The world’s most ambitious minds choose the University of Melbourne, not just because we’re ranked number one.

Our degrees aren’t like most others you’ll find in Australia. They’re aligned with those offered by many top universities worldwide.

Our unique curriculum, with its embedded ‘breadth’ studies, empowers you to choose your direction and create a degree as unique as you are. This means your Melbourne experience is yours to shape. In a world where careers and industries are evolving at lightning speed, your independent and innovative thinking will set you apart from the rest.

Take the opportunity to study at our 200 partner institutions around the world. Our connections within government and the community as well corporate partnerships will bridge the gap between study and work with industry-based learning. At Melbourne you’ll network with a diverse, multicultural community of leading minds – your teachers and peers – who will enrich your perspective and broaden your horizons.

Complete an undergraduate degree and you’ll be career-ready. Or you can go on to specialised professional education at graduate level, or even undertake a research degree.

A University of Melbourne degree will help you build the right skills and global networks to adapt to whatever lies ahead. A distinct and outstanding education experience will prepare you for success as leaders, change agents and global citizens. You’ll achieve all this while living in the heart of Melbourne – one of the world’s most liveable cities.

As a world-leading university, we produce graduates that are highly sought after by employers. Our graduates represent our greatest contribution to the world.

We want you to come as you are and leave who you want to be. How else are you going to make your mark on the world?
WHY CHOOSE SCIENCE?

Look at the world around you. Do you see something that could be better? Maybe it’s the cracked glass on your phone, the traffic jam on the freeway, a cure for motor neurone disease, or the missing ‘theory of everything’.

It’s only when you understand how something works that you can hope to improve it, and science gives you the tools to work out what’s really going on. Be a leader of tomorrow and tackle the world’s greatest challenges with science.

IT’S FUTURE-PROOF

In the next decade, an estimated 75 per cent of jobs in the fastest-growing industries will need skills in science, technology, engineering, mathematics and medicine (STEMM). STEMM graduates are also more likely to be in a high-income bracket.

IT’S MEANINGFUL

When you graduate, you’ll be ready to make a difference in society just like our researchers, who are tackling some of our planet’s biggest challenges.

Some examples:

• Growing greener cities with plant-based roofs on buildings to increase human productivity, prevent urban flooding, create energy savings and reduce inner city temperatures
• Developing iron and zinc biofortified rice and wheat that could change the lives of the billions of people who obtain most of their calories from these grains
• Building a laboratory 1 km underground that may soon confirm the existence of dark matter.

With your Science degree, you could start exploring the big questions through graduate research alongside one of our stellar teams. You can also take your new skills into industry, government or the not-for-profit sector.

IT’S DIVERSE

A Science degree is a sure-fire way to kickstart your career in research and development, health, engineering, information technology or education, just to name a few. If you want a job in an emerging industry – maybe one that hasn’t even been thought of yet – science is for you.

FIRST-CLASS FACILITIES

As a Science student at Melbourne, you’ll have access to our brand new $100 million life sciences building – the most sophisticated of its kind in Australia.

The 6-star Green Star rated building (pictured opposite) produces 50 per cent less greenhouse gas emissions than similar buildings of its size. It includes rainwater harvesting and re-use, high efficiency fittings and fixtures and a solar power system producing 140 000 kWh of solar energy a year.

You’ll also have access to the University’s Bio21 Molecular Science and Biotechnology Institute, one of the largest biotechnology research centres in Australia.

Science at Melbourne maintains the highest standards, quality of teaching and research in Australia, attracting the best calibre of students. The course is truly yours to customise. You’ll be able to pick from 42 major areas of study – some you may never have heard of before. One thing’s for sure: you’ll definitely find your passion!

**COURSE STRUCTURE**

The Bachelor of Science is a three-year degree in which you complete 24 subjects (300 points of study in total). Most students complete eight subjects (100 points of study) in each year of full-time study.

**SCIENCE MAJORS**

A major is a sequence of subjects you complete in your third year. Completing a major indicates that you are a specialist in that particular discipline.

If you already know the area you would like to specialise in, you can start focusing on your major right away. Or, if you have interests in many areas of science, technology, engineering and maths, you can leave your options open during your first year while you explore.

Learn more about the 42 majors available in the Bachelor of Science on pages 8–17.

**BREADTH SUBJECTS**

Breadth allows you to tailor your course to fit your individual passions and career ambitions. You might, for example, study science but take breadth in Mandarin Chinese – a great choice for a scientist looking to work internationally and help solve global issues.

You can also use breadth to explore something you’ve always been curious about, whether it’s related to your major or not.

Some students find that taking a breadth subject ignites a passion they’d never known about. Others might use breadth to improve their career prospects by complementing their major with a language, communication skills or business know-how. ‘Breadth tracks’ (groups of subjects taken throughout your degree) may even qualify you for graduate study in a field that’s very different to your major.

**HONOURS**

Honours is an optional fourth year of study, available in certain disciplines, that gives you the opportunity to draw together your previous studies and focus on an exciting piece of original research. Honours can prepare you for employment or a graduate research degree, such as a PhD.

**BACHELOR OF SCIENCE (EXTENDED)**

The Bachelor of Science (Extended) is a four-year degree that provides a pathway for Indigenous students to embark on careers that build on a strong science background.

As a Bachelor of Science (Extended) student, you’ll have access to the full range of enrichment opportunities available at Melbourne – including study abroad and exchange; scholarships, awards and prizes; volunteering and leadership programs; and career-focused opportunities such as internships and networking – bolstered by additional support and resources to provide a strong foundation for success in science.

**YOUR NEXT STEPS: WORK OR GRADUATE STUDY**

After you finish your Science degree, you can choose to join the workforce or go on to study at graduate level. See pages 20–29 to find out where your degree could lead.
Your course plan will be different if you are commencing in Semester 2. Some majors cannot be completed within three years from a mid-year start date due to subject availability. You should pay close attention to prerequisite subjects and when they are offered to avoid any unnecessary delays to your course.

The published minimums and guaranteed scores are those approved for 2020 and should be considered indicative for 2021. The 2021 minimums and guaranteed scores will be available on the University’s website once confirmed.

“The course structure is flexible enough to handle almost all your curiosity, indecision and passions. Get involved in clubs and enrichment activities, be patient and find the ones the work for you and allow you to grow.”

Annitta Lin (Australia)
Bachelor of Science, major in Civil Systems
Majors within the Bachelor of Science encompass the full range of STEM disciplines, from the fundamental and biological sciences to engineering systems and IT.

AGRICULTURAL SCIENCE

Today the agricultural industry is all about science: logistics, engineering, robotics and genetics. Modern farming is a cutting-edge, high-tech industry geared towards creating a sustainable future. At the University of Melbourne, our agricultural scientists work in labs, on-farm, and with drones and new technology. We even have our own robotic dairy! Use your biology and chemistry knowledge to develop food and fibre products that will be sustainable in our changing environment, or your mathematics and statistics skills to manage livestock and grazing patterns. Within this major, you can choose to specialise in agricultural science, crop science or animal production.

ANIMAL HEALTH AND DISEASE

How do you want to help animals? Will you champion the health and welfare of man’s best friend? Will you rush to the stables for a foaling, or work in the lab, tracking disease outbreaks and developing vaccines? Whatever you choose, start your journey with Animal Health and Disease, where you’ll learn about animals and their health, behaviour and handling. If you’re looking to become a vet, you can specialise in veterinary bioscience, an accelerated pathway into the Doctor of Veterinary Medicine. Or you can learn about disease surveillance in animal populations through the animal disease biotechnology specialisation, and help prevent another swine or bird flu epidemic.

ANIMAL SCIENCE AND MANAGEMENT

What makes a free-range chicken free range? Is it really the most ethical option? What’s the best breeding practice for livestock? And can we finally confirm which are better: cats or dogs? You might never answer that last question, but in this major you’ll learn all about animal management and biology, from genetics and reproduction through to behaviour and welfare. You’ll study the complex ethical and moral issues concerning animal ownership and have the opportunity to focus on the management of a chosen group of animals. You can specialise in animal behaviour and welfare, livestock production or animal science.

BIOCHEMISTRY AND MOLECULAR BIOLOGY

Biochemistry explores the chemical processes taking place inside living things – from viruses and bacteria to plants and animals. Using molecular biology, biochemists study what happens inside cells by investigating how cellular components such as nucleic acids, proteins, sugars and fats work together. This information helps us understand how cells function, but also why diseases occur when things go wrong. In this major, you’ll work to answer these integral health questions while building the knowledge and hands-on skills needed in many rapidly advancing fields of medical research and biotechnology.

This major is also available in the Bachelor of Biomedicine.

BIOENGINEERING SYSTEMS

Do you want to design a new medical device, or solve a clinical problem and help patients in need? Through this major, you’ll study elements of engineering, science and medicine, and learn to use all three to develop new and improved medical treatments, processes and instruments. Our bioengineers are already working on ground-breaking innovations such as the bionic eye, implants that help control epilepsy and improved ways of delivering life-saving drugs to the body. Follow this major through to the Master of Engineering and you could join them to discover what’s next!

This major is also available in the Bachelor of Biomedicine.

SAMPLE COURSE PLAN – BACHELOR OF SCIENCE®

MAJOR IN ANIMAL SCIENCE AND MANAGEMENT

<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></td>
<td>Biology: Life’s Machinery</td>
<td>Chemistry 1</td>
<td>Companion Animal Biology</td>
<td>Animal Behaviour</td>
</tr>
<tr>
<td></td>
<td>Chemistry 1</td>
<td>Human Sciences: From Cells to Societies</td>
<td>Animal Structure and Function</td>
<td>Managing Operations</td>
</tr>
<tr>
<td></td>
<td>Introduction to Life, Earth and Universe</td>
<td>Principles of Management</td>
<td>Organisational Operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to Life, Earth and Universe</td>
<td>Managing Operations</td>
<td>Organisational Operations</td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>Biochemistry in Agricultural Systems</td>
<td>Ecology and Grazing Management</td>
<td>Topics in Animal Health</td>
<td>Organisational Behaviour</td>
</tr>
<tr>
<td></td>
<td>Animal Disease Biotechnology 1</td>
<td>Applied Animal Reproduction and Genetics</td>
<td>Animal Behaviour</td>
<td>Managing Entrepreneurship and Innovation</td>
</tr>
<tr>
<td>Year 3</td>
<td>Animal Disease Biotechnology 1</td>
<td>Applied Animal Reproduction and Genetics</td>
<td>Animal Behaviour</td>
<td>Managing Entrepreneurship and Innovation</td>
</tr>
<tr>
<td></td>
<td>Animal Systems Analysis</td>
<td>Tropical Field Ecology</td>
<td>Business Communication</td>
<td></td>
</tr>
</tbody>
</table>

- Major subjects
- Subjects leading to major
- Elective subjects
- Breadth subjects

This is a sample course plan only. Subjects offered may change from year to year. You’ll be advised of current subject offerings prior to subject selection and enrolment. This sample study plan assumes you have undertaken VCE Chemistry Units 3 and 4 or equivalent.

The breadth subjects featured in this plan are examples only. You can choose breadth subjects according to your interests. You must complete at least four breadth subjects in this degree, plus another two subjects either as breadth or electives.
BIOTECHNOLOGY

Science: it’s all about discoveries that have practical benefits out in the real world. Biotechnology uses biological knowledge to develop new processes and products in industry, health, agribusiness and other areas of human technology. It’s one of the world’s biggest and fastest-growing industries and, because it’s so broad, we let you tailor this major to suit your interests or background in areas such as biology, chemistry, physics and engineering. You can choose to specialise in streams of agri-food, molecular, biomedical and chemical biotechnology, and you can then go on to further study in the Master of Biotechnology.

This major is also available in the Bachelor of Biomedicine.

CELL AND DEVELOPMENTAL BIOLOGY

We’re all made of cells, and we all start with just one. But what are cells made of? Explore the genetic, molecular and cellular basis of development in a variety of organisms and experimental models. You’ll discover what happens when cellular processes are disrupted, resulting in developmental disorders or diseases such as cancer or diabetes. Gain an awareness of the ethical issues associated with using technologies, including IVF, birth control, stem cell technology and genetically manipulated foods and crops, to prepare you for possible careers in research laboratories and the medico-legal area.

This major is also available in the Bachelor of Biomedicine.

CHEMICAL SYSTEMS

In this modern world, we take a lot of things for granted — but without chemical engineers, we wouldn’t have plastics, pharmaceuticals, toiletries, household cleaners or processed food and drink. Chemical engineers invent, design and implement processes that convert raw materials into valuable products used every day. Follow this major through to the Master of Engineering and you’ll join students working on important projects such as clean energy biofuels, targeted drug delivery for cancer treatment and new methods of air pollution control.

“Make the most of university life. It’s an exciting time and there are many life experiences to be made inside and outside the classroom.

“I’ve participated in a work shadowing program to gain insight into business, which has opened me up to a new field of commercial science that I hadn’t considered before. I’ve also had the opportunity to connect to mentors through student clubs to get advice about jobs, subjects and resources.”

Ema Hagihara (Australia)
Bachelor of Science, major in Environmental Engineering Systems
CHEMISTRY
Do you wonder what chemistry’s all about? The better question is: what isn’t chemistry about? Whether it’s harnessing renewable energy sources, next-gen nanotechnology or new medical breakthroughs, chemistry is an ever-present and vital tool for shaping the technology of tomorrow. The future of science is multidisciplinary, and chemistry sits at the intersection of so much that will change our world over the coming century. In this major you’ll study the fields of molecular design and synthesis, analysis and spectroscopic identification of chemical species, quantum chemistry, molecular dynamics, chemical kinetics and thermodynamics.

CIVIL SYSTEMS
Civil engineers have a significant impact on our world, meeting the challenges of urban development, restoring infrastructure after disasters and building structures to withstand extreme conditions. You’ll learn about planning, design and construction of the built environment, and explore the best ways of interacting with the natural environment. You can follow this major through to the Master of Engineering and start creating innovative solutions to our modern problems.

This major is also available in the Bachelor of Design.

CLIMATE AND WEATHER
Ever thought about what causes thunderstorms and cyclones, or what’s really happening to the ozone layer? Our climate and weather systems influence a lot more than what you decide to wear each morning. Ongoing and unpredictable changes to our climate and weather will greatly challenge how – and where – we’ll live in the future. In this major, you’ll study climate science and meteorology and discover how atmosphere, ocean and land processes combine to influence temperatures, rainfall and other weather. Learn about the science of climate change, climate modelling and weather forecasting, and the roles of wind and ocean current systems. You can build your skills in many of the different sciences that play a role in climate and weather.

COMPUTING AND SOFTWARE SYSTEMS
You don’t need us to tell you that the software industry is huge, and it’s only going to get bigger. Whether you’re interested in apps, gaming, productivity software, financial products or web development, this major will build the knowledge and skills you need for a career in the software industry. You’ll use programming languages, learn about the systematic processes behind the software development life cycle, and gain an appreciation of advanced computing. Once completed, you can level up your major with graduate study.

DATA SCIENCE
Over the past decade there has been an explosion in the amount of data captured from mobile phones, the internet, sensors and instruments. Capturing this data is big business, but how do we make sense of it all? That’s where you come in. You’ll learn to integrate and apply statistical and computational principles to solve real-world problems with large-scale data science and set yourself up for the career of the future.

SAMPLE COURSE PLAN – BACHELOR OF SCIENCE
MAJOR IN DATA SCIENCE

<table>
<thead>
<tr>
<th>Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
</tr>
<tr>
<td>Semester 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
</tr>
<tr>
<td>Semester 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
</tr>
<tr>
<td>Semester 2</td>
</tr>
</tbody>
</table>

- **Major subjects**
- **Subjects leading to major**
- **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. This sample study plan assumes a study score of at least 29 in VCE Specialist Mathematics 3/4, or equivalent.
- The breadth subjects featured in this plan are examples only. You can choose breadth subjects according to your interests. You must complete at least four breadth subjects in this degree, plus another two subjects either as breadth or electives.
ECOLOGY AND EVOLUTIONARY BIOLOGY
Are you interested in the history of life on earth? When and where did a species originate? How did it evolve? What controls where a species is found and how abundant it is? Are birds really dinosaurs? This major combines disciplines from genetics through to ecosystem science to give you a deep understanding of the evolutionary basis of ecosystems, habitats and biodiversity, and the relationships between species and their environments. You can specialise in ecology, conservation ecology, or evolution and biodiversity.

ECOSYSTEM SCIENCE
We all like to think we’re green but, for the first time ever, more than 50 per cent of people around the world live in cities. Some think this removes us from nature, but we’re now recognising the value of urban ecosystems, green spaces and urban forests in making our cities more liveable for us, and for our plant and animal neighbours. Meanwhile, outside the cities, we see dwindling forests worldwide and an ever-expanding appetite for forest products and ask: what can we do? This major will show you how to care for, use and protect urban and forest ecosystems. It has two specialisations: urban ecosystems and forest ecosystems.

ELECTRICAL SYSTEMS
Electrical engineers design and build electronic devices on all scales – from nanoelectronics to nationwide power grids. Electrical engineering is the central discipline involved in communications, including civil aviation and the deep space network, as well as in the medical field. Our electrical engineers are improving lives by developing systems and instrumentation for bionic vision, hearing technologies and life-support systems. You can follow this major through to the Master of Engineering to become a qualified engineer.

“I went on a semester exchange that really made my university journey complete. It was such an amazing time and really helped me grow and mature as a person. There are so many great opportunities for every student - you can study a breadth of things that may interest you. Just try and get involved and do as much as you can during your time here. You’ll know when you leave, you can say that you have no regrets as you did everything you could have wanted while at uni.”

Leon Wang (Australia)
Bachelor of Science, major in Computational Biology
ENVIRONMENTAL ENGINEERING SYSTEMS
As an environmental engineer, your job is to build sustainable solutions to environmental problems. In this major, you’ll learn about the complexities of natural systems and how they interact with the built environment. You’ll examine land use and management, salinity, water resources management, water quality and soil rehabilitation. Follow this major through to the Master of Engineering and you can join our graduates in the field alongside biologists, ecologists and resource managers creating a more efficient and sustainable world.

ENVIRONMENTAL SCIENCE
Our environment is facing some serious challenges – from changing climates to habitat loss, environmental degradation, species extinction and overpopulation. Environmental Science combines knowledge in biology, chemistry, statistics and earth sciences for a multi-disciplinary approach to overcoming these challenges. You can choose to specialise in conservation and ecosystems, climate change, natural resources and hazards, or sustainability science while gaining important skills in risk assessment and environmental monitoring crucial to careers in consulting, environmental management and laboratory research.

FOOD SCIENCE
By 2050, we can expect to be sharing the planet with 9.7 billion people who’ll need access to food that is nutritious, clean, green – and delicious. Study Food Science and you’ll learn new ways to sustainably develop, improve, preserve, process, package and store food products globally. This major will prepare you to play an important role in meeting the expanding needs of the local and international food industries, with a focus on food chemistry, food processing and preservation, and how different ingredients affect us.

GENETICS
Life as we know it couldn’t exist without genetic material and genes. Genetic material provides organisms with their unique properties, including the ability to reproduce, and is the channel for evolution. At its core, genetics is the study of the variation between living things – humans, animals and plants – and how this is inherited. Study genetics to find out how cells work at a molecular level, how mutations can cause disease, why these mutations occur in populations and the answers to many more fascinating questions about life!

This major is also available in the Bachelor of Biomedicine.

SAMPLE COURSE PLAN – BACHELOR OF SCIENCE®
MAJOR IN ENVIRONMENTAL SCIENCE, NATURAL RESOURCES AND HAZARDS SPECIALISATION

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Semester 1</th>
<th>Chemistry 1</th>
<th>Biology: Life’s Machinery</th>
<th>The Global Environment</th>
<th>Creativity, Play and the Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Semester 2</td>
<td>Chemistry 2</td>
<td>Biology: Life’s Complexity</td>
<td>Understanding Planet Earth</td>
<td>Creative Projects – Digital Technologies</td>
</tr>
<tr>
<td>Year 2</td>
<td>Semester 1</td>
<td>Environmental Chemistry</td>
<td>Chemistry: Reactions and Synthesis</td>
<td>Analysis of Biological Data</td>
<td>Concepts of Childhood</td>
</tr>
<tr>
<td></td>
<td>Semester 2</td>
<td>Ecology</td>
<td>Chemistry: Structure and Properties</td>
<td>Dangerous Earth</td>
<td>Science Communication and Employability</td>
</tr>
<tr>
<td>Year 3</td>
<td>Semester 1</td>
<td>Environmental Risk Assessment</td>
<td>Imaging the Environment</td>
<td>Hydrogeology/Environmental Geochemistry</td>
<td>School Experience as Breadth</td>
</tr>
<tr>
<td></td>
<td>Semester 2</td>
<td>Problem Solving in Environmental Science</td>
<td>Analytical and Environmental Chemistry</td>
<td>Applied Ecology</td>
<td>Story, Children and the Arts</td>
</tr>
</tbody>
</table>

#22 IN THE WORLD FOR ENVIRONMENTAL SCIENCES
QS World University Rankings by Subject 2020

#16 IN THE WORLD FOR GEOGRAPHY
QS World University Rankings by Subject 2020

GEODESCY
With 4.6 billion years’ worth of records, geology has plenty to tell us. In this major, you’ll discover the secrets hidden below the ground through field-based classes and laboratory analysis. Explore the origins of our planet and the processes that have and will continue to shape it, sometimes dramatically. You’ll be able to read the landscape at a whole new level. Our economy and lifestyles rely on a large part on the resources that lie below us, so there are always lots of career opportunities for geologists in research, environmental assessment and remediation, minerals and petroleum industries, and government.

GENETICS
Study genetics to find out how cells work at a molecular level, how mutations can cause disease, why these mutations occur in populations and the answers to many more fascinating questions about life!

This major is also available in the Bachelor of Biomedicine.

GEODESCY
With 4.6 billion years’ worth of records, geology has plenty to tell us. In this major, you’ll discover the secrets hidden below the ground through field-based classes and laboratory analysis. Explore the origins of our planet and the processes that have and will continue to shape it, sometimes dramatically. You’ll be able to read the landscape at a whole new level. Our economy and lifestyles rely on a large part on the resources that lie below us, so there are always lots of career opportunities for geologists in research, environmental assessment and remediation, minerals and petroleum industries, and government.

This major is also available in the Bachelor of Arts.

FOOD SCIENCE
By 2050, we can expect to be sharing the planet with 9.7 billion people who’ll need access to food that is nutritious, clean, green – and delicious. Study Food Science and you’ll learn new ways to sustainably develop, improve, preserve, process, package and store food products globally. This major will prepare you to play an important role in meeting the expanding needs of the local and international food industries, with a focus on food chemistry, food processing and preservation, and how different ingredients affect us.

GENETICS
Life as we know it couldn’t exist without genetic material and genes. Genetic material provides organisms with their unique properties, including the ability to reproduce, and is the channel for evolution. At its core, genetics is the study of the variation between living things – humans, animals and plants – and how this is inherited. Study genetics to find out how cells work at a molecular level, how mutations can cause disease, why these mutations occur in populations and the answers to many more fascinating questions about life!

This major is also available in the Bachelor of Biomedicine.
HUMAN NUTRITION

How many health stars do you look for when buying food? What do you wish you could change about the health and nutrition of our society? Human Nutrition involves the science of food production and processing, the nutrient composition of foods, the interaction of nutrients with our biochemical and physiological make-up and the impact of diet on health and disease. By studying a major in Human Nutrition, you’ll be well placed to apply for a graduate degree in dietetics qualifying you as a dietitian. Studying Human Nutrition is also a great first step towards careers in food manufacturing, public health or food policy. If you take this major together with a group of subjects in a related area, you may be eligible for registration as an Associate Nutritionist with the Nutrition Society of Australia.

This major is also available in the Bachelor of Biomedicine.

HUMAN STRUCTURE AND FUNCTION

The modern human has existed for more than 200,000 years. Discover how the human body has continued to evolve and adapt over this time. You’ll get hands-on experience using human cadavers to understand the relationship between human structure and function, while being introduced to elements of relevant fields such as physiology, neuroscience, pathology, pharmacology and zoology. This major is a great pathway to further study in medicine or health sciences.

This major is also available in the Bachelor of Biomedicine.

IMMUNOLOGY

We’re seeing more and more illnesses associated with the immune system – from allergies to autoimmune diseases – and treating and preventing infectious diseases is difficult without effective vaccines. Immunology is the study of the human immune system, which controls infections and provides protection against microorganisms. You’ll explore its applications to the development and clinical use of new immune-based therapies for cancer and infectious diseases, allergies, autoimmune diseases and the prevention of transplantation issues such as organ rejection.

This major is also available in the Bachelor of Biomedicine.

“...the flexible course structure resonated with me immediately – being encouraged to study a range of disciplines has been the most enjoyable study experience. I completed an internship to apply my psychology skills outside of the classroom and it’s given me a taste of exciting areas that I didn’t know existed before.”

Jack Woods (Australia)
Bachelor of Science, major in Psychology

#22 IN THE WORLD FOR LIFE SCIENCES AND MEDICINE

QS World University Rankings by Subject 2020
INFECTION AND IMMUNITY

Many microorganisms are essential for human health, though some can cause potentially disastrous infections. Our immune system, which controls infections and provides protection against these microorganisms, can also inflict damage on us with allergies and autoimmune diseases. In the Infection and Immunity major you’ll explore infections caused by microorganisms, including bacteria, viruses and parasites, and how our immune system works to control these infections and provide immunity against the microorganisms that are out to harm us.

This major is also available in the Bachelor of Biomedicine.

MARINE BIOLOGY

Marine biology is more than just swimming with dolphins. It’s the key to understanding and responding to the important issues facing our planet, such as global warming and the impact of tourism and pollution on our oceans. Through this major you’ll become an expert in marine biological systems and the application of ecological principles and environmental management strategies. You’ll also develop a breadth of knowledge across many disciplines, from biological sciences such as botany and zoology to the physical sciences of chemistry, geography and oceanography. You can explore careers in commercial aquaculture, environmental monitoring, research or tourism – and yes, that may include swimming with dolphins!

MATHEMATICAL PHYSICS

Apply your mathematical skills to answer some of life’s biggest questions. From black holes, thermodynamics, electricity and magnetism, to superconductivity and elementary particle physics, mathematical physics will introduce you to advanced mathematical theory that can you can use to change the physical world. This will give you a strong foundation for careers in logistics management, market research, medical or research analysis, finance, materials science or mining.

MATHEMATICS AND STATISTICS

Do you want your degree to set you up for the data-driven 21st century economy? Are you interested in learning the universal language for abstraction and predictive modelling? Or maybe you’re just captivated by the intrinsic beauty of patterns and deep truths about numbers and how the Universe works. With a major in Mathematics and Statistics, you’ll learn powerful analytical and problem-solving skills you can use anywhere. You could design algorithms for an innovative start-up, control and optimise processes in big industry, advance health care through data science, help governments and societies make critical decisions, or pursue an international career in fundamental research.

MECHANICAL SYSTEMS

Mechanical engineers create innovative solutions to global challenges. Study the operation and control of machines in a wide range of contexts, from transportation (including cars, aircraft and ships) through to everyday devices such as air conditioners and dishwashers. You’ll discover how to design, plan and manage the technical systems needed to produce goods for industrial and domestic use. Mechanical Systems interacts with all other branches of engineering and is increasingly involved with other fields of study such as medicine, biology and the generation and harnessing of energy. Follow this major through to the Master of Engineering to become an accredited engineer.

This major is also available in the Bachelor of Design.

MECHATRONICS SYSTEMS

Want a career where you control the robots? If you like mechanical, electrical and software engineering, why not combine all three and develop the next generation of automated technologies? You’ll build a detailed understanding of the way mechanical, electronic and software engineering interact to enable the development of ‘smart’ products and systems. These include computer-controlled robots, washing machines, automotive equipment, medical imaging systems, wind and wave generators, advanced CNC machines and hybrid and electric vehicles. Follow this major through to the Master of Engineering to become an accredited engineer.

#1 IN AUSTRALIA,
#32 IN THE WORLD
FOR STATISTICS AND
OPERATIONAL RESEARCH

QS World University Rankings by Subject 2020

SAMPLE COURSE PLAN – BACHELOR OF SCIENCE®

MAJOR IN MECHANICAL SYSTEMS LEADING TO THE MASTER OF ENGINEERING

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester</th>
<th>Major subjects</th>
<th>Subjects leading to major</th>
<th>Elective subjects</th>
<th>Breadth subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Semester 1</td>
<td>Engineering Systems Design 1</td>
<td>Linear Algebra</td>
<td>Physics 1</td>
<td>Accounting Reports and Analysis</td>
</tr>
<tr>
<td></td>
<td>Semester 2</td>
<td>Engineering Systems Design 2</td>
<td>Calculus 2</td>
<td>Physics 2: Physical Science and Technology</td>
<td>Principles of Finance</td>
</tr>
<tr>
<td>3</td>
<td>Semester 1</td>
<td>Mechanics and Materials</td>
<td>Systems Modelling and Analysis</td>
<td>Imaging the Environment</td>
<td>Derivative Securities</td>
</tr>
<tr>
<td></td>
<td>Semester 2</td>
<td>Mechanical Systems Design</td>
<td>Thermodynamics and Fluid Mechanics</td>
<td>Engineering Risk Analysis</td>
<td>Investments</td>
</tr>
</tbody>
</table>

- 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.
- Students with a study score below 27 in Specialist Mathematics Units 3 and 4 or equivalent must take Calculus 2 before proceeding to Linear Algebra or Calculus 2. Students with a study score of at least 27 in Specialist Mathematics Units 3 and 4 or equivalent can take Linear Algebra before proceeding to Calculus 2.
- The breadth subjects featured in this plan are examples only. You can choose breadth subjects according to your interests. You must complete at least four breadth subjects in this degree, plus another two subjects either as breadth or electives.
MICROBIOLOGY
Life on earth began with and continues to depend on the activities of microorganisms. While many microorganisms are essential for human health, some can cause infections with potentially disastrous outcomes. Microbiology explores microorganisms including bacteria, viruses and parasites, the diseases they can cause, and the ways we try to treat and prevent these diseases, such as by developing immunity. You’ll discover the incredible ability of microorganisms to evolve, survive and contribute to health – or cause disease.
This major is also available in the Bachelor of Biomedicine.

NEUROSCIENCE
How the brain works is fascinating and baffling, and there’s still so much to be discovered about these living computers. Discover how the nervous system is organised and how it functions, from the biology of nerve cells and neural circuits through to neural systems and complex behaviours. You’ll find out how modern neuroscience interacts with molecular and cell biology, physiology, psychology, and cognitive and information science. You can then take this knowledge and apply it to fields such as drug development, behavioural research and brain imaging.
This major is also available in the Bachelor of Biomedicine.

PATHOLOGY
Diseases are a part of life – and death. Not that long ago we didn’t know the root cause of the most common diseases, and there’s still so much to learn. Pathology is the foundation of medical practice. You’ll discover how our scientific understanding of disease leads to diagnosis, treatment and prevention, and explore the basis of disease through changes in the structure and function of molecules and cells. You could end up performing diagnostic pathology in a biotechnology lab, or completing further study for a career in disease research or as a medical pathologist.
This major is also available in the Bachelor of Biomedicine.

SAMPLE COURSE PLAN – BACHELOR OF SCIENCE®
MAJOR IN NEUROSCIENCE

| Year 1 | Semester 1 | Biology: Life's Machinery | Mind, Brain and Behaviour 1 | Fundamentals of Chemistry | Intercultural Communication |
| Year 2 | Semester 1 | Biological Psychology | Foundations of Genetics and Genomics | Developmental Psychology | Language in Aboriginal Australia |
| Year 2 | Semester 2 | Cognitive Psychology | Personality and Social Psychology | Biotechnology | Language, Society and Culture |
| Year 3 | Semester 1 | Neurophysiology: Neurons and Circuits | Principles of Neuroscience | Research Methods for Human Inquiry | Power, Ideology and Inequality |
| Year 3 | Semester 2 | Complex Functions in Neuroscience | Developmental Neurobiology | Psychological Science: Theory and Practice | Australian Indigenous Public Policy |

SAMPLE COURSE PLAN – BACHELOR OF SCIENCE®
MAJOR IN PHYSICS

| Year 1 | Semester 1 | Physics 1 | Calculus 2 | Chemistry 1 | Science and Pseudoscience |
| Year 2 | Semester 1 | Quantum and Thermal Physics | Laboratory and Computational Physics 2 | Vector Calculus | Technology and Contemporary Life |
| Year 2 | Semester 2 | Special Relativity and Electromagnetism | Real Analysis | Differential Equations | Science, Reason and Reality |
| Year 3 | Semester 1 | Quantum Physics | Astrophysics | Complex Analysis | Science and Society |
| Year 3 | Semester 2 | 2 Laboratory and Computational Physics 3 | Statistical Physics | Methods of Mathematical Physics | Scientific Practice and Human Inquiry |

■ Major subjects  ■ Subjects leading to major  ■ Elective subjects  ■ Breadth subjects

1 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.
2 The breadth subjects featured in this plan are examples only. You can choose breadth subjects according to your interests. You must complete at least four breadth subjects in this degree, plus another two subjects either as breadth or electives.
3 This sample study plan assumes that students have undertaken VCE Physics Units 3 and 4 and VCE Chemistry Units 2 and 4 or equivalent, and obtained a study score of 28 or more in VCE Mathematical Methods Units 3 and 4 or equivalent. Also, that students have achieved a score of 29 or above in VCE Specialist Mathematics Units 3 and 4 or equivalent. Students who have not met this requirement will need to take Calculus 1, before Calculus 2.
4 Students who have a study score of 25 or higher in VCE Mathematical Methods Units 3 and 4, but did not achieve 29 or higher in VCE Specialist Mathematics Units 3 and 4, take Calculus 1 before proceeding to Calculus 2. Students with 27 or 28 in Specialist Mathematics Units 3 and 4 are eligible for entry to Linear Algebra.
PHYSIOLOGY
Some drugs save lives and others destroy lives. Discover the interaction between chemical agents and living matter. Learn about the mechanisms of biologically active substances, such as therapeutic agents and agricultural, household and industrial chemicals. Be inspired to set off on a research path towards the treatment of diabetes, heart attacks, asthma, cancer and Parkinson’s disease, amongst others, in this $1 trillion industry. You will be studying in the heart of Australia’s pharmaceutical industry, so look out for opportunities to connect with the many companies and institutes within the Parkville precinct.

This major is also available in the Bachelor of Biomedicine.

PHYSICS
Are you interested in how a bumblebee flies, how a quantum computer works or how to build a wind turbine that doesn’t fall down? If you’re inspired by the beauty of the cosmos and want to reveal its mysteries, or use the biggest machine ever built to examine the smallest particles ever observed, Physics is for you. In this major, you will learn to think critically about the world and how it works through studying matter and energy, and their interactions. At a fundamental level, biology, chemistry, engineering, medicine and even finance can all be explained by physics.

PLANT SCIENCE
Forget solar panels and Tesla batteries: the true solar energy and storage powerhouses of the world are plants. In this major you will study the big and the small, from single-celled algae (the solar factories of the oceans) to giant eucalyptus trees, ancient ferns, crop plants that supply most of the world’s nutritional needs, or the plant toxins that might be the basis for the next life-saving drug. Plant Science (also called botany) can take you in as many directions as there are plants – from agriculture to horticulture, and from conservation to biotechnology.

PSYCHOLOGY
Deep down, we all want to know what everyone else is thinking. Understanding human behaviour is challenging and complex, and changes rapidly in response to our environment and new technology. You will learn about every stage of human behaviour, from behavioural neuroscience to cognitive processes, and the practical aspects of developmental, social and clinical psychology. Completing further study in one of our accredited masters degrees can lead to your registration as a professional psychologist.

This major is also available in the Bachelor of Arts and Bachelor of Biomedicine.

SAMPLE COURSE PLAN – BACHELOR OF SCIENCE® MAJOR IN ZOOLOGY

- Major subjects
- Subjects leading to major
- 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. This sample study plan assumes that students have achieved a score of 25 or more in VCE Mathematical Methods Units 3 and 4 or equivalent, and VCE Chemistry Units 3 and 4 or equivalent.

The breadth subjects featured in this plan are examples only. You can choose breadth subjects according to your interests. You must complete at least four breadth subjects in this degree, plus another two subjects either as breadth or as science electives.
“As part of my degree, I was able to complete a placement on a neuropsycho-oncology research study at MCRI which allowed me to see what it would be like to be a neuropsychologist in that field. My degree has also allowed me to complete subjects in other areas I’m interested in, such as immunology and audiology. This has opened up more prospective career opportunities.”

Farah Elhassan (Australia)
Bachelor of Science, major in Psychology
Concurrent diplomas offer another way to develop your interests and discover new opportunities outside of your chosen degree.

Our diplomas give you many flexible options to enrich and broaden your studies. You can study a diploma alongside your undergraduate degree (adding a further year of study), or cross-credit up to 50 points (four subjects) of study, enabling you to complete the degree and diploma within 3.5 years. If you’re an undergraduate domestic student, you may be eligible to receive the final half of your diploma HECS free.

High-achieving students may be able to complete their degree and diploma within three years. Conditions apply, and you should discuss your options with a course adviser once you enrol in your undergraduate degree.

**DIPLOMA IN COMPUTING**
You’ll learn data manipulation and presentation techniques, opening up career opportunities in finance, economics, biology, geology, chemistry, engineering, health, communications and social media. The Diploma in Computing could lead to further study in the Master of Information Systems and the Master of Information Technology.

**STUDY AREAS**
Computer science, information systems, software modelling and design, web information technologies

**AVAILABLE TO**
Students enrolled in Arts, Biomedicine, Commerce, Design, Music and Science (unless majoring in Computing and Software Systems or Data Science).

**PREREQUISITES**
Successful completion of 50 points of university study, including the core subject COMP10001 Foundations of Computing, with a weighted average of 65%.

**DIPLOMA IN LANGUAGES**
Learn a language while completing your degree, opening doors to a global career.

**STUDY AREAS**
Ancient Greek, Arabic, Chinese, French, German, Hebrew, Indonesian, Italian, Japanese, Latin, Russian, Spanish and Latin American Studies.

**AVAILABLE TO**
Students enrolled in Arts, Biomedicine, Commerce, Design, Music or Science.

**PREREQUISITES**
If you are applying for a Diploma in Languages other than in Ancient Greek, Hebrew or Latin and have not studied your chosen language at university, you are required to take a Language Placement Test.

While it is possible to commence the diploma at various points within your undergraduate degree, you are strongly recommended to commence your chosen language in your first semester.

**DIPLOMA IN MATHEMATICAL SCIENCES**
Develop mathematical skills that can be applied across almost every area of employment and are always in demand.

You’ll study first-year calculus and linear algebra, followed by a choice of later-year subjects from applied mathematics, pure mathematics, probability, statistics, discrete mathematics and operations research. Upon completion of the diploma, you’ll be eligible for graduate programs in mathematics and statistics.

**STUDY AREAS**
Applied mathematics, discrete mathematics and operations research, pure mathematics and statistics and stochastic processes.

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

**PREREQUISITES**
A study score of 30 in VCE Specialist Mathematics 3/4 or equivalent, or successful completion of university-level studies equivalent to VCE Specialist Mathematics 3/4. Selection is subject to a competitive process based on previous studies in mathematics and statistics.

**DIPLOMA IN MUSIC**
Tailor a program of academic, theoretical or practical music study based on your interests and gain a music qualification while completing an undergraduate degree in another field.

Your studies may include advanced practical musical training (not currently available in Jazz and Improvisation), including individual instrumental or vocal performance tuition and ensemble music performance electives.

**STUDY AREAS**
Composition, interactive composition, jazz and improvisation, music history, music performance, music psychology, non-western music.

**AVAILABLE TO**
Students enrolled in Arts, Biomedicine, Commerce, Design and Science.

**PREREQUISITES**
No additional prerequisites once you are enrolled in your degree. Entry to Practical Music 1 or music ensembles require an audition (recorded or live). Entering late in your degree may require prior completion of music breadth subjects and will extend your enrolment beyond the usual three years.
University life is not just about going to class and studying for exams. The best way to make the most of your time on campus is by taking advantage of all that the University of Melbourne has to offer, including practical experiences and workshops, overseas study and student clubs and societies.

THE NEW MELBOURNE STUDENT EXPERIENCE

We are taking a renewed approach to student life, focusing on a series of key commitments to our undergraduate students. You will:

• Be assisted and guided through your transition to university, especially in your first semester
• Develop a connection and sense of belonging with your peers and the wider University community
• Have access to a network of advisors and mentors for personalised advice to ensure you make the most of your study and engagement opportunities
• Have a transformative experience intellectually as well as personally, through excellent and challenging teaching and learning
• Become active in responding to the needs of the local and global community through volunteering, service and social entrepreneurship
• Be recognised for your individual and group achievements over the course of your degree.

New initiatives are already underway, which we will continue to develop and implement throughout 2020-21 to support these commitments.

SCIENCE: DAY 1

We want to make sure you feel prepared for your degree from day one. Science: Day 1 is your academic orientation day, introducing you to the structure of the Bachelor of Science. You’ll get information on what’s available in the degree, subject planning ideas and the opportunity to meet staff and other Science students.

STUDY OVERSEAS

We encourage all Bachelor of Science students to undertake part of the degree overseas. You’ll immerse yourself in a different social, cultural and intellectual scene and add an international perspective to your studies.

INTERNSHIPS

Local and international internships provide you with the opportunity to integrate the knowledge and skills you have developed in your course with genuine work experience. In addition to developing employability skills, you will improve your knowledge of how science and technology can be applied in different organisations, and explore potential career paths.

INDUSTRY SEMINARS AND EVENTS

There are many opportunities to network and build connections while you’re at university, and it’s never too early to start thinking about your career. The Faculty of Science’s industry and career events bring together guests from a range of public and private enterprises to talk about their experiences and share insights into the industry. Past panelists have included representatives from Arup, IBM, PwC, the Environment Protection Authority, the Department of Environment, Land, Water and Planning, CSL and the Burnet Institute.

SCIENCE: NEXT STEPS

Next Steps is a program of events providing the opportunity to consider your future at any stage of your degree, whether you’re course planning and choosing your major, seeking employment or moving on to further study.

SCIENCE FESTIVAL

Science Festival runs during National Science Week each year and features guest speakers, science displays, workshops, activities and much more. You can take it all in as an attendee, or get involved right from the start and help to organise or host an event.

STARTUP SUPPORT

The Melbourne Accelerator Program is the University’s startup incubator, offering mentorship, seed funding and support to nurture our student and graduate entrepreneurs.

VOLUNTEERING

There are many volunteering opportunities available for Science students, including In2Science – a classroom-based mentoring program for Year 8 and 9 maths and science students – and orientation events, such as group leading and peer mentoring.

STUDENT CLUBS AND SOCIETIES

Joining a club or society allows you to continue some of the extracurricular activities you already love, find a new interest or meet like-minded friends from within or outside of your degree. The University has over 200 clubs and societies, including the Science Students’ Society and the Pre-ENG club.

MENTORING

Connect with an industry mentor who will share their experience of transitioning to work, advise you on career options and help you build your professional network. Mentoring can help you get the most out of your study and expand your knowledge of future options. There are plenty of opportunities to get involved in mentoring with academics, alumni and your peers. You can access support to help plan your future both academically and professionally, or you can connect with other students during your degree to develop your leadership skills.

JOB READY

Job Ready is a free eight-week program that will develop your communication skills and enhance your employability so you’ll stand out from the crowd when applying for jobs. You will learn and practise communication in multiple modes to a variety of audiences. You will come away with the skills you need to effectively convey your achievements and talents to employers.
YOUR NEXT STEPS

Studying at the University of Melbourne is a journey with many possible destinations. Your undergraduate degree will give you the breadth, depth and experience you need to join the workforce. Or, when you’re informed and ready, you can progress to one of 400 graduate courses at our 18 graduate schools.

GET A COMPETITIVE EDGE
A graduate degree can be a life-changing option. You’ll be equipped with specialised cognitive and technical skills and an internationally recognised graduate qualification, setting you apart from those who study a traditional Australian single or double degree. In Australia, students with a graduate degree earn more too – on average, 36 per cent, or $22 700 extra per year.

THE GRADUATE SCHOOL EXPERIENCE
At Melbourne, you’ll get the full benefit of the graduate school experience by studying intensively, in small classes led by experts and alongside others who share your deep interests and desire to succeed. Work towards a professional qualification (for example, the Juris Doctor), or join our world-changing researchers with a research higher degree.

GRADUATE STUDY IN SCIENCE
Graduate study areas in STEMM include:
- Biotechnology
- Computational biology
- Data science
- Dental surgery
- Ecosystem management and conservation
- Energy systems
- Engineering
- Environment
- Environmental science
- Food science
- Geography
- Geoscience
- Information technology
- Medicine
- Nursing science
- Optometry
- Psychology
- Urban horticulture.

RESEARCH
At the Faculty of Science, we have more than 200 academic staff members supervising research students across a broad range of specialisations. These specialisations advance understanding of issues including climate change, food security and technology.

OTHER GRADUATE OPTIONS
Bachelor of Science graduates may also pursue further study in other areas, including:
- Architecture, building, planning and design
- Arts and humanities
- Business and economics
- Education
- Law.

unimelb.edu.au/study/grad-degrees

GUARANTEED ENTRY
Depending on your ATAR/notional ATAR, you could be eligible for a guaranteed place in a graduate course, subject to meeting prerequisites.

If you don’t meet the ATAR/notional ATAR required for a guaranteed place in the course of your choice, there are still options. We have a range of guarantees available to all students who complete their undergraduate degree at the University of Melbourne to the required standard, regardless of the ATAR/notional ATAR you achieved. Eligibility is based on your performance in your undergraduate degree, and subject to meeting prerequisites.

GRADUATE DEGREE PACKAGES
If you are a high achieving secondary school student and are confident about the study pathway you want to follow, you can secure your pathway straight from secondary school.

From Year 12 you can now apply for a Graduate Degree Package combining the Bachelor of Science with select University of Melbourne professional entry graduate degrees through VTAC.

DATA SCIENCE
If you attain an ATAR of 96.00+ you’ll be guaranteed a Bachelor of Science / Master of Data Science Graduate Degree Package.

DENTISTRY
If you attain an ATAR of 99.85+ you’ll be guaranteed a Bachelor of Science / Doctor of Dental Surgery Graduate Degree Package.

ENGINEERING
If you attain an ATAR of 96.00+ you’ll be guaranteed a Bachelor of Science / Master of Engineering Graduate Degree Package.

LAW
If you attain an ATAR of 99.80+ you’ll be guaranteed a Bachelor of Science / Juris Doctor Graduate Degree Package.

OPTOMETRY
If you attain an ATAR of 99.00+ you’ll be guaranteed a Bachelor of Science / Doctor of Optometry Graduate Degree Package.

PHYSIOTHERAPY
If you attain an ATAR of 98.00+ you’ll be guaranteed a Bachelor of Science / Doctor of Physiotherapy Graduate Degree Package.

TEACHING
If you attain an ATAR of 95.00+ you’ll be guaranteed a Bachelor of Science / Master of Teaching Graduate Degree Package specialising in Primary, Secondary, Early Childhood or Early Childhood and Primary.

VETERINARY MEDICINE
If you attain an ATAR of 98.50+ you’ll be guaranteed a Bachelor of Science / Doctor of Veterinary Medicine Graduate Degree Package.

- Quality Indicators for Learning and Teaching, 2019 Graduate Outcomes Survey.
- The guaranteed entry pathways outlined on this page are available to domestic and international students who complete an Australian Year 12 or the International Baccalaureate (IB) in Australia in 2020. Eligible students must enrol in a University of Melbourne undergraduate degree immediately following Year 12, or be granted a deferral by the University.
- Prerequisite subjects in Bachelor of Science must be satisfied in order to qualify for two-year Master of Engineering.
The Bachelor of Science is a great first step towards your dream career. During your three years of study, you’ll have multiple opportunities to engage with industry and explore career paths that suit your skills and interests.

WHERE CAN A BACHELOR OF SCIENCE TAKE YOU?
The Bachelor of Science will equip you with all the skills and expertise you need to work across all sectors of science and beyond. Many of our graduates work, study and collaborate with professionals on a global level.

University of Melbourne researchers work with laboratories and institutes around the world – including the US, Germany, Japan, the UK and China, to name a few.

Our students go on to work in areas including science, medicine and health, veterinary medicine, commerce, engineering, law and education, alongside colleagues from a wide range of industries. Some of our recent graduates are employed at:

- Accenture Australia
- Amazon
- Apple
- Arup
- Baker Heart and Diabetes Institute
- BHP Billiton
- Bureau of Meteorology
- Burnet Institute
- Commonwealth Bank
- Deloitte
- Golder Associates
- Google
- IBM
- IMC Pacific
- Melbourne Water
- Murdoch Children’s Research Institute
- Optiver
- Palantir
- PwC
- Teach for Australia
- Walter and Eliza Hall Institute (WEHI)
- Zoos Victoria.

CAREER SUPPORT WHILE YOU STUDY
We know that you’re dreaming of a great career at the end of your degree. That’s why we continuously review and update our course and subject offerings to future-proof your studies and give you an edge in the jobs market. The skills you need are built into the course, which is why recruiters for big companies across Australia choose to employ our students year after year. See page 19 for details of our internships, our free Job Ready course and our popular Industry and Career Seminar Series.

HAVE YOU THOUGHT ABOUT THESE CAREERS?

CONSERVATION BIOLOGY
There’s still hope to save Australia’s critically endangered species such as the orange-bellied parrot, Leadbeater’s possum and the corroboree frog — if people like you join the fight.

RENEWABLES
This is the age of renewable energy. Your chemistry know-how will set you up to make major contributions to a field that is already worth more than $1 trillion, and still growing at an exponential rate.

INTERNATIONAL AID
Aid organisations need a thorough understanding of the people, culture and landscape of disaster-affected communities to be able to provide effective aid in a timely manner. Climate change is exacerbating the occurrence of natural disasters natural disasters like bushfires, famines, drought, hurricanes and flooding. Understanding the risks to vulnerable communities and the importance of cultural connection will assist them in becoming more resilient and resistant to threat.

CYBER SECURITY
The US Presidential election, Sony, iCloud, Yahoo! – it seems not a day goes by when we’re not talking about the latest hacking scandal. How vulnerable are the online systems we use to buy groceries or movie tickets, or those that store our health or financial information? In many cases, it seems like the answer is: very. Interested? Think about becoming a ‘white hat’ hacker, and help organisations find and repair vulnerabilities in their online systems.

BANKING
What is the optimal credit card limit for any particular person? If it’s too high, it costs the bank to hold the extra money in reserve. Too little, and it costs the bank in lost interest charges (which are always passed on to the consumer, of course). There’s a mathematical solution: a model that analyses a person’s purchasing and payment behaviour to tailor the best line of credit.

SPACE EXPLORATION
Physicists and engineers at the University of Melbourne are designing and building the SkyHopper, a small, agile satellite that will look for evidence of undiscovered planets and the earliest galaxies in the universe. As a physics or engineering student, you could intern on this project on your way to a career in astrophysics or mechatronics.
Flexibility and choice are at the heart of your Melbourne experience. Below are some examples of popular pathways, however these are just a small sample of the hundreds of undergraduate and graduate study combinations you can follow. For more information on pathways, visit: [unimelb.edu.au/study/pathways](http://unimelb.edu.au/study/pathways)

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Degree Pathway</th>
<th>Study Duration</th>
<th>Career Path</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biotechnology</strong></td>
<td>Major in Biotechnology</td>
<td>3 years</td>
<td>Medical scientist</td>
</tr>
<tr>
<td></td>
<td><a href="#">Master of Biotechnology</a></td>
<td>2 years</td>
<td></td>
</tr>
<tr>
<td><strong>Computational biology</strong></td>
<td>Major in Computational Biology</td>
<td>3 years</td>
<td>Computational biologist</td>
</tr>
<tr>
<td></td>
<td><a href="#">Master of Computational Biology</a></td>
<td>2 years</td>
<td></td>
</tr>
<tr>
<td><strong>Data science (Graduate Degree Package available)</strong></td>
<td>Major in Data Science, Computing and Software Systems or Mathematics and Statistics</td>
<td>3 years</td>
<td>Data scientist</td>
</tr>
<tr>
<td></td>
<td><a href="#">Master of Data Science</a></td>
<td>1.5 years</td>
<td></td>
</tr>
<tr>
<td><strong>Dentistry</strong></td>
<td>Any major including prerequisites</td>
<td>3 years</td>
<td>Dentist</td>
</tr>
<tr>
<td></td>
<td><a href="#">Doctor of Dental Surgery</a></td>
<td>4 years</td>
<td></td>
</tr>
<tr>
<td><strong>Engineering (Graduate Degree Package available)</strong></td>
<td>Any engineering systems major</td>
<td>3 years</td>
<td>Engineer</td>
</tr>
<tr>
<td></td>
<td><a href="#">Master of Engineering</a></td>
<td>2 years</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental science</strong></td>
<td>Environmental Science, Ecosystem Science, Geography or others</td>
<td>3 years</td>
<td>Environmental scientist</td>
</tr>
<tr>
<td></td>
<td><a href="#">Master of Environmental Science</a></td>
<td>2 years</td>
<td></td>
</tr>
<tr>
<td><strong>Food science</strong></td>
<td>Major in Food Science</td>
<td>3 years</td>
<td>Food scientist</td>
</tr>
<tr>
<td></td>
<td><a href="#">Master of Food Science</a></td>
<td>2 years</td>
<td></td>
</tr>
<tr>
<td><strong>Law</strong></td>
<td>Any major</td>
<td>3 years</td>
<td>Lawyer</td>
</tr>
<tr>
<td></td>
<td><a href="#">Juris Doctor</a></td>
<td>3 years</td>
<td></td>
</tr>
<tr>
<td><strong>Medicine</strong></td>
<td>Entry into MD from 2022 onward will no longer require prerequisites.</td>
<td>3 years</td>
<td>Doctor</td>
</tr>
<tr>
<td></td>
<td><a href="#">Doctor of Medicine</a></td>
<td>4 years</td>
<td></td>
</tr>
<tr>
<td><strong>Physiotherapy (Graduate Degree Package available)</strong></td>
<td>Prerequisite subjects in human anatomy and human physiology</td>
<td>3 years</td>
<td>Physiotherapist</td>
</tr>
<tr>
<td></td>
<td><a href="#">Doctor of Physiotherapy</a></td>
<td>3 years</td>
<td></td>
</tr>
<tr>
<td><strong>Psychology</strong></td>
<td>Major in Psychology with honours</td>
<td>4 years</td>
<td>Psychologist</td>
</tr>
<tr>
<td></td>
<td><a href="#">Master of Psychology</a></td>
<td>2 years</td>
<td></td>
</tr>
<tr>
<td><strong>Science research</strong></td>
<td>Any major with honours</td>
<td>4 years</td>
<td>Researcher/ academic</td>
</tr>
<tr>
<td></td>
<td><a href="#">Doctor of Philosophy</a></td>
<td>3 years</td>
<td></td>
</tr>
<tr>
<td><strong>Veterinary medicine (Graduate Degree Package available)</strong></td>
<td>Major in Animal Health and Disease (Veterinary Bioscience specialisation)</td>
<td>3 years</td>
<td>Veterinarian</td>
</tr>
<tr>
<td></td>
<td><a href="#">Doctor of Veterinary Medicine</a></td>
<td>3 years</td>
<td></td>
</tr>
</tbody>
</table>
ENGINEERING AT MELBOURNE
To become a professionally accredited engineer, you’ll complete a three-year undergraduate degree with an engineering systems major or sequence, followed by a two-year Master of Engineering. There are nine engineering systems majors in the Bachelor of Science, providing you with a broad and flexible pathway for studying engineering in a wider scientific context.

You can:
- Focus on your chosen field of engineering, explore different types of engineering or complement your course with subjects from outside your core discipline
- Gain a world-class education of greater technical depth and breadth
- Graduate with two degrees, including a higher-level masters qualification.

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 BECOME A PROFESSIONAL (ACCREDITED) ENGINEER THROUGH THE BACHELOR OF SCIENCE

STEP 1: CHOOSE AN ENGINEERING MAJOR (3 YEARS)
- BIOENGINEERING SYSTEMS
- CHEMICAL SYSTEMS
- CIVIL SYSTEMS
- COMPUTING AND SOFTWARE SYSTEMS
- ELECTRICAL SYSTEMS
- ENVIRONMENTAL ENGINEERING SYSTEMS
- MECHANICAL SYSTEMS
- MECHATRONICS SYSTEMS
- SPATIAL SYSTEMS

STEP 2: CHOOSE GRADUATE STUDY IN ENGINEERING (2 YEARS)
- MASTER OF ENGINEERING
- MASTER OF ENGINEERING (WITH BUSINESS)

STEP 3: EMPLOYMENT AS A PROFESSIONAL (ACCREDITED) ENGINEER

Qualified engineers are in high demand globally. As an engineering graduate, you can access a vast range of interesting and well-paid employment opportunities around the world. At the University of Melbourne, you’ll gain fundamental engineering knowledge for a successful career – not just your first job.

#36 IN THE WORLD FOR ELECTRICAL AND ELECTRONIC ENGINEERING
QS World University Rankings by Subject 2020

The Master of Engineering (Materials) is provisionally accredited with Engineers Australia, until sufficient students graduate. The Master of Engineering (Mechanical with Aerospace) is a new course, introduced in 2019, and accreditation will be sought once sufficient students have graduated. 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®.
“I chose mechatronics because I liked the idea of combining three different systems: mechanical, software and electrical.

One of the main highlights has been meeting a lot of inspiring people who have helped me see what kind of engineer I want to be — people who have their own start-ups and run their own clubs. I always love hearing their stories about what they do and how they got there.”

Piraya Quach-Thanissorn (Australia)
Bachelor of Science, major in Mechatronics Systems
Master of Engineering (Mechatronics)
IT AT MELBOURNE

You’ll have flexible options to incorporate IT into your undergraduate course, with pathways to our professionally accredited graduate programs.

Four IT majors within the Bachelor of Science offer pathways to a career in IT or to professional graduate study:

- Computing and Software Systems
- Data Science
- Mechatronics Systems
- Spatial Systems.

You can undertake the Diploma in Computing alongside your Bachelor of Science (see page 18).

HOW TO BECOME AN INFORMATION TECHNOLOGY PROFESSIONAL THROUGH THE BACHELOR OF SCIENCE

STEP 1: COMPLETE AN IT MAJOR (3 YEARS)

- Computing and Software Systems
- Data Science
- Mechatronics Systems
- Spatial Systems

STEP 1: COMPLETE THE DIPLOMA IN COMPUTING (1 YEAR)

- The Diploma can be completed with the undergraduate degree of your choice.

STEP 2: COMPLETE GRADUATE STUDY IN IT (2 YEARS, DEPENDING ON PRIOR CREDIT)

- Master of Data Science
- Master of Engineering
- Mechatronics
- Software
- Software with Business
- Spatial
- Master of Information Systems
- Master of Information Technology
- Artificial Intelligence
- Computing
- Cybersecurity
- Distributed Computing
- Human-Computer Interaction
- Spatial
- Master of Science (Bioinformatics)

EMPLOYMENT AS AN IT PROFESSIONAL, A SPATIAL EXPERT OR A PROFESSIONAL (ACREDITED) ENGINEER
“I developed a newfound passion for software after taking a computing subject in my second year. Since then I’ve progressed my software engineering skills, and I’ve gained negotiation skills that help me manage clients in a business environment.”

Samuel Webster (Australia)
Bachelor of Science, major in Chemical Systems
Master of Engineering (Software)

3 year program
Psychology is the study of the human mind and behaviour. If you’re interested in working with people and exploring how they think, feel and behave, consider a career in psychology.

PSYCHOLOGY AT MELBOURNE
At Melbourne, you can study psychology as a professionally accredited major sequence within select courses, as a minor sequence, or as individual breadth subjects in most degrees. No additional prerequisites are required in first year.

MAJOR IN PSYCHOLOGY
To complete an Australian Psychology Accreditation Council (APAC)-accredited major sequence, you need 125 credit points of study. You can do this through the Bachelor of Science.

FOURTH YEAR PSYCHOLOGY
The fourth-year program is focused on research and can be undertaken through one of the following:
• A Bachelor of Science (Honours) degree with an APAC-accredited three-year sequence in psychology (or equivalent)
• The Graduate Diploma in Psychology (Advanced) – open to graduates with an undergraduate degree (or equivalent) that includes an APAC-accredited three-year sequence in psychology (or equivalent). Both options are accredited by APAC.

PSYCHOLOGY AT GRADUATE LEVEL
To register as a psychologist in Australia, you must complete the four-year accredited undergraduate honours sequence followed by at least two years of professionally accredited training at masters level, or two years of supervised practice with a registered psychologist.

MASTER OF PSYCHOLOGY (CLINICAL NEUROPSYCHOLOGY)
The core objective of this two-year program is to provide graduates with the skills to work as professional neuropsychologists. Graduates will have competence in various approaches to the study of brain disease, including basic and applied clinical sciences, and will have an understanding of objective assessment of the many behavioural features of brain diseases.

MASTER OF PSYCHOLOGY (CLINICAL PSYCHOLOGY)
This two-year program equips graduates with the skills to work as professional clinical psychologists, and provides a thorough grounding in the discipline of clinical psychology, particularly in the area of mental illness.

MASTER OF APPLIED PSYCHOLOGY
This 1.5-year course is designed for psychology graduates who want to develop practical skills in the applications of psychology and employ them in the world of business, government, the non-profit sector, marketing, consumer and social research, or health. The Master of Applied Psychology does not carry professional accreditation and is not a pathway to professional registration as a psychologist.

CAREER OUTCOMES
With the extra training needed to qualify as a registered psychologist, you could forge a rewarding career in clinical psychology, clinical neuropsychology, community psychology, counselling psychology, educational psychology, forensic psychology, health psychology, organisational/industrial psychology, sports psychology, or academic psychology. If you choose to enter the workforce after completing your undergraduate degree, you could put your psychology know-how to work in government, marketing and market research, health promotion, social research, human resources or policy development.
HOW TO BECOME A REGISTERED PSYCHOLOGIST IN AUSTRALIA THROUGH THE BACHELOR OF SCIENCE

STEP 1: COMPLETE THE ACCREDITED PSYCHOLOGY MAJOR (3 YEARS)
SELECT THE 125 POINT APAC-ACCREDITED MAJOR SEQUENCE THROUGH THE BACHELOR OF SCIENCE.

STEP 2: COMPLETE THE BACHELOR OF SCIENCE (HONOURS) (1 YEAR)

STEP 3: COMPLETE GRADUATE STUDY (2 YEARS)
MASTER OF PSYCHOLOGY (CLINICAL PSYCHOLOGY) OR MASTER OF PSYCHOLOGY (NEUROPSYCHOLOGY) OR MASTER OF PSYCHOLOGY/PHD (4 YEARS)

STEP 4: REGISTER AS AN ACCREDITED PSYCHOLOGIST IN AUSTRALIA
EXPERIENCE UNI WHILE YOU’RE STILL AT SCHOOL

You don’t have to wait until after secondary school to get a taste of studying Science at the University of Melbourne. Here are some ways you can get a head start.

THE SCIENCE EXPERIENCE
Every January the Faculty of Science hosts Year 9 and 10 students for a three-day science summer program. Students get to meet other students from all around Victoria and work through a fun, interactive program of activities. Our program is designed to provide an experience of university life with lectures, laboratory experiments and hands-on interactive experiences run by our top academics. Students will also get to explore the campus and world-class facilities located in Parkville.

RESIDENTIAL INDIGENOUS SCIENCE EXPERIENCE (RISE)
The Residential Indigenous Science Experience aims to inspire Indigenous students about the exciting and rewarding careers that can lead from studying maths and science. Developed by the University of Melbourne and the Gene Technology Access Centre (GTAC), the program is carefully crafted for Year 9 and 10 students to experience the tangible and hands-on nature of science, including workshops and special presentations on chemistry, geology, genetics, physics and maths, as well as visits to industry.

YEAR 10 WORK EXPERIENCE
The Faculty of Science offers work experience to Year 10 students in June each year. We provide them with a sample of activities that are part of a career in science, including conducting experiments, attending seminars of new work, collaborating with others on research projects and presenting your own findings. They discover what it’s like to be a scientist by participating in interactive workshops and hands-on activities in a discipline of their choice. Participants enjoy meeting like-minded new friends and scientific role models as well as getting a taste of university life.

AMAZING SPAGHETTI MACHINE CONTEST
Year 10 students from across Victoria are invited to participate in our annual Amazing Spaghetti Machine Contest. Students work in teams and put their maths, science, engineering and project management skills to the test in the creation of a ‘spaghetti machine’ – an overly complex device that is used to perform a relatively simple task.

ENGINEERING AND IT
Our broad program of engineering and IT events includes CodeMasters, Programming Challenge for Girls, Hands on Engineering and IT, and the Victorian Indigenous Engineering Winter School. These events challenge students to solve problems through design and computer programming. Girl Power in Engineering and IT encourages girls to learn through camps, work experience and mentoring opportunities.

MELBOURNE EXTENSION PROGRAM
Are you a high achieving Year 11 student in Victoria? You can study a university subject alongside your final year of high school and it’s free to join. You’ll not only experience uni life and make new connections and friends, you could receive a valuable contribution to your ATAR aggregate (depending on your results) and earn credit towards your Melbourne degree - this could mean you finish your degree faster or have a lighter study load in your first year. Applications are open late September to December.

CALCULUS AND PROBABILITY ONLINE
If you’re concerned about meeting the maths prerequisite for any of our undergraduate degrees, consider the subject Calculus and Probability Online. This subject covers similar material to the Victorian Certificate of Education (VCE) subject Mathematical Methods 3/4, and provides a firm foundation for tertiary mathematics study. Successful completion of this subject (50% mark) meets the maths prerequisite for entry into agriculture, biomedicine, commerce and science degrees.

YOUNG LEADERS PROGRAM
For students aged 14 to 17, this program is an exciting week of lectures, workshops, experiencing student life in Melbourne. Hosted in Trinity College and the University of Melbourne, you’ll meet like-minded young leaders from Australia and across the globe. This life-changing program is designed to inspire, increase your confidence and leadership skills while broadening your global outlook. You can choose an academic stream that suits you best, with the opportunity to join the program for one or two weeks in July and December.

BENEFITS INCLUDE:
- A guaranteed place at Melbourne in arts, biomedicine, commerce, design or science degrees, subject to meeting course prerequisites, if you achieve an ATAR/ notional ATAR of 95.00+
- Exclusive events and activities to expand your academic and personal horizons
- If you go on to study at Melbourne, you could be awarded a Melbourne Global Scholars Award to study at one of more than 200 partner institutions in over 45 countries on exchange, or anywhere in the world on study abroad
- $2500 allowance to help with the costs of moving to Melbourne from a rural area.

unimelb.edu.au/kld

unimelb.edu.au/extension-program

trinity.unimelb.edu.au/young_leaders
The Melbourne Scholarships Program is one of the most comprehensive and generous in Australia. The depth and range of support continues to expand with the commencement of the Hansen Scholarship program in 2020.

We encourage you to challenge yourself and try out different ways of thinking. Our scholarships are just one way we inspire you to follow your curiosity and study what you love, because that’s how you thrive.

At the University of Melbourne, we’re all different. We come from different places, have different passions and ambitions. That’s why we offer a huge variety of scholarships, from those awarded on merit, others to help with your expenses and some help you travel the globe. There are scholarships to support your whole course or help you explore a specific interest. Wherever you are, and whatever your passion, with a Melbourne scholarship you can turn ambition into achievement.

In addition to our scholarships, we offer many prizes, grants and bursaries helping you get the most out of your time at university. Most of these are awarded to continuing students at different points in their studies.

Grants are available to undertake volunteering or leadership activities. Excel in your studies and you could pick up a coveted prize for academic achievement. Bursaries are also available for a variety of needs and can ease the financial pressures of uni so you can focus on your studies.

We offer more than 1200 different types of scholarships for new and current students.

**MELBOURNE CHANCELLOR’S SCHOLARSHIP**
If you’re in your final year of high school and expecting a high ATAR, make the most of it with a Melbourne Chancellor’s Scholarship, the flagship award in our broad program of scholarships for high achievers.

[chancellorscholars.unimelb.edu.au](http://chancellorscholars.unimelb.edu.au)

**NATIONAL MERIT SCHOLARSHIP**
The National Merit Scholarship takes the stress out of relocating from Australian states and territories outside Victoria with an $8000 allowance paid in the first semester of your studies.

[chancellorscholars.unimelb.edu.au](http://chancellorscholars.unimelb.edu.au)

**MELBOURNE PRINCIPALS’ SCHOLARSHIP**
The Melbourne Principals’ Scholarship awards $5000 to Victorian Year 12 or International Baccalaureate students, in recognition of their academic achievement and contribution to their school or wider community.

[melbournemfr.unimelb.edu.au](http://melbournemfr.unimelb.edu.au)

**HUMANITARIAN ACCESS SCHOLARSHIP**
The Humanitarian Access Scholarship offers full fee remission and $15 000 in living allowances to talented students who have applied for asylum in Australia.

[melbournemfr.unimelb.edu.au](http://melbournemfr.unimelb.edu.au)

**MELBOURNE INTERNATIONAL UNDERGRADUATE SCHOLARSHIP**
For high-achieving international students, fee remissions worth up to $56 000 are available through the Melbourne International Undergraduate Scholarship.

[melbournemfr.unimelb.edu.au](http://melbournemfr.unimelb.edu.au)

**ELITE ATHLETE PROGRAM**
If you excel in sport, our Elite Athlete Program offers generous scholarships to help you pursue your sporting dreams as well as your academic aspirations.
ACCESS MELBOURNE

Access Melbourne is our Special Entry Access Scheme (SEAS) for domestic undergraduate students.

Access Melbourne, can help you gain a place in our degrees even if your academic results are below the selection rank normally required for an offer. The scheme takes into consideration the unique and personal circumstances that may have impacted your secondary school results as part of your undergraduate course application.

We also have scholarships and grants that can ease the financial load, and a housing program to get you securely settled close to campus. In 2020, 33 per cent of our domestic undergraduate students were eligible for Access Melbourne, and demonstrating their ATAR was not fully reflective of their real potential.

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.

For 2020 entry, the guaranteed ATAR for Science via Access Melbourne was 78.00 (75.00 for Indigenous students). Guaranteed ATARs for entry in 2021 will be published in June 2020 at:

access.unimelb.edu.au

AM I ELIGIBLE?

To apply for Access Melbourne you must:

• Be an Australian or New Zealand citizen, Australian permanent resident or holder of a permanent humanitarian visa

• Have not been awarded results in a degree course at a tertiary institution (this does not apply to applicants for the mature age consideration category and does not include single subjects, bridging schemes or higher education studies undertaken as part of Year 12)

• Have demonstrated the capacity to successfully undertake the course of your choice

• Apply for a University of Melbourne undergraduate course through the Victorian Tertiary Admissions Centre (VTAC).

HOW TO APPLY

Lodge a Special Entry Access Scheme (SEAS) application via VTAC at: vtac.edu.au for one or more of the following Access Melbourne categories:

• Disadvantaged financial background

• Applicants from rural or isolated areas

• Under-represented school

• Difficult circumstances

• Disability or medical condition

• Non-English speaking background

• Recognition as an Indigenous Australian

• Mature-age consideration (non-school leaver entry pathway).

ACCESS SCHOLARSHIPS

Every year, approximately 200 Access Melbourne students also receive an allowance of $5000 per year (paid in half-yearly instalments) for the normal, full-time duration of the course. Indigenous students who enrol in Semester 1, 2021 are also considered for one of these scholarships.

We also offer a tuition waiver of up to $30 500 for 10 high-achieving Access Melbourne students per year. Plus, if you live in regional Victoria or interstate, the University will reserve a place in a residential facility close to our Parkville campus for the first year of your studies.

scholarships.unimelb.edu.au

Percentage is based on start-year intake.

The offer does not include the cost of the accommodation. Places are limited, so apply early to avoid disappointment.
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. Full details about the VTAC application process can be found at: vtac.edu.au

NON-SCHOOL LEAVER ENTRY PATHWAY
All applicants to the University must demonstrate academic merit and meet other requirements as part of the application process. As a non-school leaver, you may not have a recent study history and therefore may not meet the standard entry requirements for the course of your choice. The non-school leaver entry pathway provides mature-age applicants and those who are not entering direct from Year 12 an alternative way to demonstrate their eligibility for entry and their likelihood to succeed in their chosen course.

access.unimelb.edu.au/nsl

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. For a step-by-step guide on how to apply, visit: study.unimelb.edu.au/how-to-apply

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. For full details about tuition fees, visit: study.unimelb.edu.au/how-to-apply/fees

STILL NEED TO MEET THE MATHEMATICS PREREQUISITE?
The University offers an online subject to help you meet the required mathematics prerequisite for entry to the Bachelor of Science. You’ll cover material similar to VCE Mathematical Methods Units 3 and 4. To find out more and enrol, visit: mspace.unimelb.edu.au/courses/short-courses/calculus-and-probability-online

PATHWAY TO SCIENCE: DIPLOMA IN GENERAL STUDIES
What if you want to study Science at Melbourne, but you have not completed a science prerequisite or your ATAR score does not meet the requirements?

If you’re a domestic student, you could be eligible for a guaranteed place in the Bachelor of Science if you complete the one-year Diploma in General Studies with an average score of 75. The program, based at Dookie campus, gives you a taste of tertiary studies in a range of areas, including agriculture, commerce, design and science. To be eligible for the guarantee you must also be eligible for Access Melbourne at the time you apply for the diploma.

unimelb.study.edu.au/digs
A guide to lowest selection rank ATARs and subject prerequisites. The published minimums and guaranteed scores are those approved for 2020 and should be considered indicative for 2021. The 2021 minimums and guaranteed scores will be available on the University’s website once confirmed.

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Bachelor of Science</th>
<th>Science (Melbourne Chancellor’s Scholarship)</th>
<th>Bachelor of Science (Extended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Year 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic students: minimum ATAR</td>
<td>85.00</td>
<td>99.90</td>
<td>50.00</td>
</tr>
<tr>
<td>Domestic students: 2020 lowest selection rank</td>
<td>85.00</td>
<td>99.90</td>
<td>A range of criteria is used for selection</td>
</tr>
<tr>
<td>International students: 2020 guaranteed ATAR</td>
<td>85.00</td>
<td>99.90</td>
<td>N/A</td>
</tr>
<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 Mathematical Methods or Specialist Mathematics, and in one of Biology, Chemistry or Physics; OR A study score of at least 25 in English/English Language/Literature or at least 30 in EAL, and at least 25 in both Mathematical Methods and Specialist Mathematics.</td>
<td>Units 1 and 2: Satisfactory completion of one of Biology, Chemistry, General Mathematics, Maths: Mathematical Methods or Physics; and Units 3 and 4: A study score of at least 25 in English/English Literature/Literature or at least 30 in EAL</td>
<td></td>
</tr>
<tr>
<td>International Baccalaureate (IB) Diploma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International students: 2020 guaranteed IB score</td>
<td>31</td>
<td>99.90 (notional ATAR)</td>
<td>N/A</td>
</tr>
<tr>
<td>IB prerequisite subjects</td>
<td>English, Mathematics (or Further Mathematics), and one of Biology, Chemistry or Physics; OR English, Mathematics and Further Mathematics</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>GCE A Levels/Singapore A Levels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International students: 2020 guaranteed score</td>
<td>BCC</td>
<td>Not available to A Levels students</td>
<td>N/A</td>
</tr>
<tr>
<td>A Level prerequisite subjects</td>
<td>A grade of at least C in Mathematics, one of Biology, Chemistry or Physics and an accepted AS Level English subject</td>
<td>Not available to A Levels students</td>
<td>N/A</td>
</tr>
<tr>
<td>Trinity College Foundation Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International students: 2020 guaranteed score</td>
<td>80</td>
<td>Not available to TCFS students</td>
<td>N/A</td>
</tr>
<tr>
<td>TCFS prerequisite subjects</td>
<td>EAP, English, Mathematics 1, and one of Biology, Chemistry or Physics; OR EAP, English and both Mathematics 1 and Mathematics 2</td>
<td>Not available to TCFS students</td>
<td>N/A</td>
</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 lowest selection rank to which an offer was made 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.

2. Students who achieve an ATAR or notional ATAR of 99.90 or above (or 90.00 or above if Indigenous) and satisfy course prerequisites will be guaranteed a place in the Bachelor of Science (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, satisfies the English language requirements and 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. 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 (CSP) available.

4. Applicants intending to progress to Doctor of Veterinary Medicine are encouraged to complete VCE Units 3 and 4 in Chemistry or equivalent.

5. 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.

6. To be eligible for the Bachelor of Science (Extended), you must be of Aboriginal or Torres Strait Islander descent. For more information, visit: study.unimelb.edu.au/find/courses/undergraduate/bachelor-of-science-extended

7. 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 at least Grade 4 Standard or Higher Level. Mathematical Studies is not deemed equivalent to VCE Mathematical Methods.
CONTACT US

If you’re considering studies at the University of Melbourne, we’d love to hear from you online or meet you on campus.

Sign up and submit enquiries online at: study.unimelb.edu.au/connect-with-us

For information on our courses and entry requirements contact Stop 1

Call 13 MELB (13 6352)
+ 61 3 9035 5511

Visit us at Stop 1 (Parkville):
757 Swanston Street
The University of Melbourne
Victoria 3010 Australia