) at Level 3 or higher within their degree.

- 2. Students completing SM0080 Specialist Major in Biomedical Science must complete a minimum of 9cp (3 units) of

Part B/C units or open electives at Level 3, in addition to their required units.

Open Electives - 24 credit points from the following

- - Must pass 24 credit points from anywhere in the University, as a breadth major, a breadth minor and/or as individual units.

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

Contextual Physics with Mathematics (11725)

SM0080 Restricted Choice Part A Unit

Biological Concepts (11722)

Professional Orientation (Science) (11718)

Semester 2

Foundations of Inheritance, Diversity and Evolution (11732)

Open Elective Unit

Chemical Concepts (11724)

Data Analysis Skills for Science (11723)

Year 2

Semester 1

Fundamentals of Biochemistry (11733)

Mechanisms of Disease (11727)

Two Open Elective Units

Semester 2

Genetics and Genomics (11736)

SM0080 Restricted Choice Part B Unit

Professional Practice 1 (Science) (11719)

Open Elective Unit

Year 3

Semester 1

Two Open Elective Units

Integrated Physiology (11726)

Professional Practice 2 (Science) (11720)

Semester 2

Two Open Elective Units

Professional Evidence (Science) (11721)

SM0080 Restricted Choice Part C Unit

Standard Full Time, Semester 2 Commencing

Year 1

Semester 2

Professional Orientation (Science) (11718)

SM0080 Restricted Choice Part A Unit

Biological Concepts (11722)

Chemical Concepts (11724)

Year 2

Semester 1

Contextual Physics with Mathematics (11725)

Data Analysis Skills for Science (11723)

Mechanisms of Disease (11727)

Open Elective Unit

Semester 2

Foundations of Inheritance, Diversity and Evolution (11732)

SM0080 Restricted Choice Part B Unit

Two Open Elective Units

Year 3

Semester 1

Fundamentals of Biochemistry (11733)

Integrated Physiology (11726)

Professional Practice 1 (Science) (11719)

Open Elective Unit

Semester 2

SM0080 Restricted Choice Part C Unit

Genetics and Genomics (11736)

Professional Practice 2 (Science) (11720)

Open Elective Unit

Year 4

Semester 1

Professional Evidence (Science) (11721)

Three Open Elective Units

Standard Part Time, Semester 1 Commencing

Year 1

Semester 1

Biological Concepts (11722)

Professional Orientation (Science) (11718)

Semester 2

Chemical Concepts (11724)

Data Analysis Skills for Science (11723)

Year 2

Semester 1

Contextual Physics with Mathematics (11725)

SM0080 Restricted Choice Part A Unit

Semester 2

Foundations of Inheritance, Diversity and Evolution (11732)

Open Elective Unit

Year 3

Semester 1

Open Elective Unit

Fundamentals of Biochemistry (11733)

Semester 2

Open Elective Unit

Genetics and Genomics (11736)

Year 4

Semester 1

Mechanisms of Disease (11727)

Open Elective Unit

Semester 2

SM0080 Restricted Choice Part B Unit

Professional Practice 1 (Science) (11719)

Year 5

Semester 1

Open Elective Unit

Integrated Physiology (11726)

Semester 2

Two Open Elective Units

Year 6

Semester 1

Open Elective Unit

Professional Practice 2 (Science) (11720)

Semester 2

Professional Evidence (Science) (11721)

SM0080 Restricted Choice Part C Unit

Standard Part time, Semester 2 Commencing

Year 1

Semester 2

Biological Concepts (11722)

Professional Orientation (Science) (11718)

Year 2

Semester 1

Contextual Physics with Mathematics (11725)

Data Analysis Skills for Science (11723)

Semester 2

Chemical Concepts (11724)

Foundations of Inheritance, Diversity and Evolution (11732)

Year 3

Semester 1

Fundamentals of Biochemistry (11733)

Open Elective Unit

Semester 2

SM0080 Restricted Choice Part A Unit

Open Elective Unit

Year 4

Semester 1

Open Elective Unit

Mechanisms of Disease (11727)

Semester 2

Open Elective Unit

SM0080 Restricted Choice Part B Unit

Year 5

Semester 1

Integrated Physiology (11726)

Professional Practice 1 (Science) (11719)

Semester 2

Genetics and Genomics (11736)

Open Elective Unit

Year 6

Semester 1

Two Open Elective Units

Semester 2

SM0080 Restricted Choice Part C Unit

Professional Practice 2 (Science) (11720)

Year 7

Semester 1

Open Elective Unit

Professional Evidence (Science) (11721)

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
Critically analyse, synthesise and integrate scientific knowledge, literature, data, or arguments for effective communication to a range of audiences.	UC graduates are professional: Employ up-to-date and relevant knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; and display initiative and drive, and use their organisational skills to plan and manage their workload. UC graduates are global citizens: Think globally about issues in their profession; adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the

	perspective of other cultures; communicate effectively in diverse cultural and social settings; make creative use of technology in their learning and professional lives; and behave ethically and sustainably in their professional and personal lives. UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; be self-aware; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; and evaluate and adopt new technology. UC graduates are able to demonstrate Aboriginal and Torres Strait Islander ways of knowing, being and doing: Use local Indigenous histories and traditional ecological knowledge to develop and augment understanding of their discipline; communicate and engage with Indigenous Australians in ethical and culturally respectful ways; and apply their knowledge to working with Indigenous Australians in socially just ways.
Develop critical thinking and data analysis skills to solve a range of theoretical and contemporary real-world problems in local and global contexts, recognising the importance of entrepreneurship, innovation and work-integrated learning.	UC graduates are professional: Employ up-to-date and relevant knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; display initiative and drive, and use their organisational skills to plan and manage their workload; and take pride in their professional and personal integrity. UC graduates are global citizens: Think globally about issues in their profession; adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the perspective of other cultures; communicate effectively in diverse cultural and social settings; make creative use of technology in their learning and professional lives; and behave ethically and sustainably in their professional and personal lives. UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; be self-aware; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; and evaluate and adopt new technology. UC graduates are able to demonstrate Aboriginal and Torres Strait Islander

	ways of knowing, being and doing: Use local Indigenous histories and traditional ecological knowledge to develop and augment understanding of their discipline; communicate and engage with Indigenous Australians in ethical and culturally respectful ways; and apply their knowledge to working with Indigenous Australians in socially just ways.
Demonstrate the ability to collect scientific data individually or collaboratively, within legal, ethical and social frameworks, with key laboratory, clinical and/or field-based competencies.	UC graduates are professional: Employ up-to-date and relevant knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; display initiative and drive, and use their organisational skills to plan and manage their workload; and take pride in their professional and personal integrity. UC graduates are global citizens: Think globally about issues in their profession; adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the perspective of other cultures; communicate effectively in diverse cultural and social settings; and make creative use of technology in their learning and professional lives. UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; be self-aware; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; and evaluate and adopt new technology. UC graduates are able to demonstrate Aboriginal and Torres Strait Islander ways of knowing, being and doing: Use local Indigenous histories and traditional ecological knowledge to develop and augment understanding of their discipline; communicate and engage with Indigenous Australians in ethical and culturally respectful ways; and apply their knowledge to working with Indigenous Australians in socially just ways.
Exhibit breadth of scientific knowledge and technical skills, with a depth in at least one science specialist area.	UC graduates are professional: Employ up-to-date and relevant knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; and display initiative and drive, and use their organisational skills to plan and manage their

	workload. UC graduates are global citizens: Think globally about issues in their profession; understand issues in their profession from the perspective of other cultures; communicate effectively in diverse cultural and social settings; make creative use of technology in their learning and professional lives; and behave ethically and sustainably in their professional and personal lives. UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; be self-aware; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; and evaluate and adopt new technology. UC graduates are able to demonstrate Aboriginal and Torres Strait Islander ways of knowing, being and doing: Use local Indigenous histories and traditional ecological knowledge to develop and augment understanding of their discipline; and apply their knowledge to working with Indigenous Australians in socially just ways.
Select and apply appropriate practical, conceptual and/or theoretical techniques or scientific tools to conduct scientific investigations relevant to a range of disciplines.	UC graduates are professional: Employ up-to-date and relevant knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; display initiative and drive, and use their organisational skills to plan and manage their workload; and take pride in their professional and personal integrity. UC graduates are global citizens: Think globally about issues in their profession; understand issues in their profession from the perspective of other cultures; communicate effectively in diverse cultural and social settings; and behave ethically and sustainably in their professional and personal lives. UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; and adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas. UC graduates are able to demonstrate Aboriginal and Torres Strait Islander ways of knowing, being and doing: Use local Indigenous histories and traditional ecological knowledge to develop and augment understanding of

	their discipline; and apply their knowledge to working with Indigenous Australians in socially just ways.
Evaluate current and emerging ethical and cultural issues that arise in contemporary science and exhibit cross-cultural competence and social responsibility.	UC graduates are professional: Employ up-to-date and relevant knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; and display initiative and drive, and use their organisational skills to plan and manage their workload. UC graduates are global citizens: Think globally about issues in their profession; adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the perspective of other cultures; communicate effectively in diverse cultural and social settings; and behave ethically and sustainably in their professional and personal lives. UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; be self-aware; and adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas. UC graduates are able to demonstrate Aboriginal and Torres Strait Islander ways of knowing, being and doing: Use local Indigenous histories and traditional ecological knowledge to develop and augment understanding of their discipline; communicate and engage with Indigenous Australians in ethical and culturally respectful ways; and apply their knowledge to working with Indigenous Australians in socially just ways.

Placements requirements

Students may require a police check, working with vulnerable people, current vaccination.

Majors

- Core Major in Science (CM0029)
- Specialist Major in Biomedical Science (SM0080)

Awards

Award	Official abbreviation

Bachelor of Science	BSc
Bachelor of Science (Biomedical Science)	BSc(BiomedicalSc)

Alternative exits

Alternative award - Bachelor of Science:

Students may elect to graduate from this course with a Bachelor of Science if they have passed 72 credit points including the Core Major in Science and the Specialist Major in Biomedical Science (or another Science specialist major as approved by the Program Director).

Enquiries

Student category	Contact details
Current and Commencing Students	Please contact the University Student Centre by Email student.centre@canberra.edu.au or Phone 1300 301 727
Prospective Students	Please email: study@canberra.edu.au or telephone: 1800 UNI CAN (1800 864 226)

Download your course guide

Scholarships

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CRICOS 00212K

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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.