Nicholas Gherardin is proof that a University of Melbourne Bachelor of Biomedicine can take you far. His undergraduate degree included a research-based honours degree that paved the way to a PhD in Immunology at the University’s prestigious Peter Doherty Institute. Nicholas has since taken up a coveted postdoctoral position at Harvard Medical School in Boston, and hopes to return to Melbourne to establish his own research laboratory in the future.

“I never anticipated going into research science, but my experience in the Bachelor of Biomedicine really opened my eyes to a career pathway I knew very little about.”

Nicholas Gherardin (Australia), Bachelor of Biomedicine, majoring in Defence and Disease, with Honours (majoring in Microbiology and Immunology); Doctor in Immunology
Degrees of discovery

The University of Melbourne’s Bachelor of Biomedicine provides the best preparation for the challenges of contemporary healthcare delivery and research.

A new way of thinking

For 164 years our research has challenged the status quo. It’s no different when it comes to our curriculum. The Melbourne Curriculum is an Australian first, inspired by the top international universities. We designed it with one purpose in mind: to produce graduates ready to make a difference on a global scale.

You start with a three-year undergraduate degree, developing a depth and breadth of knowledge across multiple disciplines. You can then enter the workforce, or progress to one of our world-class graduate degrees and become a master in your field.

Degrees for the next generation

A world-class education from Australia’s number one university is your ticket to the brightest future. As a pioneer in teaching and research for over 160 years, we offer a stimulating learning environment where you can join leaders in the search for solutions to today’s most challenging problems.

Healthcare today is complex, requiring skills to offer patients the best care and also provide preventative medical strategies. Through the Bachelor of Biomedicine, you can learn how to respond to pandemics, find cures for diseases, and experience the world of research.

You’ll discover the fascinating way the human body works, analyse global patterns of disease, and learn from teams working to improve the health and wellbeing of our communities.

Our centres for biomedical and healthcare development

You’ll learn from inspiring academics and researchers at the forefront of their fields, alongside some of the brightest students in the country. Located in one of the world’s most highly concentrated precincts of biomedical research, the University is committed to leadership in health sciences. Our centres include:

- Peter Doherty Institute – Named after Melbourne scholar and Nobel Laureate Professor Peter Doherty AC. This institute offers boundless opportunities for groundbreaking research into infection and immunity.
- Victorian Comprehensive Cancer Centre – Bringing together Australia’s best cancer research, teaching and treatment institutions, as a world-leading centre of cancer research and patient care.
- Melbourne Brain Centre – Home to over 700 of Australia’s leading neuroscience researchers and teachers.
- Bio21 Institute – A flagship multidisciplinary research facility in the heart of the Parkville biomedical precinct, with specialised platform technologies in medical, agricultural and environmental biotechnology and nano-biotechnology.

"Many of my lecturers are world leaders in their respective fields, and I feel absolutely privileged to be able to learn from the very best."

Victor Lin (Australia), major in Microbiology and Immunology

Times Higher Education World University Rankings 2016–2017
Bachelor of Biomedicine

Biomedicine is a discipline concerned with the processes and systems that create, sustain and threaten life. It offers 13 majors across a range of biomedical disciplines and is an ideal choice of study if you are interested in pursuing a career in the health sciences industry.

A foundation for diverse careers

The Bachelor of Biomedicine prepares you for the challenges of healthcare delivery and biomedical research. At the core of the degree is knowledge of the normal structure and function of the body and consideration of the determinants of disease.

You’ll develop fundamental skills in critical thinking, problem solving, the analysis of evidence and communication.

A unique cohort experience

If you choose the Bachelor of Biomedicine, you will be part of a close-knit community of inspiring, high-achieving students from all over the world. The Biomedicine Students’ Society runs academic and social activities designed to complement your studies and help you form friendships across all year levels. You could be mentored by senior students, join an academic study group or make unforgettable memories at the annual Biomed Camp.

What do I study?

First year

You will study foundation subjects in biology and chemistry, focusing on key biomolecules, fundamentals of cell biology, chemical processes in a biological context, basic genetics and interactions between genes and the environment that determine phenotype. You will also take subjects in experimental design and data analysis, mathematics and physics.

Second year

Compulsory core subjects build on your foundational knowledge and examine several biomedical disciplines.

Semester 1 focuses on molecular and cellular aspects of biomedicine: biochemistry and molecular biology, cell biology, genetics, microbiology and immunology, and cellular pathology.

Semester 2 focuses on integrated human structure and function: gross anatomy, pharmacology and physiology.

In both semesters you will also study elective subjects in science and biomedical science.

Third year

You will complete your major, explore contemporary issues in biomedicine and prepare for professional practice through two capstone subjects.
Choosing your major

Your major is the study area that you’ll focus on throughout your degree.

In the Bachelor of Biomedicine your major comprises four subjects at third-year level in a particular discipline or subject area.

You can choose from 13 majors:

■ Biochemistry and Molecular Biology
■ Biomedical Ethics
■ Biomedical Sciences
■ Biotechnology
■ Cell and Developmental Biology
■ Genetics
■ Health Informatics
■ Human Structure and Function
■ Immunology
■ Microbiology and Immunology
■ Neuroscience
■ Pathology
■ Pharmacology
■ Physiology.

Creating your course plan

You can seek advice to put together your course plan and select subjects according to your interests and aspirations. Your course plan will include:

■ Compulsory core subjects: Taken by all students enrolled in the degree
■ Major subjects: Taken by students studying the major
■ Elective subjects: You can choose electives to suit your interests, from a select list relating to your major
■ Capstone subjects: Taken in your final year, and designed to consolidate your learning. These subjects may include a practical real-life project or work experience
■ Breadth subjects: Subjects from outside your core study area. See the information below.

The sample course plans on pages 6–8 will give you an idea of how you might structure your degree.

Get an edge with breadth

Alongside your major subjects, you’ll also study subjects from outside your core area. We call this breadth. Breadth exposes you to new perspectives and helps you build a wide portfolio of knowledge - essential for the new global workplace, where you’re unlikely to stay in the same industry forever.

What could I do with breadth?

With more than 600 subjects available, the opportunities are endless. Want to become a health writer? Take breadth in writing and communications. Keen to lead your own team? Take a breadth subject in managing and leading organisations. Love to sing or play an instrument? There are countless music subjects available as breadth. Planning a global career? Study an Asian language – Chinese, Japanese or Indonesian – as breadth.

broadth.unimelb.edu.au

International experience

Through our study abroad and exchange programs, you have the option to complete part of your degree overseas. The University has partnerships with some of the top universities in the world, enabling you to contribute overseas as well as in Australia.

biomedicalsciences.unimelb.edu.au/study/current-student-information/enrich-your-studies

Honours

Honours is a fourth year of study that draws together the theory and practical skills you’ve gained in your undergraduate degree. An honours year enables you to develop research and professional skills and explore your particular interest in depth. It comprises an individual research project designed to extend your knowledge and problem-solving skills, as well as classes and assignments at an advanced level. Honours can be a pathway to a research higher degree, such as a Masters by Research or PhD.

Master of Biomedical Science

Following the Bachelor of Biomedicine you may also wish to consider studying the two-year Master of Biomedical Science, which offers graduate students a pathway into research or other science-based careers and/or graduate research studies. It is an alternative to the honours/PhD pathway, and allows you to undertake a research project and discipline-specific coursework subjects.

“Biomedicine provided a solid platform to launch into my postgraduate studies in optometry. With so many research institutes connected to the University, you really have the opportunity to learn from some of the world leaders in the field.”

Erica Barclay (Australia), Bachelor of Biomedicine, major in Neuroscience, Doctor of Optometry
Your major is the study area that you'll focus on throughout your degree.

### Biochemistry and Molecular Biology

The disciplines of biochemistry and molecular biology encompass knowledge and techniques that can be applied in many fields, and have fuelled rapid advances in medical research and biotechnology. The Biochemistry and Molecular Biology major emphasises the practical skills required for a career as a laboratory scientist. This major will develop your knowledge in basic biological processes and the more specialised area of molecular science. It also provides a springboard to careers in agricultural and medical support industries and education.

### Bioengineering Systems

Biomedical engineering is an exciting fusion of engineering, science and medicine. It is one of the fastest growing areas of engineering today. You will focus on human systems, the design and operation of devices and processes, and the application of engineering skills to new medical treatments, instruments and machines. Our biomedical engineers and students are working on groundbreaking innovations such as the bionic eye, devices to control epilepsy and more efficient drug delivery systems.

The Bioengineering Systems major is a pathway to further study in the Master of Engineering (Biomedical) or honours and PhD programs for accredited professional or scientific research careers in biomedical engineering. See page 13.

### Biotechnology

Biotechnology is the use of biological knowledge to develop new processes and products for use in industry, health, agribusiness and other areas of human technology. Advances in biotechnology can be based on knowledge from biological sciences, chemical sciences, physical sciences and engineering. You can tailor your Biotechnology major to suit your needs, and concurrently build on your other science studies. For example, agricultural biotechnology will normally involve some core crop and food technology subjects. Molecular biotechnology will usually involve some core molecular biology subjects. Chemical biotechnology will include some core chemistry subjects together with studies in biological science.

### Cell and Developmental Biology

The Cell and Developmental Biology major provides you with a broad understanding of the structure and functions of cells and the genetic, molecular and cellular basis of development in a range of organisms and experimental models. You will learn about methodologies used in cell and developmental biology research and how to apply this knowledge to technologies that improve the human condition. Dramatic advances in this field have shed light on numerous disorders in plants and animals, and developed technologies to solve significant problems. You will also consider ethical issues associated with some technologies, for example in stem cell technology, in vitro fertilisation (IVF), birth control, reproductive/therapeutic cloning, and genetically manipulated foods and crops.
Sample course plan – Bachelor of Biomedicine
Major in Health Informatics

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Biomolecules and Cells</td>
<td>Chemistry for Biomedicine</td>
<td>Foundations of Computing</td>
<td>Mind, Brain and Behaviour 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physics for Biomedicine</td>
<td>Mathematics for Biomedicine</td>
<td>Philosophy, Politics and Economics</td>
</tr>
<tr>
<td>2</td>
<td>Genes and Environment</td>
<td>Molecular and Cellular Biomedicine</td>
<td>Foundations in Informatics</td>
<td>Meaning, Possibility and Paradox</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Structure and Function</td>
<td>Database Systems</td>
<td>Drawing, Painting and Sensory Knowledge</td>
</tr>
<tr>
<td>3</td>
<td>Biomedicine: Molecule to Malady</td>
<td>Usability Engineering</td>
<td>Health and Biomedical Informatics</td>
<td>Ethics, Gender and the Family</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Web Information Technologies</td>
<td>IT Project</td>
<td>Mind, Brain and Behaviour 2</td>
</tr>
</tbody>
</table>

Compulsory subjects | Major subjects | Elective subjects | Breadth subjects

This is a sample course plan only. Subjects offered may change from year to year. You will be advised of current subject offerings prior to subject selection and enrolment.

The breadth subjects featured in this plan are examples only. You must complete at least four breadth subjects in this degree, plus another two subjects either as breadth or as Biomedicine or Science subjects.

Genetics
As a foundation for studies in biology, a Genetics major includes studies in molecular genetics, human genetics, evolutionary genetics and genomics, which can be applied in biology, biomedical sciences, biotechnology, ecology and conservation. You’ll also develop skills in experimental design, data recording and analysis, and scientific writing.

Health Informatics
Contemporary research in healthcare and medicine is information intensive. This major introduces you to the interdisciplinary field of health and biomedical informatics, and to the core principles and practices of the health informatician. It integrates biomedical information technology and knowledge management, the socioeconomic challenges of delivering healthcare systems, and new methods of clinical and epidemiological research. In Australia and overseas, demand is increasing for people with these specialised skills and knowledge, who can lead delivery of e-health solutions for patient care and disease management.

Human Structure and Function
The Human Structure and Function major examines how the human body works, and the relationship between human physiology (function) and anatomy (structure). The subjects carefully integrate anatomy and physiology and introduce relevant elements from pathology, pharmacology and zoology.

Immunology
Through this major, you will learn how immunology – the study of the human immune system – can apply to a range of areas in the biomedical sciences. It opens up careers in epidemiology, diagnostics, molecular biology, biotechnology, vaccinology, biosafety and regulation. It also provides a pathway to graduate research into infectious agents, their genes, the underlying mechanisms of infectious disease, and diseases associated with the immune system. It lays the foundation for further study in medicine and paramedical disciplines.

“As I was unsure of what particular career I wanted, the Bachelor of Biomedicine enabled me to study in the field I found most interesting while opening up various options for postgraduate and further career pathways.”

Ruby Loschiavo (Australia), Bachelor of Biomedicine, major in Human Structure and Function; Doctor of Medicine
Microbiology and Immunology
This major combines the study of infectious microbial agents – predominantly bacteria and viruses – with the study of immune response. The major opens up careers in epidemiology, diagnostics, molecular biology, biotechnology, vaccinology, antimicrobial chemotherapeutics, biosafety and regulation.

Neuroscience
Neuroscience is one of the largest areas of study within the sphere of modern biology. Australian neuroscience research has had significant international impact. Students completing a Neuroscience major will understand the fundamental organisational and functional principles of the nervous system – from the biology of nerve cells and neural circuits through to neural systems and complex behaviours. You will gain an overview of modern neuroscience and how it interacts with molecular and cell biology, physiology, psychology, and cognitive and information science.

Pathology
A Pathology major integrates knowledge in a range of disciplines from human biology to molecular genetics. In this major you will develop a broad and solid understanding of disease from a molecular, cellular, tissue, functional, biochemical and immunological perspective. You will complete sequences of specialist and integrated subjects and apply current molecular and genetic methods to problems in pathological and medical practice.

Pharmacology
Pharmacology studies the interactions between drugs and living systems. Pharmacologists develop new drugs, determine how drugs act, and use drugs to discover the inner workings of cells. The discipline of pharmacology stands at the intersection of many areas of biomedical science. You will gain an in-depth understanding of drug actions and a broad appreciation of the scientific process of knowledge acquisition and problem solving.

Physiology
The Physiology major teaches you how the body works. You will learn how cells, organs and the whole body function. You will examine disturbances in whole-body systems, such as those relating to the endocrine, cardiovascular, musculoskeletal, developmental and neural control systems. The experimental bases of physiology are emphasised and you will use contemporary techniques to explore questions in this field. Discoveries in physiology have a broad effect on health and medicine, environmental science, industry, nutrition, exercise and reproductive biology. Many of the discoveries from the Human Genome Project rely on physiology to understand their effect on the human body.

It is very exciting to be in a new environment. I was amazed by how welcomed I felt in a new community.

Kimberly Chian (Malaysia), major in Physiology
Graduate degrees

Graduate study is an investment in your future. Choose the University of Melbourne, and join the best and brightest students to pursue your passion and develop your career.

---

**Invest in your future**

We believe that personal satisfaction and career success are inextricably linked. That’s why we encourage you to become a master of your chosen field through specialist graduate study following your undergraduate degree.

**Equipped for leadership**

In the competitive global employment market, a graduate qualification sets you apart as someone who is looking to advance and lead, with the skills and knowledge to succeed. Through graduate study you will learn how to be a leader in your field, and open up a wide range of career opportunities and earning potential.

**Pathways from Biomedicine**

The Bachelor of Biomedicine provides flexible pathways to a range of graduate programs. A selection of the degrees available is included on the following pages.

---

**Guaranteed entry into graduate degrees**

Would you like to begin your undergraduate degree at Melbourne with the security of knowing a graduate place is reserved for you?

Guarantees depend on the ATAR/notional ATAR you achieve:

| ATAR of 99.90+ | A guaranteed place in the graduate degree of your choice, subject to meeting the prerequisites. The guarantee applies to our professional entry masters degrees, including the University’s flagship graduate degrees such as the Doctor of Medicine, Doctor of Dental Surgery and Doctor of Veterinary Medicine. No minimum Grade Point Average (GPA) is required in your undergraduate degree. You may also be eligible for the Melbourne Chancellor’s Scholarship for your undergraduate degree – see page 17. |
| ATAR of 96.00–99.85 | A guaranteed place in your choice of a range of graduate degrees, subject to meeting the prerequisites and achieving a Grade Point Average (GPA) of 65% in your undergraduate degree. |
| ATAR below 96.00 | You may be eligible for a range of other guarantees. To see all your options, go to: futurestudents.unimelb.edu.au/guaranteed-entry |

The guaranteed entry pathways shown are available to domestic and international students who complete an Australian Year 12 or the International Baccalaureate (IB) Diploma in Australia in 2017. Eligible students must enrol in a University of Melbourne undergraduate degree immediately following Year 12, or be granted a deferral by the University.

Some exclusions apply. See futurestudents.unimelb.edu.au/guaranteed-entry for the list of applicable courses.
Pathways to professional careers

Biostatistics

Entry requirements
- An undergraduate degree in a relevant discipline, such as statistics, mathematics, science, psychology, medicine, pharmacy, health sciences or economics, with a weighted average mark of at least H2B (70%)
- Successful completion (result of at least H3 or 65%) at the tertiary level of at least one mathematics subject, including elements of multivariable calculus and linear algebra


<table>
<thead>
<tr>
<th>Undergraduate degree</th>
<th>3 years</th>
<th>Graduate degree</th>
<th>1.5 years</th>
<th>Your career</th>
</tr>
</thead>
<tbody>
<tr>
<td>A bachelors degree in a relevant discipline</td>
<td></td>
<td>Master of Biostatistics</td>
<td></td>
<td>Biostatistician</td>
</tr>
</tbody>
</table>

Clinical Audiology

Entry requirements
- An undergraduate degree in a science or health-related discipline or other relevant degree


<table>
<thead>
<tr>
<th>Undergraduate degree</th>
<th>3 years</th>
<th>Graduate degree</th>
<th>2 years</th>
<th>Your career</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science, or any health-related undergraduate degree, including Biomedicine</td>
<td></td>
<td>Master of Clinical Audiology</td>
<td></td>
<td>Clinical audiologist</td>
</tr>
</tbody>
</table>

Dental Surgery

Entry requirements
- An undergraduate degree including the completion of prerequisite studies in anatomy, physiology and biochemistry at second-year level (or equivalent) within 10 years of commencing the Doctor of Dental Surgery
- Completion of the Graduate Australian Medical School Admissions Test (GAMSAT). International students residing overseas may choose to sit one of the following in place of the GAMSAT: US DAT, Canadian DAT, UK GAMSAT or BMAT


<table>
<thead>
<tr>
<th>Undergraduate degree</th>
<th>3 years</th>
<th>Graduate degree</th>
<th>4 years</th>
<th>Your career</th>
</tr>
</thead>
<tbody>
<tr>
<td>With prerequisite subjects</td>
<td></td>
<td>Doctor of Dental Surgery</td>
<td></td>
<td>Dentist</td>
</tr>
</tbody>
</table>

Students complete a one-year internship following the Doctor of Medicine in order to obtain full registration as a doctor. Doctors can choose to subsequently undertake specialist training.

Medicine

Entry requirements
- An undergraduate degree including prerequisite studies in anatomy, physiology and biochemistry at second-year level (or equivalent) within 10 years of commencing the Doctor of Medicine
- Completion of the Graduate Australian Medical School Admissions Test (GAMSAT). International students residing outside Australia at the time of application may choose to take the Medical College Admissions Test (MCAT) instead of the GAMSAT
- Shortlisted candidates will be invited for a multi-mini interview


<table>
<thead>
<tr>
<th>Undergraduate degree</th>
<th>3 years</th>
<th>Graduate degree</th>
<th>4 years</th>
<th>Your career</th>
</tr>
</thead>
<tbody>
<tr>
<td>With prerequisite subjects</td>
<td></td>
<td>Doctor of Medicine</td>
<td></td>
<td>Doctor</td>
</tr>
</tbody>
</table>

Subject to completing prerequisite subjects, and course plan approval by home faculty.
Nursing

Entry requirements
- A three-year undergraduate degree in any discipline, or equivalent, completed not more than 10 years prior to the date of application, or
- An older undergraduate degree and either more recent graduate study that demonstrates current capacity for graduate study, or
- Five years of documented relevant work experience

mdhs-study.unimelb.edu.au/degrees/master-of-nursing-science

<table>
<thead>
<tr>
<th>Undergraduate degree</th>
<th>Graduate degree</th>
<th>Your career</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any undergraduate degree</td>
<td>Master of Nursing Science</td>
<td>Nurse</td>
</tr>
</tbody>
</table>

Optometry

Entry requirements
- An undergraduate degree in any discipline, with studies to have been completed within 10 years of commencing the Doctor of Optometry, or
- A graduate diploma, master or PhD degree, or equivalent, completed within 10 years of commencing the Doctor of Optometry, and
- Three subjects at level 2 or level 3 (or equivalent) from one or more relevant biological science disciplines, with subjects to have been completed within 10 years of commencing the Doctor of Optometry, and
- One of either the Graduate Australian Medical School Admissions Test (GAMSAT), the Medical College Admissions Test (MCAT) or the Optometry Admission Test (OAT) (USA), taken no more than two years before the date of commencement of the Doctor of Optometry

mdhs-study.unimelb.edu.au/degrees/doctor-of-optometry

<table>
<thead>
<tr>
<th>Undergraduate degree</th>
<th>Graduate degree</th>
<th>Your career</th>
</tr>
</thead>
<tbody>
<tr>
<td>With prerequisite subjects</td>
<td>Doctor of Optometry</td>
<td>Optometrist</td>
</tr>
</tbody>
</table>

Physiotherapy

Entry requirements
- An undergraduate degree including approved prerequisite studies in human anatomy and human physiology at second-year level, or equivalent (one subject of each), within the 10 years prior to commencing the Doctor of Physiotherapy
- Shortlisted candidates will be invited for a multi-mini interview

mdhs-study.unimelb.edu.au/degrees/doctor-of-physiotherapy

<table>
<thead>
<tr>
<th>Undergraduate degree</th>
<th>Graduate degree</th>
<th>Your career</th>
</tr>
</thead>
<tbody>
<tr>
<td>With prerequisite subjects</td>
<td>Doctor of Physiotherapy</td>
<td>Physiotherapist</td>
</tr>
</tbody>
</table>

Research

Entry requirements
- An undergraduate degree with either an honours year or a masters degree with a substantial research component equivalent to at least 25 per cent of one year’s full-time study
- In the Faculty of Medicine, Dentistry and Health Sciences, the minimum entry standard is H1 (80%) or equivalent

futurestudents.unimelb.edu.au/info/research

<table>
<thead>
<tr>
<th>Undergraduate degree</th>
<th>Graduate degree</th>
<th>Your career</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any undergraduate degree</td>
<td>OR Honours</td>
<td>OR Researcher</td>
</tr>
</tbody>
</table>

Biomedicine 2018 11
Social Work

Entry requirements
- An undergraduate degree with at least one year of full-time studies in social sciences, or equivalent, with studies to have been completed within 10 years of commencing the Master of Social Work, or
- An older undergraduate degree and more recent graduate study that demonstrates current capacity for graduate study, and
- Evidence of relevant paid or volunteer work experience of at least 40 hours over a three-month duration, and
- A personal statement, and
- A professional referee report using the Referee Report Form template (applications not using this form will not be assessed)

mdhs-study.unimelb.edu.au/degrees/master-of-social-work

Undergraduate degree
Any undergraduate degree with a social science focus
3 years
Graduate degree
Master of Social Work
2 years
Your career
Social worker

Speech Pathology

Entry requirements
- An undergraduate degree in a relevant discipline (science, biomedicine, linguistics, phonetics, education, psychology), or equivalent

mdhs-study.unimelb.edu.au/degrees/master-of-speech-pathology

Undergraduate degree
Science, biomedicine, linguistics, phonetics, education, psychology, or equivalent
3 years
Graduate degree
Master of Speech Pathology
2 years
Your career
Speech pathologist

Veterinary Medicine

Entry requirements
- An undergraduate degree in agriculture, biomedicine or science, including at least one semester of study in both general/cellular biology and biochemistry
- A personal statement including details of relevant work experience (up to 500 words)
- Contact details of two to three referees

fvas.unimelb.edu.au/study/courses/master-of-veterinary-science

Undergraduate degree
Agriculture, Biomedicine or Science
3 years
Graduate degree
Doctor of Veterinary Medicine
3–4 years
Your career
Veterinarian

Graduate courses in other fields
The University also offers a range of other graduate degrees outside the sciences and health sciences fields, including:
- Executive Master of Arts
- Juris Doctor (Law)
- Master of Architecture
- Master of Energy Systems
- Master of Journalism
- Master of Teaching
- Master of Urban Planning.

For a full list of our graduate degrees visit: coursesearch.unimelb.edu.au/grad
Studies in Engineering

Be in demand
Qualified engineers are in high demand. As an engineering graduate, you’re assured of a vast range of interesting and well-paid employment opportunities around the world.

How to study Engineering at Melbourne
To become a professionally accredited engineer you’ll complete a three-year undergraduate degree with an engineering major or sequence, followed by a two-year Master of Engineering at the Melbourne School of Engineering. An Engineering major or sequence can be taken in the bachelor’s of Biomedicine, Design and Science.

Through the Bachelor of Biomedicine
A major in Bioengineering Systems leading to a Master of Engineering (Biomedical) or Master of Engineering (Biomedical with Business) is ideal if you’re looking to complement your technical skills with medical knowledge and take up a career in biomedical engineering.

Professional recognition
The Master of Engineering is the first degree in Australia to be accredited by both Engineers Australia and EUR-ACE® in Europe.

How to study Engineering through the Bachelor of Biomedicine – school leavers

Step 1: Bachelor of Biomedicine (3 years)
Major in Bioengineering Systems

Step 2: Further study (2 years)
Master of Engineering
Master of Engineering (with Business)

Employment as a professional (accredited) engineer

Find out more

eng.unimelb.edu.au/study
facebook.com/engunimelb
twitter.com/engunimelb

QS World University Rankings by Subject 2017.
The Master of Engineering and Master of Engineering (with Business) are accredited by Engineers Australia. The Master of Engineering (Biomedical with Business, Electrical with Business and Software with Business) and the Master of Engineering (Software) are provisionally accredited until sufficient students graduate from the programs. The Master of Engineering is accredited by EUR-ACE®, apart from the Master of Engineering (Software and Software with Business), which are accredited by Euro-Inf®.
Concurrent diplomas offer another way to develop your interests and discover new opportunities outside of your chosen degree.

**Flexible study options**

Our diplomas give you many flexible options. You can choose to study a diploma alongside your undergraduate degree (adding a further year of study), or cross-credit some of the study in your undergraduate degree to your diploma and take a ‘fast track’ to completion (potentially completing the diploma in the same time it takes to complete your undergraduate degree). Conditions apply and you should discuss your options with a student adviser once you enrol in your undergraduate degree.

**Diploma in Informatics**

The Diploma in Informatics will provide you with the IT tools and technologies employers are looking for. It is designed to complement your core studies with fundamental programming and data management skills.

**Available to:**

Students enrolled in Arts, Biomedicine, Commerce, Design, Music and Science.

**Prerequisites**

There are no additional prerequisites once you are enrolled in your undergraduate degree.

**Diploma in Languages**

Languages available: Ancient Greek, Arabic, Chinese, French, German, Hebrew, Indonesian, Italian, Japanese, Latin, Russian and Spanish.

**Available to:**

Students enrolled in Arts, Biomedicine, Commerce, Design, Music and Science.

**Prerequisites**

There are no additional prerequisites once you are enrolled in your undergraduate degree. Conditions apply and you should discuss your options with a student adviser once you enrol in your undergraduate degree.

**Diploma in Mathematical Sciences**

The Diploma in Mathematical Sciences enables you to gain a mathematics qualification while completing an undergraduate degree.

**Available to:**

Students enrolled in Arts, Biomedicine, Commerce, Design and Science.

**Prerequisites**

Entry is by audition in early February.

**Diploma in Music**

The Diploma in Music provides you with individual instrumental or vocal tuition, through a sequence of practical, ensemble and elective subjects. It is specially designed for students who are interested in complementing their bachelors degree with advanced musical training.

**Available to:**

Students enrolled in Arts, Biomedicine, Commerce, Design and Science.

**Prerequisites**

Entry is by audition in early February.
Biomedicine careers

The Bachelor of Biomedicine leads to a huge range of career options. You will gain in-depth knowledge and technical skills that prepare you for an exciting career of discovery.

A career in the health sciences

Many Biomedicine graduates undertake graduate study leading to professional careers in the health sciences, such as:

- Biostatistics
- Clinical audiology
- Dental surgery
- Medicine
- Nursing science
- Optometry
- Physiotherapy
- Psychology
- Social work
- Speech pathology.

bbiomed.unimelb.edu.au/biomedicine-pathways

A career in biomedical research

You could pursue a career in biomedical research by undertaking a research higher degree (masters or PhD).

A career in the biomedical sciences

Career opportunities available to Biomedicine graduates include:

- Biochemistry and Molecular Biology – Medical research, biotechnology, agricultural and medical support industries, education
- Bioengineering Systems – Clinical engineering, research and development in medical technology
- Biotechnology – Food technician roles, forensic science, human technology, agribusiness
- Cell and Developmental Biology – Diagnostic laboratories, government agencies, medico-legal industry
- Genetics – Conservation, genetic counselling, teaching, forensic science, publishing
- Health Informatics – E-health project management, hospital IT system architecture, biomedical research informatics, health data analysis, health informatics, health information architecture
- Human Structure and Function – Hospital and university research, scientific journalism, pharmaceutical consultancy, teaching
- Immunology – Infectious diseases, diagnostics, molecular biology, biotechnology, vaccinology, biosafety and regulation
- Microbiology and Immunology – Infectious diseases, diagnostics, molecular biology, biotechnology, vaccinology, antimicrobial chemotherapeutics, biosafety and regulation
- Neuroscience – Drug development, neuropsychology, audiology, neurochemistry, brain imaging
- Pathology – Pharmaceuticals, military, biomedical and biotechnology consulting, research
- Pharmacology – Drug development and testing, clinical trials, Alzheimer’s and AIDS research, sales, marine pharmacology
- Physiology – CSIRO research, sports science, biomedical technician, medico-scientific communication, cardiac rehabilitation.

A career in a related area

With further study, the Bachelor of Biomedicine can also lead to a career in:

- Biomedical engineering
- Business and management
- Commercialisation of inventions
- Journalism
- Law
- Public service
- Science communication
- Teaching.

The Bachelor of Biomedicine leads to a huge range of career options. You will gain in-depth knowledge and technical skills that prepare you for an exciting career of discovery.
Access Melbourne

If you’re a domestic student, Access Melbourne can help you gain a place in a course, even if your ATAR is below the Clearly-in Rank. You may even be eligible for guaranteed entry or a scholarship.

You can apply using one or more of the following categories:

- Disadvantaged financial background
- Applicants from rural or isolated areas
- Under-represented schools
- Difficult circumstances
- Disability or medical condition
- Non-English speaking background
- Recognition as an Indigenous Australian
- Mature-age consideration (non-school leaver entry pathway).

Get a guaranteed place

If you’re from a rural or isolated area or have a disadvantaged financial background, you could be eligible for a guaranteed place.

Students who met the course prerequisites and achieved the following ATAR or notional ATAR were guaranteed a place commencing in 2017:

- 78+ Design, Science
- 80+ Arts
- 88+ Commerce
- 95+ Biomedicine.

Please visit the website below to confirm eligibility before applying. Guaranteed ATARs for 2018 will be published in June 2017.

access.unimelb.edu.au

How to apply

Applications for Access Melbourne and Melbourne Access Scholarships are made using the Special Entry Access Scheme (SEAS) application on the VTAC website.

vtac.edu.au

Going Rural Health

The University Departments of Rural Health (UDRH) Student Support Scheme could help you with the costs of accommodation and travel if you complete a clinical placement in a rural setting throughout central Victoria, north east Victoria, Ballarat, the Grampians and south east NSW regions.

goingruralhealth.com.au

“I applied under Access Melbourne as a rural student. Being able to study at the University of Melbourne was never something I thought was possible growing up as a kid from the country. The program has given me the opportunity to learn at one of the world’s best universities.”

Joshua Murray (Australia), Melbourne Access Scholarship recipient (Bachelor of Biomedicine)
Melbourne Chancellor’s Scholarship

The Melbourne Chancellor’s Scholarship is awarded to talented undergraduate students in recognition of their outstanding academic achievement during their Australian Year 12 or International Baccalaureate (IB).

You deserve the rewards

Would you like to begin your Bachelor of Biomedicine degree at the University with the security of knowing a graduate place is reserved for you when you finish?

If you’re studying Year 12 in Australia or are an Australian citizen studying an Australian Year 12 or IB overseas, you could be eligible for our Melbourne Chancellor’s Scholarship.

Benefits

For domestic students:
- HECS student contribution exemption for the full duration of a Commonwealth Supported Place in a bachelors degree and a concurrent diploma
- Living allowance for the standard full-time duration of the bachelors degree and concurrent diploma with a value of:
  - $5000 per year if you completed high school in Victoria
  - $10 000 per year if you completed high school outside Victoria
- Melbourne Global Scholars Award of up to $2500 for an approved period of overseas study as an exchange or study abroad student
- Guaranteed international full fee place in a professional masters degree if you meet the prerequisite and entry requirements for the masters degree
- An accommodation place reserved for you close to the Parkville campus in a quality residence for the first year of study. The offer does not include the cost of accommodation.

For international students:
- A 50 per cent tuition fee remission for the standard full-time duration of a bachelors degree
- Melbourne Global Scholars Award of up to $2500 for an approved period of overseas study as an exchange or study abroad student
- Guaranteed international full fee place in a professional masters degree if you meet the prerequisite and entry requirements for the masters degree
- An accommodation place reserved for you close to the Parkville campus in a quality residence for the first year of study. The offer does not include the cost of accommodation.

Eligibility

To be considered for this scholarship, you must:

- Be one of the following:
  - a domestic or international student who completed an Australian Year 12 or the IB in Australia, or
  - an Australian citizen who completed an Australian Year 12 or the IB outside Australia
- Have applied for a University of Melbourne undergraduate course via VTAC for commencement in the year following completion of an Australian Year 12 or IB. Eligible courses are Arts, Biomedicine, Commerce, Design, Music and Science
- Not have previously undertaken any tertiary studies (excluding extension studies completed as part of a Year 12 program).

Selection

The Melbourne Chancellor’s Scholarship is awarded on the basis of merit and guaranteed to all students who satisfy the undergraduate course prerequisites and:
- Achieve an ATAR of at least 99.90, or
- Intend to undertake the Bachelor of Music and achieve an ATAR of at least 99.85 and achieve an audition score of A+, or
- Are of Indigenous Australian descent and achieve an ATAR of at least 90.

Application

Eligible students who have applied for admission to the University via VTAC will be automatically considered.

Outcome

The first offers are made a few days after the Victorian Year 12 ATAR results are released in December. Further offers are made in January and February to students who have completed the IB or Year 12 outside Victoria. Scholarship offers do not represent an offer for admission to a University of Melbourne bachelors degree. Course offers are made separately through VTAC.

chancellorscholars.unimelb.edu.au

Some exclusions apply. For a list of applicable courses, go to chancellorscholars.unimelb.edu.au
Admissions

How to apply

Domestic students
Domestic students applying for an undergraduate course must submit an application through the Victorian Tertiary Admissions Centre (VTAC). Domestic students studying overseas must also apply through VTAC.

vtac.edu.au

International students
International students studying the VCE, an Australian Year 12 or IB in Australia must apply through VTAC for Semester 1 entry.

All other international students, including those undertaking foundation studies in Australia, must apply directly to the University or through one of our overseas representatives.

futurestudents.unimelb.edu.au/admissions/applications

Fees

Domestic students
All domestic undergraduate students are enrolled in a Commonwealth Supported Place (CSP), subsidised by the Australian Government. Payment of the student contribution amount can be deferred through HECS-HELP for eligible students.

International students
Tuition fees are charged for each year that you are enrolled. You will pay tuition fees according to your specific enrolment in any given semester. Detailed fee information, including the fee policy covering your enrolment, will be provided when you are offered a place at the University.

futurestudents.unimelb.edu.au/admissions/fees

Scholarships
The Melbourne Scholarships Program is one of the most comprehensive and generous in Australia.

It recognises outstanding academic achievement and provides access to students who might otherwise be excluded by socioeconomic, cultural, geographic and other disadvantages.

scholarships.unimelb.edu.au

Pathway to Biomedicine: the Diploma in General Studies
You could be eligible for a guaranteed place in the Bachelor of Biomedicine and other University of Melbourne degrees after completing the one-year Diploma in General Studies. The program combines subjects from the University’s bachelors degrees, and provides you with the opportunity to study science, commerce, design or agriculture.

This course is available to domestic students only.

fvas.unimelb.edu.au/study/courses/diploma-in-general-studies

To be eligible for the guarantee you must be eligible for Access Melbourne at the time you apply for the Diploma in General Studies, and achieve certain grades in the diploma. See the website for more information.
# Entry requirements

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Bachelor of Biomedicine</th>
<th>Biomedicine (Melbourne Chancellor’s Scholarship)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australian Year 12</strong></td>
<td></td>
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<tr>
<td>Domestic students: 2018 Minimum ATAR 96.00</td>
<td>99.96</td>
<td></td>
</tr>
<tr>
<td>Domestic students: 2017 Clearly-in Rank 96.80</td>
<td>99.90</td>
<td></td>
</tr>
<tr>
<td>International students: 2018 Guaranteed ATAR 96.00</td>
<td>99.96</td>
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<tr>
<td>VCE (Units 3 and 4) prerequisite subjects</td>
<td>A study score of at least 25 in English/English Language/Literature or at least 30 in EAL, and at least 25 in Chemistry and in Mathematical Methods or Specialist Mathematics</td>
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<tr>
<td><strong>International Baccalaureate (IB) Diploma</strong></td>
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<tr>
<td>International students: 2018 Guaranteed score 38</td>
<td>99.90 (notional ATAR)</td>
<td></td>
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<tr>
<td>IB prerequisite subjects</td>
<td>English, Chemistry and Mathematics (or Further Mathematics)</td>
<td></td>
</tr>
<tr>
<td><strong>GCE A Levels/Singapore A Levels</strong></td>
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<tr>
<td>International students: 2018 Guaranteed score AAB</td>
<td>Not available to A Levels students</td>
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<tr>
<td>A Level prerequisite subjects</td>
<td>Chemistry and Mathematics or Further Mathematics and at least Grade C in an accepted AS Level English subject</td>
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<tr>
<td><strong>Trinity College Foundation Studies</strong></td>
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<tr>
<td>International students: 2018 Guaranteed score 91</td>
<td>Not available to TCFS students</td>
<td></td>
</tr>
<tr>
<td>TCFS prerequisite subjects</td>
<td>EAP, English, Chemistry and Mathematics 1</td>
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</tr>
</tbody>
</table>

1. Domestic students: Applicants who achieve the minimum ATAR for a course will be eligible for a place, provided prerequisite studies and any other specific course requirements are met. The Clearly-in Rank may be higher, depending on demand for the course and the number of places available. Only applicants eligible for special entry schemes will be admitted below the minimum ATAR. Minimum ATARs are reviewed annually.

2. Students who achieve an ATAR or national ATAR of 99.90 or above and satisfy course prerequisites will be guaranteed a place in the Bachelor of Biomedicine (Melbourne Chancellor’s Scholarship). Students must have completed an Australian Year 12 qualification or the International Baccalaureate (IB) in Australia, or be Australian citizens studying an Australian Year 12 or the IB overseas in the year prior to entry. Students must either enrol immediately or be granted a deferral in the year following Year 12.

3. International students: The University guarantees admission to a course when an international student achieves the required score, meets prerequisite studies, and satisfies the English language requirements, if there are still places available in the course at the time of acceptance. If you do not meet the guaranteed score your application will not be considered for entry. Guaranteed scores apply only if no further study has been undertaken after completion of one of these programs. Guaranteed scores are reviewed annually.

4. Domestic students completing an international qualification: The score listed should be considered a minimum score to be eligible for a place in that course. The actual standard required may be higher depending on the demand for the course and the number of Commonwealth Supported Places (CSPs) available.

5. For students with English as their second language a pass in English B at the required level will be accepted as satisfying the English prerequisite. Except where specified, IB subjects must be passed to at least Grade 4 Standard or Higher Level. Mathematical Studies is not deemed equivalent to VCE Mathematical Methods.

6. Accepted GCE AS and A Level English subjects are: General Paper, General Studies, English Language and Literature, English Literature, English Language, Singapore A Level Subject Knowledge and Enquiry (H2) is also accepted. A minimum grade of at least C is required to meet the University’s English language requirements and in prerequisite subjects.