Why the University of Adelaide?

Our legacy becomes your career advantage

With a degree from a university consistently ranked in the top 1% globally and a 140 year tradition of preparing tomorrow’s leaders, students will get a global career advantage. University of Adelaide students are highly regarded and professionally recognised around the globe. Students are well prepared to take advantage of the opportunities this recognition can bring. Working closely with our world-class teaching staff, they acquire the skills, knowledge and experience to make a significant contribution in their chosen field.

Adelaide has a long and 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 ongoing 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 shaping the educational, political and social arenas of their day. With us, students are motivated to achieve their best and are supported by an inspiring educational community committed to helping them.
THE UNIVERSITY of ADELAIDE

A coalition of Australia’s leading research-intensive universities.

Associated with 5 Nobel prize winners

Produced 109 Rhodes scholars

Produced 142 Fulbright scholars

Member of the Group of Eight*

Ranked in the top 1% of universities worldwide

Produced 142 Fulbright scholars

*A coalition of Australia’s leading research-intensive universities.
The Faculty of Engineering, Computer and Mathematical Sciences (ECMS) at the University of Adelaide delivers world-class education in an environment that pursues excellence and discovery.

Through quality teaching informed by innovative research and strong industry connections, ECMS is committed to producing educated, influential leaders who are prepared for dynamic, long-term careers underpinned by imagination, innovation and collaboration.

Develop practical solutions to the world’s greatest challenges—and drive sustainable global change—with a degree in engineering, computer and mathematical sciences from the University of Adelaide.

Learn from the experts
ECMS is home to world-class institutes and centres that perform cutting edge research across many fields of endeavour. Students learn from expert and internationally renowned lecturers, who conduct research of wide-reaching relevance and impact and bring a unique authority to the teaching of degrees.

Strong links with industry partners, international universities and other external organisations, financial institutions, and government research organisations ensure the teaching content of undergraduate degrees is relevant and complementary to current industry needs.

State-of-the-art facilities
With a vibrant and progressive campus community, the faculty hosts state-of-the-art, purpose-built teaching and learning facilities that are among the best in the country. The Six Star Green Star Ingkarni Wardli building is home to ECMS and features modern, well-appointed specialist teaching and study facilities, such as: computer suites available 24/7 equipped with the latest discipline-specific software; acoustic test chambers; laser diagnostic equipment for studies in combustion, fluid mechanics and vibration; electron microscopy equipment and a bioprocessing facility; and custom-built laboratories and workshops.

World-class education
The University of Adelaide, through ECMS recently ranked in the world’s top 100 of the Times Higher Education Engineering and Technology ranking 2015-2016; the only South Australian university to do so. Learn
more about the Faculty of Engineering, Computer and Mathematical Sciences at www.ecms.adelaide.edu.au

Be part of a community
While students are expected to allocate an appropriate time commitment to their study—both formal contact hours and private study activities—they are also encouraged to take advantage of the wide range of extracurricular opportunities, initiatives and experiences available. This can complement their studies, build professional and social networks, and develop the transferable leadership, project management and teamwork skills sought after by industry.

Join like-minded peers in an active and diverse community of student clubs, associations and membership groups catering for all interests, including:

Engineers Without Borders (EWB)
Create positive change with humanitarian engineering

Developing communities need improved access to engineering skills, knowledge and appropriate technology to achieve sustained change. The EWB University of Adelaide chapter aims to raise awareness of the role of humanitarian engineering through educational programs, fundraising activities, workshops and international study tours, giving students the opportunity to develop a deeper understanding of the role engineers and designers can play in creating positive change.

Visit ewb.org.au/explore/chapters/sa/uofa to learn more.

Robogals
Celebrate diversity and inspire the next generation

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 leads robotics workshops at primary and high schools throughout the state, including rural and regional areas.

Visit robogals.org to learn more.

Adelaide University Solar Racing Team (AUSRT)
Develop sustainable vehicle technologies

What has 4m² of solar panels, weighs less than 200kg, travels 3000km and runs on less power than a toaster? Lumen II, the AUSRT’s entry in the 2017 World Solar Challenge, was designed, built and—in many cases—manufactured by students, who managed the entire complex project and competed for the first time in the international event, racing from Darwin to Adelaide.

Visit ausrt.com to learn more.

Build a bright future
From clean energy production to advances in breast cancer research—and the infinite ideas, innovations and possibilities in between—engineers, computer scientists and mathematicians have the power to influence the success of communities, cities and countries now and into the future.

In a profession that relies heavily on creativity and teamwork, women have an important role to play. Gender and skill diversity is highly valued for the benefits it brings to teams, leadership positions and the overall success of projects.

The University of Adelaide supports a range of diversity initiatives—such as networking and mentorship opportunities and inspiring speaker events—to help all students not only succeed at university, but also become active role models to ensure they are well positioned to contribute to the future advancement of their chosen field.
Students in this situation can consider applying for a degree called the Bachelor of Mathematical and Computer Sciences (page 28). This flexible degree provides the opportunity for students to build the prerequisites and/or entry score required for engineering through the successful completion of equivalent coursework and then apply to transfer into their preferred engineering degree.

Students who believe they will meet the requirements for entry into their preferred engineering degree should consider the Bachelor of Mathematical and Computer Sciences as a ‘backup’ preference, just in case things don’t go to plan.

For more information, visit www.ua.edu.au/engineering/pathways

---

**I don’t have Specialist Maths**

**STEP 1**
If you have Mathematical Methods*, consider applying for the Bachelor of Mathematical and Computer Sciences degree via SATAC.
Students without Mathematical Methods are encouraged to visit the engineering pathways website for information about building this prerequisite.

**STEP 2**
If you are offered and accept a place in the Bachelor of Mathematical and Computer Sciences, successfully complete Mathematics IM (equivalent to SACE Stage 2 Specialist Maths) in Semester 1.
Students are advised to use remaining elective options to ‘mirror’ study plan of preferred engineering degree.

**STEP 3**
Apply for midyear internal transfer* to your preferred engineering degree.

**STEP 4**
Successful transfer? Welcome to engineering!
Students are advised to successfully complete Mathematics IA in Semester 2 and Mathematics IB in summer school.

---

**I don’t have Physics**

**STEP 1**
If you have Mathematical Methods*, consider applying for the Bachelor of Mathematical and Computer Sciences degree via SATAC.
Students without Mathematical Methods are encouraged to visit the engineering pathways website for information about building this prerequisite.

**STEP 2**
If you are offered and accept a place in the Bachelor of Mathematical and Computer Sciences, successfully complete Physics courses (equivalent to SACE Stage 2 Physics) in Semesters 1 and 2.
Students are advised to use remaining elective options to ‘mirror’ study plan of preferred engineering degree.

**STEP 3**
Apply for internal transfer* to your preferred engineering degree.

**STEP 4**
Successful transfer? Welcome to engineering!
Students are advised that their degree may take longer than four years to complete.

---

**I may not get the Adelaide Approved ATAR of 80**

**STEP 1**
Apply for preferred engineering degree via SATAC and consider applying for the Bachelor of Mathematical and Computer Sciences as a ‘backup’ preference.

**STEP 2**
If you do not achieve the ATAR you may be offered and accept a place in the Bachelor of Mathematical and Computer Sciences.
Students are advised to use elective options to ‘mirror’ study plan of preferred engineering degree and to study hard to achieve a competitive grade point average (GPA).

**STEP 3**
Apply for midyear internal transfer** to your preferred engineering degree based on GPA.

**STEP 4**
Successful transfer? Welcome to engineering!

---

* If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.
** Please note that internal transfer is a competitive process, not a guaranteed pathway.
This diary snapshot is only one example of how a student may choose to schedule their university study and life. Attendance at university is less structured than time spent at high school. The hours spent on campus in lectures, tutorials, practicals or in the field—known as ‘contact hours’—depend on the program students enrol in, study mode selected (internal, external, online or flexible learning) and course choices.
## Indicative study to career pathways

<table>
<thead>
<tr>
<th>Disciplinary areas</th>
<th>Degree programs*</th>
<th>Potential career pathways</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chemical Engineering</strong></td>
<td>Bachelor of:</td>
<td>Bioprocess engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Chemical)</td>
<td>Minerals processing engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Chemical - Minerals Processing)</td>
<td>Nanotechnologist</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Chemical - Sustainable Energy)</td>
<td>Pharmaceutical engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Chemical and Pharmaceutical)</td>
<td>Process engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Researcher</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Winery engineer</td>
</tr>
<tr>
<td><strong>Civil, Environmental and Mining Engineering</strong></td>
<td>Bachelor of:</td>
<td>Architectural engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Civil and Structural)</td>
<td>Hydrologist</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Civil and Environmental)</td>
<td>Mining engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Civil, Structural and Environmental)</td>
<td>Structural engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Civil and Architectural)</td>
<td>Town planning engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Mining)</td>
<td>Water resources engineer</td>
</tr>
<tr>
<td><strong>Electrical and Electronic Engineering</strong></td>
<td>Bachelor of Engineering (Honours) (Electrical and Electronic)</td>
<td>Autonomous system engineer</td>
</tr>
<tr>
<td></td>
<td>Majors available in:</td>
<td>Instrumentation engineer</td>
</tr>
<tr>
<td></td>
<td>&gt; Autonomous Systems</td>
<td>Power system engineer</td>
</tr>
<tr>
<td></td>
<td>&gt; Biomedical Engineering</td>
<td>Power generation engineer</td>
</tr>
<tr>
<td></td>
<td>&gt; Communication Systems</td>
<td>Radio engineer</td>
</tr>
<tr>
<td></td>
<td>&gt; Computer Engineering</td>
<td>Robotics engineer</td>
</tr>
<tr>
<td></td>
<td>&gt; Renewable Energy</td>
<td>Sustainable/Renewable energy engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vibration engineer</td>
</tr>
<tr>
<td><strong>Mechanical Engineering</strong></td>
<td>Bachelor of:</td>
<td>Aerospace engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Mechanical)</td>
<td>Noise control engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Mechanical and Aerospace)</td>
<td>Robotics engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Mechanical and Sports)</td>
<td>Sports engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Mechanical and Sustainable Energy)</td>
<td>Sustainable energy engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Mechatronic)</td>
<td>Vibrations engineer</td>
</tr>
<tr>
<td><strong>Petroleum Engineering</strong></td>
<td>Bachelor of:</td>
<td>Reservoir engineer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Petroleum)</td>
<td>Field manager</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Petroleum and Chemical)**</td>
<td>Oil and gas analyst</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Petroleum, Civil and Structural)**</td>
<td>Petrophysicist</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Petroleum and Mechanical)**</td>
<td>Project manager</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Petroleum and Mining)**</td>
<td>Sales and technical support</td>
</tr>
<tr>
<td><strong>Computer Science/IT</strong></td>
<td>Bachelor of:</td>
<td>Computer programmer</td>
</tr>
<tr>
<td></td>
<td>Engineering (Honours) (Software)</td>
<td>Internet commerce specialist</td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
<td>IT manager</td>
</tr>
<tr>
<td></td>
<td>Computer Science (Advanced)</td>
<td>Network engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Software engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Systems analyst</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Web programmer</td>
</tr>
<tr>
<td><strong>Mathematical Sciences</strong></td>
<td>Bachelor of:</td>
<td>Actuary</td>
</tr>
<tr>
<td></td>
<td>Mathematical Sciences</td>
<td>Financial analyst</td>
</tr>
<tr>
<td></td>
<td>Mathematical Sciences (Advanced)</td>
<td>Market research analyst</td>
</tr>
<tr>
<td></td>
<td>Mathematical and Computer Sciences</td>
<td>Mathematician</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Meteorologist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk analyst</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Statistician</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telecommunications analyst</td>
</tr>
</tbody>
</table>

* Not all degree in the disciplinary area are relevant to all potential career pathways. For more information, please visit: www.adelaide.edu.au/degree-finder

** For potential career pathways of the combined portion of the degree, refer to the relevant discipline area in the table.
Study pathways

To ensure you understand the prerequisite requirements of your preferred degree, visit www.adelaide.edu.au/degree-finder

<table>
<thead>
<tr>
<th>Degree programs</th>
<th>Prerequisite SACE Stage 2 subjects</th>
<th>Recommended SACE Stage 2 background (assumed knowledge)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Chemical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Chemical—Minerals Processing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Chemical—Sustainable Energy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Civil and Environmental)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Civil and Structural)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Mechanical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Mechanical and Aerospace)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Mechatronic)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Mining)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) - Flexible Entry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum and Chemical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum, Civil and Structural)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum and Mechanical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Petroleum and Mining)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Civil, Structural and Environmental)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Chemical and Pharmaceutical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Civil and Architectural)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Mechanical and Sports)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Mechanical and Sustainable Energy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Electrical and Electronic)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering (Honours) (Software)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematical Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematical Sciences (Advanced)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science (Advanced)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematical and Computer Sciences</td>
<td></td>
<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 specified academic programs, whereas ‘assumed knowledge’ is a recommendation only.

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. For more information: www.ecms.adelaide.edu.au/
My time at University has vastly influenced my personal development. I’ve grown in confidence, independence and learned important life skills. Along the way I’ve also made life-long memories that I am grateful for.

Eli Tam
Bachelor of Engineering (Honours) (Mining) with Bachelor of Science
Engineers are problem solvers. With specialist skills in mathematics and sciences, engineers design and develop structures, systems, devices, machines, materials and processes to find solutions and improvements to the challenges facing society.

Engineering encompasses a broad range of fields concerned with leading edge technologies across many applications and environments. At the University of Adelaide, engineering degrees are available across the core disciplines of chemical engineering; civil, environmental and mining engineering; electrical and electronic engineering; mechanical engineering; petroleum engineering; and software engineering.

Learn from South Australia’s best engineering faculty

Our engineering degrees were recently ranked in the top 150 Academic Ranking of World Universities in Engineering/Technology and Computer Science\(^\text{\textsuperscript{\textregistered}}\). We were the only university in South Australia to make this ranking.

\(^\text{\textsuperscript{\textregistered}}\) Academic Ranking of World Universities 2016 produced by the Shanghai Jiao Tong University.

Adelaide Approved ATAR 80

All engineering degrees are Adelaide Approved; students who meet the prerequisites and achieve an 80 ATAR or above (including bonus points if eligible) are in. We’ll also provide a great alternative engineering degree if their first preference is oversubscribed. It’s simple, straightforward and takes the stress out of uni entry. For more details visit www.adelaide.edu.au and search Adelaide Approved.

Studying more than one degree

Students with strong interests in more than one area of study may wish to consider a double or combined degree. Many programs can be studied with degrees in other fields such as arts, finance, science and mathematical and computer sciences.

Combining two areas of study not only offers a more diverse academic experience at university, but also broadens potential career opportunities. Double and combined degree combinations allow students to count designated courses from both disciplines towards each degree, thereby reducing the overall time taken to complete them. For a full list of double and combined degrees, visit Degree Finder: www.adelaide.edu.au/degree-finder

Real-world experience

Our broad engineering curriculum allows students to practise real engineering through a solid foundation of both theory and hands-on experience from their first year of study. As part of their degree, all engineering students have the opportunity to apply their skills and knowledge to a minimum of 12 weeks’ practical experience outside normal class time in Australia or overseas.

Global recognition

All engineering degrees are internationally recognised and accredited by Australia’s peak professional engineering body, Engineers Australia (EA). This means our graduates qualify for professional membership of EA and can enjoy lucrative opportunities locally and abroad.

Can’t decide? Explore engineering with a flexible first year

Discover which engineering discipline is right for you with the Bachelor of Engineering (Honours) – Flexible Entry, a generic entry point into all engineering degrees at the University of Adelaide. Turn to page 21 to find out more.
Chemical Engineering

Bachelor of Engineering (Honours) (Chemical)

SATAC CODE 314161
ATAR 80.85
IB SCORES 28

CAMPUS North Terrace
DURATION 4 years full-time

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

Chemical engineering involves the systematic design, development and operation of process systems for the extraction, transformation and recovery of materials. It is a key engineering discipline, which combines knowledge of chemistry, mathematics and, increasingly, biology with engineering principles and real world economic considerations. The scale of operation varies from small to very large, and a principal feature of chemical engineering is the translation of laboratory-scale research results to large-scale commercial production.

Areas of specialisation
In addition to the Bachelor of Engineering (Honours) (Chemical), two specialisation streams are available:

Mineral Processing
Minerals processing involves the science and technology of adding value to raw mined products through the extraction of valuable minerals and their subsequent conversion into products such as iron, steel, aluminium, copper, gold and uranium. Graduates of this specialised chemical engineering degree are well equipped to offer their expertise to the mining industry.

Sustainable Energy
Graduates of this specialisation have the knowledge and skills required to improve and design ground-breaking processes that are technically, economically and environmentally sound. The degree has been designed to meet the growing demand for graduates who have the skills to apply sustainable techniques in process engineering.
This specialisation is suitable for students with an interest in mathematics and chemistry and in the design of processes to produce sustainable products for the twenty-first century.

Career readiness
Employment opportunities are available in fields such as:
> winemaking and food production
> petrochemicals
> industrial bulk chemicals industries
> plastic and rubber products industries
> power and biochemical plants
> mining and minerals processing
> environmental engineering
> semiconductors and microelectronics
> nanotechnology
> management consulting.

Bachelor of Engineering (Honours) (Chemical)
Combined and double degrees

SATAC CODE 314871
ATAR 86.45
IB SCORES 30

ADELAIDE APPROVED SCORE 80
CAMPUS North Terrace
DURATION 5 years full-time (or part-time equivalent)

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

Pharmaceutical engineering involves the systematic design, development and operation of process systems for the production of pharmaceuticals. It is a key engineering discipline, which combines knowledge of chemistry, mathematics and biology with engineering principles and real world economic considerations.

Pharmaceutical engineers contribute to the production of pharmaceuticals (e.g. antibiotics), biopharmaceuticals (e.g. therapeutic peptides), vaccines, personal care products, nutraceuticals, cosmetics, cosmeceuticals and related products.

Working in the health industry as an engineer, graduates may help to speed up delivery time of drugs to patients, make medication more affordable and more widely available, or produce new drugs to target very specific parts of the human body with fewer side effects. Further, graduates of this degree will have the flexibility to practise as chemical engineers.

Career readiness
Employment opportunities are available in fields such as:
> nanotechnology
> biotechnology
> biomedical
> food and nutrition
> cosmetics and personal products.
Civil engineers design, construct and maintain the infrastructure underpins modern standards of living, including: all types of structures, bridges, roads, tunnels, railways, dams and water distribution networks. The important role of a civil engineer is to ensure that infrastructure meets the needs of society in a sustainable manner and to enhance our quality of life.

Design is central to the program and students will encounter real world projects throughout their degree. These include the design of steel and concrete structures, foundations and water distribution networks. Students will interact with design professionals through an industry led design practice course, as well as undertake electives dealing with new and advanced topics. This combination ensures graduates are not only career ready but also exposed to the emergent technologies that will form the basis of future design practice.

Career readiness
Civil and structural engineers can follow careers in a wide range of areas including consulting engineering practices, construction companies, civil engineering service providers, multinational companies and government departments in Australia and abroad.

Bachelor of Engineering (Honours) (Civil and Structural)

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>314171</td>
<td>88.3</td>
<td>31</td>
</tr>
</tbody>
</table>

**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.

Bachelor of Engineering (Honours) (Civil and Structural) Combined and double degrees

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>314881</td>
<td>86.45</td>
<td>30</td>
</tr>
</tbody>
</table>

**PREREQUISITES**

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

IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3), or Chemistry (SL grade 4/HL grade 3), Physics (SL grade 4/HL grade 3) and Mathematics (SL grade 4/HL grade 3).

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

**ASSUMED KNOWLEDGE**

SACE Stage 2 Chemistry

Bachelor of Engineering (Honours) (Civil and Architectural)

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>324481</td>
<td>80.2</td>
<td>27</td>
</tr>
</tbody>
</table>

**PREREQUISITES**

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

IB: either Mathematics (HL grade 3), or Mathematics (SL grade 4/HL grade 3) and one of Biology, Chemistry or Physics (SL grade 4/HL grade 3).

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

Available combinations:
- Bachelor of Engineering (Honours) (Civil and Structural) and Bachelor of Arts
- Bachelor of Engineering (Honours) (Civil and Structural) with Bachelor of Finance
- Bachelor of Engineering (Honours) (Civil and Structural) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Civil and Structural) with Bachelor of Science

For more information on double and combined degrees, please visit Degree Finder: [www.adelaide.edu.au/degree-finder](http://www.adelaide.edu.au/degree-finder)

Architectural engineers design the engineering systems for some of the most innovative infrastructure in today's society. This includes the design and engineering of structural, geotechnical, construction and operation systems with an emphasis on sustainability and architectural integrity.

This degree combines civil and structural engineering with the creative design and environmental sustainability aspects from architecture. Students study the planning, design, construction and operation of engineered systems for a diverse and exciting range of career opportunities.

Career readiness
As there is increasing need and demand for sustainable buildings, architectural engineers have a unique advantage in the workplace as they can apply engineering knowledge with design skills, to engage in all aspects of a building project.

Through their interdisciplinary background, architectural engineers integrate the design of structurally sound building systems, including heating, ventilation, air-conditioning, plumbing, fire protection, electrical and lighting, with architectural design.

Architectural engineers may find employment in a wide range of areas and organisations including multinational companies, government departments, small and large manufacturers, private consulting engineering practices and the defence, energy and information technology industries.
Civil, Environmental and Mining Engineering (cont.)

Bachelor of Engineering (Honours) (Civil and Environmental)

**SACE CODE**
314181

**ATAR**
82.85

**IB SCORES**
29

**ADELAIDE APPROVED SCORE**
80

**CAMPUS**
North Terrace

**DURATION**
4 years full-time

**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.

**ASSUMED KNOWLEDGE**
SACE Stage 2 Chemistry

adelaide.edu.au/degree-finder

Civil and environmental engineers are key to developing a sustainable future for our natural and built environments. They ensure the provision and management of essential infrastructure and natural resources for our current society, whilst establishing a sustainable future for generations to come.

Civil and environmental engineers are involved in environmental impact assessment, water resources management, pollution control, waste management and the planning and designing of engineering facilities to minimise their impact on the environment.

In this degree students have a particular focus on water resources management and pollution control, two areas essential to developing a sustainable environment.

**Career readiness**

With the skills to plan, manage and assess the effects of major engineering projects on the natural and built environment, graduates will solve and manage the associated environmental problems.

In addition, graduates can find employment in a wide range of areas and organisations including multinational companies, government departments, small and large manufacturers, consulting engineering practices, mining companies and the defence, energy and information technology industries.

Bachelor of Engineering (Honours) (Civil and Environmental) Combined and double degrees

**SACE CODE**
314891

**ATAR**
88.4

**IB SCORES**
31

**ADELAIDE APPROVED SCORE**
80

**CAMPUS**
North Terrace

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

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

IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3), or Chemistry (SL grade 4/HL grade 3) and Mathematics (SL grade 4/HL grade 3).

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

**ASSUMED KNOWLEDGE**
SACE Stage 2 Chemistry

adelaide.edu.au/degree-finder

Available combinations:

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

For more information on double and combined degrees, please visit Degree Finder: www.adelaide.edu.au/degree-finder

Bachelor of Engineering (Honours) (Civil, Structural and Environmental)

**SACE CODE**
324841

**ATAR**
84.3

**IB SCORES**
30

**ADELAIDE APPROVED SCORE**
80

**CAMPUS**
North Terrace

**DURATION**
5 years full-time

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

IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3), or Chemistry (SL grade 4/HL grade 3) and Mathematics (SL grade 4/HL grade 3).

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

**ASSUMED KNOWLEDGE**
SACE Stage 2 Chemistry

adelaide.edu.au/degree-finder

Civil, Structural and Environmental Engineers offer a broad and sought after skill set with a focus on creating and enhancing our essential physical infrastructure, while maintaining a strong focus on our natural and built environments. This five-year degree combines the disciplines of civil and structural engineering with civil and environmental engineering to produce graduates with broad expertise in infrastructure design and maintenance, sustainable development and environmental impact assessment. With a focus on engineering problem-solving, design and analysis using modern, computer-based methods, the program equips graduates with a multidisciplinary skills that can be applied to a range of engineering challenges. For further information about the civil and structural engineering component of the degree, see Bachelor of Engineering (Honours) (Civil and Structural). For further information about the civil and environmental engineering component of the degree, see Bachelor of Engineering (Honours) (Civil and Environmental).

**Career readiness**

With specialist skills across two broad engineering disciplines, graduates can seek employment across a wide range of industries and organisations, including multinational companies, government departments, small and large manufacturers, construction companies, private consulting engineering practices and the defence, energy and information technology industries in Australia and abroad.
Bachelor of Engineering (Honours) (Mining)

SATAC CODE: 324401
ATAR: 80
IB SCORES: 27

ADELAIDE APPROVED SCORE: 80
CAMPUS: North Terrace
DURATION: 4 years full-time

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.

ASSUMED KNOWLEDGE
SACE Stage 2 Chemistry

Mining engineers extract and process ores from the earth that contain valuable minerals or metals. They are involved in mine planning and design, mining systems, geology and resource estimation, geotechnical and rock mechanics, mine ventilation, mining economics, management and finance, project evaluation and environmental considerations. Mining engineers also develop a strong management skill set, equipping them to lead engineers, surveyors, geologists, scientists and technicians working on a mine site/project.

This diverse program focuses on analysis and design and combines knowledge from geotechnical, civil and environmental engineering, geology, computing, mathematics and finance, preparing graduates for a broad range of careers in the resources industry.

Career readiness
Mining engineers can have highly lucrative careers. Graduates can practise as geotechnical engineers, environmental engineers, drill and blast engineers, ventilation engineers, mine planning engineers, mine managers, project engineers or as geostatisticians. A mining engineering degree and a period of directed professional experience in industry is a requirement for appointment as a First Class Mine Manager in South Australia. This fundamental degree also offers career opportunities in finance, management, consulting and in government locally and abroad.

Professional accreditation
Graduates qualify for professional membership of Engineers Australia and the Australasian Institute of Mining and Metallurgy.

Bachelor of Engineering (Honours) (Mining) Double degrees

SATAC CODE: 324441
ATAR: 80
IB SCORES: 27

ADELAIDE APPROVED SCORE: 80
CAMPUS: North Terrace
DURATION: 5 years full-time (or part-time equivalent)

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

ASSUMED KNOWLEDGE
SACE Stage 2 Chemistry

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

For more information on double and combined degrees, please visit Degree Finder: www.adelaide.edu.au/degree-finder
Electrical and Electronic Engineering

Bachelor of Engineering (Honours) (Electrical and Electronic)

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>314201</td>
<td>80.25</td>
<td>27</td>
</tr>
</tbody>
</table>

**ADELAIDE APPROVED DURATION**

<table>
<thead>
<tr>
<th>CAMPUS</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Terrace</td>
<td>4 years full-time</td>
</tr>
</tbody>
</table>

**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 engineers are responsible for the great enabling technologies of our time. They design anything that uses electricity, often working on the cutting edge of technology, using mathematics, science, software, and management skills to solve problems and put the ’smarts’ into complex systems. Electrical and electronic engineers provide the power our society needs. They design electronic and computing technologies that enable modern lives; develop the communications networks and protocols that connect people; and they work to sustain human developments through medical technology and new energy technologies. Industries grow and change over time. Today Australia needs electrical and electronic engineers in the mining and power distribution industries; tomorrow they may be needed to support financial computing services, or to develop the technology for advanced manufacturing. Whatever the future holds, electrical and electronic engineers will be at the forefront of technological change.

This degree is highly regarded and graduates have secured important roles in many growing fields such as industrial automation, renewable energy technologies, defence technologies, radar and remote sensing, information security and telecommunications.

Employment opportunities are available in many growing fields such as:

- Industrial automation
- Renewable energy
- Power systems
- Biomedical devices and systems
- Mining
- Defence technologies
- Radar and remote sensing
- Information security
- Telecommunications.

Graduates of the various majors are especially well placed for employment in industries and organisations related to their major. For example:

- Autonomous Systems: industrial, home and building automation, games and entertainment technology, mining, defence, and advanced manufacturing
- Biomedical Engineering: scientific and medical research institutions, biotechnology and pharmaceutical companies, health services and hospitals
- Communication Systems: telecommunication carriers, Internet service providers, media and social media companies, and defence-related organisations
- Computer Engineering: business and financial services, telecommunications, automation and consumer electronics
- Renewable Energy: power generation, transmission and distribution, mining, transportation and government regulatory bodies

**Majors**

In third-year, students have the opportunity to begin technical specialisation through the choice of a major. Choosing a major is a great way for students to pursue topics of special interest without narrowing their future options. All graduates, irrespective of their major, qualify as electrical and electronic engineers and have the opportunity to pursue a career in any of the specialist fields within the profession.

Majors are available across the following areas:

- **Autonomous Systems**
  The Autonomous Systems major equips students with the knowledge needed to design systems that cross the traditional boundaries between electronic, mechanical and computer engineering to create autonomous machines driven by motors and guided by computers. Advanced subjects in artificial intelligence, computer vision and robotics are available.

- **Biomedical Engineering**
  The Biomedical Engineering major prepares students to create devices and systems for medical diagnosis, treatment and research. Students study the foundations of human biology and take an advanced class in medical instruments and imaging.

- **Communication Systems**
  The Communication Systems major is concerned with the technologies that underpin modern voice, multimedia and data communications, including the Internet. Advanced subject choices allow students to focus on telecommunication systems or radio communications.

- **Computer Engineering**
  The Computer Engineering major focuses on the design and development of computers and on new ways to use them to control devices, equipment and processes. Advanced topics include computer architecture, computer networks and digital microelectronics.

- **Renewable Energy**
  The Renewable Energy major develops skills and knowledge to effectively develop and sustain the current energy generation infrastructure, and design and integrate high performance and low cost renewable energy systems. Studies include electric power systems and renewable energy technologies.
Bachelor of Engineering (Honours) (Electrical and Electronic)  
Combined and double degrees

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>314911</td>
<td>81.25</td>
<td>28</td>
</tr>
</tbody>
</table>

ADELAIDE APPROVED SCORE  
80

CAMPUS  
North Terrace

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

PREREQUISITES

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

IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3), or Chemistry (SL grade 4/HL grade 3), Physics (SL grade 4/HL grade 3) and Mathematics (SL grade 4/HL grade 3).

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

Available combinations:

- Bachelor of Engineering (Honours) (Electrical and Electronic) and Bachelor of Arts
- Bachelor of Engineering (Honours) (Electrical and Electronic) and Bachelor of Science*
- 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

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

For more information on double and combined degrees, please visit Degree Finder: www.adelaide.edu.au/degree-finder
## Mechanical Engineering

### Bachelor of Engineering (Honours) (Mechanical)

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
<th>ADELAIDE APPROVED SCORE</th>
<th>CAMPUS</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>314221</td>
<td>83.6</td>
<td>30</td>
<td>80</td>
<td>North</td>
<td>4 years full-time</td>
</tr>
</tbody>
</table>

**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.

**ASSUMED KNOWLEDGE**

SACE Stage 2 Chemistry

Mechanical engineering is concerned with the management of people and resources, the creation and use of new technologies and the design and development of new materials, processes and products, such as; motor vehicles, aircraft systems, engines, pumps, gas turbines, industrial plants, air-conditioning/refrigeration systems, manufacturing processes, building services and even space stations.

With a strong focus on design and hands-on experience, students complete a design and build project in second-year, followed by a more advanced project in third-year and a large design/research project in the final year.

This degree provides a solid foundation in core mechanical engineering disciplines, critical thinking and problem-solving skills. It develops skills in written and oral communication skills and a familiarity with team work and project management.

### Career readiness

Mechanical engineers have great employment prospects both locally and globally. Employment opportunities are available in fields such as:

- materials engineering
- noise and vibration control
- energy technology
- robotics
- bioengineering
- aeronautics and fluid mechanics
- manufacturing
- consumer product design
- pollution control.

### Bachelor of Engineering (Honours) (Mechanical) Combined and double degrees

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
<th>ADELAIDE APPROVED SCORE</th>
<th>CAMPUS</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>314931</td>
<td>83.9</td>
<td>30</td>
<td>80</td>
<td>North</td>
<td>5 years full-time (or part-time equivalent)</td>
</tr>
</tbody>
</table>

**PREREQUISITES**

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

IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3), or Chemistry (SL grade 4/HL grade 3), or Physics (SL grade 4/HL grade 3) and Mathematics (SL grade 4/HL grade 3).

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

**ASSUMED KNOWLEDGE**

SACE Stage 2 Chemistry

Available combinations:

- Bachelor of Engineering (Honours) (Mechanical) and Bachelor of Arts
- Bachelor of Engineering (Honours) (Mechanical) with Bachelor of Finance
- Bachelor of Engineering (Honours) (Mechanical) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Mechanical) with Bachelor of Science

For more information on double and combined degrees, please visit Degree Finder: [www.adelaide.edu.au/degree-finder](http://www.adelaide.edu.au/degree-finder)

### Bachelor of Engineering (Honours) (Mechanical and Aerospace)

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
<th>ADELAIDE APPROVED SCORE</th>
<th>CAMPUS</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>324191</td>
<td>80.7</td>
<td>27</td>
<td>80</td>
<td>North</td>
<td>4 years full-time</td>
</tr>
</tbody>
</table>

**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.

**ASSUMED KNOWLEDGE**

SACE Stage 2 Chemistry

Aerospace engineering is focused on the development and use of new technologies and materials that are relevant to any high-tech industry including the aeronautical, space and defence industries.

This degree has a strong emphasis on design and engineering science fundamentals, in addition to specialist aerospace-specific courses such as aeronautical engineering, space vehicle design and aerospace structures.

### Career readiness

The Bachelor of Engineering (Honours) (Mechanical and Aerospace) introduces principles covering a wide range of relevant areas. This means graduates are well prepared to pursue careers in the aerospace industry and other high-tech industries.

However, being based on a mechanical engineering degree, graduates will retain flexibility in the choice of engineering industry for their careers. In most cases graduates will also be able to work wherever mechanical engineers are employed.
Bachelor of Engineering (Honours) (Mechanical and Aerospace) Double degrees

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>324201</td>
<td>81.85</td>
<td>28</td>
</tr>
</tbody>
</table>

ADELAIDE APPROVED SCORE
80

CAMPUS North Terrace

DURATION 5 - 6 years full-time (or part-time equivalent)

PREREQUISITES
SACE Stage 2: Mathematical Methods*, Physics and one of Chemistry or Specialist Mathematics.
IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3), or Mathematics (SL grade 4/HL grade 3) and one of Biology, Chemistry or Physics (SL grade 4/HL grade 3).

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

ASSUMED KNOWLEDGE
SACE Stage 2 Chemistry

Available combinations:
> Bachelor of Engineering (Honours) (Mechanical and Aerospace) with Bachelor of Mathematical and Computer Sciences
> Bachelor of Engineering (Honours) (Mechanical and Aerospace) with Bachelor of Science

For more information on double and combined degrees, please visit Degree Finder: www.adelaide.edu.au/degree-finder

Bachelor of Engineering (Honours) (Mechanical and Sports)

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>324521</td>
<td>80.15</td>
<td>27</td>
</tr>
</tbody>
</table>

ADELAIDE APPROVED SCORE
80

CAMPUS North Terrace

DURATION 4 years full-time

PREREQUISITES
SACE Stage 2: Mathematical Methods* and one of either Biology, Chemistry, Physics or Specialist Mathematics.
IB: either Mathematics (HL grade 3), or Mathematics (SL grade 4/HL grade 3) and one of Biology, Chemistry or Physics (SL grade 4/HL grade 3).

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

Sports engineers apply their specialised mechanical engineering skills to the design and manufacture of sports equipment and apparel, rehabilitation and exercise equipment, computer simulation models, and sports facilities and infrastructure to enhance athletic performance. In addition to topics related to design and engineering science fundamentals, students also undertake studies in physiology, anatomy, biomechanics and sports materials. Sports engineers may work on projects such as: designing tennis racquets to reduce the incidence of ‘tennis elbow’, analysing how a cricket or golf ball flies through the air, designing high-performance sports shoes, or developing and applying novel materials to enhance sports equipment performance.

Career readiness
Graduates of this degree are well placed to seek employment nationally and internationally in sporting organisations and institutes, and orthopaedic and industrial design companies. Within these organisations, sports engineers will have the skills to engineer equipment and facilities used by sportspersons. This may include designing more efficient materials, rehabilitation devices, apparel, computer simulation models and infrastructure that will improve and enhance athletic performance. As the degree is based on a mechanical engineering degree, graduates will retain flexibility in the choice of engineering industry they pursue in their careers. In most cases, graduates will be able to work wherever mechanical engineers are employed.

Bachelor of Engineering (Honours) (Mechanical and Sustainable Energy)

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>324621</td>
<td>80.45</td>
<td>27</td>
</tr>
</tbody>
</table>

ADELAIDE APPROVED SCORE
80

CAMPUS North Terrace

DURATION 4 years full-time

PREREQUISITES
SACE Stage 2: Mathematical Methods* and one of either Biology, Chemistry, Physics or Specialist Mathematics.
IB: either Mathematics (HL grade 3), or Mathematics (SL grade 4/HL grade 3) and one of Biology, Chemistry or Physics (SL grade 4/HL grade 3).

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

Mechanical and sustainable energy engineering enables the development of long-term solutions to meet the world’s rapidly growing energy needs. It uses alternative energy sources such as wind, solar and biomass and new energy efficient technologies for sustainable energy production from existing sources, including coal and gas.

In addition to considering all possible renewable energy forms including wind, wave, tidal, solar, geothermal, hydro, pumped storage and biomass, this degree also focuses on the technologies that improve energy efficiencies of conventional mechanical systems that generate or consume energy, such as power stations and buildings.

This degree is suitable for students interested in designing renewable energy and/or energy efficient systems, solving problems related to energy generation and consumption, and contributing to the development of a greater sustainable energy future.

Career readiness
Graduates will be qualified to work in a wide range of industries and will be well-placed for careers in designing, developing and building renewable energy technologies to sustain future generations.

As the degree is based on a mechanical engineering degree, graduates retain flexibility in the choice of engineering industry they pursue in their careers. In most cases, graduates will be able to work wherever mechanical engineers are employed.
Mechatronic engineering is a discipline that combines mechanics, electronics and computing. Mechatronic engineers are knowledgeable and experienced with cutting edge technology in both mechanical, and electrical and electronic engineering. They may design, construct and maintain intelligent machines, micro-machines, smart structures, intelligent systems, control systems and consumer products such as cameras and washing machines. Alternatively, they may apply these skills to a fully automated robotic assembly line, or they may be involved with defence technology and automated systems.

This degree combines courses in mechanical engineering and electrical and electronic engineering together with courses in computing, mechatronics and robotics. It includes the study of design, microprocessors, electronics, sensors, actuators, signal processing and control. There is a strong focus on design and project work throughout the degree.

Career readiness
Mechatronic engineers have great employment prospects both locally and globally. Employment opportunities are available in fields such as:

- noise and vibration control
- energy technology
- control systems
- robotics
- bioengineering
- aeronautics and fluid mechanics
- mining
- manufacturing
- consumer product design.

Available combinations:
- Bachelor of Engineering (Honours) (Mechatronic) and Bachelor of Arts
- Bachelor of Engineering (Honours) (Mechatronic) with Bachelor of Mathematical and Computer Sciences

For more information on double and combined degrees, please visit Degree Finder: www.adelaide.edu.au/degree-finder
Bachelor of Engineering (Honours) (Petroleum) Combined degree

Bachelor of Engineering (Honours) (Petroleum and Bachelor of Science)*

Bachelor of Engineering (Honours) (Petroleum and Chemical)

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

ASSUMED KNOWLEDGE
SACE Stage 2 Chemistry

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

ASSUMED KNOWLEDGE
SACE Stage 2 Chemistry

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

ASSUMED KNOWLEDGE
SACE Stage 2 Chemistry

Career readiness

Employment opportunities are available in fields such as:
- reservoir engineer
- drilling engineer
- production engineer
- oil and gas analyst
- petrophysicist
- project manager
- commercial analyst and business development
- research and academia.

Petroleum (natural oil and gas) is found in the tiny spaces between rock grains, deep below the earth’s surface. Petroleum engineering is the practical application of physics, mathematics, chemistry and geology, combined with engineering and economic principles to the recovery of petroleum. Petroleum engineers are designers. They create, plan and supervise all aspects of petroleum recovery, helping to find oil and gas; assessing how much is there; designing the wells and processing facilities to get as much out as possible; supervising and optimising production operations and ultimately, planning for the abandonment of the project. These plans must be economic and safe from a human and environmental perspective.

Our modern curriculum integrates core engineering with geoscience and management, leading to skill sets that match the needs of industry.

This five-year degree combines the disciplines of petroleum engineering and chemical engineering to equip graduates with broad expertise that can be applied to a range of complex challenges. With a specialist skill set across two complementary engineering fields, graduates can enjoy greater scope of career prospects and a competitive edge in the job market.

Career readiness

Petroleum engineers are employed in a diverse range of occupations in oil and gas companies, government agencies and organisations that service the oil and gas industry. For more information about petroleum engineering career opportunities, see Bachelor of Engineering (Honours) (Petroleum).

Chemical engineers can be involved in industries as diverse as petrochemicals, mining and minerals processing, biotechnology and environmental engineering. For more information about chemical engineering career opportunities, see Bachelor of Engineering (Honours) (Chemical).
## Petroleum Engineering (cont.)

<table>
<thead>
<tr>
<th>Bachelor of Engineering (Honours) (Petroleum and Mechanical)</th>
<th>Bachelor of Engineering (Honours) (Petroleum and Mining)</th>
<th>Bachelor of Engineering (Honours) (Petroleum, Civil and Structural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADELAIDE APPROVED SCORE: 80</td>
<td>ADELAIDE APPROVED SCORE: 80</td>
<td>ADELAIDE APPROVED SCORE: 80</td>
</tr>
<tr>
<td>CAMPUS: North Terrace, DURATION: 5 years, full-time</td>
<td>CAMPUS: North Terrace, DURATION: 5 years, full-time</td>
<td>CAMPUS: North Terrace, DURATION: 5 years, full-time</td>
</tr>
</tbody>
</table>

**PREREQUISITES**

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

IB: either Mathematics (HL grade 3) and Physics (SL grade 4/HL grade 3), or Chemistry (SL grade 4/HL grade 3), Physics (SL grade 4/HL grade 3) and Mathematics (SL grade 4/HL grade 3).

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

**ASSUMED KNOWLEDGE**

SACE Stage 2 Chemistry

This five-year degree combines the disciplines of petroleum engineering and mechanical engineering to equip graduates with broad expertise that can be applied to a range of complex challenges.

With a specialist skill set across two complementary engineering fields, graduates can enjoy greater scope of career prospects and a competitive edge in the job market.

### Career readiness

Petroleum engineers are employed in a diverse range of occupations in oil and gas companies, government agencies and organisations that service the oil and gas industry. For more information about petroleum engineering career opportunities, see Bachelor of Engineering (Honours) (Petroleum).

With broad expertise, mechanical engineers are employed across a range of industries including oil and gas, mining, manufacturing, health, defence, water and waste management, electricity generation and supply, consulting, automotive, aerospace and food processing. For more information about mechanical engineering career opportunities, see Bachelor of Engineering (Honours) (Mechanical).

### Career readiness

Petroleum engineers are employed in a diverse range of occupations in oil and gas companies, government agencies and organisations that service the oil and gas industry. For more information about petroleum engineering career opportunities, see Bachelor of Engineering (Honours) (Petroleum).

Mining engineers are involved in mine design, mining systems, geology/resource estimation, geotechnical/rock mechanics, mine ventilation, mining economics, management and finance. For more information about mining engineering career opportunities, see Bachelor of Engineering (Honours) (Mining).

### Career readiness

Petroleum engineers are employed in a diverse range of occupations in oil and gas companies, government agencies and organisations that service the oil and gas industry. For more information about petroleum engineering career opportunities, see Bachelor of Engineering (Honours) (Petroleum).

Civil and structural engineers often find employment in private consulting engineering practices, construction companies, civil engineering service providers, and federal, state and local government departments. Some of the more common careers include structural engineer, water resources engineer, coastal engineer, geotechnical engineer, transportation and highways engineer, and materials and testing engineer. For more information about civil and structural engineering career opportunities, see Bachelor of Engineering (Honours) (Civil and Structural).
Software Engineering

Bachelor of Engineering (Honours) (Software)

SATAC CODE
324311

ATAR
80.95

IB SCORES
28

ADELAIDE APPROVED SCORE
80

CAMPUS
North Terrace

DURATION
4 years full-time

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.

Software engineering is a systematic and disciplined approach to developing software. It concerns the application of computer science and engineering principles and practices to the development and maintenance of high quality software, delivered on time and within budget. Students study both the theory and practice of engineering principles and have a choice of electives enabling them to follow special interests in computing hardware and software. There is a focus on student understanding and mastery of the underlying principles and techniques of software engineering. Consequently, graduates are able to learn and apply new technologies as they emerge.

Career readiness
Employment opportunities are available in fields such as:
> communications
> manufacturing
> web design
> defence
> consumer electronics
> power generation
> finance
> commerce
> banking
> information technology.

Flexible Entry

Bachelor of Engineering (Honours) - Flexible Entry

SATAC CODE
324861

ATAR
81.35

IB SCORES
28

ADELAIDE APPROVED SCORE
80

CAMPUS
North Terrace

DURATION
1 year full-time

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.

ASSUMED KNOWLEDGE
SACE Stage 2 Chemistry

Designed specifically for students who want to be an engineer but aren’t sure what type of engineering degree to study, the Bachelor of Engineering (Honours) - Flexible Entry introduces and explores a variety of engineering disciplines in a flexible first year of study.

Students undertake six common foundation courses, and choose two electives in an engineering stream of interest, before deciding on and transferring into an engineering degree of choice at the end of the academic year.

Streams are available in the engineering disciplines of mechanical, electrical, civil, mining, architectural, chemical, petroleum, pharmaceutical and software engineering. Students select their stream electives according to their preferred discipline of specialisation.

This is not an award from which students can graduate, but rather an entry point into engineering at the University of Adelaide. Students must transfer into a named Bachelor of Engineering (Honours) single, double or combined degree at the completion of the academic year.

This 24-unit program comprises 18 units of common foundation courses and six units of stream electives in an engineering discipline of interest.

Students who successfully complete the 24 units of study are guaranteed a place in the engineering degree of their choice.
Meeting lots of like-minded students and lecturers makes each and every day enjoyable. Helping and getting helped makes for an active and enjoyable time at university.
Every day, 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 even space exploration.

Computer science—the discipline of writing software, or ‘code’—underpins modern society and makes possible the many technological systems we now rely on. The digital revolution has not only changed modern lifestyles and the way people work and communicate; it has created an information age of infinite opportunity. Computer science at the University of Adelaide provides students with a unique insight into complex computer systems. Students have the opportunity to apply software writing and problem-solving skills to a range of assessment options. As students progress through the degree, there may be options to tailor their program of study towards a particular career path, in areas such as computer graphics, database and information systems management, network management and software engineering.

Learn from South Australia’s best computer science school

Our computer science degrees were recently ranked in the top 150 Academic Ranking of World Universities in Engineering/Technology and Computer Science*. We were the only university in South Australia to make this ranking.

* Academic Ranking of World Universities 2015 produced by the Shanghai Jiao Tong University.

Adelaide Approved ATAR 80

The Bachelor of Computer Science is Adelaide Approved; students who meet the prerequisites and achieve an 80 ATAR® or above (including bonus points if eligible) are in. It’s simple, straightforward and takes the stress out of uni entry. For more details visit www.adelaide.edu.au and search Adelaide Approved.

# Please note, this is not the minimum ATAR requirement.

Studying more than one degree

Students with strong interests in more than one area of study may wish to consider a double or concurrent degree. The Bachelor of Computer Science can be studied with the Bachelor of Laws as a double degree option. Combining two areas of study not only offers a more diverse academic experience, but also broadens potential 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. For a full list of double and concurrent degrees, visit Degree Finder: www.adelaide.edu.au/degree-finder.

Honours

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. Providing a deeper understanding of the chosen specialisation, honours demonstrates a commitment to further learning and is suitable preparation for students who wish to proceed to postgraduate studies.

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. They also provide the necessary academic requirements for membership of the Institute of Electrical and Electronic Engineers and the American-based Association for Computing Machinery.
The Bachelor of Computer Science caters for students with specific interests in computer science and/or information technology. It has a core of compulsory computer science courses and a wide range of electives, including mathematics and statistics. Additionally, students can take electives in other disciplines, including commerce, economics, engineering, finance, humanities and social sciences, or science.

Students can tailor their degree to guide them towards a particular career, which may include computer graphics, database and information systems management, network management and software engineering.

The degree produces highly skilled, adaptable graduates who are able to design computer-based solutions to address information management and processing problems in industry, commerce, science, entertainment and the public sector.

Career readiness
Employment opportunities are available in fields such as:
> computer, games and graphics programming
> business data processing
> financial software
> information technology management
> Internet commerce
> quality improvement
> scientific data analysis
> systems support
> user interface programming.

Bachelor of Computer Science (Advanced)

SATAC CODE 324681
ATAR 95.2
IB SCORES 36
ADELAIDE APPROVED SCORE 95
CAMPUS North Terrace
DURATION 3 years full-time

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

adelaide.edu.au/degree-finder Search computer

Available combinations:
> Bachelor of Laws with Bachelor of Computer Science

For more information, please refer to the Bachelor of Laws on Degree Finder: www.adelaide.edu.au/degree-finder

The Bachelor of Computer Science (Advanced) has been designed for high achieving students. It suits students seeking more self-directed learning and greater insights into current research and the grand challenges in the fields of computer science/information technology.

The degree produces highly skilled, adaptable graduates who are able to design computer-based solutions to the problems of information management and processing in industry, commerce, science, entertainment and the public sector. In addition, graduates will have a deeper understanding of contemporary issues in computer science, extensive exposure to self-directed learning and will have taken part in a wide-ranging program of individual and group projects.

To remain in this highly competitive degree, students must maintain a high grade point average (GPA) throughout their candidature.

Career readiness
Graduates are highly regarded by employers and have been successful in a wide variety of areas. Employment opportunities are available in fields such as:
> computer, games and graphics programming
> business data processing
> financial software
> information technology management
> Internet commerce
> network management
> quality improvement
> scientific data analysis
> software engineering
> systems support
> user interface programming.
Changing careers is a big decision, but returning to University to study something you are passionate about is an easy one. Studying something I love motivates me every day to succeed.
In today’s highly technical environment, a degree in mathematical sciences teaches students the universal language required to describe, model and understand the world around them.

Supporting a wide range of industries, such as communications, defence, engineering, finance, health and manufacturing, mathematics enables the breakdown of complex problems into their simplest form and poses new questions to facilitate innovative discoveries.

At the University of Adelaide, mathematical sciences courses provide valuable training in rigour, logical thinking and mathematical sciences knowledge. Graduates are highly regarded for their creativity, problem-solving abilities and research skills, and pursue successful careers in their chosen specialisation in a wide range of industries.

Students can specialise in applied mathematics, pure mathematics or statistics. Applied mathematics courses cover topics that aim to achieve a balance between mathematical theories and practical applications of mathematics in the world around us.

Pure mathematics, mathematics for its own sake, studies abstract theories built by logical deduction that underpin modern science and technology. Courses are fundamental to applied mathematics, statistics, computer science, mathematical physics and many other areas of application.

Statistics courses train graduates to solve real-world problems by appropriately collecting, analysing and modelling data.

The University’s mathematics research across these areas has been recognised as either “above” or “well above” world standard by the Australian Research Council’s 2015 Excellence in Research for Australia (ERA) evaluation.

Adelaide Approved ATAR 80
The Bachelor of Mathematical Sciences and Bachelor of Mathematical and Computer Sciences are Adelaide Approved; students who meet the prerequisites and achieve an 80 ATAR or above (including bonus points if eligible) are in. It’s simple, straightforward and takes the stress out of uni entry.

For more details, visit www.adelaide.edu.au and search Adelaide Approved.

Studying more than one degree
Students with strong interests in more than one area of study may wish to consider a double or concurrent degree. 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.

Combining two areas of study not only offers a more diverse academic experience, but also broadens potential 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.

For a full list of double and concurrent degrees, visit Degree Finder: www.adelaide.edu.au/degree-finder

Honours
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.

Providing a deeper understanding of the chosen specialisation, honours demonstrates a commitment to further learning and is suitable preparation for students who wish to proceed to postgraduate studies.

* Please note, this is not the minimum ATAR requirement.
Bachelor of Mathematical Sciences

This degree has been specifically designed for those seeking the high level of mathematical and statistical training required in today’s high technology workplaces. It provides a structured pathway through the study of the mathematical sciences at Levels I, II and III.

The first year provides a foundation of mathematics and statistics and the second year further develops these skills. In third-year students are able to select a specialisation in pure mathematics, applied mathematics, computer science, pure mathematics or statistics.

Mathematical sciences courses provide valuable training in rigour, logical thinking and mathematical sciences knowledge.

High achieving students may undertake an additional year of study leading to an Honours Degree of the Bachelor of Mathematical Sciences. An honours qualification is highly valued by employers and is suitable preparation for students who wish to proceed to postgraduate studies. The honours year includes a major project.

Career readiness

Employment opportunities are available in fields such as:
- consulting engineering firms
- pharmaceutical industry
- telecommunications industry
- biomedical research industries and institutes
- banks and insurance companies
- state and federal government agencies
- research and academic organisations.

Bachelor of Mathematical Sciences (Advanced)

The Bachelor of Mathematical Sciences (Advanced) is designed for high achieving students seeking mathematical and statistical training with a strong emphasis on research skill development.

As with the Bachelor of Mathematical Sciences, students in this advanced degree undertake a structured program of study that introduces the fundamentals of mathematics and statistics and leads to a specialisation in at least one of the major areas of applied mathematics, pure mathematics or statistics.

Students have the early opportunity to engage with the academic and research culture within the School of Mathematical Sciences through the sequence of exclusive courses, Advanced Mathematical Perspectives I, II and III.

To remain in this highly competitive degree, students must maintain a grade point average (GPA) of 5 throughout their candidature.

Career readiness

Employment opportunities are available in fields such as:
- consulting engineering firms
- pharmaceutical industry
- telecommunications industry
- biomedical research industries and institutes
- banks and insurance companies
- state and federal government agencies
- research and academic organisations.

Bachelor of Mathematical and Computer Sciences

This is a flexible academic degree designed for students who wish to study mathematics, statistics or computing.

Those studies can be combined with courses from commerce, design studies, economics, engineering, finance, humanities and social sciences or sciences. Previous students have enrolled in courses as diverse as accounting, geology, anthropology, biotechnology, history, languages, music studies, philosophy, politics, pharmacology and psychology.

Each student will have an individual program developed in consultation with a program adviser.

Mathematical and computer sciences courses are in the areas of applied mathematics, computer science, pure mathematics or statistics. These courses provide valuable training in rigour, logical thinking and mathematical and computer sciences knowledge.

Career readiness

Employment opportunities are available in fields such as:
- consulting engineering firms
- pharmaceutical industry
- telecommunications industry
- biomedical research industries and institutes
- banks and insurance companies
- state and federal government agencies
- research and academic organisations.
Bachelor of Mathematical and Computer Sciences

Double degrees

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>CAMPUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>various – please refer to Degree Finder</td>
<td>North Terrace</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>various – please refer to Degree Finder</td>
<td>various – please refer to Degree Finder</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DURATION</th>
<th>PREREQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-5 years full-time (or part-time equivalent)</td>
<td>various – please refer to Degree Finder</td>
</tr>
</tbody>
</table>

Available combinations:

- Bachelor of Engineering (Honours) (Chemical) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Civil and Environmental) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Civil and Structural) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Electrical and Electronic) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Mechanical and Aerospace) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Mechanical) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Mechatronic) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Engineering (Honours) (Mining) with Bachelor of Mathematical and Computer Sciences
- Bachelor of Laws with Bachelor of Mathematical and Computer Sciences
- Bachelor of Mathematical and Computer Sciences with Bachelor of Finance
- Bachelor of Teaching with Bachelor of Mathematical and Computer Sciences

For more information on double degrees, including entry requirements, please visit Degree Finder: [www.adelaide.edu.au/degree-finder](http://www.adelaide.edu.au/degree-finder)
### Related and Double Degrees

**Bachelor of Science (Laser Physics and Technology)**

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>324091</td>
<td>70</td>
<td>25</td>
</tr>
</tbody>
</table>

**PREREQUISITES**

- 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.

**Bachelor of Science (Space Science and Astrophysics)**

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>324101</td>
<td>79.1</td>
<td>27</td>
</tr>
</tbody>
</table>

**PREREQUISITES**

- 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.

**Bachelor of Engineering (Honours) and Bachelor of Arts**

**SATAC CODE**

- Various - search

**ADELAIDE APPROVED SCORE**

- 90

**IB SCORES**

- various – please refer to Degree Finder

**ATAR**

- Various - search

**CAMPUS**

- North Terrace

**DURATION**

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

**PREREQUISITES**

- Various - search Degree Finder

**Bachelor of Teaching with Bachelor of Mathematical and Computer Sciences**

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>324371</td>
<td>77.4</td>
<td>26</td>
</tr>
</tbody>
</table>

**CAMPUS**

- North Terrace

**DURATION**

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

**PREREQUISITES**

- SACE Stage 2 Mathematical Methods*

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

**Areas of specialisation**

The Bachelor of Teaching double degree program with the Bachelor of Mathematical and Computer Sciences is designed for students who wish to become secondary school teachers in Mathematics and/or Information Technology and another one of the following teaching areas:

- Accounting
- Biology
- Business Studies
- Chemistry
- English
- Geography
- History
- Languages (Chinese, ESL, French, German, Indonesian, Italian, Japanese, Modern Greek, Spanish)
- Mathematics
- Psychology
- Physics.

**Honours Degree of Bachelor of Science in High Performance Computational Physics**

<table>
<thead>
<tr>
<th>SATAC CODE</th>
<th>ATAR</th>
<th>IB SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>324171</td>
<td>81.55</td>
<td>28</td>
</tr>
</tbody>
</table>

**ADELAIDE APPROVED SCORE**

- 90

**CAMPUS**

- North Terrace

**DURATION**

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

**PREREQUISITES**

- 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.

**Bachelor of Teaching with Bachelor of Mathematical and Computer Sciences**

The Bachelor of Arts may be paired with the following Bachelor of Engineering (Honours) specialisations:

- Chemical
- Civil and Environmental
- Civil and Structural
- Electrical and Electronic
- Mechanical
- Mechanical

**Related and double degrees**
Open Day
2017
Sunday 20 August

Come and explore firsthand what it’s like to study at SA’s leading university.

Open Day has a wealth of information and experiences for future students and their family, and gives you opportunity to find the degree that inspires you.

Attend information talks to learn about studying at University and the degrees we offer.

Get involved with interactive activities and chat with current students and academic staff about your interests.

Explore our vibrant campus and discover beautiful spaces the mix of modern and historical buildings and fascinating exhibitions.

www.adelaide.edu.au/openday
Undergraduate degrees available at the University of Adelaide.

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

For a comprehensive list of available degrees, visit: www.adelaide.edu.au/degree-finder

Architecture, Business and Law

Bachelor of Architectural Design
Bachelor of Commerce
Bachelor of Economics
Bachelor of Economics (Advanced)
Bachelor of Finance
Bachelor of Finance (International)
Bachelor of Innovation and Entrepreneurship
Bachelor of Laws

Arts

Bachelor of Arts
Bachelor of Arts (Advanced)
Bachelor of Criminology
Bachelor of Environmental Policy and Management
Bachelor of International Development
Bachelor of International Studies
Bachelor of Languages
Bachelor of Liberal Arts and Sciences
Bachelor of Media
Bachelor of Music
Bachelor of Social Sciences
Bachelor of Teaching with Bachelor of Arts
Bachelor of Teaching with Bachelor of Economics
Bachelor of Teaching with Bachelor of Mathematical and Computer Sciences
Bachelor of Teaching with Bachelor of Science
Diploma in Arts
Diploma in Languages
Diploma of Music

Engineering, Computer and Mathematical Sciences

Bachelor of Computer Science
Bachelor of Computer Science (Advanced)
Bachelor of Engineering (Honours) (Chemical)
Bachelor of Engineering (Honours) (Chemical and Pharmaceutical)
Bachelor of Engineering (Honours) (Civil and Architectural)
Bachelor of Engineering (Honours) (Civil and Environmental)
Bachelor of Engineering (Honours) (Civil and Structural)
Bachelor of Engineering (Honours) (Civil, Structural and Environmental)
Bachelor of Engineering (Honours) (Electrical and Electronic)
Bachelor of Engineering (Honours) (Mechanical)
Bachelor of Engineering (Honours) (Mechanical and Aerospace)
Bachelor of Engineering (Honours) (Mechanical and Sports)
Bachelor of Engineering (Honours) (Mechanical and Sustainable Energy)
Bachelor of Engineering (Honours) (Mechatronic)
Bachelor of Engineering (Honours) (Mining)
Bachelor of Engineering (Honours) (Petroleum)
Bachelor of Engineering (Honours) (Petroleum and Chemical)
Bachelor of Engineering (Honours) (Petroleum, Civil and Structural)
Bachelor of Engineering (Honours) (Petroleum and Mechanical)
Bachelor of Engineering (Honours) (Petroleum and Mining)
Bachelor of Engineering (Honours) (Software)
Bachelor of Engineering (Honours) – Flexible Entry
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 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 (Lasers Physics and Technology)
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 Viticulture and Oenology
How to apply
Applications to University of Adelaide undergraduate programs are made online via SATAC:
www.satac.edu.au
The application closing date for 2018 entry is 29 September 2017. Bachelor of Medicine and Bachelor of Surgery, 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
International students should refer to:
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 and other Registered Training Organisations (RTOs) some preparatory and foundation studies programs, and more. To find out more about the available pathways, visit www.adelaide.edu.au/study and select ‘Entry Pathways’ from the menu.

Fees and costs
In 2017, student contributions for Commonwealth supported students studying an equivalent full-time study load were as follows.

<table>
<thead>
<tr>
<th>Band</th>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>humanities, behavioural sciences, social studies, foreign languages, visual and performing arts, education, nursing, clinical psychology</td>
<td>$6,349</td>
</tr>
<tr>
<td>2</td>
<td>computing, built environment, allied health, other health, engineering, surveying, agriculture, science, mathematics, statistics</td>
<td>$9,050</td>
</tr>
<tr>
<td>3</td>
<td>law, dentistry, medicine, veterinary science, accounting, administration, economics, commerce</td>
<td>$10,596</td>
</tr>
</tbody>
</table>

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 2018.

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

Scholarships
The University of Adelaide has a range of scholarships available to students from a variety of backgrounds and academic levels. Comprehensive information about scholarships, and how to apply, can be obtained by contacting us (refer below for details) or visiting the scholarships website:
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 2017, the SSAF amount for full-time students was $294, and for part-time students it was $220. Fees may increase in 2018. 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 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 and select ‘Other Fees and Charges’.

Bonus points
SATAC centrally administer two South Australian Universities Bonus Schemes. 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 and search ‘bonus points’.

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

Deferring your studies
All undergraduate degrees can be deferred for up to two years.

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

Successful completion of the International Baccalaureate (IB) diploma meets the English language requirements of the University of Adelaide.

Permanent residency
International students who have studied an Australian year 12 program or the IB and expect to be granted Australian permanent residency before the commencement of their university study must contact International Admissions. To contact International Admissions for more information, visit www.international.adelaide.edu.au

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

Disclaimer
The information in this publication is current as at the date of printing and is subject to change. Updated information can be found on the University website: www.adelaide.edu.au or contact the University on (08) 8313 7335 (or free-call 1800 061 459).

The University of Adelaide assumes no responsibility for the accuracy of information provided by third parties. CRICOS 00123M © The University of Adelaide. Published 2017

More information
Ask Adelaide’s friendly and skilled staff can address all program enquiries over the phone or online. If they do not have the answer enquirers will be referred to faculty/school/discipline staff for expert advice.

Ask Adelaide
Phone: (08) 8313 5208
Free-call (outer Adelaide, SA and interstate only): 1800 061 459
Enquire online: www.adelaide.edu.au/student/enquiries
adelaide.edu.au
uniofadaledge
@uniofadaledge
@uniofadaledge
@uniofadaledge
OPPORTUNITY AWAITS