Undergraduate

2020 ENGINEERING, COMPUTER AND MATHEMATICAL SCIENCES

adelaide.edu.au
Produced over 100 Rhodes Scholars

Member of Group of Eight

Ranked in top 1% of universities worldwide

Associated with 5 Nobel Prize winners
Future confidence. Global opportunity.

Our world is changing fast. Many of the jobs our current generation will perform in the future do not yet exist. But the ideal preparation for them does. Informed by cutting-edge research and ongoing industry collaboration, a University of Adelaide education gives students the flexibility to adapt and thrive. Wherever their careers take them, they’ll be ready.

And rest assured, their options will be many. The University of Adelaide is South Australia’s global university—consistently holding the highest world ranking and collaborating with top-performing businesses and educational institutions across multiple continents. This opens doors for our graduates virtually everywhere.

A wealth of professional opportunity, however, is just one of the rewards we offer. University of Adelaide students also benefit from the deep inspiration that can only come from a culture of sustained excellence. Our research, and that of our alumni, has enhanced life for people and planet for well over 100 years, and played a role in many of the world’s great advances. Among these are the discoveries of penicillin, x-ray crystallography and gravitational waves.

Equally importantly, we have a proud history of championing equality. Adelaide was the first university in Australia—and only the second in the world—to admit women to academic courses. We’ve educated two Indigenous Australian Rhodes Scholars and we count among our alumni Australia’s first female prime minister and Supreme Court judge.

There’s no better place for students to prepare for their futures.

* Times Higher Education and QS rankings
^ A coalition of Australia’s leading research intensive universities
We are living in a time of rapid technological advancement. In the context of this disruption, engineers, computer scientists and mathematicians are driving global change and are front-and-centre in developing practical solutions in order to solve the world’s greatest challenges.

The Faculty of Engineering, Computer and Mathematical Sciences offers a range of degrees designed to prepare students for careers of the future.

We have worked closely with industry to design degrees offering students unique learning experiences across a breadth of disciplines, equipping graduates to be better prepared as effective leaders and real-world problem-solvers.

The University of Adelaide is consistently ranked in the top 1% of universities worldwide, and is the only South Australian university in the world’s top 50 for Computer Science and Engineering*. The faculty is home to a number of world-class research institutes and centres where students learn from internationally-renowned academics at the cutting edge of research and discovery.

* Academic Ranking of World Universities 2018

Flexible degrees to suit individual interests

We understand your interests can change as you learn, so we offer a wide range of disciplines and specialisations. Students have flexibility to choose from key disciplines across engineering, computer science, and mathematics, and opportunities to specialise with an interdisciplinary or discipline-focused major.

PRACTICAL AND INDUSTRY-CONNECTED

The Faculty of Engineering, Computer and Mathematical Sciences has strong links with industry. Students apply knowledge and develop connections with employers via practical projects, internships, placements and industry-led teaching. All engineering degrees include an eight-week work placement.

We offer double degrees, combined degrees and a flexible entry option for students who prefer to choose their main engineering discipline after commencing their first year of study. An engineering pathway is also available for students who don’t meet entry requirements.
LIFE EXPERIENCE THROUGH GLOBAL LEARNING

www.adelaide.edu.au/global-learning

All students will have the opportunity to study overseas through a range of programs, including student exchange, study tours and summer and winter schools. There are many exciting opportunities in Europe, Asia, the Americas and Africa.

ABORIGINAL AND TORRES STRAIT ISLANDERS

www.adelaide.edu.au/wirltu-yarlu

The University of Adelaide values diversity where the rich cultures of Aboriginal and Torres Strait Islanders are taught, supported and celebrated. Wirltu Yarlu provide a range of services, schemes and preparation programs that are designed to support your desire to gain educational outcomes. Wirltu Yarlu is a place where students can soar to new heights.

ADVANCED BACHELORS

www.adelaide.edu.au/degree-finder

High achieving students who are inspired by the opportunity to contribute to the world’s important discoveries and research advancements should consider the Advanced Bachelors degrees. These degrees provide a unique close quarters learning experience with academics of international distinction.

International experience and global recognition included

Our relationships with highly-ranked universities around the world—and our accredited programs—provide opportunities for students to travel and study abroad through a range of Global Learning experiences, and pursue international careers. Overseas study can range from a few weeks to a full academic year and is possible for almost every field offered within the faculty.

An international study experience can be a great way for students to see the world, diversify their studies, and add an edge to their CV.

Graduate attributes for careers of the future

Our graduates are leaders who meet the highest professional standards in their fields. Their highly sought-after attributes include advanced understanding and practical skills in:

- scientific principles underpinning modern practice
- mathematical analysis and modelling
- communication and leadership
- creative, analytical, and critical thinking
- analysing, planning and designing sophisticated systems
- dealing with uncertainty, managing risk, and making decisions in complex environments.

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- analysing, planning and designing sophisticated systems
- dealing with uncertainty, managing risk, and making decisions in complex environments.
ECMS student ambassadors

The faculty’s student volunteer and ambassador program focuses on developing leadership and communication skills and offers students a range of benefits to help them stand out as graduates. This includes a program achievement listed on their academic transcript* and the opportunity to have their volunteer hours count towards the Adelaide Graduate Award.

For more information, visit ecms.adelaide.edu.au/study-with-us/student-support/student-ambassadors

* Some conditions apply.

Ingenuity – creating our technology future

The largest South Australian exhibition of its kind, Ingenuity is a program of events and interactive expo showcasing student projects exploring real-life engineering, computer and mathematical sciences applications. Students celebrate their remarkable achievements and have the opportunity to put into practice valuable communication and presentation skills, networking with over 5000 people, including industry and government representatives, primary and secondary school students, and the general public.

To learn more, visit ecms.adelaide.edu.au/ingenuity

Women in STEM Careers

Open to female students enrolled in a STEM degree at the University from second-year onwards, our Women in STEM Careers program (with grant funding from the Australian Government) provides professional development opportunities for young women in STEM degrees.

The program provides a range of workshops in leadership, career development and entrepreneurship. The personal development component focuses on confidence, strengths and resilience.

Be part of a community

We prepare students for successful, long-term careers through a range of professional development, networking and extracurricular opportunities. These programs focus on employability, leadership skills, entrepreneurship, building confidence and problem-solving.

A diverse community of student clubs, associations, and membership groups provide opportunities to meet like-minded peers and develop knowledge and networks.

These groups include:

Engineers Without Borders

The University of Adelaide has its own chapter of Engineers Without Borders. Students have the opportunity to get involved with programs and events, including design challenges and school outreach programs. Visit: ewb.org.au/explore/chapters/sa/uofa

Robogals

The South Australian chapter of Robogals—an international organisation aiming to increase female participation in engineering and technology—is a student-run volunteer group that runs robotics workshops in primary and high schools throughout the state. Visit: robogals.org

Adelaide University Solar Racing Team (AUSRT)

AUSRT is a collection of students and staff who compete in the Bridgestone World Solar Challenge every two years. Visit: ausrt.com

State-of-the-art facilities

Our six-star green star engineering faculty features world-class, purpose-built teaching and learning facilities available to students throughout their studies.

Examples include the state-of-the-art CARM (Computer, Automation, Robotics and Mechatronics) Lab, and our 3D prototyping lab, which features one of the largest 3D printers of its kind in the southern hemisphere.

We also offer 24-hour computer suites equipped with the latest discipline-specific software and specialist facilities, including: acoustic test chambers; laser diagnostic and electron microscopy equipment; a bioprocessing facility; and custom-built laboratories, workshops and tutorial spaces for design work and study.

This diary snapshot is an example of how a student may choose to schedule their university study and life. Attendance at university is less structured than at high school. Hours spent on campus in lectures, tutorials, practicals or in the field—known as ‘contact hours’—depend on the degree enrolled in, study mode selected (internal, external, online or flexible learning) and course choices.
South Australia’s biggest engineering, computer and mathematical sciences student expo.

INGENUITY 2019

FREE EVENT
Thursday 31 October
9.30am – 3.30pm
Adelaide Convention Centre

ecms.adelaide.edu.au/ingenuity
CAREERS SERVICE AT ADELAIDE

The Careers Service is available to assist all students to maximise their employability, develop connections with industry, and develop their competitive advantage for employment by delivering a suite of industry informed, student focused career development services.

The award winning Careers Service team works closely with a wide range of employers to ensure our industry knowledge is second to none. Our partnerships with local, national and international employers informs our staff about current opportunities available for students looking for work experience or what graduate employers are looking for.

To increase the awareness of employment opportunities after graduation, the Careers Service organise an annual Careers Expo and host events where employers work on campus to network with students and promote career pathways within their organisations.

Our industry mentoring program provides opportunities for students to meet and gain insight from graduates, managers and leaders at various stages in their career lifecycle. Getting to know people in your industry is a very useful way to source career opportunities and make yourself more competitive.

All employers value industry related work experience, and being able to draw on these experiences is one way of providing evidence of skills, knowledge and abilities developed. From the Careers Service, students can access advice on how to source industry related work experience, how to create an outstanding application, how to make the most of opportunities, and how to articulate those experiences on their resume.

The Careers Service also has an online CareerHub available 24/7 listing opportunities for work experience and graduate jobs, as well as industry related part-time and volunteer work. CareerHub also hosts a large number of resources to help students connect with industry and apply for work.

In addition to individual careers advice appointments, small group workshops offer topics such as writing resumes, preparing for interviews and looking for work experience.

"MECHATRONIC ENGINEERING IS REALLY A RELATIVELY NEW FIELD OF ENGINEERING, THAT COMBINES ELECTRONIC AND MECHANICAL ENGINEERING WITH CONTROL SYSTEMS AND COMPUTER SCIENCE. BECAUSE IT SPANS SO MANY DISCIPLINES, YOU CAN REALLY DO ANYTHING YOU WANT WITH IT!"

Kimberley Terrace
Bachelor of Engineering (Honours) Mechatronic
At the University of Adelaide our range of engineering, computer and mathematical sciences study options give students the breadth and flexibility to pursue a specialisation of interest, without locking them into a specific area.

<table>
<thead>
<tr>
<th>BACHELOR OF</th>
<th>MAJORS</th>
<th>MINORS</th>
<th>PREREQUISITE SACE STAGE 2 SUBJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering (Honours) (Architectural and Structural)#</td>
<td>Renewable Energy</td>
<td>Humanitarian</td>
<td>Mathematical Methods* and one of Biology, Chemistry, Physics or Specialist Mathematics.</td>
</tr>
<tr>
<td>Engineering (Honours) (Civil)</td>
<td>Smart Technologies</td>
<td>Geotechnical Engineering</td>
<td>Mathematical Methods*, Specialist Mathematics and Physics.</td>
</tr>
<tr>
<td>Engineering (Honours) (Environmental)#</td>
<td>Renewable Energy</td>
<td>Humanitarian</td>
<td>Mathematical Methods* and Specialist Mathematics, plus one of Chemistry or Physics.</td>
</tr>
<tr>
<td>Engineering (Honours) (Electrical and Electronic)</td>
<td>Medical Technologies</td>
<td>Cybersecurity</td>
<td>Mathematical Methods*, Specialist Mathematics and Physics.</td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum)#</td>
<td>Chemical Engineering</td>
<td>Financial Engineering</td>
<td>Mathematical Methods* and one of Specialist Mathematics or Chemistry.</td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum) - with majors#</td>
<td>Chemical Engineering</td>
<td>Mechanical Engineering</td>
<td>Mathematical Methods* and Physic, plus one of Specialist Mathematics or Chemistry.</td>
</tr>
<tr>
<td>Engineering (Honours) (Software)#</td>
<td>Smart Technologies</td>
<td>Entrepreneurship</td>
<td>Mathematical Methods* and Physics.</td>
</tr>
<tr>
<td>Engineering (Honours) – Flexible Entry</td>
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<tr>
<td>Mathematical Sciences</td>
<td>Applied Mathematics</td>
<td>Statistics</td>
<td>Mathematical Methods*.</td>
</tr>
<tr>
<td>Mathematical Sciences (Advanced)</td>
<td>Pure Mathematics</td>
<td></td>
<td>and Specialist Mathematics.</td>
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<td>Mathematical and Computer Sciences</td>
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<td>Computer Science</td>
<td>Computer Science</td>
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<td>Mathematical Methods*.</td>
</tr>
<tr>
<td>Computer Science (Advanced)</td>
<td>Artificial Intelligence</td>
<td>Distributed Systems and Networking</td>
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Prerequisites are an essential requirement for entry into specific academic programs.

School leavers/applicants with Year 12 qualifications: applicants must obtain a minimum grade of C- or better in SACE Stage 2 subjects prescribed in prerequisites.

Other applicants, including those with VET qualifications or STAT results: tertiary preparation programs, bridging courses or alternative pathways may be available for applicants who have not completed prerequisites.

* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

# As of 2021, the prerequisites for these degrees will be changing. Please check Degree Finder for more information: adelaide.edu.au/degree-finder
Passionate about studying engineering but missing a prerequisite?

At the University of Adelaide we want to ensure everyone with a passion for engineering has the opportunity to pursue it.

So we’ve created the Bachelor of Engineering (Honours) – Engineering Pathway for applicants who don’t qualify for direct entry (either through lack of a prerequisite, or a selection rank less than 80), but have achieved a selection rank of 70 or above and successfully completed Mathematical Methods (or equivalent)*.

Don’t have Mathematical Methods?
Applicants missing this school subject can still study engineering at Adelaide. Contact us, or visit the engineering pathways website for information about completing these prerequisites: adelaide.edu.au/mathslearning/bridging

Support
Bachelor of Engineering (Honours) – Engineering Pathway students are personally supported to help them choose the necessary courses for a successful transition into their chosen engineering discipline.

First year maths help
First-year maths students have access to a free drop-in service during their studies. Tutors are available to answer questions and offer guidance at any time.

Maths Learning Centre
Our Maths Learning Centre helps students at all year levels succeed in learning and using maths relating to their coursework.
Visit: adelaide.edu.au/mathslearning

* A summer course/electives will be required to catch up on prerequisites.
* See page 14 for more information.

HOW IT WORKS

Apply for the Bachelor of Engineering (Honours) – Engineering Pathway via SATAC.

Ensure you have Mathematical Methods or equivalent.

Achieve a selection rank of 70 or above.

Received an offer? Accept and commence the engineering pathway.

Use engineering pathway to successfully complete prerequisites*.

Guaranteed transfer into chosen engineering degree.
Want to study engineering but unsure what degree?

Our flexible entry option caters for applicants who know they want to be an engineer, but aren’t sure which field to focus on.

This 12-month option introduces and explores a variety of engineering disciplines in a flexible first year of study, enabling students to make a well-informed decision about their preferred career path.

Students transfer into their chosen Bachelor of Engineering (Honours) single, double or combined degree at the completion of the academic year.
Defence Systems

With the Australian Government’s commitment to invest $200 billion in Australia’s defence capabilities—and with many defence organisations now headquartered in South Australia—Adelaide is the best place to study for a career in this strong growth field. This major provides engineering students with great opportunities to drive and support defence technologies.

The sector has a strong need for highly-skilled professionals to deliver some of the largest and most complex Australian projects. A wide range of engineering careers are on offer—spanning everything from working with aircraft to electrical systems and communications technology.

Students specialising in Defence Systems can undertake courses related to complex systems, human factors and systems engineering, through which they’ll gain experience working with defence organisations in South Australia. This includes the opportunity to develop collaborative final-year projects with industry.

The Defence Systems major is offered in the following engineering degrees:

- Civil Engineering (see p16)
- Electrical and Electronic Engineering (see p20)
- Environmental Engineering (see p17)
- Mechanical Engineering (see p21)
- Software Engineering (see p24)

Medical Technologies

From medical imaging to artificial organs and bionic limbs, advanced technology plays a crucial role in life-changing health solutions for millions around the world; and with ageing populations and rising, global health challenges, its importance is only going to increase.

Our Medical Technologies major offers students the opportunity to learn about the human body and develop technologies that will enhance and sustain lives.

Students can study courses related to human physiology and medical instrumentation, through which they’ll gain
first-hand experience with health experts. This develops the skills to complete a final-year honours project, building a real-life technological solution in a medical area of interest.

The major is offered in the following engineering degrees:

• Electrical and Electronic Engineering (see p20)
• Mechanical Engineering (see p21)

**Smart Technologies**

From virtual reality and artificial intelligence to smart homes and cities, the smart technologies of the future will redefine the way we live our lives.

In this exciting field where innovation is key, infrastructure, technology and the Internet work together to improve quality of life, identify issues and enhancements, interpret data and provide options for better and faster solutions.

Students specialising in Smart Technologies have the opportunity to complete courses related to mobile and wireless systems, computer networks and autonomous systems, through which they’ll gain first-hand experience working with technology companies in South Australia. They will further hone their skills through a final-year honours project, building a real-life smart-technology solution.

The Smart Technologies major is offered in the following engineering degrees:

• Civil Engineering (see p16)
• Electrical and Electronic Engineering (see p20)
• Environmental Engineering (see p17)
• Mechanical Engineering (see p21)
• Software Engineering (see p24)

**Renewable Energy**

Developing long-term solutions to meet the world’s rapidly growing energy demands has never been more critical. With energy issues becoming more prevalent, finding new ways to source and provide energy is a global priority.

Graduates with this major will have the opportunity to design energy-efficient systems, solve problems related to energy generation and consumption, and contribute to the development of a sustainable future.

Students specialising in Renewable Energy can undertake courses related to biofuels, biomass, renewable power and environmental planning, through which they’ll gain first-hand experience with energy experts in South Australia. This will hone the skills needed for a final-year honours project developing a real-world renewable energy solution.

The major is offered in the following engineering degrees:

• Chemical Engineering (see p15)
• Civil Engineering (see p16)
• Electrical and Electronic Engineering (see p20)
• Environmental Engineering (see p17)
• Mechanical Engineering (see p21)


* Majors cannot be undertaken with a double degree

**ENGINEERING MINORS**

Minors offer an extra area of interest allowing students to develop baseline core subject knowledge applicable in the workforce*.

**Entrepreneurship**

Entrepreneurship-minor students learn how to take the technical knowledge from their degree and create new ventures, in settings ranging from large corporations to small businesses, the not-for-profit sector and community organisations.

All technology advances in the past decade were once just ideas that entrepreneurs brought into reality. Students explore the processes, risks, rewards, motivations and societal impacts of innovation and entrepreneurship from regional, national and global perspectives.

The Entrepreneurship minor is offered in the following engineering degrees:

• Chemical Engineering (see p15)
• Civil Engineering (see p16)
• Electrical and Electronic Engineering (see p20)
• Environmental Engineering (see p17)
• Mechanical Engineering (see p21)
• Mining Engineering (see p18)
• Software Engineering (see p24)

**Humanitarian**

Humanitarian-minor students learn how to have a positive impact on developing-country populations, working in emergency and humanitarian fields.

Students conduct design work with a focus on culture, economic background, and political climate, while developing a strong awareness of communities and the people who reside in them. Graduates are equipped to solve problems in complex environments, allowing them to make real-world change.

The Humanitarian minor is offered in the following engineering degrees:

• Chemical Engineering (see p15)
• Civil Engineering (see p16)
• Electrical and Electronic Engineering (see p20)
• Environmental Engineering (see p17)
• Mechanical Engineering (see p21)
• Mining Engineering (see p18)

* Minors can be undertaken with any single or double degree, but not with a major—with the exception of the Bachelor of Engineering (Honours) (Mechanical), which allows students to take both a major and minor.
ENGINEERING

* Graduate Careers Australia 2015 Report
With exciting majors, engineering at the University of Adelaide offers enormous breadth, choice and flexibility to pursue your interests and prepare for dynamic, highly-paid careers in industry growth areas.

At engineering’s core is the ability to take a life-enhancing idea and turn it into reality. Engineers solve some of the world’s most complex challenges by applying specialist skills in mathematics, science, technology and design to create innovative and sustainable structures, systems, devices, machines, materials and processes.

Our degrees cover all engineering disciplines: chemical; civil, environmental and mining; electrical and electronic; mechanical; petroleum; and software.

Study at South Australia’s top engineering university

The University of Adelaide is the only South Australian university ranked in the international Academic Ranking of World Universities top 50 for Computer Science and Engineering**. Our academics are internationally renowned and industry connected.

Guaranteed entry selection rank

If you meet your chosen engineering degree’s prerequisites and achieve a selection rank of 80 or above—including any adjustment factors (such as bonus points) if eligible—you’re in! This straightforward process takes the hassle out of entering university. Visit adelaide.edu.au and search guaranteed entry.

Flexible programs to suit your interests

Our exciting industry-focused majors offer you flexibility and choice across a range of study areas. You can tailor your studies to focus on areas of particular interest and prepare for a variety of careers; and if you’re not sure which area to study, our flexible entry option will allow you to explore them all before specialising in a particular area.

We also offer double and combined degrees. These enable you to explore complementary disciplines such as arts, finance, science, and mathematical and computer sciences alongside your engineering studies. You’ll graduate with two qualifications and broad career possibilities. For a full list of double and combined degrees, visit adelaide.edu.au/degree-finder

Keep in mind though, that while double degrees allow you to gain two qualifications, their full study load means additional majors cannot be taken.

Discipline-focused majors (see relevant course page)
Interdisciplinary majors (see p10-11)

Real-world experience

Our comprehensive curriculum allows you to practise real engineering through a foundation of theory and hands-on experience from your first year of study.

You'll apply knowledge, develop a solid career portfolio and build connections with prospective employers via a wide range of practical projects, field trips, internships, networking events and Study Abroad opportunities.

You will also undertake a major eight week industry placement. This not only provides experience working on real engineering projects, but allows you to hone the technical and leadership skills sought by employers.

Embedded honours

An honours year provides a deeper understanding of your specialisation, demonstrates a commitment to further learning, and prepares you for postgraduate studies (should you wish to pursue them). All our engineering degrees include an honours year as standard, with both design and build components.

Full accreditation and global recognition

Our internationally recognised engineering degrees are accredited by Engineers Australia, Australia’s peak professional engineering body. Adelaide graduates qualify for professional membership of Engineers Australia and can enjoy access to lucrative opportunities locally and abroad.

** Academic Ranking of World Universities 2018
Passionate about engineering but missing a prerequisite?

Our Bachelor of Engineering (Honours) – Engineering Pathway can open the engineering door for you if you haven’t successfully completed your preferred degree’s prerequisite high school courses, or achieved its required selection rank.

What will you do?

Through the Engineering Pathway you will:

- complete the prerequisite specialist mathematics, physics or chemistry courses for your preferred engineering degree
- study core Bachelor of Engineering subjects in your chosen engineering discipline.

Then, if you’ve successfully completed them all satisfactorily, you’ll be able to transfer straight into your chosen discipline’s specialist degree.

Where could it take you?

After successfully completing the Engineering Pathway and your chosen specialist degree, rewarding career opportunities will abound. Engineering expertise of all kinds is in high demand worldwide.

* If you haven’t completed Mathematical Methods or equivalent, please see page 8 for further information.

Kickstart your career with clarity

Want to be an engineer but unsure which degree is for you? This alternative degree entry point will help you identify—and then pursue—the best option for you.

What will you do?

Over 12 months, our Flexible Entry option will introduce you to multiple engineering possibilities. You will:

- explore a variety of engineering disciplines
- attend presentations by practising engineers
- build communication skills essential to the field.

Where could it take you?

After successfully completing the Flexible Entry year and your chosen specialist degree, rewarding career opportunities will abound. Engineering expertise of all kinds is in high demand worldwide.
Solve global challenges

Chemical engineers come up with the best ways to convert raw matter—like minerals or oils—into products we can use. They design renewable energy solutions, new and improved medicines, chemical plants, cosmetics and food factories.

What will you do?

Our Bachelor of Engineering (Honours) (Chemical) is interactive from the very first year. You’ll work with award-winning and industry-connected researchers and teachers as you:

• use knowledge and skills from engineering, chemistry, maths and biology to produce chemicals, fuel, drugs and food
• learn how results in the lab scale up for commercial production
• undertake projects with external groups such as Engineers Without Borders
• benefit from tours, projects and placements with companies like PepsiCo, Smiths Crisps, Jurlique and BHP
• gain eye-opening practical experience through an eight-week industry placement.

How can you specialise?

Taking a major is a great way to pursue a topic of particular interest and further enhance your future career options in that area. In the Bachelor of Engineering (Honours) (Chemical), you have three majors to choose from:

Discipline-focused majors

• Minerals Processing
   The Minerals Processing major explores the science and technology of extracting minerals from raw mined material, and converting them into products such as iron, steel, aluminium, copper, gold and uranium. Graduates can work in a range of roles across the resources industry.

• Pharmaceutical Engineering
   Pharmaceutical engineering involves the design, development, and operation of process systems to produce pharmaceuticals. Pharmaceutical engineers contribute to the production of pharmaceuticals, biopharmaceuticals, vaccines, nutraceuticals, cosmetics, cosmeceuticals and related products.

Interdisciplinary majors

• Renewable Energy
   See page 11 for details.
   Alternatively, you also have the option of undertaking an Entrepreneurship or Humanitarian minor. See page 11 for details.

Where could it take you?

You could come up with better ways to control air pollution or turn saltwater into fresh water. You might work alongside craft beer brewers. Perhaps you’ll mass-produce a biodegradable plastic or move into the exciting world of tissue engineering.

*Academic Ranking of World Universities 2018

Available combinations include:

• Bachelor of Engineering (Honours) (Chemical) and Bachelor of Arts
• Bachelor of Engineering (Honours) (Chemical) with Bachelor of Finance
• Bachelor of Engineering (Honours) (Chemical) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Chemical) with Bachelor of Science
• Bachelor of Engineering (Honours) (Chemical) with Bachelor of Science (Biotechnology)
CIVIL, ENVIRONMENTAL AND MINING ENGINEER

**Bachelor of Engineering (Honours) (Architectural and Structural)**

- **SATAC Code:** 334181
- **Selection Rank:** 89.25 / 33
- **Duration:** 4 years full-time
- **Campus:** North Terrace
- **Guaranteed Entry:** 80

**Prerequisites**
- SACE Stage 2: Mathematical Methods*, one of Biology, Chemistry, Physics or Specialist Mathematics. IB: either Mathematics (HL grade 3); or, Mathematics (SL grade 4/HL grade 3) and one of Biology, Chemistry or Physics (SL grade 4/HL grade 3).
- *If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

**Where architectural design meets engineering**

Interested in a creative career that explores elements of architectural design and engineering?

Architectural and structural engineers visualise projects, plan, collaborate, test ideas and come up with high-tech building solutions. They design systems for some of the most innovative infrastructure in today’s society.

**What will you do?**

Our unique Bachelor of Engineering (Honours) (Architectural and Structural) brings together the disciplines of architecture and engineering. You will:

- undertake practical projects and work on real-world simulations
- build skills in geotechnical engineering, construction and operation systems
- analyse material strengths, load and stress
- explore sustainability and architectural integrity
- learn in state-of-the-art facilities
- pursue specialisations in your areas of interest
- gain eye-opening practical experience through an eight-week practical industry placement.

In your final year you may also collaborate with industry on a major design project.

**Where could it take you?**

You might plan underground infrastructure for renewable energy systems. Perhaps you’ll design blast-proof buildings in the defence sector, or sustainable housing systems. You’ll even have the option of continuing on to a Master of Architecture to become a qualified architect.

**Bachelor of Engineering (Honours) (Civil)**

- **SATAC Code:** 334211
- **Selection Rank:** 95.85 / 36
- **Duration:** 4 years full-time
- **Campus:** North Terrace
- **Guaranteed Entry:** 80

**Prerequisites**
- SACE Stage 2: Mathematical Methods*, one of Biology, Chemistry, Physics or Specialist Mathematics. IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3).
- *If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

**Build a global career**

Civil engineers design, build and maintain the infrastructure that underpins modern life. They make sure bridges, roads, tunnels, railways, dams, airports and water channels meet society’s needs in a sustainable way.

The University of Adelaide is ranked 31 in the world for Civil Engineering*.

**What will you do?**

Our Bachelor of Engineering (Honours) (Civil) has a strong focus on design. You’ll learn from award-winning academics in state-of-the-art facilities as you:

- study structural design and mechanics in depth
- master new technologies forming the basis of future design practice
- work on real-life projects
- interact with professionals through an industry-led design practice course
- gain eye-opening practical experience through an eight-week industry placement.

**How can you specialise?**

Taking a major is a great way to pursue a topic of particular interest and further enhance your future career options in that area. In the Bachelor of Engineering (Honours) (Civil), you have eight majors to choose from:

**Discipline-focused majors**

- **Construction Management**

Construction management engineers are involved in managing construction infrastructure, operations and sites. In this major, you’ll study construction processes and practices, including scheduling, labour and plant optimisation, and sustainable construction practices.

- **Environmental Engineering**

In our Environmental Engineering major, you’ll explore engineering’s connections with environment, society and economy, and learn how to create more sustainable and environmentally-friendly infrastructure. You’ll be exposed to real-world environmental projects based on industry needs in areas of urban water, integrated river management, environmental protection and more.

- **Geotechnical Engineering**

Geotechnical engineers design foundations, dams, embankments, retaining walls, tunnels and roads, and undertake work relating to landslides, earthquakes and contaminated land remediation. Our Geotechnical Engineering major explores the earth’s composition and nature, and its behaviour under pressure and when water flows through it.

- **Structural Engineering**

Structural engineers understand the forces that structures must bear and how they deform under load. This major offers the most structural engineering and mechanics design courses of any South Australian engineering degree. You’ll study both traditional methods and materials—such as steel, timber, concrete, aluminium, glass and masonry—and modern technologies and materials, including composites and polymers.

- **Water Systems Engineering**

Water systems engineers are involved in the design, operation and optimisation of water and wastewater treatment facilities, reservoirs, dams, pipe networks, open channels and stormwater drainage. Our Water Systems Engineering major covers the physical principles of water (both stationary and flowing), hydrology, and factors causing floods.

**Interdisciplinary majors**

- **Defence Systems**

See page 10 for more details.

- **Smart Technologies**

See page 11.

- **Renewable Energy**

See page 11.

Alternatively, you also have the option of undertaking an Entrepreneurship or Humanitarian minor. See page 11 for details.
Civil, Environmental and Mining Engineer

Available combinations include:

- Bachelor of Engineering (Honours) (Civil) with Bachelor of Science
- Bachelor of Engineering (Honours) (Civil) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Civil) with Bachelor of Finance
- Bachelor of Engineering (Honours) (Civil) with Bachelor of Science
- Bachelor of Engineering (Honours) (Environmental)
- Bachelor of Engineering (Honours) (Environmental) with Bachelor of Science
- Bachelor of Engineering (Honours) (Environmental) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Environmental) with Bachelor of Finance

Where could it take you?

You might supervise major water projects or the building of sea-bridges. You could connect remote communities as a road and highway engineer. Perhaps you’ll design high-speed railways or help with the construction of Australia’s next state-of-the-art sport facility.

* Academic Ranking of World Universities 2018

COMBINED AND DOUBLE DEGREES

SATAC CODE: 334201
SELECTION RANK/IB: 89.3 / 33
DURATION: 5 years full-time (or part time equivalent)
CAMPUS: North Terrace
GUARANTEED ENTRY: 80

PREREQUISITES
SACE Stage 2: Mathematical Methods*, Physics and either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3) or Chemistry (SL grade 4/HL grade 3) and Mathematics (HL grade 3)

* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

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Interdisciplinary majors

- Defence Systems
- Renewable Energy
- Smart Technologies

Alternatively, you also have the option of undertaking an Entrepreneurship or Humanitarian minor. See page 11 for details.

Where could it take you?

You could manage coastal erosion, develop policy on energy futures or design recycling schemes. You might address development issues in Southeast Asia. Perhaps you’ll work for the United Nations or monitor the impacts of climate change on populated regions.

ENGINEERING 17
BACHELOR OF ENGINEERING (HONOURS) (MINING)

SATAC CODE
334851

SELECTION RANK/IB
90.05 / 33

DURATION
4 years full-time

CAMPUS
North Terrace

GUARANTEED ENTRY
80

PREREQUISITES
SACE Stage 2: Mathematical Methods*, Physics and Specialist Mathematics.
IB: Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 5).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

Unearth riches
Mining engineers work with all aspects of ore extraction and processing. They gather valuable minerals or metals and provide a backbone industry for our society. The reinvigoration of traditional mining plus new advances—such as deep-sea mining and space mining—mean there’s an exciting future for mining engineers, with a wealth of job opportunities around Australia and overseas.

What will you do?
Ranked 15 in the world for Mining and Mineral Engineering*, the University of Adelaide offers the only mining engineering degree in South Australia. You will:
• take part in field trips to mining locations in Australia and overseas, with the option to complete a semester at another mining university
• work closely with experts to develop skills and networks for a successful career
• gain exposure to industry practices in world-class laboratories
• get eye-opening practical experience through an eight-week industry placement.

How can you specialise?
Taking a major is a great way to pursue a topic of particular interest and further enhance your future career options in that area. In the Bachelor of Engineering (Honours)(Mining) the available major is:
• Mine Automation
The mining industry is in the midst of a profound digital transformation, encompassing mobile computing, cloud data storage, big data analytics and advanced process control. The industry needs highly qualified engineers to plan, design and manage high-tech mining operations that use mine automation technology to operate systems. The University of Adelaide is the only university in Australia currently offering a mine automation major. It includes courses in artificial intelligence, machine learning, big data analytics, autonomous systems and robotics.
Alternatively, you also have the option of undertaking an Entrepreneurship or Humanitarian minor. See page 11 for more details.

Where could it take you?
You might drill and blast in stone quarries or unearth rare metals. You could design plans for how to approach newly discovered sites. Perhaps you’ll work in exciting developing fields, like deep-sea or space mining.
With the highest employment rate of all engineering specialities at 92 per cent** and continuing significant job growth expected locally, nationally and globally, you’ll be in high demand. Recent graduates have secured employment with BHP Billiton, Hillgrove Resources and Rio Tinto.

DOUBLE DEGREES

SATAC CODE
334861

SELECTION RANK/IB
80 / 29

DURATION
5 years full-time (or part time equivalent)

CAMPUS
North Terrace

GUARANTEED ENTRY
80

PREREQUISITES
SACE Stage 2: Mathematical Methods*, Physics, one of Specialist Mathematics or Chemistry.
IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 5) or Chemistry (SL grade 4/HL grade 3), Physics (SL grade 4/HL grade 5) and Mathematics (SL grade 4/HL grade 5).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

Available combinations include:
• Bachelor of Engineering (Honours) (Mining) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Mining) with Bachelor of Science

* Academic Ranking of World Universities 2018
** Graduate Careers Australia

adelaide.edu.au/degree-finder
Search mining engineering

adelaide.edu.au/degree-finder
Search mining engineering

Civil, Environmental and Mining Engineering (continued)
ENGINEERING AT ADELAIDE FOCUSES ON INDUSTRY GROWTH AREAS AND PREPARES GRADUATES FOR EXCITING, HIGHLY-PAID GLOBAL CAREERS.
ELECTRICAL AND ELECTRONIC ENGINEERING

BACHELOR OF ENGINEERING (HONOURS) (ELECTRICAL AND ELECTRONIC)

SATAC CODE
334811

SELECTION RANK/IB
92.45 / 35

SATAC CODE
234811

SELECTION RANK/IB
93.65 / 36

DURATION
4 years full-time

DURATION
5 years full-time (or part time equivalent)

GUARANTEED ENTR Y
80

GUARANTEED ENTR Y
80

PREPREREQUISITES
SACE Stage 2: Mathematical Methods*, Physics and Specialist Mathematics.
IB: Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

PREPREREQUISITES
SACE Stage 2: Mathematical Methods*, Physics, one of Specialist Mathematics or Chemistry.
IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3); or, Chemistry (SL grade 4/HL grade 3), Physics (SL grade 4/HL grade 3) and Mathematics (SL grade 4/HL grade 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

Power our future

Electrical and electronic engineers do so much more than keep the lights on! From smart devices to medical imagery and defence technologies, electrical and electronic engineering contributes to every aspect of modern life.

The University of Adelaide is ranked 36 in the world for Electrical and Electronic Engineering*. We can set you up for a range of global career options in a field that’s leading technological change.

What will you do?

Our Bachelor of Engineering (Honours) (Electrical and Electronic) is practical right from the first year. Working with our internationally renowned staff who are active in cutting-edge discoveries, you will:

• study in state-of-the-art facilities, including 3D prototyping, autonomous vehicles, and electric machines labs
• work on practical and relevant projects with industry partners
• take core subjects in maths, physics, computing and systems engineering
• gain eye-opening practical experience through an eight-week industry placement.

How can you specialise?

Taking a major is a great way to pursue a topic of particular interest and further enhance your future career options in that area. In the Bachelor of Engineering (Honours)/Electrical and Electronic) you have seven majors to choose from:

Discipline-focused majors

Communication Systems
Our Communication Systems major gives you the skills to design and manage complex hardware and software, such as mobile, Internet and broadcast networks, satellite communications, and infrastructure systems.

Computer Engineering
The Computer Engineering major focuses on the design, development and use of computers to control devices, equipment and processes, including robots, automated infrastructure and autonomous devices. You’ll graduate well placed to secure jobs in fields such as industrial automation, logistics, and e-commerce.

Cybersecurity
Cybersecurity is a high-growth industry. As more devices and systems are connecting to the Internet—creating the Internet of Things—employers are increasingly seeking graduates who can develop secure and robust systems. In this major, you’ll learn from industry experts and have the opportunity to undertake international study tours, such as a cybersecurity tour of Estonia.

Interdisciplinary majors

• Defence Systems
See page 10 for details.
• Medical Technologies
See page 10.
• Renewable Energy
See page 11.
• Smart Technologies
See page 11.

Alternatively, you also have the option of undertaking an Entrepreneurship or Humanitarian minor. See page 11 for details.

Where could it take you?

You could work in artificial intelligence, industrial automation, e-commerce or cybersecurity. You might manage multimillion-dollar energy projects. Perhaps you’ll help design the first purely electric aircraft.

Combined and double degrees

Available combinations include:

• Bachelor of Engineering (Honours) (Electrical and Electronic) and Bachelor of Arts
• Bachelor of Engineering (Honours) (Electrical and Electronic) with Bachelor of Finance
• Bachelor of Engineering (Honours) (Electrical and Electronic) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Electrical and Electronic) with Bachelor of Science

* Academic Ranking of World Universities 2018
MECHANICAL ENGINEERING

BACHELOR OF ENGINEERING (HONOURS) (MECHANICAL)

Craft the next generation of machines
Mechanical engineers work with ‘things that move’—from prosthetic limbs and robots, to motor vehicles, aircraft and space stations. When it comes to new technologies, mechanical engineers are key. They design and develop innovative materials, processes and products to improve our lives and the world.

What will you do?
Our Bachelor of Engineering (Honours) (Mechanical) has strong links to industry and a focus on design and creativity. You will:
• explore core mechanical engineering disciplines
• complete design-build projects
• gain hands-on experience in state-of-the-art facilities
• benefit from internships and projects with experts in the field
• gain eye-opening practical experience through an eight-week industry placement.
In your final year you’ll also apply your advanced capabilities in an industry-relevant design—and build—research project.

How can you specialise?
Tackling a major is a great way to pursue a topic of particular interest and further enhance your future career options in that area. In the Bachelor of Engineering (Honours) (Mechanical), you have eight majors to choose from:

Discipline-focused majors
• Aerospace Engineering
  Aerospace engineers design and launch equipment to help explore our solar system and beyond—and their future prospects are equally vast. As the only university in South Australia currently offering an aerospace major, we’ll prepare you to take those opportunities, through courses in aeronautical engineering, space vehicle design and aerospace structures.

• Mechanical Engineering
  Mechanical engineers design and build mechanical systems and machines. This major focuses on the materials and numerical methods used to solve engineering challenges in the field, and includes topics in advanced manufacturing.

• Mechatronics and Robotics
  Dreams of the future become today’s innovations when engineers take ideas from science fiction and turn them into science reality. This major prepares you to take those quantum leaps, by studying the components that make up complex mechatronic and robotic systems.

• Sports Engineering
  This major equips you to excel in the rapidly-growing global sports engineering field. It focuses on applying mechanical engineering skills to the design and manufacture of sports equipment and apparel, rehabilitation and exercise equipment, and sports facilities. In addition to topics related to design and engineering science fundamentals, you’ll undertake studies in physiology, anatomy, biomechanics and sports materials.

Interdisciplinary majors
• Defence Systems
  See page 10 for details.

• Medical Technologies
  See page 10.

• Smart Technologies
  See page 11.

• Renewable Energy
  See page 11.

Additionally, you also have the option of undertaking an Entrepreneurship or Humanitarian minor. See page 11 for details.

Where could it take you?
You could develop life-saving technology or innovate in the sustainable energy field. You could be an aerospace or sports engineer. Perhaps you’ll plan, build and test robotic systems with artificial intelligence.

Mechanical engineers are in high demand. Previous graduates have secured employment with organisations such as the European Space Station, Australian Institute of Sport, Boeing, BAE Systems, Santos, SAAB and AGL.

Available combinations include:
• Bachelor of Engineering (Honours) (Mechanical) and Bachelor of Science
• Bachelor of Engineering (Honours) (Mechanical) with Bachelor of Business
• Bachelor of Engineering (Honours) (Mechanical) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Mechanical) with Bachelor of Science.

COMBINED AND DOUBLE DEGREES

Available combinations include:
• Bachelor of Engineering (Honours) (Mechanical) and Bachelor of Science

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SACE Stage 2: Mathematical Methods*, Physics and Specialist Mathematics. IB: Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.
PETROLEUM ENGINEERING

**BACHELOR OF ENGINEERING (HONOURS) (PETROLEUM)**

**SATA CODE** 334871
**SELECTION RANK/IB** 80 / 29
**DURATION** 4 years full-time
**CAMPUS** North Terrace
**GUARANTEED ENTRY** 80

**PREREQUISITES**
SACE Stage 2: Mathematical Methods*, Physics plus one of Specialist Mathematics or Chemistry.
IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3); or, Chemistry (SL grade 4/HL grade 3) & Mathematics (SL grade 4/HL grade 3)
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

**Where could it take you?**
You could work for a range of oil, gas and energy companies, or find a role in a government agency. You might refine crude petroleum into gasoline or plastics. You could optimise extraction techniques. Perhaps you’ll design new equipment, supervise drillings or take on managerial roles.

**DOUBLE DEGREE**
Bachelor of Engineering (Honours) (Petroleum) with Bachelor of Science*

**SATA CODE** 334881
**SELECTION RANK/IB** 80 / 29
**DURATION** 5 years full-time (or part time equivalent)
**CAMPUS** North Terrace
**GUARANTEED ENTRY** 80

**PREREQUISITES**
SACE Stage 2: Mathematical Methods*, Physics, one of Specialist Mathematics or Chemistry.
IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3); or, Chemistry (SL grade 4/HL grade 3) & Mathematics (SL grade 4/HL grade 3)
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

This combination builds a strong foundation of mathematics, physics, geology, geophysics, computer applications and engineering principles. Over the course of the degree, subjects studied change from more general engineering topics to highly specific petroleum and applied geology and geophysics-related topics. There’s also a focus on management and business-related aspects. This integrated curriculum structure is not only unique, but highly valued by industry.

**Please note:** the double degree with the Bachelor of Science is only available with a double major in Geology, Geophysics and Applied Geology.

**BACHELOR OF ENGINEERING (HONOURS) (PETROLEUM) WITH MAJORS**

**SATA CODE** 334231
**SELECTION RANK/IB** 80 / 29
**DURATION** 5 years full-time
**CAMPUS** North Terrace
**GUARANTEED ENTRY** 80

**PREREQUISITES**
SACE Stage 2: Mathematical Methods*, Physics, one of Specialist Mathematics or Chemistry.
IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3); or, Chemistry (SL grade 4/HL grade 3) & Mathematics (SL grade 4/HL grade 3)
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

This degree is identical to our Bachelor of Engineering (Honours)(Petroleum), but with the addition of allowing you to undertake a major as part of your study. This makes it a five-year degree, rather than four.

**How can you specialise?**
Taking a major is a great way to pursue a topic of particular interest and further enhance your future career options in that area.

**Discipline-focused majors**
- **Chemical Engineering**
  Chemical engineering sustains and improves a range of industries, including petroleum refining and petrochemicals. In this major you’ll develop skills in the design, development, and operation of process systems for extraction, transformation and recovery.
- **Civil Engineering**
  Our Civil Engineering major develops your skills in environmentally sustainable construction and maintenance.
- **Mechanical Engineering**
  In this major you’ll gain knowledge of, and skills in applying the, technology and scientific principles involved in the design, development and manufacture of products, processes, machines and moving mechanical engineering systems.
- **Mining Engineering**
  Our Mining Engineering major will develop your skills in the extraction and processing of valuable mineral and metal ores from the earth. Combining petroleum engineering with mining can give you a strong competitive edge and increased career options.

**Be in global demand**
Want to travel the world and face new challenges every day?
Petroleum engineering is one of the highest paid engineering fields internationally, with exciting opportunities for qualified graduates. Petroleum engineers help sustain society’s way of life by ensuring we can meet our energy demands. They provide oil and gas in efficient, safe and environmentally responsible ways.

**What will you do?**
Our Bachelor of Engineering (Honours) (Petroleum) is developed and taught by industry-trained experts—nationally and globally connected—through the University’s Australian School of Petroleum. This is Australia’s and Southeast Asia’s academic centre for petroleum research and education—and the only school of its kind in Australia. You will:
- learn about petroleum engineering, petroleum geoscience and the oil industry
- take courses in business and project management
- develop technical knowledge and network with potential employers
- undertake interactive projects and field trips
- gain eye-opening practical experience through an eight-week industry placement.
In your final year you’ll also carry out a major research project.

**Search petroleum**
adelaide.edu.au/degree-finder

* Please note: the double degree with the Bachelor of Science is only available with a double major in Geology, Geophysics and Applied Geology.
“I WAS ABLE TO LEARN WHAT POTENTIAL THE WORLD COULD OFFER. I WAS GIVEN THE SKILLS AND FOUNDATION TO PURSUE THE OPPORTUNITIES THAT MY PASSIONS WERE DRIVING ME TO EXPLORE.”

Brett Jenkin
Bachelor of Engineering (Honours)
(Petroleum and Mechanical)
SOFTWARE ENGINEERING

BACHELOR OF ENGINEERING (HONOURS) (SOFTWARE)

SATAC CODE
334891

SELECTION RANK/IB
89.15 / 33

DURATION
4 years full-time

CAMPUS
North Terrace

GUARANTEED ENTRY
80

How can you specialise?
A major is a great way to specialise and pursue topics of interest, without narrowing future career options. In the Bachelor of Engineering (Honours) (Software) you have two majors to choose from:

Interdisciplinary majors
• Defence Systems
  See page 10 for details.
• Smart Technologies
  See page 11.
Alternatively, you also have the option of undertaking an Entrepreneurship minor. See page 11 for details.

Where could it take you?
You could develop software for mobile robots and driverless cars. You might create and test video gaming experiences. Perhaps you'll design apps or entirely new smart technologies. In the software engineering landscape, you can code your own adventure.

International memberships
In addition to full professional accreditation (see page 13), this degree also provides the necessary academic requirements for membership of the global Institute of Electrical and Electronic Engineers, and the American-based Association for Computing Machinery (ACM).

PREREQUISITES
SACE Stage 2: Mathematical Methods* and Physics
IB: Mathematics (SL grade 4 / HL grade 3) and Physics (SL grade 4 / HL grade 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

Thrive in the golden age of software
From South Australia to Silicon Valley, software engineers use problem-solving abilities and creativity to develop new technologies that change the world. Software engineers are involved in the whole computer software lifecycle. They strategise, design, build, test, code and collaborate.

Studying software engineering will prepare you to drive software solutions that enhance our future for generations to come.

What will you do?
Our Bachelor of Engineering (Honours) (Software) combines software engineering’s underlying principles with strong technical and leadership skills. You will:
• tackle real-world, open-ended and complex programming problems
• take new and refreshed courses that emphasise divergent thinking, collaborative learning and teamwork
• work with industry mentors
• pursue work experience and internship opportunities with some of the world’s best-known companies
• gain eye-opening practical experience through an eight-week industry placement.

adelaide.edu.au/degree-finder
Search software
ENGINEERING AT THE UNIVERSITY OF ADELAIDE OFFERS ENORMOUS BREADTH, CHOICE AND FLEXIBILITY TO PREPARE FOR DYNAMIC, HIGHLY-PAID CAREERS IN INDUSTRY GROWTH AREAS.
COMPUTER SCIENCE/IT

* Academic Ranking of World Universities 2018
** Graduate Careers Australia 2015 Report
The digital revolution has created an information age of infinite opportunity for those who study computer science and IT.

Computer science is the discipline of writing software, or ‘code’. It underpins modern society and makes possible the many technological systems we rely on. Computer scientists work on software that pushes the limits of human endeavour in areas such as disease treatment, weather prediction, Internet security, international finance and space exploration.

Our computer science degrees will give you insights into complex computer systems and opportunities to apply software-writing and problem-solving skills to a range of real-world scenarios.

Study with the top university in Australia for Computer Science and Engineering

The University of Adelaide is ranked 43 in the world for Computer Science and Engineering and is number one in Australia*. You’ll learn from world-renowned academic staff and be highly sought-after by employers.

Flexible degrees to suit your interests

You can tailor your computer science studies towards a particular career path, with majors offered in Artificial Intelligence; Computer Science; Cybersecurity; Data Science; Distributed Systems and Networking.

Honours

An honours year provides a deeper understanding of your specialisation, demonstrates a commitment to further learning, and prepares you for postgraduate studies (should you wish to pursue them).

In computer science, honours will be available to you if you perform at a consistently high level. It’s taken as a one-year program of additional study after completing the bachelor degree.

Full accreditation and global recognition

Both the Bachelor of Computer Science and Bachelor of Computer Science (Advanced) are accredited by the Australian Computer Society. They also provide the academic requirements for membership of the Institute of Electrical and Electronic Engineers and the American Association for Computing Machinery. Consequently, each qualification’s quality is internationally recognised. Upon graduation, you’ll be perfectly placed to pursue lucrative opportunities at home and abroad. *Academic Ranking of World Universities 2018.

“STUDYING AT ADELAIDE HAS GIVEN ME THE OPPORTUNITY TO WORK WITH INTERNATIONALLY-RECOGNISED RESEARCHERS ON EXCITING PROJECTS AS PART OF A WORLD-CLASS EDUCATION. THE UNIVERSITY’S INDUSTRY CONNECTIONS HELPED ME SECURE A JOB WITH MICROSOFT IN SILICON VALLEY WHERE I WILL APPLY MY SKILLS TO HELP IMPROVE SPEECH RECOGNITION.”

William Gale
Applied Scientist, Microsoft
BACHELOR OF COMPUTER SCIENCE

Program the future
Ready to take your place in the technology revolution?
Our Bachelor of Computer Science features artificial intelligence and machine learning courses not available anywhere else in South Australia. It’s taught by world-class researchers and teachers within a faculty ranked 43 in the world for Computer Science and Engineering*.

How can you specialise?
Taking a major is a great way to pursue a topic of particular interest and further enhance your future career options in that area. In the Bachelor of Computer Science you have five majors to choose from:

Discipline-focused majors

• Artificial Intelligence
  In this major—taught by world-leading AI researchers in the areas of robotic vision and machine learning—you’ll learn how to design, develop and analyse software systems to perform tasks requiring human-level intelligence, such as driving cars and recognising and responding to images.

• Computer Science
  This major allows you to take a flexible elective program across all areas of computer science.

• Cybersecurity
  Our Cybersecurity major gives you advanced skills in the technologies, processes and practices that protect networks, data and software systems from attack and unauthorised access. You’ll learn from industry specialists and world-leading researchers.

• Data Science
  In this major you’ll learn how to apply cutting-edge data analysis techniques—such as machine and deep learning—to large sets of data, equipping you to help solve problems across health, education, science, engineering and business.

• Distributed Systems and Networking
  This major enables you to develop enhanced skills in the design, development and analysis of large-scale distributed software systems, including parallel, distributed, mobile and cloud-based environments. Alternatively, you can choose a flexible major program with a little bit of everything—from gaming and graphics, to computer vision and software engineering.

Where could it take you?
You could design robots or collective virtual-reality spaces. You might work at Google as a software engineer. Perhaps you’ll legally break into systems as a white hat hacker to test their security. As technology continues to transform the jobs market, your computer science expertise will be highly sought-after by employers. Previous graduates have successfully secured roles with technology giants Microsoft, Google and IBM.

* Academic Ranking of World Universities 2018

BACHELOR OF COMPUTER SCIENCE (ADVANCED)

Decode grand challenges
Our Bachelor of Computer Science (Advanced) is a distinctive degree for high-achieving students who want to tackle global questions in computer science and information technology.

The program is taught by world-class researchers and teachers within a faculty ranked 43 in the world for Computer Science and Engineering*. It features artificial intelligence and machine learning courses not available anywhere else in South Australia.

What will you do?
You will apply your skills to real-world challenges through self-directed learning and practical projects. Depending on your chosen major, you will:

• explore self-driving cars, robotic vision, machine learning and image recognition
• learn how to protect networks, data and software systems from attack and unlawful access
• apply cutting-edge data analysis techniques—such as machine and deep learning—to large sets of data
• design, make and study large-scale distributed software systems, including parallel, mobile and cloud-based environments.

We also set up opportunities within the program for displaying your talents to future employers.

You’ll need to maintain a high grade point average throughout your studies to remain in this highly competitive degree.

How can you specialise?
You’ll have all the same major options as listed for the Bachelor of Computer Science.

PREREQUISITES
SACE Stage 2: Mathematical Methods*
IB: Mathematics (SL grade 4 / HL grade 3)
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

SATAC CODE
3H4111
SELECTION RANK/IB
66.8 / 24
DURATION
3 years full-time
CAMPUS
North Terrace
GUARANTEED ENTRY
80

PREREQUISITES
SACE Stage 2: Mathematical Methods*
IB: Mathematics (SL grade 4 / HL grade 3)
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

SATAC CODE
324681
SELECTION RANK/IB
95.3 / 37
DURATION
3 years full-time
CAMPUS
North Terrace
GUARANTEED ENTRY
95

Search computer science

adelaide.edu.au/degree-finder
Where could it take you?

With advanced technology skills, you’ll work on solving complex, real-world problems in our society. You could come up with multi-cloud solutions to tackle future security issues. You might develop a revolutionary algorithm. Perhaps you’ll program nanorobots that reverse aging or design the first unquestionably true artificial intelligence.

As technology continues to transform the jobs market, your computer science expertise will be highly sought-after by employers. Previous graduates have successfully secured roles with technology giants Microsoft, Google and Atlassian.

*Academic Ranking of World Universities 2018

OUR COMPUTER SCIENCE DEGREES WILL GIVE YOU OPPORTUNITIES TO APPLY SOFTWARE-WRITING AND PROBLEM-SOLVING SKILLS TO A RANGE OF REAL-WORLD SCENARIOS.
MATHEMATICAL SCIENCES

7 DOUBLE DEGREE COMBINATIONS AVAILABLE

80 GUARANTEED ENTRY RANKING

$60K GRADUATE MEDIAN STARTING SALARY*

* Graduate Careers Australia 2015 Report
A degree in mathematical sciences will teach you the universal language required to describe, model and understand our world, and prepare you for careers in numerous industries—from communications, defence and engineering to finance, health and manufacturing.

At the University of Adelaide, our mathematical sciences degrees provide valuable training in rigour and logical thinking. Our graduates are highly regarded for their creativity, problem-solving abilities and research skills, and pursue successful careers across a range of industries. You can study mathematical theories and practical applications of mathematics in an applied mathematics specialisation. You could delve into abstract theories that underpin modern science and technology via a pure mathematics program. Or you could specialise in statistics and learn to collect, analyse and model data to solve real-world problems.

Whichever path you follow you’ll learn from prominent academic staff at the forefront of the latest research and industry trends. The Australian Research Council’s 2015 Excellence in Research for Australia evaluation recognised our mathematics research as ‘above’ or ‘well above’ world standard.

Guaranteed entry selection rank 80
All our mathematical sciences degrees offer guaranteed entry. In the case of the Bachelor of Mathematical Sciences and Bachelor of Mathematical and Computer Sciences, for example, if you meet their prerequisites and achieve a selection rank of 80 or above*—including any adjustment factors (such as bonus points) if eligible—you’re in!

For more details visit adelaide.edu.au and search guaranteed entry.

Flexible degrees to suit your interests
If your interests span more than one area of study you may like to consider a double or concurrent degree. Combining two areas of study will give you a diverse academic experience and broaden your career opportunities. Double and concurrent degree combinations allow you to count designated courses from both disciplines towards each degree, thereby reducing the overall time taken to complete them.

You can study the Bachelor of Mathematical and Computer Sciences with a range of engineering degrees as double degree options, in addition to teaching, finance and law. For a full list of double and concurrent degrees, visit adelaide.edu.au/degree-finder

Honours
An honours year provides a deeper understanding of your specialisation, demonstrates a commitment to further learning, and prepares you for postgraduate studies.

In mathematical sciences, honours will be available to you if you perform at a consistently high level. It’s taken as a one-year program of additional study after completing the bachelor degree.

"I'M ENJOYING MY TIME AT UNIVERSITY AND I THOROUGHLY ENJOY THE CONTENT AND THE WORK I DO. EACH COURSE LEADS VERY SMOOTHLY INTO THE NEXT AND THERE IS AN OVERALL LINKAGE BETWEEN MANY DIFFERENT MATHEMATICAL COURSES AND IDEAS IN THE DEGREE."

Liam Stoldt
Bachelor of Mathematical Sciences (Advanced)

* Please note, the selection rank requirement for Bachelor of Mathematical and Computer Sciences is less than 80.
BACHELOR OF MATHEMATICAL SCIENCES

SATA CODE 324421
SELECTION RANK/IB 90.8 / 34
DURATION 3 years full-time
CAMPUS North Terrace
GUARANTEED ENTRY 80

PREREQUISITES
SACE Stage 2: Mathematical Methods* and Specialist Mathematics.
IB: Mathematics (HL grade 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

adelaide.edu.au/degree-finder
Search mathematical sciences

A calculated career move
Mathematics is both a logical and creative pursuit. It’s about curiosity, challenge, perseverance and passion.
Millions of industries around the world depend on mathematical scientists. They analyse and interpret patterns, predict and model outcomes, solve problems and drive human progress.

What will you do?
The University of Adelaide is the only South Australian university offering you breadth and depth in the vital area of mathematical sciences. You will:
• learn from award-winning researchers and teachers in state-of-the-art facilities
• build fundamental statistical and mathematical knowledge
• hone your creativity, rigour, logical thinking, professionalism and research skills
• delve into abstract theories that underpin modern science
• create, collect, analyse and model data.

How can you specialise?
Taking a major is a great way to pursue a topic of particular interest and further enhance your future career options in that area. In the Bachelor of Mathematical Sciences you have three majors to choose from:

Discipline-focused majors
• Applied Mathematics
  In this major you’ll study mathematical theories and work on projects that apply mathematics to solve real-world problems.
• Pure Mathematics
  In our Pure Mathematics major you’ll study mathematics in its purest form, delving into the abstract theories—built by logical deduction—that underpin modern science and technology.
• Statistics
  In this major you’ll focus on the creation, collection, modelling and analysis of data to draw conclusions, inform decision-making, solve problems and direct business development.

Where could it take you?
You could crunch numbers for business start-ups as a data scientist or work on modelling to predict the weather. You might be an actuary, applying probability and statistics to insurance and banking. Perhaps you’ll design digital games or pursue rocket science.

"MY EXPERIENCE STUDYING AT THE UNIVERSITY OF ADELAIDE HAS BEEN ENJOYABLE. THE COURSEWORK IS OFTEN CHALLENGING, BUT OVERCOMING THESE CHALLENGES MAKES THE EXPERIENCE MORE REWARDING."

John Davey
Bachelor of Mathematical Sciences (Advanced)
**BACHELOR OF MATHEMATICAL SCIENCES (ADVANCED)**

SATAC CODE 324691

SELECTION RANK / IB 98.85 / 44

DURATION 3 years full-time

CAMPUS North Terrace

GUARANTEED ENTRY 95

PREREQUISITES

SACE Stage 2: Mathematical Methods* and Specialist Mathematics.

IB: Mathematics (HL grade 3).

* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

**Differentiate yourself**

Want to drive progress through mathematics? Our Bachelor of Mathematical Sciences (Advanced) is a degree for highly capable students who are passionate about maths and want to excel.

**What will you do?**

Alongside mathematical and statistical expertise, our advanced degree places a strong emphasis on research skills. You will:

- work with award-winning academics and researchers in state-of-the-art facilities
- access special programs designed for high-achieving students
- gain valuable exposure to mathematical sciences research culture
- take three Advanced Mathematical Perspectives courses.

You’ll need to maintain a GPA of 5.0 throughout your studies to remain in this highly competitive degree.

**How can you specialise?**

You’ll have all the same major options as listed for the Bachelor of Mathematical Sciences.

**Where could it take you?**

You will emerge with enhanced skills for either higher studies or expert roles in your chosen career. You could be a defence scientist or economic researcher. You might enter the growing field of gaming design and performance analysis. Perhaps you’ll figure out the mathematical model behind a scientific breakthrough or even win the Fields Medal.

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**BACHELOR OF MATHEMATICAL AND COMPUTER SCIENCES**

SATAC CODE 314541

SELECTION RANK / IB 75.85 / 27

DURATION 3 years full-time

CAMPUS North Terrace

GUARANTEED ENTRY 80

PREREQUISITES

SACE Stage 2: Mathematical Methods*

IB: Mathematics (SL grade 4 / HL grade 3)

* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

**Multiply your expertise**

Enjoy mathematical challenges? Want to apply your skills to computer-based problems? Maths and computer science is a powerful combination. In an increasingly technological age, pairings like these are only becoming more valuable for a wide variety of careers.

**What will you do?**

Our Bachelor of Mathematical and Computer Sciences is a flexible degree. A program adviser will work with you to develop a study program tailored to your interests and career goals. You will:

- learn from world-class researchers and teachers in state-of-the-art facilities
- build fundamental statistical and mathematical knowledge
- explore complex computer systems and theories
- hone your creativity, rigour, logical thinking, professionalism and research skills
- pursue diverse electives—from business classes to social science programs.

**How can you specialise?**

You’ll have all the same major options as listed for the Bachelor of Mathematical Sciences–Applied Mathematics, Pure Mathematics and Statistics–plus:

- **Computer Science**
  In this major you’ll learn how to create computer-based solutions to information management and processing issues affecting all industries and commerce, and across the science, entertainment and public sectors.

**Where could it take you?**

You could decode messages and breach security systems as a cryptoanalyst. You might apply linear algebra in the design of virtual reality software. Perhaps you’ll develop theorems as an academic or land a job at a major firm in Silicon Valley.
DOUBLE DEGREES

BACHELOR OF MATHEMATICAL AND COMPUTER SCIENCES

SATAC CODE: Various – search Degree Finder
SELECTION RANK/IB: Various – search Degree Finder
DURATION: Various – search Degree Finder
CAMPUS: North Terrace
GUARANTEED ENTRY: 80

PREREQUISITES:

adelaide.edu.au/degree-finder
Search mathematical + computer sciences

Available combinations include:
• Bachelor of Engineering (Honours) (Chemical) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Civil) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Electrical and Electronic) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Environmental) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Mechanical) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Engineering (Honours) (Mining) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Mathematical and Computer Sciences with Bachelor of Laws
• Bachelor of Mathematical and Computer Sciences with Bachelor of Finance
• Bachelor of Teaching (Middle) with Bachelor of Mathematical and Computer Sciences
• Bachelor of Teaching (Secondary) with Bachelor of Mathematical and Computer Sciences

RELATED DEGREES

BACHELOR OF SCIENCE (SPACE SCIENCE AND ASTROPHYSICS)

SATAC CODE: 324101
SELECTION RANK/IB: 912 / 39
DURATION: 3 years full-time (or part-time equivalent)
CAMPUS: North Terrace
GUARANTEED ENTRY: 75

PREREQUISITES:

SACE Stage 2: Mathematical Methods*, Physics and Specialist Mathematics.
IB: Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

adelaide.edu.au/degree-finder
Search astrophysics

Unravel the mysteries of space and discover the fundamental processes that define our universe and our planet. Astronomy is an ancient yet dynamically modern science, with new discoveries taking place every year. This is the number one degree in South Australia for Astronomical and Space Sciences research*, and has a 90% student-satisfaction ranking.^

* 2015 Excellence in Research for Australia assessment
^ Student Experience Survey Overall Experience Satisfaction Level 2013-2016

BACHELOR OF SCIENCE IN HIGH PERFORMANCE COMPUTATIONAL PHYSICS (HONOURS)

SATAC CODE: 324171
SELECTION RANK/IB: 80 / 29
DURATION: 5 years full-time (or part-time equivalent)
CAMPUS: North Terrace
GUARANTEED ENTRY: 90

PREREQUISITES:

SACE Stage 2: Mathematical Methods*, Physics and Specialist Mathematics.
IB: Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

adelaide.edu.au/degree-finder
Search high + physics

This degree will introduce you to the sophisticated high-performance computing techniques required to solve high-level problems in theoretical, computational and mathematical physics. You’ll develop the skills to program parallel supercomputers using state-of-the-art computer languages, and gain the necessary mathematical and computational skills to solve challenging problems at the forefront of physics.

BACHELOR OF ENGINEERING (HONOURS) AND BACHELOR OF ARTS

SATAC CODE: Various – search Degree Finder
SELECTION RANK/IB: Various – search Degree Finder
DURATION: 5 years full-time (or part-time equivalent)
CAMPUS: North Terrace
GUARANTEED ENTRY: 80

PREREQUISITES: Various – search Degree Finder

adelaide.edu.au/degree-finder
Search engineering + arts

You can pair the Bachelor of Arts with the following Bachelor of Engineering (Honours) specialisations:
• Chemical
• Civil
• Environmental
• Electrical and Electronic
• Mechanical.
SEIZE THE OPEN DAY

SUN 18 AUG 2019
9AM–4PM

adelaide.edu.au/openday
Students with strong interests in more than one area of study may wish to consider a double or combined degree. For a comprehensive list of available degrees, visit [www.adelaide.edu.au/degree-finder](http://www.adelaide.edu.au/degree-finder).

**Architecture, Law, Business and Economics**
- Bachelor of Accounting
- Bachelor of Accounting and Corporate Finance
- Bachelor of Architectural Design
- Bachelor of Business Management
- Bachelor of Business Management and Accounting
- Bachelor of Business (Global)
- Bachelor of Commerce
- Bachelor of Corporate Finance
- Bachelor of Economics
- Bachelor of Economics (Advanced)
- Bachelor of Finance
- Bachelor of Innovation and Entrepreneurship
- Bachelor of International Business
- Bachelor of Laws
- Bachelor of Marketing
- Bachelor of Project Management
- Diploma in Business

**Arts**
- Bachelor of Arts
- Bachelor of Arts (Advanced)
- Bachelor of Creative Arts
- Bachelor of Criminology
- Bachelor of Environmental Policy and Management
- Bachelor of International Development
- Bachelor of International Relations
- Bachelor of Languages
- Bachelor of Liberal Arts and Sciences
- Bachelor of Media
- Bachelor of Music
- Bachelor of Music (Advanced)
- Bachelor of Music Theatre
- Bachelor of Peace and Conflict Studies
- Bachelor of Philosophy, Politics and Economics
- Bachelor of Social Sciences
- Bachelor of Sociology
- Bachelor of Teaching (Middle) with Bachelor of Arts

**Engineering, Computer and Mathematical Sciences**
- Bachelor of Computer Science
- Bachelor of Computer Science (Advanced)
- Bachelor of Engineering (Honours) (Architectural and Structural)
- Bachelor of Engineering (Honours) (Chemical)
- Bachelor of Engineering (Honours) (Civil)
- Bachelor of Engineering (Honours) (Electrical and Electronic)
- Bachelor of Engineering (Honours) (Environmental)
- Bachelor of Engineering (Honours) (Mechanical)
- Bachelor of Engineering (Honours) (Mining)
- Bachelor of Engineering (Honours) (Petroleum) (Petroleum) with majors
- Bachelor of Engineering (Honours) (Software)
- Bachelor of Engineering (Honours) – Flexible Entry

**Health**
- Bachelor of Dental Surgery
- Bachelor of Health and Medical Sciences
- Bachelor of Health and Medical Sciences (Advanced)
- Bachelor of Medicine and Bachelor of Surgery
- Bachelor of Nursing
- Bachelor of Oral Health
- Bachelor of Psychological Science
- Bachelor of Psychology (Advanced)/Honours

**Sciences**
- Bachelor of Agricultural Sciences
- Bachelor of Applied Biology
- Bachelor of Food and Nutrition Science
- Bachelor of Science
- Bachelor of Science (Advanced)
- Bachelor of Science (Animal Science)
- Bachelor of Science (Animal Behaviour)
- Bachelor of Science (Biomedical Science)
- Bachelor of Science (Biotechnology)
- Bachelor of Science (Ecotourism)
- Bachelor of Science (High Performance Computational Physics) (Honours)
- Bachelor of Science (Marine Biology)
- Bachelor of Sciences (Mineral Geoscience)
- Bachelor of Science (Space Science and Astrophysics)
- Bachelor of Science (Veterinary Bioscience)
- Bachelor of Science (Wildlife Conservation Biology)
- Bachelor of Science and Entrepreneurship
- Bachelor of Viticulture and Oenology
How to apply
Applications to University of Adelaide undergraduate programs are made online via SATAC: satac.edu.au
The application closing date for 2020 entry is 30 September 2019. Bachelor of Medicine and Bachelor of Surgery and Bachelor of Dental Surgery applicants should refer to the UCAT website for information on the University Clinical Aptitude Test (UCAT) including application and test dates: ucat.edu.au/ucat-anz/
International students should refer to: international.adelaide.edu.au/apply

Entry pathways
There are many pathways applicants can take to apply to the University of Adelaide, including SACE, International Baccalaureate (IB), STAT, TAFE; preparatory programs, foundation study and more.
To find out more about the available pathways, visit adelaide.edu.au/study and select Entry Pathways from the menu.

Fees and costs
In 2019, student contributions for Commonwealth supported students studying an equivalent full-time study load were as follows.

**Band 1:**
Humanities, behavioural sciences, social studies, foreign languages, visual and performing arts, education, nursing, clinical psychology; …… $6,566

**Band 2:**
Computing, built environment, allied health, other health, engineering, surveying, agriculture, science, mathematics, statistics; …… $9,359

**Band 3:**
Law, dentistry, medicine, veterinary science, accounting, administration, economics, commerce; …… $10,958

These annual fees are indicative only as actual charges are determined at the course level based on the area of study. Fees may increase in 2020.

**HECS Higher Education Loan**
This program, known as HECS-HELP, assists eligible students to pay their student contribution. Further information is available at: www_studyassist_gov_au

Scholarships
The University of Adelaide has a range of scholarships available to students from a variety of backgrounds and academic levels.
Comprehensive information about scholarships, and how to apply, can be obtained by contacting us (refer below for details) or visiting the scholarships website: adelaide.edu.au/scholarships

**Student services and amenities fee**
Students are charged an annual student services and amenities fee (SSAF) to assist with the funding of student services and amenities at the University. In 2019, the SSAF amount for full-time students was $503, and for part-time students it was $227. Fees may increase in 2019. Eligible students may defer this fee to an SA-HELP loan.
For further information about the SSAF and SA-HELP visit: adelaide.edu.au/student/finance and select Other Fees and Charges.

**Additional costs**
Students may be required to pay for specialist equipment, reading materials, etc. Students are advised not to purchase any equipment until they receive their faculty/school handbook, available during orientation.
For more information on other program-related fees and charges, visit adelaide.edu.au/student/finance and select Other Fees and Charges.

**Bonus points**
SATAC centrally administer a South Australian Universities Bonus Scheme. The two schemes are the SA Universities Equity Scheme and the SA Language, Literacy and Mathematics Bonus Scheme.
For more details, please visit adelaide.edu.au and search Bonus Points.

**Degree intake**
Many undergraduate degrees will allow students to begin study in February or July. Please refer to individual degrees on Degree Finder (www.adelaide.edu.au/degree-finder) to check whether midyear entry is available.
Where Degree Finder states ‘subject to availability’ applicants should contact Ask Adelaide (refer below for details) to check whether midyear entry is available.

**Deferring your studies**
Most undergraduate degrees can be deferred for up to two years. Please refer to specific degrees for exceptions.

**English language requirements for international students**
All international students undertaking an Australian year 12 program are required to achieve a Pass grade or above in one of the approved English as a Second Language or English language subjects. If an applicant attempts, but does not pass, the English language subject then alternative options, such as an acceptable English language proficiency test result, may be arranged.
Details of recognised subjects and recognised tests and requirements are available by visiting international.adelaide.edu.au/apply, selecting Admissions Information from the menu, then English Language Requirements.
Successful completion of the International Baccalaureate (IB) diploma meets the English language requirements of the University of Adelaide.

**Permanent residency**
International students who have studied an Australian year 12 program or the IB and expect to be granted Australian permanent residency before the commencement of their university study must contact the International Office.
To contact the International Office for more information, visit international.adelaide.edu.au, select About Us from the menu, then International Office and Enquire Now.

**Accommodation**
The University understands that finding the right accommodation is important to successful study. For accommodation options and costs please visit: adelaide.edu.au/accommodation

**More information**
Answer your questions using our online Knowledge Base or our helpful staff can respond via email to your enquiries.
Please see back cover for contact details.