Undergraduate

2019
ENGINEERING, COMPUTER AND MATHEMATICAL SCIENCES

adelaide.edu.au
Produced 110 Rhodes Scholars
Member of Group of Eight*
Ranked in top 1% of universities worldwide
Associated with 5 Nobel Laureates

*Go8
Why the University of Adelaide?

With a degree from one of the world’s top universities, students are prepared to be tomorrow’s leaders.

University of Adelaide graduates are highly regarded and internationally recognised. Students learn from academics who are global leaders in their field.

Adelaide has a proud tradition that instils confidence in our students. We are Australia’s third oldest university and have a history of excellence in education spanning more than 140 years.

We are distinguished by an emphasis on equality and by our focus on delivering outstanding research for the benefit of society. The University of Adelaide has played a role in many of the world’s important discoveries and advancements, with our alumni having contributed significantly to the educational, political and social arenas of their day.

University of Adelaide students are motivated to achieve their best and are supported by an inspiring educational community committed to helping them.
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 and reinvented our degrees to offer students unique learning experiences across a breadth of disciplines and create graduates that are 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 2017

Flexible programs to suit your interests

We understand your interests can grow and evolve as you learn, so we offer a range of disciplines. Students have the flexibility to choose from key disciplines across engineering, computer science, and mathematics, and to study across a range of majors (listed within each degree) including: medical technologies, smart technologies, defence systems and renewable energy.

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.
Gain international experience as part of your degree

Our relationships with highly-ranked universities around the world provide opportunities for students to travel and study abroad through a range of global learning experiences. 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 to see the world, diversify your studies, and add an edge to your CV.

Graduate attributes for careers of the future

Our graduates are leaders who meet the highest professional standards in their fields and are equipped with the following sought-after attributes:

- Understanding of the scientific principles that underpin modern practice
- Skills in mathematical analysis and modelling
- Outstanding communication and leadership skills
- Creative, analytical, and critical thinking skills
- Ability to understand, analyse, plan, and design sophisticated systems
- Skills to deal with uncertainty, manage risk, and make decisions in complex environments.

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 provides a range of services, and preparation programs that are designed to support 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.
State-of-the-art facilities
Our six-star green star engineering faculty hosts state-of-the-art, purpose-built teaching and learning facilities among the best in the country.

Students have access to one of the largest 3D printers of its kind in the Southern Hemisphere and are supported by 24/7 computer suites equipped with the latest discipline-specific software. Our high technology, practical learning environment boasts a variety of top facilities including: acoustic test chambers, laser diagnostic and electron microscopy equipment, a bioprocessing facility, and custom-built laboratories and workshops.

Ingenuity – showcasing tomorrow’s technology leaders
A celebration of student achievement and launching pad for tomorrow’s technology leaders, Ingenuity is the largest South Australian exhibition of its kind. Displaying interactive student works spanning disciplines of engineering, computer and mathematical sciences, students have the chance to network with key industry players and government representatives.

They also learn valuable communication and presentation skills and showcase their work to over 5000 people, made up of industry representatives, primary and secondary schools as well as the general public. Visit: ecms.adelaide.edu.au/ingenuity

Be part of a community
We prepare students for successful, long-term careers through a range of professional development, networking, and extra-curricular opportunities. These programs focus on employability, leadership skills, and entrepreneurship and include programs to encourage and support female students in the engineering, computer and mathematical sciences fields.

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

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 a range of programs and events including design challenges and school outreach programs. Learn more: 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. Learn more: robogals.org

Adelaide University Solar Racing Team (AUSRT)
The University of Adelaide Solar Racing Team is a collection of students and staff who compete in the Bridgestone World Solar Challenge every two years. Learn more: ausrt.com

FIT UNI INTO LIFE
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.
Tuesday 23 October

INGENIETY

2018

9.30am – 3.30pm
Adelaide Convention Centre

South Australia’s biggest engineering, computer and mathematical sciences student expo

ecms.adelaide.edu.au/ingenuity
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 graduate work, and provides in-depth knowledge of what 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.

HENRY HARCH

Qualification Bachelor of Engineering (Civil and Structural)

Role Project Manager, currently employed with KBR embedded in Queensland Urban Utilities

Why Civil Engineering? Because the engineering course at Adelaide will allow you to see how engineering projects have a significant environmental, social and economic impact on the community.

Any advice? The University of Adelaide is not just a place where you do your classes and leave, use it as an opportunity to also be involved in the social and cultural elements of the university.
**STUDY OPTIONS**

See below the range of study options in Engineering, Computer or Mathematical Sciences at The University of Adelaide. These are designed to give students the breadth and flexibility needed to pursue a specialisation of interest whilst not locking you 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) (Chemical)</td>
<td>Medical Technologies</td>
<td>Humanitarian</td>
<td>Mathematical Methods*, Specialist Mathematics and Chemistry.</td>
</tr>
<tr>
<td>Engineering (Honours) (Civil)</td>
<td>Smart Technologies</td>
<td>Humanitarian</td>
<td>Mathematical Methods* and 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 and one of Chemistry or Physics.</td>
</tr>
<tr>
<td>Engineering (Honours) (Electrical and Electronic)</td>
<td>Medical Technologies</td>
<td>Humanitarian</td>
<td>Mathematical Methods*, Specialist Mathematics and Physics.</td>
</tr>
<tr>
<td>Engineering (Honours) (Mechanical)</td>
<td>Chemical Engineering</td>
<td>Humanitarian</td>
<td>Mathematical Methods* and Physics plus one of Specialist Mathematics or Chemistry.</td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum)</td>
<td>Mechanical Engineering</td>
<td>Humanitarian</td>
<td>Mathematical Methods* and Physics.</td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum) – majors</td>
<td>Civil Engineering</td>
<td>Humanitarian</td>
<td>Mathematical Methods* and Physics 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>
<td>Defence Systems</td>
<td>Entrepreneurship</td>
<td>Mathematical Methods*.</td>
</tr>
<tr>
<td>Engineering (Honours) – Engineering Pathway</td>
<td></td>
<td></td>
<td>Mathematical Methods*.</td>
</tr>
<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>Specialist Mathematics.</td>
</tr>
<tr>
<td>Mathematical and Computer Sciences</td>
<td></td>
<td></td>
<td>Mathematical Methods*.</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Computer Science</td>
<td></td>
<td>Mathematical Methods*.</td>
</tr>
<tr>
<td>Computer Science (Advanced)</td>
<td>Artificial Intelligence</td>
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<td>Data Science</td>
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<td></td>
<td>Cybersecurity</td>
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<td></td>
<td>Distributed Systems and Networking</td>
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<td></td>
</tr>
</tbody>
</table>

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

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.

Non- school leavers/ those applying with VET qualifications or STAT results: tertiary preparation programs, bridging courses or alternative pathways may be available for applicants who have not completed prerequisites.
A new way into a top engineering degree

Do you have a selection rank of 70 or above?
Did you successfully complete Mathematical Methods or equivalent?

You can still study at Adelaide! We want to ensure everyone with a passion for engineering can pursue it. Students who have not successfully completed the prerequisites to directly enter an engineering degree at Adelaide can still study with us in a supportive environment.

This option is designed specifically for students who have not successfully completed the prerequisite needed for direct entry into engineering at Adelaide or did not receive a selection rank of 80 or above.

How it works?
Apply for the Bachelor of Engineering (Honours) – Engineering Pathway via SATAC:

Ensure you have Mathematical Methods or equivalent.

Choose Bachelor of Engineering (Honours) – Engineering Pathway as your first preference.

Achieve a selection rank of 70 or above.

Received an offer? Accept and commence the engineering pathway.

Guaranteed transfer into chosen engineering degree.

* A summer course/diectives will be required to catch up on prerequisites
* Existing flexible option ensuring students study engineering from the start
* see page 14 for more information

Don’t have Mathematical Methods?
You can still study engineering at Adelaide! Contact us or visit the engineering pathways website for information about completing these prerequisites. For more information: www.adelaide.edu.au/mathslearning/bridging/

Support
All engineering pathway students will receive support in choosing courses to ensure they transition successfully into their chosen engineering field.

First year maths help
We offer help to first year maths students as a drop-in service every weekday 10am-4pm. Tutors will be available during these times to answer your questions and provide guidance at no cost to the students.

Maths Learning Centre
Our Maths Learning Centre exists to help all students at all year levels at the University of Adelaide succeed in learning and using maths relating to their coursework. For more information visit: www.adelaide.edu.au/mathslearning
Want to study engineering but unsure about which degree to choose?

Our flexible entry option is designed specifically for students who want to be an engineer but aren’t sure what type of engineering degree to study.

This one-year option introduces and explores a variety of engineering disciplines in a flexible first year of study without adding additional time to the overall engineering degree.

Offering a first-hand view of engineering at Adelaide including an ‘introduction to engineering’ course enables students to have a more informed choice going forward in their engineering career.

This is not an award from which students will graduate, but rather an entry point into engineering at the University of Adelaide.

Students will transfer into a named Bachelor of Engineering (Honours) single, double or combined degree at the completion of the academic year.
The new engineering degree structure allows students the opportunity to major in one of a range of interdisciplinary themes alongside their core engineering study area. With majors selected to reflect future employment trends, students will develop the skills to prepare themselves as leaders of tomorrow’s STEM industry.

*Majors cannot be undertaken with a double degree

**Defence Systems – Driving improvements for the defence industry**

With South Australia dubbed the defence state and a number of large defence companies now in operation, this major provides students with great opportunities to drive and support the defence industry. Following a $200 billion investment Australia’s defence capability, the defence systems future is looking strong for engineering.

The defence sector needs highly-skilled engineers, computer scientists and mathematicians to deliver some of the largest and most complex Australian projects. There are a range of engineering careers in the defence industry 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 where they will gain experience working with defence companies in South Australia. This provides opportunities to develop final-year projects that collaborate with industry in various defence areas.

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

- Civil Engineering (see p16)
- Electrical and Electronic Engineering (see p20)
- Environmental Engineering (see p18)
- Mechanical Engineering (see p22)
- Software Engineering (see p25)

**Medical Technologies – Delivering solutions for better healthcare**

Technology plays a crucial role in the medical industry and has been instrumental in some of history’s medical breakthroughs. With ageing populations, global health challenges and the need for more advanced medical technology, this discipline is at the forefront of life-changing solutions for millions of people around the world.

From medical imaging to artificial organs and bionic limbs, this major offers students the opportunity to learn about the human body and develop technologies that will enhance and sustain our lives in the future.

Students specialising in Medical Technologies can study courses related to muscular skeletal, neurolung function, and medical instrumentation where they are given first-hand experience with health experts. This will develop the skills to choose a medical area of interest for the final-year honours project, building a real-life medical technologies solution.
The health industry in South Australia is booming and the need for engineers is greater in today's society than ever before.

The Medical Technologies major is offered in the following engineering degrees:
- Electrical and Electronic Engineering (see p20)
- Mechanical Engineering (see p22)

**Smart Technologies – Enhancing our quality of life**

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 where they will gain first-hand experience working with technology companies in South Australia. They will further hone their skills through the final-year honours project, building a real-life smart technologies 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 p18)
- Mechanical Engineering (see p22)
- Software Engineering (see p25)

**Renewable Energy – Discovering global energy solutions**

The development of 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 priority on many government agendas.

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 providing first-hand experience with energy experts in South Australia. This will develop the skills needed for the final-year honours project where a real-world renewable energy solution is developed.

The Renewable Energy 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 p18)
- Mechanical Engineering (see p22)
- Mining Engineering (see p19)

**Engineering Minors**

Minors are designed to offer an extra area of interest allowing students to develop baseline core subject knowledge they can apply in the workforce.

* Minors can be taken with any single or double degree, however not with a major.

**Entrepreneurship**

Take the technical knowledge from the degree and create ventures in areas from large corporations, to small businesses, the not-for-profit sector, and community organisations through an Entrepreneurship minor.

All technology advances in the past decade were once an idea that is now a reality through entrepreneurs. Students learn the processes, risks, rewards, motivations and societal impacts of innovation and entrepreneurship within 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 p18)
- Mechanical Engineering (see p22)
- Mining Engineering (see p19)
- Software Engineering (see p25)

**Humanitarian**

Learn how to work in emergency and humanitarian fields while having a positive global impact on developing populations through the Humanitarian Engineering minor. 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 p18)
- Mechanical Engineering (see p22)
- Mining Engineering (see p19)
ENGINEERING

* Graduate Careers Australia 2015 Report
With exciting new majors, engineering at the University of Adelaide offers enormous breadth, choice and flexibility to pursue your area of interest and prepare for careers of the future.

Our courses focus on industry growth areas and prepare graduates for exciting, highly-paid global careers.

Taking an idea and turning it into reality to enhance life is at the heart of engineering. Engineers apply specialist skills in mathematics, science, technology and design to create innovative and sustainable structures, systems, devices, machines, materials and processes that solve some of the world’s most complex challenges.

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

**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 150 for Engineering/Technology and Computer Sciences. Our academics are internationally renowned and connected with industry.

**Guaranteed Entry Selection Rank**

Students who meet the prerequisites and achieve a Selection Rank of 80 or above—including bonus any adjustment factors (such as bonus points) if eligible—are in! This straightforward process takes the hassle out of entering university.

For more details visit [www.adelaide.edu.au](http://www.adelaide.edu.au) and search Guaranteed Entry.

**Flexible programs to suit your interests**

Our exciting new interdisciplinary majors offer flexibility and choice across a range of study areas. Students can tailor their studies to focus on areas of interest and to prepare for a variety of career options.

If you’re not sure which area of engineering to study, choose our flexible entry option which allows students to explore different engineering disciplines before specialising in a particular area.

Double and combined degrees enable students to explore disciplines including arts, finance, science, and mathematical and computer sciences alongside their engineering studies. Students graduate with two qualifications and broad career possibilities. For a full list of double and combined degrees visit [www.adelaide.edu.au/degree-finder](http://www.adelaide.edu.au/degree-finder).

While double degrees allow students to gain two qualifications, a full study load means majors cannot be taken in addition.

Discipline-specific majors (see relevant course page)

Interdisciplinary majors (see p10-11)

**Real-world experience**

Our comprehensive curriculum allows students to practice real engineering through a foundation of theory and hands-on experience from the first year.

Students apply knowledge, develop a solid career portfolio, and build connections with prospective employers via a range of practical projects including field trips, placements, internships, networking events, and study abroad opportunities.

All engineering students complete an eight week practical industry placement where they gain experience working on real engineering projects and develop technical and leadership skills sought after by employers.

**Honours**

An honours year provides a deeper understanding of a specialisation, demonstrates a commitment to further learning, and prepares students for postgraduate studies. Our embedded honours engineering degrees include design and build components.

**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 2017**

**“THROUGHOUT MY TIME AT UNIVERSITY, HELP WAS ALWAYS ACCESSIBLE. IT HAS BEEN A PLEASURE FOR ME TO LEARN FROM DIFFERENT PEOPLE AND GET VARIOUS OPINIONS. UNIVERSITY HAS DEFINITELY BEEN THE BEST TIME OF MY LIFE.”**

Dharshana Navaratnam Bachelor of Engineering (Honours) (Petroleum)
The Bachelor of Engineering (Honours) – Engineering Pathway is designed specifically for students who haven’t successfully completed the prerequisite high school specialist mathematics, physics or chemistry courses, or who have not met the selection rank required for their degree. It enables entry into engineering at Adelaide, and allows a simple transfer to the engineering degree of choice.

Students undertake the required subject prerequisites as part of their first year while simultaneously beginning engineering courses. Then, following satisfactory completion of these prerequisites, they’re transferred into their chosen engineering degree.

Faculty staff assist students with choosing their initial courses to ensure a successful transition.

Credit for studies completed will be maximised if students transfer into a named degree matching the stream electives completed. Students will receive advice on which electives to choose to maximise credit in each of the disciplines.

It includes six common foundation courses, and two electives in an engineering stream of interest. Upon their completion, students can transfer seamlessly into their engineering degree of choice at the end of the academic year.

Streams are available in the engineering disciplines of: mechanical; electrical and electronic; environmental; civil; mining; architectural; chemical; petroleum; pharmaceutical; and software engineering.

Students must transfer into a named Bachelor of Engineering (Honours) single, double or combined degree at the completion of the academic year.

* Exceptions apply to the architectural, chemical, petroleum, pharmaceutical and software streams. Students in these streams will be transferred into their chosen degree, but will receive less than 24 units of credit towards their degree (with a minimum of 12 units of credit).
BACHELOR OF ENGINEERING (HONOURS) (CHEMICAL)

Majors are available across the following areas:

**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.

**Renewable Energy**
This major is for students interested in the production of renewable energy products. Graduates acquire the knowledge and skills required to improve and design ground-breaking processes that are technically, economically, and environmentally sound.

**Minors**
Completion of a minor introduces students to an aligned field in which their technical knowledge can be applied, and enables them to explore career opportunities in the area.

Minors are available in:
- Entrepreneurship
- Humanitarian.

See page 11 for details.

**Career readiness**
The Bachelor of Engineering (Honours) (Chemical) prepares graduates for diverse careers with national and global organisations across a variety of dynamic settings. Employment opportunities exist across a vast range of industries, including food and beverage, oil and gas, materials, environmental and technology, while many chemical engineers also go on to manage companies, start their own businesses or work in consulting.

*Academic Ranking of World Universities 2017

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**COMBINED AND DOUBLE DEGREES**

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 Engineering

BACHELOR OF ENGINEERING (HONOURS) (CIVIL)

SATA CODE 334211
SELECTION RANK/IB new program for 2019
DURATION 4 years full-time (or part-time equivalent)
CAMPUS North Terrace campus
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 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

Civil engineering is an exciting field involving the design, construction and maintenance of the infrastructure underpinning modern life. Civil engineers ensure this infrastructure—such as bridges, roads, tunnels, railways, dams, airports and water channels—meets society’s needs in a sustainable way.

The Bachelor of Engineering (Honours) (Civil) has a strong focus on design, and exposes students to new technologies and sustainable construction practices.

Students develop real-world professional skills and networks coupled with the high level of teaching provided. The University of Adelaide is ranked 36 in the world* for level of teaching provided. The University of Adelaide is ranked 36 in the world* for level of teaching provided.

The Bachelor of Engineering (Honours) (Civil) provides graduates with the technical knowledge and skills for rewarding careers across a range of specialist areas. The degree is highly regarded by employers, and demand for civil and structural engineers is expected to grow.

Civil and structural engineers work in a wide variety of sectors, including: consulting engineering, construction, civil engineering, transport, communications infrastructure, and project management.

Civil and structural engineers are involved in managing construction infrastructure, operations and sites. Students study construction processes and practices, including optimisation of scheduling, labour and plant, and sustainable construction practices.

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

Structural Engineering
Structural engineers understand the forces and materials, including composites and polymers. Students 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.

The Water Systems Engineering major covers the physical principles of water (both when stationary and flowing), hydrology, and factors causing floods.

Minors
Completion of a minor introduces students to an aligned field in which their technical knowledge can be applied, and enables them to explore career opportunities in the area. Minors are available in:
- Entrepreneurship
- Humanitarian

See page 11 for details.

Career readiness
The Bachelor of Engineering (Honours) (Civil) provides graduates with the technical knowledge and skills for rewarding careers across a range of specialist areas. The degree is highly regarded by employers, and demand for civil and structural engineers is expected to grow.

Civil and structural engineers work in a wide variety of sectors, including: consulting engineering, construction, civil engineering, transport, communications infrastructure, and project management.

COMBINED AND DOUBLE DEGREES

SATA CODE 334221
SELECTION RANK/IB new program for 2019
DURATION 5 years full-time (or part-time equivalent)
CAMPUS North Terrace campus
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.

Available combinations include:
- Bachelor of Engineering (Honours) (Civil) and Bachelor of Arts
- Bachelor of Engineering (Honours) (Civil) with Bachelor of Finance
- Bachelor of Engineering (Honours) (Civil) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Civil) with Bachelor of Science
BACHELOR OF ENGINEERING (HONOURS) (ARCHITECTURAL AND STRUCTURAL)

The Bachelor of Engineering (Architectural and Structural) integrates the disciplines of architectural design and engineering, equipping graduates to create innovative, high-technology building and infrastructure solutions. The degree is unique to the University of Adelaide.

Students undertake practical projects and work on real-world simulations. They learn in state-of-the-art facilities; and frequently collaborate with industry, including on a major final-year design project.

Graduates emerge with advanced skills across structural and geotechnical engineering, construction and operation systems, with an emphasis on sustainability and architectural integrity. They also have the option of going on to study the Master of Architecture and becoming a qualified architect.

Career readiness
Graduates are in high demand. Employment in the architectural engineering field is predicted to rise significantly as the need for sustainable building increases.

With skills across both architecture and structural engineering, graduates are well placed to take advantage of this.

Opportunities include working with architectural firms and building companies, and across the defence, energy, and information technology industries.

“I’M CURRENTLY WORKING AS AN UNDERGRADUATE CIVIL ENGINEER AT BMD URBAN, WHICH HAS BEEN INCREDIBLE AND MADE ME REALISE THIS IS THE INDUSTRY I WANT TO BE IN. I’VE HAD THE OPPORTUNITY TO WORK ON-SITE AND IN THE OFFICE, SO I’VE SEEN BOTH SIDES OF THE BUSINESS.”

Luisa Panuccio
Bachelor of Engineering (Civil and Architectural)
Civil, Environmental and Mining Engineering (continued)

**BACHELOR OF ENGINEERING (HONOURS) (ENVIRONMENTAL)**

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<th>SATAC CODE</th>
<th>SELECTION RANK/IB new program for 2019</th>
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<tr>
<td>334191</td>
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</tbody>
</table>

**DURATION**

4 years full-time (or part time equivalent)

**CAMPUS**

North Terrace campus

**GUARANTEED ENTRY**

80

**PREREQUISITES**

SACE Stage 2: Mathematical Methods*, Specialist Mathematics, one of Chemistry or Physics.

IB: Mathematics (HL grade 3) & Physics (SL grade 4/HL grade 3) or Mathematics (SL grade 4/HL grade 3)

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

Interested in engineering and care about our planet’s future? Look no further than environmental engineering at Adelaide.

The degree provides students with the skills to design integrated solutions to some of the planet’s most challenging problems. Students learn about the connections between infrastructure, environment, society, and economy in the developed and developing world, as well as the quantitative skills that enable them to develop integrated solutions to complex problems associated with water, energy, food, pollution, waste, and natural hazards.

Led by award-winning academics who are global experts in their field, students are nurtured in a team environment and apply their knowledge to real-world projects based on industry needs. Recent projects have covered: urban water, integrated river management, development issues in the Mekong region of South East Asia, strategic infrastructure planning, and environmental protection.

**Majors**

A major is a great way to specialise and pursue topics of interest without narrowing future career options. All graduates of this degree—irrespective of their major—qualify as environmental engineers and can pursue a career in any specialist field within the profession.

Majors are available across the following areas:

- Defence Systems
- Renewable Energy
- Smart Technologies

**Defence Systems**

South Australia is Australia’s defence state and home to many important defence investments and industries. Students learn and apply the integrated systems approach at the core of environmental engineering—valuable when dealing with defence systems—and study courses across environmental impact assessment, circular economies and strategic planning.

**Renewable Energy**

The field of renewable energy is rapidly changing, as the industry works to secure the world’s energy future in a sustainable way. This major, students are exposed to a broad range of topics and develop skills and knowledge to work with current and future energy infrastructure.

**Smart Technologies**

This major focuses on smart technologies used in the planning, design, management and monitoring of integrated social, environmental and technological systems. It covers computer modelling of environmental and infrastructure systems, smart water systems, and integrated/strategic planning.

**Minors**

Completion of a minor introduces students to an aligned field in which their technical knowledge can be applied, and enables them to explore career opportunities in the area. Minors are available in the following:

- Entrepreneurship
- Humanitarian

See page 11 for details.

**Career readiness**

The employment outlook for environmental engineers is excellent. Global concern is rising about water resources, energy, food security, pollution, waste, natural hazards and climate change. New industries are emerging in response to these challenges, focused on developing sustainable solutions.

The Bachelor of Engineering (Honours) (Environmental) prepares graduates for careers across a range of fields, including:

- water resources; energy; recycling; pollution; natural hazards; transport; natural resources; infrastructure; defence; and information technology.

Opportunities are likely within multinational companies, engineering consulting firms, government departments, water authorities, and research organisations.

**COMBINED AND DOUBLE DEGREES**

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<th>SATAC CODE</th>
<th>SELECTION RANK/IB new program for 2019</th>
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<td>334201</td>
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</tbody>
</table>

**DURATION**

5 years full-time (or part time equivalent)

**CAMPUS**

North Terrace campus

**GUARANTEED ENTRY**

80

**PREREQUISITES**

SACE Stage 2: Mathematical Methods*, Physics and 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) & Mathematics (SL grade 4/HL grade 3)

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

Available combinations include:

- Bachelor of Engineering (Honours) (Environmental) and Bachelor of Arts
- Bachelor of Engineering (Honours) (Environmental) with Bachelor of Finance
- Bachelor of Engineering (Honours) (Environmental) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Environmental) with Bachelor of Science.
BACHELOR OF ENGINEERING (HONOURS) (MINING)

SATAC CODE
334851

SELECTION RANK/IB
99.4 / 42

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

CAMPUS
North Terrace campus

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 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

adelaide.edu.au/degree-finder
Search mining

Mining engineers are involved in all aspects of the extraction and processing of ores from the earth that contain valuable minerals or metals. The reinvigoration of traditional mining plus new developments such as deep sea mining and space mining means there is an exciting future ahead. Local or interstate, national or global, the mining boom is here!
The Bachelor of Engineering (Honours) (Mining) is the only mining engineering degree offered in South Australia and is delivered by one of the top 20 Mineral and Mining Schools worldwide*. Extensive real-world experience is provided. Students take part in field trips to mining locations in Australia and overseas and can complete a semester at another mining university.
They work closely with industry experts to develop the necessary professional skills and networks for a successful career. Exposure to industry practices is also provided in the University of Adelaide’s world-class laboratories.
Students graduate as professionally accredited engineers with mining as their engineering speciality.
*QS World University ranking by subject 2017.

Majors
A major is a great way to specialise and pursue topics of interest without narrowing future career options. All graduates of this degree—irrespective of their major—qualify as mining engineers, and can pursue a career in any specialist field within the profession.
Majors are available across the following areas:

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. The major includes courses in artificial intelligence, machine learning, big data analytics, autonomous systems and robotics.

Minors
Completion of a minor introduces students to an aligned field in which their technical knowledge can be applied, and enables them to explore career opportunities in the area. Minors are available in the following:

• Entrepreneurship
• Humanitarian
See page 11 for details.

Career readiness
Mining engineering graduates have the highest employment rate of all engineering specialties at 92 per cent**, and industry forecasts indicate significant job growth—locally, nationally and globally—into the future.

Mining engineers are involved at every stage of a mining operation from the point of discovery to the closing of the mine. Graduates find opportunities as geotechnical engineers, environmental engineers, drilling and blast engineers, ventilation engineers, mine planning engineers and geostatisticians.
Our recent graduates have been employed by BHP Billiton, Hillgrove Resources, and Rio Tinto.

** Graduate Careers Australia

SOME SATAC CODES HAVE BEEN UPDATED. PLEASE CHECK DEGREE FINDER FOR THE LATEST INFORMATION.

adelaide.edu.au/degree-finder
ELECTRICAL AND ELECTRONIC ENGINEERING

BACHELOR OF ENGINEERING (HONOURS) (ELECTRICAL AND ELECTRONIC)

SATAC CODE 314011
SELECTION RANK/IB 83.75 / 30
DURATION 4 years full-time (or part-time equivalent)
CAMPUS North Terrace campus
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 3).
* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.

Electrical and electronic engineering affects every aspect of modern life; and studying the discipline at the University of Adelaide — ranked 44 in the world for Electrical and Electronic Engineering*—equips students for a range of global career options at the forefront of technological change.

The Bachelor of Engineering (Honours) (Electrical and Electronic) is practical from the outset. Students learn among state-of-the-art facilities, including 3D prototyping, autonomous vehicles and electric machines labs. They’re guided by internationally renowned academics, all of whom undertake practical work and research in the field. Students also collaborate with industry partners on exciting and innovative projects.

Students can also undertake an internship to apply their skills and work directly with potential employers.

Majors
A major is a great way to specialise and pursue topics of interest without narrowing future career options. All graduates of this degree—irrespective of their major—qualify as electrical and electronic engineers, and can pursue careers across computer architecture, computer networks and digital microelectronics.

Majors are available across the following areas:

Communication Systems
Communication systems engineers design and manage complex hardware and software, such as mobile, Internet and broadcast networks. In this major, students develop skills to work in industries including defence, mobile phone 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. Graduates can 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, students learn from industry experts and can undertake international study opportunities, such as a cybersecurity tour of Estonia.

Defence Systems
South Australia is Australia’s defence state and home to many important defence investments and industries, including shipbuilding and the over-the-horizon radar project. Electrical and electronic engineers are critical to the future of Australia’s defence capabilities, and this major is ideal for launching a career in the field.

Medical Technologies
The Medical Technologies major offers a broad choice of study across physiology and the health sciences. It covers the use of electronic sensors and information processing in medical research, diagnosis and treatment. Students learn from experts in the field, work on practical projects, and use technologies such as implantable devices, medical instrumentation, and medical imaging.

Renewable Energy
The Renewable Energy major exposes students to a broad range of engineering and regulatory topics, and prepares them for careers in a rapidly changing industry. Students develop the skills and knowledge required to work with current and future energy infrastructure. Courses cover electric power systems and renewable energy technologies.

Smart Technologies
The cross-disciplinary Smart Technologies major prepares students for careers in the fascinating field of artificial intelligence, and provides a broader perspective than direct artificial intelligence or electronics majors. Courses cover physical electronic devices and virtual sensor signal analysis, algorithms, and artificial intelligence systems.

Minors
Completion of a minor introduces students to an aligned field in which their technical knowledge can be applied, and enables them to explore career opportunities in the area. Minors are available in the following:

• Entrepreneurship
• Humanitarian
See page 11 for details.

Career readiness
Now and into the future, Australia and the world will need electrical and electronic engineers to work in all areas of industry—from mining and power distribution, to infrastructure, computing, medical technology, defence, communications systems, e-commerce and advanced manufacturing.

The Bachelor of Engineering (Honours) (Electrical and Electronic) provides students with the technical knowledge and skills for rewarding careers across this vast vocational range, and is highly regarded by employers. Graduates have secured roles with leading technology companies worldwide—including Google—and with companies across the defence, energy and electronics sectors.

* Academic Ranking of World Universities 2017

COMBINED AND DOUBLE DEGREES

SATAC CODE 314911
SELECTION RANK/IB 80.35 / 31
DURATION 5 years full-time (or part-time equivalent)
CAMPUS North Terrace campus
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), Physics (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.

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) and Bachelor of Science*

* Please note the combined degree with the Bachelor of Science is only available with a Physics major.
MECHANICAL ENGINEERING

BACHELOR OF ENGINEERING (HONOURS) (MECHANICAL)

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

CAMPUS
North Terrace campus

GUARANTEED ENTRY
SELECTION RANK/IB
84.75 / 31

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.

From defence systems to robotics, sports to outer space, mechanical engineering—the creation and design of things that move—offers a wide variety of exciting career options. The Bachelor of Engineering (Honours) (Mechanical) provides a strong foundation in core mechanical engineering disciplines, with a focus on developing creativity and design skills. Students gain hands-on experience in state-of-the-art facilities. They develop advanced capabilities in the use of new technologies and materials and apply these skills in industry-led final-year projects. Students work directly with industry experts throughout their degree, with a range of internships and placements offered. These give students the opportunity to hone practical, real-world skills and start developing a professional portfolio.

Majors

Aerospace Engineering
Aerospace engineers design and launch equipment to help explore our solar system and beyond, and their future prospects are equally vast. This major prepares graduates for opportunities in the field through courses in aeronautical engineering, space vehicle design and aerospace structures.

Defence Systems
This major focuses on complex systems engineering and equips graduates for careers working with a range of advanced defence technologies.

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 fact. This major prepares students to take these quantum leaps, by studying the components that make up complex mechatronic and robotic systems.

Medical Technologies
This major prepares students for cutting-edge design work in the rehabilitation and assistive medical devices fields. Courses involve working with artificial joints, heart valves and bone fixation devices.

Sports Engineering
This major prepares graduates to enter and excel in the rapidly-growing international 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.

Renewable Energy
This major focuses on the design of systems that generate and consume energy efficiently and sustainably including tidal, wind, and solar thermal generation.

Minors
Completion of a minor introduces students to an aligned field in which their technical knowledge can be applied. This enables students to explore career opportunities in these areas.

Minors are available in the following:
• Entrepreneurship
• Humanitarian
See page 11 for details.

Career readiness
Our graduates are leaders with sought-after skills and attributes. Industry demand for our graduates is high, and will continue to grow. Opportunities exist in many fields, including combustion, noise and vibration control, energy technology, control systems, robotics, quality management, bioengineering, aeronautics, space, fluid mechanics, water supply, mining, manufacturing, production planning, maintenance planning, consumer product design, pollution control, and failure analysis.

Our graduates have gone on to work with a range of organisations including the European Space Station, the Australian Institute of Sport, Boeing, BAE Systems, Santos, SAAB, and AGL.

COMBINED AND DOUBLE DEGREES

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

CAMPUS
North Terrace campus

GUARANTEED ENTRY
SELECTION RANK/IB
87.55 / 32

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), Physics (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.

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

Search mechanical
Engineering at Adelaide focuses on industry growth areas and prepares graduates for exciting, highly-paid global careers.
From working in the field to the office, graduates can expect careers with oil, gas and energy companies, and government agencies in a diverse range of occupations. This includes roles such as: geoscientists; reservoir drilling and production engineers; managers; commercial analysts; and in business development roles. Graduates may also find employment in other industries requiring strong analytical, business, and communication skills.

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

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<th>SATAC CODE</th>
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<th>CAMPUS</th>
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<td>new program for 2019</td>
<td>5 years full-time (or part time equivalent)</td>
<td>North Terrace campus</td>
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**PREREQUISITES**

SACE Stage 2: Mathematical Methods*, Physics, one of Specialist Mathematics or Chemistry. If: 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) & 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 allows students to undertake a major as part of their study in a five-year program.

**Majors**

A major is a great way to specialise and pursue topics of interest without narrowing future career options. All graduates of this degree—irrespective of their major—qualify as petroleum engineers, and can pursue a career in any specialist field within the profession. Majors are available across the following areas:

- **Chemical Engineering**
  - Chemical engineering is a key engineering discipline that sustains and improves a range of industries, including petroleum refining and petrochemicals. Students develop skills in the design, development, and operation of process systems for the extraction, transformation and recovery of materials.
- **Civil Engineering**
  - The Civil Engineering major develops students' skills in the planning, design, construction and maintenance of infrastructure, in an environmentally sustainable manner.
- **Mechanical Engineering**
  - Students develop knowledge of, and skills in technology and scientific principles involved in the design, development and manufacture of products, processes, machines, and moving mechanical engineering systems.
- **Mining Engineering**
  - Students develop skills in the extraction and processing of valuable mineral and metal ores from the earth. Combining petroleum engineering with mining can provide graduates with a strong competitive edge and increased career options.

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

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**BACHELOR OF ENGINEERING (HONOURS) (PETROLEUM) WITHOUT MAJORS**

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<th>SATAC CODE</th>
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<th>GUARANTEED ENTRY</th>
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<td>80 / 28</td>
<td>4 years full-time (or part time equivalent)</td>
<td>North Terrace campus</td>
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</table>

**PREREQUISITES**

SACE Stage 2: Mathematical Methods*, Physics plus one of Specialist Mathematics or Chemistry. If: 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) & Mathematics (SL grade 4/HL grade 3).

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

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Petroleum engineers are more important than ever, with global demand for energy—and the multitude of everyday products that come from petroleum—continuing to increase. These engineers help sustain our way of life, providing oil and gas in an efficient, safe and environmentally responsible way.

The petroleum engineering field is one of the highest paid internationally, and there is significant demand for highly-qualified graduates. It combines courses in petroleum geoscience and management with interactive projects and field trips to provide deep discipline knowledge and transferrable business skills.

The degree is developed and taught by industry-trained academics through the University of Adelaide’s Australian School of Petroleum. The only one of its kind in Australia, the school is also the leading academic centre for petroleum research and education in South-East Asia.

**Career readiness**

The Bachelor of Engineering (Honours) (Petroleum) is delivered by experts with strong regional, national, and international industry links. This enables graduates to develop networks with potential employers throughout their degree, providing a valuable professional head start when embarking on highly-paid, exciting careers all over the world.

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

BACHELOR OF ENGINEERING (HONOURS) (SOFTWARE)

SATAC CODE
324311

SELECTION RANK/IB
80.1 / 28

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

CAMPUS
North Terrace campus

GUARANTEED ENTRY
80

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.

From South Australia to Silicon Valley, software engineers are developing new technologies that change the world. Graduates in the exciting field will enhance our future for generations to come. The Bachelor of Engineering (Honours) (Software) provides a mix of creativity and problem-solving. Students study topics covering coding, quality assurance, scheduling, economics and project management, and draw on knowledge from many other disciplines to create software applications. This refreshed degree includes several new courses providing high-level skills in, and understanding of, software engineering while emphasising divergent thinking, collaborative learning, and teamwork. Students gain experience designing software to solve real-world problems, working with industry mentors and accessing work experience and internship opportunities with some of world’s most renowned companies.

Majors
A major is a great way to specialise and pursue topics of interest, without narrowing future career options. Majors are available across the following areas:

Defence Systems
South Australia is Australia’s defence state and home to many important defence investments and industries, including shipbuilding and the over-the-horizon radar project. Software engineers are critical to defence capabilities, and this major is ideal for launching a career in the field.

Smart Technologies
The cross-disciplinary Smart Technologies major prepares students for careers in the fascinating field of artificial intelligence, and provides a broader perspective than direct artificial intelligence or electronics majors. Courses cover physical electronic devices and virtual sensor signal analysis, algorithms, and artificial intelligence systems.

Minor
Completion of a minor introduces students to an aligned field in which their technical knowledge can be applied, and enables them to explore career opportunities in the area. The Bachelor of Engineering (Honours) (Software) offers a minor in Entrepreneurship. See page 11 for details.

Career readiness
Demand for software engineers is extremely strong—there currently aren’t enough graduates to meet industry needs. And University of Adelaide graduates are particularly keenly sought for their advanced technical, teamwork and leadership skills. Exciting opportunities exist across a diverse range of industries, including with organisations like: Saab Australia; Google Australia; Atlassian; BAE Systems; Raytheon; Microsoft; Maptek; ElmTek; Defence Science and Technology Group; and other government agencies.
COMPUTER SCIENCE/IT

43rd IN THE WORLD FOR COMPUTER SCIENCE**

$53K GRADUATE MEDIAN STARTING SALARY*

INTERNATIONALLY RECOGNISED

* Graduate Careers Australia 2015 Report.
** Academic Ranking of World Universities 2017.
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 today. 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 provide students with insights into complex computer systems and opportunities to apply software writing and problem-solving skills to a range of real-world scenarios.

**Study at South Australia’s top computer science school**

The University of Adelaide is ranked 43** in the world for computer science and engineering and is the the highest-ranked computer science/engineering school in South Australia. Students learn from world renowned academic staff and become highly sought after graduates.

**Academic Ranking of World Universities 2017.**

**Flexible programs to suit your interests**

Students can tailor 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 a specialisation, demonstrates a commitment to further learning, and prepares students for postgraduate studies. Honours in computer science is available to high-performing students and is taken as a one-year program of additional study after the completion of the bachelor degree.

**Global recognition**

The Bachelor of Computer Science, Bachelor of Computer Science (Advanced) and Bachelor of Engineering (Honours) (Software) are accredited by the Australian Computer Society and provide the academic requirements for membership of the Institute of Electrical and Electronic Engineers and the American Association for Computing Machinery.

“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

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

**Cybersecurity**
The Cybersecurity major gives graduates advanced skills in the technologies, processes and practices that protect networks, data and software systems from attack and unauthorised access. Students learn from industry specialists and world-leading researchers.

**Data Science**
Data science involves the application of cutting-edge data analysis techniques—such as machine and deep learning—to large sets of data, helping solve problems across health, education, science, engineering and business.

**Distributed Systems and Networking**
Students develop skills in the design, development and analysis of large-scale distributed software systems, including parallel, distributed, mobile and cloud-based environments.

**Career readiness**
Global demand for computer software is extremely high, and employment across all areas of computer science is expected to continue growing steadily.

Bachelor of Computer Science graduates are well equipped to take advantage of this opportunity. Highly skilled and adaptable, they’re able to pursue information management and processing opportunities throughout industry and commerce, and across the science, entertainment and public sectors.

A growing number of companies seek our graduates’ expertise. Previous graduates have gained employment with world leaders Microsoft, Google and IBM.

**Professional accreditation**
The Bachelor of Computer Science is accredited by the Australian Computer Society (ACS). It also provides the necessary academic requirements for membership of the Institute of Electrical and Electronic Engineers (IEEE), and the American-based Association for Computing Machinery (ACM).

*Academic Ranking of World Universities 2017*

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BACHELOR OF COMPUTER SCIENCE (ADVANCED)

**SACE CODE**
314111

**SELECTION RANK/IB**
673 / 24

**DURATION**
3 years full-time (or part time equivalent)

**CAMPUS**
North Terrace campus

**GUARANTEED ENTRY**
80

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

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Advances in computing are leading to exciting, life changing developments in every area of society. And no matter how technology transforms the future jobs market, computer science expertise will remain crucial. From South Australia to Silicon Valley, computer scientists will enhance our world for generations to come. Reflecting this diversity of careers, the Bachelor of Computer Science is itself highly flexible. Students can tailor their studies towards a particular area of interest across a wide variety of topics, including: computer vision; graphics; artificial intelligence; gaming; database and information systems management; network management; cybersecurity; education; and software engineering.

The degree is developed and taught by world-class researchers and teachers. It’s offered within a faculty ranked 43 in the world for Computer Science and Engineering*. Courses in artificial intelligence and machine learning cannot be found in any other South Australian university. Graduates are well prepared to join the next generation of leaders in their field.

**Majors**
Choosing a major is a great way to pursue topics of interest without narrowing future career options.

Majors are available across the following areas:

**Artificial Intelligence**
Learn from world-leading artificial intelligence researchers in the areas of robotic vision and machine learning. In this major, students learn how to design, develop and analyse software systems to perform tasks requiring human intelligence, such as self-driving cars, robotic vision, machine learning and image recognition.
**Cybersecurity**

The Cybersecurity major gives graduates advanced skills in the technologies, processes and practices that protect networks, data and software systems from attack and unauthorised access. Students learn from industry specialists and world-leading researchers.

**Data Science**

Data science involves the application of cutting-edge data analysis techniques—such as machine and deep learning—to large sets of data, helping solve problems across health, education, science, engineering and business.

**Distributed Systems and Networking**

Students develop skills in the design, development, and analysis of large-scale distributed software systems, including parallel, distributed, mobile and cloud-based environments.

**Career readiness**

Graduates are in high demand, with a growing number of companies seeking the expertise of highly-trained computer scientists. Our graduates are well regarded by employers and have been successful in securing a wide variety of roles locally and globally, including with leading computing companies such as Microsoft, Google and Atlassian. Many rewarding career opportunities exist across: business data processing; computer programming; computer science; engineering design; financial software; games programming; graphics programming; information technology management; Internet commerce; network management; quality improvement; scientific data analysis; systems analysis; software engineering; real-time process control; and user interface programming.

**Professional accreditation**

The Bachelor of Computer Science is accredited by the Australian Computer Society (ACS). It also provides the necessary academic requirements for membership of the Institute of Electrical and Electronic Engineers (IEEE), and the American-based Association for Computing Machinery (ACM).
7 DOUBLE DEGREE COMBINATIONS AVAILABLE

80 GUARANTEED ENTRY SELECTION RANK

$60K GRADUATE MEDIAN STARTING SALARY*

* Graduate Careers Australia 2015 Report

MATHEMATICAL SCIENCES
A degree in mathematical sciences teaches the universal language required to describe, model and understand our world, and prepares graduates for careers in communications, defence, engineering, finance, health and manufacturing.

Our mathematical sciences degrees provide valuable training in rigour and logical thinking. Adelaide graduates are highly regarded for their creativity, problem solving abilities and research skills, and pursue successful careers across a range of industries.

Students can choose to study mathematical theories and practical applications of mathematics in an applied mathematics specialisation, or delve into abstract theories that underpin modern science and technology via a pure mathematics program. A statistics specialisation focuses on the collection, analysis and modelling of data to solve real-world problems.

Students learn from prominent academic staff who are at the forefront of the latest research and industry trends, with the Australian Research Council’s 2015 Excellence in Research for Australia evaluation recognising our mathematics research as ‘above’ or ‘well above’ world standard.

**Guaranteed Entry Selection Rank 80**

The Bachelor of Mathematical Sciences and Bachelor of Mathematical and Computer Sciences have Guaranteed Entry. Students who meet the prerequisites and achieve a Selection Rank of 80 or above—including any adjustment factors (such as bonus points) if eligible—are in! This straightforward process takes the hassle out of entering university. For more details visit www.adelaide.edu.au and search Guaranteed Entry.

# Please note, the selection rank requirement for Bachelor of Mathematical and Computer Sciences is less than 80.

**Flexible programs to suit your interests**

Students with interest across more than one area of study may wish to consider a double or concurrent degree. Combining two areas of study offers a diverse academic experience and can broaden career opportunities.

Double and concurrent degree combinations allow students to count designated courses from both disciplines towards each degree, thereby reducing the overall time taken to complete them.

The Bachelor of Mathematical and Computer Sciences can be studied 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 Degree Finder: www.adelaide.edu.au/degree-finder

**Honours**

An honours year provides a deeper understanding of a specialisation, demonstrates a commitment to further learning, and prepares students for postgraduate studies. Honours in mathematical sciences is available to high-performing students and is taken as a one-year program of additional study after the completion of the bachelor degree.
BACHELOR OF MATHEMATICAL SCIENCES

SACE Stage 2: Mathematical Methods* and Specialist Mathematics.

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

PREREQUISITES

adelaide.edu.au/degree-finder

Search mathematical sciences

Countless industries around the world depend on the expertise of mathematical scientists—to analyse and interpret data, predict and model outcomes, and provide information to function and excel in society. And the University of Adelaide is the only South Australian university offering breadth and depth in this vital area.

The Bachelor of Mathematical Sciences is for students seeking high-level mathematical and statistical training for careers with a variety of technology-led industries. The degree develops students’ intellectual rigour and logical thinking through a structured program covering the fundamentals of mathematics and statistics, and specialist areas of study.

Students learn from award-winning researchers and academics in state-of-the-art facilities.

Majors

Choosing a major is a great way to pursue topics of interest without narrowing future career options.

Majors are available across the following areas:

Applied Mathematics

Students study mathematical theories and work on projects that apply mathematics to solve real-world problems.

Pure Mathematics

Students of this major study mathematics in its purest form, delving into the abstract theories—built by logical deduction—that underpin modern science and technology.

Statistics

Students focus on the creation, collection, modelling and analysis of data to draw conclusions, inform decision-making, solve problems and direct business development.

Career readiness

Bachelor of Mathematical Sciences graduates have diverse skills and are highly regarded by employers. They can expect to find roles across a wide range of industries, including: consulting engineering firms; pharmaceutical and telecommunications companies; biomedical research industries and institutes; banks and insurance companies; state and federal government agencies; and research and academic organisations.

Opportunities have previously arisen at leading organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Defence Science and Technology Group (DSTG), United Water, Santos, the Bureau of Meteorology, and the Australian Bureau of Statistics.

BACHELOR OF MATHEMATICAL SCIENCES (ADVANCED)

SACE Stage 2: Mathematical Methods* and Specialist Mathematics.

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

PREREQUISITES

adelaide.edu.au/degree-finder

Search mathematical sciences

The Bachelor of Mathematical Sciences (Advanced) is for high-achieving students wishing to study mathematics and statistics while developing high-level research skills.

Students undertake a structured program of study that introduces the fundamentals of mathematics and statistics, and leads to a specialisation in at least one of three majors: Applied Mathematics, Pure Mathematics, or Statistics. The degree also provides students valuable exposure to the mathematical sciences research culture, through three exclusive Advanced Mathematical Perspectives courses.

Students must maintain a high grade point average throughout their studies in order to remain in this highly competitive degree.

Majors

Specialisations in Applied Mathematics, Pure Mathematics and Statistics provide valuable training in intellectual rigour, logical thinking and mathematical sciences.

Applied Mathematics

Students learn about mathematical theories and work on projects that apply mathematics to solve real-world problems.

Pure Mathematics

Students study mathematics in its purest form, delving into the abstract theories—built by logical deduction—that underpin modern science and technology.

Statistics

The Statistics major focuses on the creation, collection, modelling and analysis of data to draw conclusions, inform decision-making, solve problems and direct business development.
Career readiness

Bachelor of Mathematical Sciences (Advanced) graduates have diverse skills and are highly regarded by employers. They can expect to find roles across a wide range of industries, including with: consulting engineering firms; pharmaceutical and telecommunications companies; biomedical research industries and institutes; banks and insurance companies; state and federal government agencies; and research and academic organisations.

Opportunities have previously arisen at leading organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Defence Science and Technology Group (DSTG), United Water, Santos, the Bureau of Meteorology, and the Australian Bureau of Statistics.

BACHELOR OF MATHEMATICAL AND COMPUTER SCIENCES

SATAC CODE 314541
SELECTION RANK/IB 70.9 / 25
DURATION 3 years full-time (or part-time equivalent)
CAMPUS North Terrace campus
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.

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

The Bachelor of Mathematical and Computer Sciences is a flexible degree designed for students fascinated by computer-based solutions, analysing and interpreting data, and predicting and modelling outcomes to solve problems. The degree develops expertise in mathematics, statistics and computing, together with intellectual rigour and logical thinking skills.

Students work with a program advisor to develop an individual study program tailored to their specific interest areas and career goals. Core courses cover applied and pure mathematics, computer science, and statistics, with a variety of electives also offered. These are taken from areas including: business; design; engineering; finance; history; language; music; philosophy; politics; psychology; and the social sciences.

Majors

Students can specialise in Applied Mathematics, Computer Science, Pure Mathematics or Statistics.

Applied Mathematics

Students study mathematical theories and work on projects that apply mathematics to solve real-world problems.

Computer Science

This major covers computer-based solutions to information management and processing issues affecting all industries and commerce, and across the science, entertainment and public sectors.

Pure Mathematics

Students study mathematics in its purest form, delving into the abstract theories—built by logical deduction—that underpin modern science and technology.

Statistics

The Statistics major focuses on the creation, collection, modelling and analysis of data to draw conclusions, inform decision-making, solve problems and direct business development.

Career readiness

Graduates of the Bachelor of Mathematical and Computer Sciences have diverse skills and are highly regarded by employers across a wide variety of industries. These include: consulting engineering firms; pharmaceutical and telecommunications companies; biomedical research industries and institutes; banks and insurance companies; state and federal government agencies; and research and academic organisations.

Opportunities have previously arisen at leading organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Defence Science and Technology Group (DSTG), United Water, Santos, the Bureau of Meteorology and the Australian Bureau of Statistics.
Unravel the mysteries of space and discover the fundamental processes which define our universe and our planet. Astronomy is an ancient yet dynamically modern science, with new discoveries taking place every year. This is the #1 degree in South Australia for Astronomical and Space Sciences research*, and has a 90% satisfaction ranking by students.^

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

This degree introduces students to the sophisticated high-performance computing techniques required to solve high-level problems in theoretical, computational and mathematical physics. Students develop the skills to program parallel supercomputers using state-of-the-art computer languages, and gain the mathematical and computational skills necessary to solve challenging problems at the forefront of physics.
A GLIMPSE OF YOUR FUTURE

OPEN DAY SUNDAY 12 AUGUST 2018

Attend information talks to learn about studying at university and the degrees we offer. Take part in interactive activities and chat with current students and academic staff about your interests. Visit our website to find the latest information.

adelaide.edu.au/openday
Students with strong interests in more than one area of study may wish to consider a double or combined degree.

### 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

### 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

### 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)
- Bachelor of Engineering (Honours) (Petroleum) with majors
- Bachelor of Engineering (Honours) (Software)
- Bachelor of Engineering (Honours) – Flexible Entry
- Bachelor of Engineering (Honours) – Engineering Pathway
- Bachelor of Mathematical Sciences
- Bachelor of Mathematical Sciences (Advanced)
- Bachelor of Mathematical and Computer Sciences

### 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

### 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 Behaviour)
- Bachelor of Science (Animal Science)
- 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

For a comprehensive list of available degrees, visit: [www.adelaide.edu.au/degree-finder](http://www.adelaide.edu.au/degree-finder)
How to apply

Applications to University of Adelaide undergraduate programs are made online via SATAC: [www.satAC.edu.au](http://www.satAC.edu.au)

The application early closing date for 2019 entry is 28 September 2018. Bachelor of Medicine and Bachelor of Dental Surgery applicants should refer to the UMAT website for information on the Undergraduate Medicine and Health Sciences Admission Test, including application and test dates: [umat.acer.edu.au](http://umat.acer.edu.au)

International students should refer to: [www.international.adelaide.edu.au/apply](http://www.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 [www.adelaide.edu.au/study/undergraduate/entry-pathways](http://www.adelaide.edu.au/study/undergraduate/entry-pathways)

Fees and costs

In 2018, 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... $6,444

**Band 2:** computing, built environment, allied health, other health, engineering, surveying, agriculture, science, mathematics, statistics... $9,185

**Band 3:** law, dentistry, medicine, veterinary science, accounting, administration, economics, commerce......................... $10,754

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 2019.

**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](http://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: [www.adelaide.edu.au/scholarships](http://www.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 2018, the SSAF amount for full-time students was $298, and for part-time students it was $223. 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: [www.adelaide.edu.au/student/finance](http://www.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 [www.adelaide.edu.au/student/finance](http://www.adelaide.edu.au/student/finance) and select ‘Other Fees and Charges’.

**Adjustment factors**

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 [www.adelaide.edu.au/study/undergraduate/how-to-apply/bonus-points](http://www.adelaide.edu.au/study/undergraduate/how-to-apply/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](http://www.adelaide.edu.au/degree-finder) to check whether midyear entry is available. Where Degree Finder states ‘subject to availability’ applicants should contact [www.adelaide.edu.au/student/enquiries](http://www.adelaide.edu.au/student/enquiries) to check whether midyear entry is available.

Deferring your studies

All 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, tests and requirements are available by visiting [www.international.adelaide.edu.au/apply](http://www.international.adelaide.edu.au/apply)

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 Admissions Service.

To contact the International Admissions Service for more information, visit [www.international.adelaide.edu.au/enquire-now](http://www.international.adelaide.edu.au/enquire-now)

**Accommodation**

The University understands that finding the right accommodation is important to successful study. For accommodation options and costs please visit: [www.adelaide.edu.au/accommodation](http://www.adelaide.edu.au/accommodation)

**Admissions transparency**

We believe in providing clear and relevant information to help students choose the best university and degree to study. Find out more, visit [www.adelaide.edu.au/study/undergraduate/admission-transparency-data](http://www.adelaide.edu.au/study/undergraduate/admission-transparency-data)
More information

Answer your questions using our online Knowledge Base or our helpful staff can respond to your enquiries via email.