



Flinders
UNIVERSITY

Engineering



FLINDERS FOR
ENGINEERING



STUDY

AT FLINDERS

In an era of disruptive change, Flinders University is growing its international reputation as a world leader in research, an innovator in contemporary education and a source of enterprising graduates equipped to change the world.

The University acknowledges the traditional owners of the lands Flinders University teaches across (Arrernte, Boandik, Bungarla, Dagoman, Gunditjmarra, Jawoyn, Kurna, Larrakia, Navo, Ngarrindjeri, Peramangk, Ramindjeri, Wardaman, Warumungu, Wurundjeri, Yolgnu) and honour their Elders past and present.

TOP 2% UNIVERSITY WORLDWIDE*

NO.1 IN SA

for teaching quality, student support,
and starting salary**

More than 500 undergraduate,
postgraduate and research degrees

Over 25,000 students supported
by over 2,600 staff***

New Venture Institute Top Challenger:
Asia-Pacific UBI Global World Ranking Report 19/20

Over 550 scholarships, worth \$2.2m in total

* THE World University Rankings 2020 as a percentage of the total number of universities in the world according to the International Association of Universities

** The Good Universities Guide 2020 (undergraduate), public SA-founded universities only

*** Staff and student numbers are preliminary figures based on data collected 6 April 2020 and subject to change.



AT FLINDERS IT'S

ALL ABOUT YOU

CHOOSE YOUR DEGREE

From medicine to business, science or arts offerings, Flinders University offers more than 500 undergraduate, postgraduate and research degrees taught by global and national experts focused on the experience and outcomes of their students.

BE TAUGHT BY LEADERS

At Flinders, you'll be taught by teachers who are leaders in their fields. They are plugged into industry trends and connected to professional networks. Your future career will take practical shape from the very beginning of your studies as we guide you from the classroom to the workplace through inspired teaching, practical placements, internships, field education and industry projects.

BENEFIT FROM WORLD-CLASS RESEARCH

Flinders University's research strengths include biomedical and clinical sciences, culture, policy and society, health and medicine, mental health and human behaviour, molecular science and technology, defence, engineering, water and environment. With 90% of Flinders' research rated world-standard or above,* your studies will be supported by the up-to-the-minute knowledge of highly skilled researchers and lecturers.

*Flinders rating 89.7%, rounded up to 90%. Excellence in Research for Australia, 2018

GET THE SUPPORT YOU NEED

Flinders is SA's No.1 university for student support.** From campus facilities to financial support, mental health and wellbeing resources and services, student grants, counselling services (including careers and financial) and many social opportunities, we offer a range of services to ensure your study experience is everything you want it to be. Find out more about student support on page 49.

**The Good Universities Guide 2020 (undergraduate), public SA-founded universities only

EXPERIENCE A UNIVERSITY LIKE NO OTHER

Our geographic footprint stretches from the top of the Northern Territory through to South Australia and regional Victoria. Internationally, joint courses are delivered with leading universities in China, Hong Kong, Malaysia, Singapore and Indonesia. Our main campus at Bedford Park is an environment that fosters creativity. Sitting in stunning natural surrounds, it boasts spectacular views to the city and coast and features an award-winning, state-of-the-art student hub that fosters interactive learning in a digitally enabled environment.

JOIN A GLOBAL COMMUNITY

Flinders University graduates are enterprising, innovative and curious thought leaders in over 120 countries around the world. When you graduate from Flinders, you'll not only join over 106,000 graduates from an amazing variety of fields, you'll graduate from SA's No. 1 university for starting salary.**

**The Good Universities Guide 2020 (undergraduate), public SA-founded universities only

GAIN REAL-WORLD EXPERIENCE

Flinders Work Integrated Learning (WIL) enables you to gain work experience while you study. You'll have the opportunity to gain real-world experience through placements, practicums, field studies, and simulated workplace settings and assessment activities. Flinders aims to provide each and every student with access to a WIL opportunity during their studies.

THINK BIG. MAKE AN IMPACT. DESIGN YOUR FUTURE.

Careers are evolving and the workplace of the future will look very different from today. Powered by Flinders' New Venture Institute, our suite of innovation and enterprise electives and courses will help you to develop the 'personal enterprise skills' that employers are looking for, and equip you with the ability to adapt to whatever life throws at you, personally and professionally. No matter what you choose to study at Flinders, you can embed an innovation and enterprise elective into your degree.

TAKE YOUR STUDIES OVERSEAS

Why wait until you graduate to explore the world? Flinders' Learn Without Borders could see you studying overseas, gaining a unique perspective and immersing yourself in a different culture, language and lifestyle.

"My exchange was honestly one of the most amazing and rewarding six months of my life. The friends I made, the things I saw and experienced will stick with me for the rest of my life."

Rebekah Jones

Canada

EXPLORE FLINDERS SCHOLARSHIPS

Flinders offers a generous range of scholarships for students in undergraduate courses. With over 550 available scholarships, including scholarships to students from low socio-economic backgrounds, students from rural and regional areas and Indigenous students, you may be eligible for support that will help you achieve your goals at university.

"The Wyndham Richardson Scholarship Fund has been invaluable to reduce the financial pressure during studies, especially now that I am in the later years of my degree."

Ryan Rowston, Bachelor of Computer Science

Wyndham Richardson Scholarship Fund

FLINDERS VILLAGE



\$1.5 billion development

Community-centred student living

Flinders Station links Bedford Park to Tonsley and the city

Centred around the new Flinders Train Station (due to open early 2021) and directly connecting the University's main campus to its Tonsley innovation precinct and the Adelaide city centre, the \$1.5 billion Flinders Village development will create a campus environment which merges university life with the wider community.

Flinders Village will feature student accommodation, an advanced health research facility, transitional health accommodation, a hotel, and amenities such as retail facilities, benefitting students, staff and the community.

THE WORLD NEEDS ENGINEERS

ENGINEERING

A CAREER POWERED BY CREATIVITY

STUDY ENGINEERING AT FLINDERS

Make a difference to the world around you. Engineers help build the future, and you could be one of them.

DESIGN THE FUTURE OF YOUR DREAMS

There are few fields as broad or as rewarding as engineering. If you can imagine it, chances are you can help bring it to life. From robotics to renewable energy, ship building and defence, civil engineering or creating new medical technologies... the list is long and the opportunities are broad. You can help design and build tomorrow.

A REWARDING CAREER

Engineers are in high demand worldwide. Demand for electrical engineers is increasing. The world of robotics is changing rapidly, and large-scale civil engineering projects are being conducted in many areas. A career in engineering can be interesting, challenging and rewarding.

STUDY FOR SUCCESS

Flinders Engineering degrees are offered in close collaboration with industry, giving you specialist knowledge and an integrated 'toolkit' of skills that will enable you to meet the requirements of industry as it continues to change. You'll be plugged into our \$120m hub of innovation and entrepreneurship at Tonsley, and graduate with a high level of skills, ready to take on the world.

20-WEEK INDUSTRY PLACEMENTS

All Flinders Engineering students have the opportunity to undertake a 20-week industry placement as part of their degree, helping you graduate work-ready. One of the longest work placements offered in Australia, it enables you to work alongside professional engineers tackling real-world problems.

No. 1 in Australia

in Engineering for learning resources

The Good Universities Guide 2020 (undergraduate)

Bachelor of Design and Technology Innovation

Make your ideas a commercial reality.

Graduate prepared to solve problems and create commercial solutions. This degree prepares you to do this by developing a sound understanding of three areas: design; innovation management; and science, technology and engineering. You'll be taught desirable skills that will allow you to design and develop new products or services to solve a range of real-world problems.

Bachelor of Design and Technology Innovation

<div><div>#</div><div>3</div></div> <div><div>PT</div><div></div></div> <div><div>D</div><div></div></div>	
PREREQUISITES	None
ASSUMED KNOWLEDGE	None
SATAC CODE	224771
2020 MINIMUM SELECTION RANK	70.00
GUARANTEED ENTRY SELECTION RANK	75.00
TAFELINK ADJUSTMENT FACTORS	Cert IV or above Yes

See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.

- You'll learn to match a problem with technology to create a commercial solution.
- You'll gain an understanding of industrial design, technology and innovation in one degree.
- Enhance your employability with highly attractive, vital skills in the rapidly changing innovation sector.
- Gain practical, hands-on exposure to the cutting-edge equipment and facilities of Flinders University's new technology precinct at Tonsley.
- You'll have the chance to participate in a 12-week industry work-integrated placement.
- This degree is recognised by the Design Institute of Australia.
- There are opportunities to take your studies overseas with a 12-week practical work experience placement in Europe, Asia or North America.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- product designer
- business development manager
- commercialisation specialist
- graduate consultant
- innovation strategist.

Potential employers include:

- CSR Limited
- CSIRO
- Department of Industry, Innovation and Science
- Clipsal
- Adidas.

Bachelor of Engineering (Biomedical) (Honours)

Build a career designing systems that enhance the quality of human life.

Health care is a large and rapidly growing industry, and your skills could help improve the way we plan, design, manufacture and maintain healthcare systems and equipment. You will gain a solid education in both engineering and medical science, along with important practical skills and the ability to work as part of an effective team that will see you graduate work-ready.

Bachelor of Engineering (Biomedical) (Honours)

<div><div>#</div><div>4</div></div> <div><div>PT</div><div></div></div> <div><div>D</div><div></div></div>	
PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	224781
2020 MINIMUM SELECTION RANK	75.00
GUARANTEED ENTRY SELECTION RANK	80.00
TAFELINK ADJUSTMENT FACTORS	Diploma or above Yes

* SACE stage two specialist mathematics, mathematical methods or equivalent.

** Knowledge of SACE stage two physics or equivalent is assumed.

See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.

- You'll study unique topics such as rehabilitation and assistive technology.
- Flinders biomedical and materials engineering research is world class, and graduates have won Monash Scholarships, Fulbright Scholarships, Churchill Fellowships and Menzies Scholarships.
- Choose a specialisation in mechanics-based or electronics-based biomedical engineering.
- Our on-campus Medical Device Research Institute and Medical Device Partnering Program bring together some of the leading minds in biomedical engineering and related disciplines.
- Through our extensive industry links, undertake a 20-week industry placement program of structured work experience with a local, national or international organisation.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- biomedical engineer
- clinical support specialist consultant
- customer support engineer
- pathology field service engineer
- instrumentation engineer.

Potential employers include:

- Chemtronics Biomedical Engineering
- Epworth HealthCare
- Bio-Rad Laboratories Pty Ltd
- Brainlab
- The Queen Elizabeth Hospital.

"Studying at Flinders has helped me find my feet again after eight years in the military. I love using Tonsley's facilities and know that the engineering degrees I have pursued will give me the best job outcome."

Chris Turner,
Bachelor of Civil and Mechanical Engineering



Bachelor of Engineering (Biomedical) (Honours)/Master of Engineering (Biomedical)

Take your career to the next level with a five-year undergraduate pathway to a biomedical engineering masters.

Health care is a large and rapidly growing industry, and your skills could help improve the way we plan, design, manufacture and maintain healthcare systems and equipment. You will gain a solid education in both engineering and medical science, along with important practical skills and the ability to work as part of an effective team that will see you graduate work-ready.

Bachelor of Engineering (Biomedical) (Honours)/Master of Engineering (Biomedical)

5 PT D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	224861
2020 MINIMUM SELECTION RANK	95.00
GUARANTEED ENTRY SELECTION RANK	95.00
TAFELINK	NA
ADJUSTMENT FACTORS	Yes

* SACE stage two specialist mathematics, mathematical methods or equivalent.

** Knowledge of SACE stage two physics or equivalent is assumed.

See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.

- You'll study unique topics such as rehabilitation and assistive technology.
- Flinders biomedical and materials engineering research is world class, and graduates have won Monash Scholarships, Fulbright Scholarships, Churchill Fellowships and Menzies Scholarships.
- Choose a specialisation in mechanics-based or electronics-based biomedical engineering.
- Our on-campus Medical Device Research Institute and Medical Device Partnering Program bring together some of the leading minds in biomedical engineering and related disciplines.
- Through our extensive industry links, undertake a 20-week industry placement program of structured work experience with a local, national or international organisation.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- biomedical engineer
- clinical support specialist consultant
- customer support engineer
- pathology field service engineer
- instrumentation engineer.

Potential employers include:

- Chemtronics Biomedical Engineering
- Epworth HealthCare
- Bio-Rad Laboratories Pty Ltd
- Brainlab
- The Queen Elizabeth Hospital.

Bachelor of Engineering (Civil) (Honours)

Use your creativity and innovation to build a career solving civil engineering problems.

Prepare yourself for a career solving civil engineering problems. You'll learn how to create innovative solutions that consider social, economic and environmental concerns. This degree covers the four main civil engineering themes of structures, transport, water and geomechanics, then applies them to infrastructure design and construction.

Bachelor of Engineering (Civil) (Honours)

4 PT D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	224791
2020 MINIMUM SELECTION RANK	75.00
GUARANTEED ENTRY SELECTION RANK	80.00
TAFELINK	Diploma or above
ADJUSTMENT FACTORS	Yes

* SACE stage two specialist mathematics, mathematical methods or equivalent.

** Knowledge of SACE stage two physics or equivalent is assumed.

See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.

- Learn to plan, design, build and maintain buildings, infrastructure and resources.
- Learn in purpose-built civil engineering labs and facilities in the new technology precinct at Tonsley.
- This degree has been designed in close collaboration with industry to meet future development needs in civil engineering.
- A degree in civil engineering allows for pathways into design, consulting, construction and project management. These are all jobs in ongoing high-demand areas.
- Contribute to growth and development for the urban and rural environment that surrounds us.
- Nationally recognised integrated work placement with a local, national or international organisation gives you practical industry experience.
- There are opportunities to take your studies overseas with a student exchange program.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

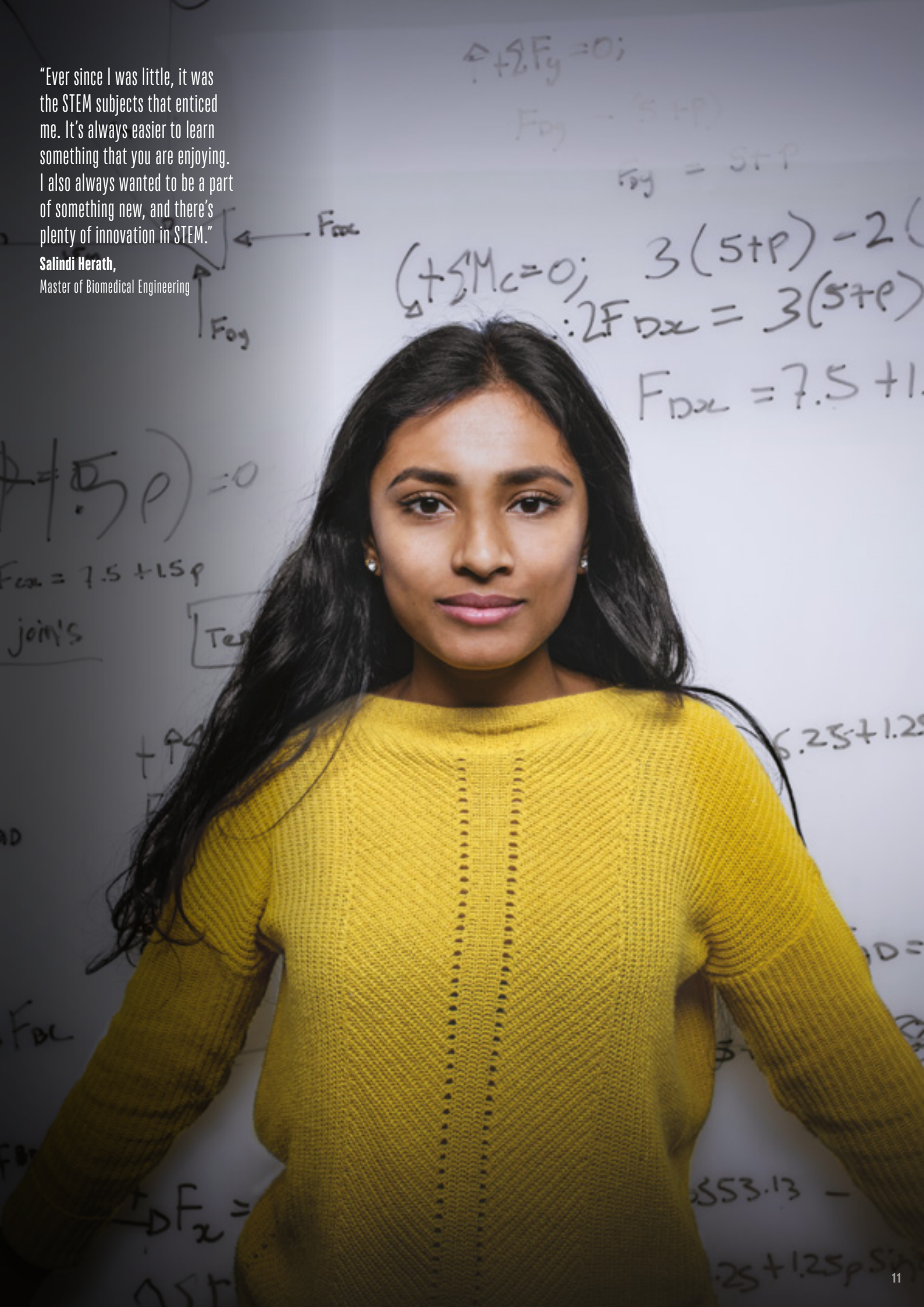
- stormwater design engineer
- site engineer
- structural design engineer
- geotechnical engineer
- transport systems engineer.

Potential employers include:

- SA Department for Planning, Transport and Infrastructure
- Arup
- Lendlease
- Australian Rail Track Corporation
- City of Marion Council.

"Ever since I was little, it was the STEM subjects that enticed me. It's always easier to learn something that you are enjoying. I also always wanted to be a part of something new, and there's plenty of innovation in STEM."

Salindi Herath,
Master of Biomedical Engineering



Bachelor of Engineering (Maritime) (Honours)

Use your skills to make waves in the maritime engineering industry.

Prepare to become a professional engineer in the maritime engineering industry. You'll learn to design and manage the building of maritime vehicles, coastal engineering projects, port and harbour facilities, and offshore oil and gas installations. You'll develop practical skills in mechanics and structures, ship design, hydrostatics and fluid mechanics, thermodynamics and energy engineering.

Bachelor of Engineering (Maritime) (Honours)

4

PT

D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	234591
2020 MINIMUM SELECTION RANK	75.00
GUARANTEED ENTRY SELECTION RANK	80.00
TAFELINK	Diploma or above
ADJUSTMENT FACTORS	Yes
* SACE stage two specialist mathematics, mathematical methods or equivalent.	
** Knowledge of SACE stage two physics or equivalent is assumed.	
A typical third year and honours year requires you to transfer to the Australian Maritime College in Launceston.	
See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.	

- You can specialise in naval architecture, ocean engineering, or marine and offshore systems.
- You'll have access to state-of-the-art experimental facilities at Flinders University and the Australian Maritime College in Launceston.
- Learn how to enable better exploration of our ocean environment without putting humans at risk.
- This degree is developed to serve the needs of the maritime engineering design, construction and related industries.
- Career opportunities available in Australia, Europe, USA, UK and Asia.
- Complete a professional work placement with a maritime engineering company as part of your studies.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.
- This course is also recognised by the Royal Institution of Naval Architects and the Institute of Marine Engineering, Science and Technology.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- marine engineering officer
- combat systems officer
- marine valve engineer
- pipeline engineer (subsea)
- marine surveyor.

Potential employers include:

- BAE Systems (Australia)
- Naval Group (Australia)
- Department of Defence
- Australian Defence Force
- Raytheon Australia.

Bachelor of Engineering (Mechanical) (Honours)

Push mechanical systems to the limit in a challenging and rewarding field.

Build a hands-on career with real-world applications. Learn to design, construct and operate mechanical systems. This degree encourages you to push the boundaries, preparing you for the future of mechanical systems engineering. You'll learn to apply the principles of physics, materials science and mathematics, and build depth of knowledge in materials, mechanics, design, thermodynamics and fluid mechanics.

Bachelor of Engineering (Mechanical) (Honours)

4

PT

D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	224831
2020 MINIMUM SELECTION RANK	75.00
GUARANTEED ENTRY SELECTION RANK	80.00
TAFELINK	Diploma or above
ADJUSTMENT FACTORS	Yes
* SACE stage two specialist mathematics, mathematical methods or equivalent.	
** Knowledge of SACE stage two physics or equivalent is assumed.	
See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.	

- You'll have access to purpose-built state-of-the-art teaching and laboratory facilities and heavy engineering pods at Tonsley.
- You'll experience personalised teaching and great staff-student working relationships across your studies.
- You can put your mechanical engineering skills to the test in a range of national competitions like the Solar Car Challenge and Weir Warman Design Competition.
- Become involved in Formula SAE, UAV and Mini Maker Faire.
- Undertake a 20-week industry placement program of structured work experience with a local, national or international organisation.
- There are opportunities to take your studies overseas with a student exchange program.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- graduate mechanical engineer
- graduate project engineer (mechanical)
- process development engineer/scientist
- mechanical design engineer
- graduate production engineer.

Potential employers include:

- BAE Systems
- Carl Zeiss
- Air Change Australia
- Woodside Energy
- Airservices Australia.

Bachelor of Engineering (Mechanical) (Honours)/Master of Engineering (Biomedical)

From mechanical engineering to a biomedical engineering masters, engineer your way to a great career.

If you're a high-achieving student, take a pathway that allows you to complete a program of study in mechanical and biomedical engineering in only five years. You could work towards a career in many areas in the mining, defence, manufacturing, shipbuilding, environmental, engineering consulting, building services, automotive and petrochemical industries, or in the design and production of diagnostic and therapeutic medical equipment in hospitals, devices to assist in home-based health care and rehabilitation, and sensory and control systems.

Bachelor of Engineering (Mechanical) (Honours)/Master of Engineering (Biomedical)

5

PT

D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	224871
2020 MINIMUM SELECTION RANK	95.00
GUARANTEED ENTRY SELECTION RANK	95.00
TAFELINK	NA
ADJUSTMENT FACTORS	Yes
* SACE stage two specialist mathematics, mathematical methods or equivalent.	
** Knowledge of SACE stage two physics or equivalent is assumed.	
See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.	

- You'll have access to purpose-built state-of-the-art teaching and laboratory facilities and heavy engineering pods at Tonsley.
- You'll study a variety of areas including dynamics, engineering design, biomechanics and biomedical instrumentation.
- Put your mechanical engineering skills to the test in a range of national competitions like the Solar Car Challenge and Weir Warman Design Competition.
- Become involved in Formula SAE, UAV and Mini Maker Faire.
- Undertake a 20-week industry placement program of structured work experience with a local, national or international organisation.
- There are opportunities to take your studies overseas with a student exchange program.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- biomedical engineer
- clinical support specialist consultant
- customer support engineer
- pathology field service engineer
- instrumentation engineer.

Potential employers include:

- Chemtronics Biomedical Engineering
- Epworth HealthCare
- Bio-Rad Laboratories Pty Ltd
- Brainlab
- The Queen Elizabeth Hospital.

Bachelor of Engineering (Robotics) (Honours)

Create a career designing the robot workforce of the future.

Changes to the way our workforce operates are opening up career opportunities in fields like robotics. This degree will see you graduate with the latest learning in robotics technologies, preparing you to become a key player in developing the robots that will populate our future. The degree combines electronics, computer control, signal processing and programming in the design, development and application of robots, and their integration with other systems in the work environment.

Bachelor of Engineering (Robotics) (Honours)

4

PT

D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	224841
2020 MINIMUM SELECTION RANK	75.00
GUARANTEED ENTRY SELECTION RANK	80.00
TAFELINK	Diploma or above
ADJUSTMENT FACTORS	Yes
* SACE stage two specialist mathematics, mathematical methods or equivalent.	
** Knowledge of SACE stage two physics or equivalent is assumed.	
See the inside back cover for more information on your admission pathways, opportunities to enhance your degree, and how to apply.	

- You'll study the latest robotics technology, and learn about electronics, computer control, signal processing, development and application of robots.
- Put your robotics engineering skills to the test in a range of national competitions like NI-ARC, AGVC, and Maritime RobotX Challenge.
- You'll have access to purpose-built state-of-the-art teaching and laboratory facilities and heavy engineering pods at Tonsley.
- Undertake a 20-week industry placement program of structured work experience with a local, national or international organisation.
- There are opportunities to take your studies overseas with a student exchange program.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.
- This course is accredited by the Australian Computer Society at the professional level and is recognised internationally under the Seoul Accord.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- robotics engineer
- robotics sensor integration specialist
- mechatronic engineer
- process and automation engineer
- instrument engineer.

Potential employers include:

- Lockheed Martin
- Smart Automation Systems
- Monadelphous
- Simavita
- Rocket Lab.

Bachelor of Engineering (Robotics) (Honours)/Master of Engineering (Electrical and Electronic) New in 2021

Engineer your career. From robotics engineering to an electrical and electronic engineering masters.

Create a career designing the robot workforce of the future. This degree will see you graduate with the latest learning in robotics technologies, preparing you to become a key player in developing the robots that will populate our future.

Bachelor of Engineering (Robotics) (Honours)/Master of Engineering (Electrical and Electronic)

5 PT D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	244451
2020 MINIMUM SELECTION RANK	NA
GUARANTEED ENTRY SELECTION RANK	95.00
TAFELINK	NA
ADJUSTMENT FACTORS	Yes

* SACE stage two specialist mathematics, mathematical methods or equivalent.
** Knowledge of SACE stage two physics or equivalent is assumed.
See the inside back cover for more information on your admission pathways, opportunities to enhance your degree, and how to apply.

- You'll study a robotics degree based on key elements of the latest robotics technology, and learn about electronics, computer control, signal processing, development and application of robots.
- Continue to a Master of Engineering (Electrical and Electronic) to open up even more career opportunities.
- Put your robotics engineering skills to the test in a range of national competitions like NI-ARC, AGVC, and Maritime RobotX Challenge.
- You'll access purpose-built state-of-the-art teaching and laboratory facilities and heavy engineering pods at Tonsley.
- Undertake a 20-week industry placement program of structured work experience with a local, national or international organisation.
- There are opportunities to take your studies overseas with a student exchange program.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- robotics engineer
- robotics sensor integration specialist
- mechatronic engineer
- process and automation engineer
- instrument engineer.

Potential employers include:

- Lockheed Martin
- Smart Automation Systems
- Monadelphous
- Simavita
- Rocket Lab.

"I was doing electronics and software and mechanical stuff at home and that led me straight into robotics at university. The field is expanding, especially with the new defence initiatives. I knew it would be a good career path and it was a career I wanted to pursue."

Jesse Stewart

Bachelor of Engineering (Robotics) (Honours)
Master of Engineering (Electronics)



Bachelor of Engineering (Software) (Honours)

Build a career combining your engineering skills with the power of computer technology.

Widen your career opportunities with this future-oriented course, enabling you to choose a course of study with either an electronics or computer science focus. This degree provides you with a solid foundation in the technical and professional skills and knowledge required to pursue a successful career in the software industry.

Bachelor of Engineering (Software) (Honours)

4 PT D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	224851
2020 MINIMUM SELECTION RANK	75.00
GUARANTEED ENTRY SELECTION RANK	80.00
TAFELINK	Diploma or above
ADJUSTMENT FACTORS	Yes

* SACE stage two specialist mathematics, mathematical methods or equivalent.
** Knowledge of SACE stage two physics or equivalent is assumed.
See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.

- The degree has been specifically created for students looking to work as professional software engineers.
- You'll develop technical and professional software skills.
- You'll have access to purpose-built state-of-the-art teaching and laboratory facilities at Tonsley.
- Through our extensive industry links, undertake a 20-week industry placement program of structured work experience with a local, national or international organisation.
- Develop practical skills in programming, testing, network engineering operating systems, design and automation, and signals and systems.
- There are opportunities to take your studies overseas as part of your industry placement.
- This degree is fully accredited by Engineers Australia at the level of professional engineer and recognised internationally under the Washington Accord.
- This course is also accredited by the Australian Computer Society at the professional level.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- engineering software developer
- graduate Linux developer
- Java developer
- platforms engineer
- graduate technical analyst.

Potential employers include:

- BAE Systems Australia
- Unico
- CSC
- Australian National Audit Office
- Lockheed Martin.

Bachelor of Engineering Science

Get a career edge with a broad foundation in engineering principles.

Develop the practical skills you'll need for a rewarding career, and graduate work-ready. In this degree you'll gain the foundations for further study in engineering or for a career in an engineering-related field. The degree offers specialisations in biomedical engineering, civil engineering, electrical and electronic engineering, mechanical engineering, software engineering, and design and technology.

Bachelor of Engineering Science

3 PT D

PREREQUISITES	None
ASSUMED KNOWLEDGE	None
SATAC CODE	214811
2020 MINIMUM SELECTION RANK	60.00
GUARANTEED ENTRY SELECTION RANK	70.00
TAFELINK	Cert IV or above
ADJUSTMENT FACTORS	Yes

See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.

- You'll learn the fundamental science that underpins engineering and how to apply those principles in practice.
- You can choose a specialisation in biomedical, civil, electrical and electronic, mechanical, or software engineering.
- The degree provides a pathway to a four-year accredited Bachelor of Engineering in an engineering field of your choice.
- There are no prerequisites or assumed knowledge, you just need an enquiring mind.
- The degree provides additional topics and support for students who do not have a background of year-12 mathematics and physics.
- You'll have access to purpose-built state-of-the-art teaching and laboratory facilities at Tonsley.
- You'll undertake an engineering project or industry placement.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- construction materials technician
- graduate consultant
- laboratory assistant
- graduate process improver.

Potential employers include:

- Defence Science & Technology Group
- Safe Environments Pty Ltd
- CSIRO
- Department of Industry, Innovation and Science
- Agilent Technologies.

THERE'S MORE THAN ONE WAY TO GET INTO AN ENGINEERING DEGREE AT FLINDERS

At Flinders, there are multiple entry pathways you can study to become an accredited engineer, even if you:

- have minimal maths and physics background
- don't know what area of engineering you want to specialise in
- have a lower ATAR than you had hoped for or
- finished school some years back

Flinders' engineering courses have a common first year which enables you to get a taste of engineering disciplines and delay your choice of specialisation until you have experienced engineering as a whole, or transfer between courses if you change your mind.

Bachelor of Engineering (Honours) - General Entry

YEARS FULL-TIME	1.5 years
PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	None
SATAC CODE	244441
2020 MINIMUM SELECTION RANK	NA
GUARANTEED ENTRY SELECTION RANK	80.00

* SACE stage two general mathematics or equivalent.

A feeder to engineering for those with less mathematics.

Flinders' General Entry pathway to the Bachelor of Engineering (Honours) provides a guaranteed entry pathway for students who have passed SACE Stage 2 General Mathematics or SACE Stage 1 Mathematics. The course includes additional mathematics and physics, enabling students to transfer into and complete any of Flinders Bachelor of Engineering (Honours) degrees in 4.5 years or less.

Bachelor of Engineering (Honours) – Flexible Entry

YEARS FULL-TIME	1 year pathway†
PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	Yes**
SATAC CODE	234931
2020 MINIMUM SELECTION RANK	75.00
GUARANTEED ENTRY SELECTION RANK	80.00

† After completion of this pathway you will be ready for second year in your selected engineering degree.

*SACE stage two specialist mathematics, mathematical methods or equivalent.

**Knowledge of SACE stage two physics or equivalent is assumed.

Get a taste of engineering before choosing your specialisation.

Embark on a first-year engineering degree without choosing the engineering specialisation you wish to pursue with the Bachelor of Engineering (Honours) – Flexible Entry. At the end of your first year you can transition to a named engineering degree of your choice without having to study the standard four-year course.

This degree provides a pathway to the following degrees:

- Bachelor of Engineering (Biomedical) (Honours)*
- Bachelor of Engineering (Civil) (Honours)
- Bachelor of Engineering (Electrical and Electronic) (Honours)
- Bachelor of Engineering (Environmental) (Honours)
- Bachelor of Engineering (Maritime) (Honours)
- Bachelor of Engineering (Mechanical) (Honours)
- Bachelor of Engineering (Robotics) (Honours)
- Bachelor of Engineering (Software) (Honours)*.

* Students who transfer to the Bachelor of Engineering (Biomedical) (Honours) or Bachelor of Engineering (Software) (Honours) will still receive 36 units of credit but may not be able to complete in minimum time due to prerequisite sequences.

Bachelor of Engineering Science

YEARS FULL-TIME	3
PREREQUISITES	None
ASSUMED KNOWLEDGE	None
SATAC CODE	214811
2020 MINIMUM SELECTION RANK	60.00
GUARANTEED ENTRY SELECTION RANK	70.00

Get a broad foundation in engineering principles.

Gain the foundations for further study in engineering or for a career in an engineering-related field. The degree offers specialisations in biomedical engineering, civil engineering, electrical engineering, electronic engineering, mechanical engineering, software engineering, and design and technology.

This degree provides a pathway to the following degrees:

- Bachelor of Engineering (Biomedical) (Honours)
- Bachelor of Engineering (Civil) (Honours)
- Bachelor of Engineering (Electrical and Electronic) (Honours)
- Bachelor of Engineering (Environmental) (Honours)
- Bachelor of Engineering (Maritime) (Honours)
- Bachelor of Engineering (Mechanical) (Honours)
- Bachelor of Engineering (Robotics) (Honours)
- Bachelor of Engineering (Software) (Honours).

More information on the Bachelor of Engineering Science can be found on page 16.

Bachelor of Engineering (Electrical and Electronic) (Honours)

SATAC CODE 244431

4 PT D

Prerequisites: SACE stage two specialist mathematics or mathematical methods or equivalent.

Electrical engineering is concerned with large scale electrical systems including renewable power generation and electric motors. Electronic engineering focusses on lower voltage systems such as computer systems, communication networks and integrated circuits. Together they are critical for next generation applications such as autonomous vehicles, space technology, smart cities and a low-carbon economy.

Bachelor of Engineering (Environmental) (Honours)

SATAC CODE 244401

4 PT D

Prerequisites: SACE stage two specialist mathematics or mathematical methods or equivalent.

Environmental engineering is where advances in science and technology are transformed into practical solutions that will protect and improve the quality of our environment. Environmental engineers are problem-solvers who design solutions to a range of hazards from airborne and waterborne diseases, water and air pollution, wastewater management and recycling.

Bachelor of Engineering (Honours) - General Entry

SATAC CODE 244441

1.5 PT D

Prerequisites: SACE stage two general mathematics or equivalent.

Flinders' General Entry provides a pathway to an Engineering specialisation for students who have passed SACE Stage 1 Mathematics or Stage 2 General Mathematics.

Bachelor of Engineering (Robotics) (Honours)/Master of Engineering (Electrical and Electronic)

SATAC CODE 244451

4 PT D

Prerequisites: SACE stage two specialist mathematics or mathematical methods or equivalent.

Create a career designing the robot workforce of the future. This degree will see you graduate with the latest learning in robotics technologies, preparing you to become a key player in developing the robots that will populate our future. High-achieving students can use the Bachelor of Engineering (Robotics) (Honours) as a pathway into a Master of Engineering (Electrical and Electronic).

Bachelor of Engineering Technology (Electronic Systems and Security)

SATAC CODE 244411

3 PT D

Prerequisites: SACE stage two general mathematics or equivalent.

Developed in collaboration with Defence Science and Technology Group within the Department of Defence, the course encompasses a wide range of communication mediums including radar, radio and microwaves. A particular focus will be placed on technologies that adopt these in conjunction with studies in signal processing, infrared imaging systems, multi-spectral sensing, satellite communications, computer networks and telecommunications.

Bachelor of Engineering Technology (Electronic Systems and Security)/Bachelor of Science (Physics)

SATAC CODE 244421

4 PT D

Prerequisites: SACE stage two general mathematics or equivalent.

This 4-year combined degree represents a unique and exciting pathway to work in a cutting-edge high technology area. The pairing of a Bachelor of Engineering Technology with a Bachelor of Science in Physics represents a pathway to a well-paid and life-long career at the forefront of electronic and electromagnetic technologies. The Bachelor of Engineering Technology (Electronic Systems and Security) is unique in Australia.

FIND OUT MORE [FLINDERS.EDU.AU/NEWCOURSES](https://flinders.edu.au/newcourses)

2021 NEW

"We're lucky to have so much amazing technology at our fingertips at Tonsley. The fact that I get to study where the latest technology is being developed makes me feel like I am part of something bigger."

Alex Benn,
Bachelor of Robotics Engineering (Honours)/
Bachelor of Computer Science



Bachelor of Mathematical Sciences

Master mathematics to solve real-world problems.

Mathematics is the foundation of many industries. Demand for mathematics graduates is particularly strong in areas including science, engineering, technology and business, and in areas as diverse as linguistics and health. Your skills and knowledge of mathematics could lead to a challenging, long-term career.

In this degree, you'll gain a foundation in the principles and techniques of modern mathematics, and learn how to apply these skills to solve today's problems. The degree is designed to produce industry-focused graduates who are in demand in a range of careers that use mathematics.

Bachelor of Mathematical Sciences

3 PT D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	None
SATAC CODE	224631
2020 MINIMUM SELECTION RANK	70.00
GUARANTEED ENTRY SELECTION RANK	70.00
TAFELINK	Cert IV or above
ADJUSTMENT FACTORS	Yes

Bachelor of Mathematical Sciences (Honours)

4 PT D

PREREQUISITES	Yes*
ASSUMED KNOWLEDGE	None
SATAC CODE	224641
2020 MINIMUM SELECTION RANK	80.00
GUARANTEED ENTRY SELECTION RANK	80.00
TAFELINK	Diploma or above
ADJUSTMENT FACTORS	Yes

* SACE stage two specialist mathematics or mathematical methods or equivalent.

See the inside back spread for more information on your admission pathways, opportunities to enhance your degree, and how to apply.

- Your studies will focus on both pure and applied mathematics and statistics.
- You can choose topics in other disciplines that use applied mathematics, such as medicine, business, physics and the environment.
- You'll develop advanced research, communication and technical skills.
- Focus on advanced pure and applied mathematics in our Mathematical Sciences Laboratory.
- The degree is designed to exceed the Australian Mathematical Society's accreditation standards.
- Join the university that produced Australia's Fields Medal winner, Professor Terence Tao.

CAREER OPPORTUNITIES

Your degree is the first step towards a range of employment opportunities, including:

- credit bureau analyst
- data and analytics officer
- consultant – data analytics
- quantitative assistant trader
- consumer research executive.

Potential employers include:

- Mercer
- Bureau of Meteorology
- Australian Bureau of Statistics
- The Nielsen Company (Australia)
- Australian Securities and Investments Commission.

Combined degrees

All science and engineering degrees can be combined.

By combining your degree with a qualification in another discipline, you'll connect diverse knowledge in unique ways and develop specialised abilities to help you stand out from the pack. Studying a combined degree at Flinders is the key to enhancing your career opportunities.

Example degree combination

Bachelor of Design and Technology Innovation/Bachelor of Science (Environmental Science)

SATAC CODE 224772

Develop your scientific skills in order to solve problems in a variety of fields and create commercial solutions.

For a full list of combined degree options visit flinders.edu.au/combineddegrees

Flinders at Tonsley

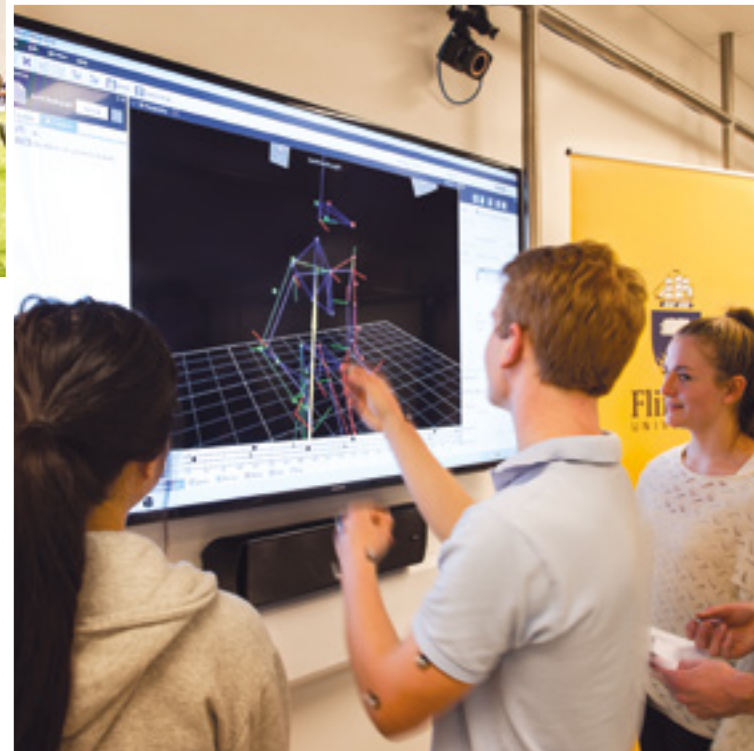


Tonsley embodies world's best practice in education, teaching and research. It's a place where innovation, collaboration and entrepreneurial spirit combine to create the products and processes of the 21st century and beyond.

With more than 150 staff and 2,000 students – and a 2,000 square metre pod for heavy engineering equipment – Tonsley is a place where Flinders University students interact with business and where business interacts with Flinders researchers in areas such as engineering, medical devices and nanoscale technologies.

Flinders at Tonsley centrally locates computer science, engineering and mathematics at Flinders University, with the New Venture Institute, Medical Device Research Institute and Centre for Nanoscale Science and Technology, alongside some of Adelaide's biggest businesses and industries.

Tonsley is located centrally between Flinders University's Bedford Park campus and Adelaide city. It's connected to the city by train, offering convenient access 15 minutes from the city's CBD. And Tonsley is a five-minute car ride, a 15-minute ride on the Flinders loop bus, or a 30-minute walk from the Bedford Park campus.



GET MORE OUT OF YOUR STUDY

Combined degrees

Combining your degree with a qualification in another discipline will give you more expertise and expand your career prospects. Studying a combined degree at Flinders will help you stand out from the crowd.

A combined degree is a combination of two Flinders bachelor degrees. As a combined degree graduate you will have two qualifications in just one to one-and-a-half years of extra study.

Our combined degree programs are designed to enhance your educational, academic and professional qualifications while minimising the cost and length of your studies. Flinders' combined degrees allow you to undertake in-depth study in exciting combinations that aren't usually available in single degrees.

flinders.edu.au/combineddegrees

Bachelor of Letters

The Bachelor of Letters is available to study alongside any degree at Flinders and enables you to graduate with two qualifications.

The Bachelor of Letters is available in the following disciplines:

- Archaeology
- Creative enterprise
- Creative writing
- Criminology
- English
- Health
- History
- Innovation and enterprise
- Languages (French, Italian, Modern Greek, Spanish)
- Mathematics
- Sports performance coaching
- Theology.

The Bachelor of Letters is normally undertaken part-time over three years to allow concurrent study with your primary bachelor degree, adding one year to your overall study program.

BEGIN YOUR JOURNEY TO A SUCCESSFUL CAREER

Bachelor of General Studies

The Bachelor of General Studies (SATAC code: 234181) is a flexible degree that provides a sound basis of knowledge in an area of your choice. It is designed to prepare you with communication skills, a firm grasp of ethics and the confidence to make connections across geographical, disciplinary, social and cultural boundaries. Successful completion of the first year to the required standard also provides you with guaranteed entry into a range of our degrees.

flinders.edu.au/study/courses/bachelor-general-studies

STUDENT SUPPORT

Whatever you decide to study at Flinders, we’re always here to help you succeed.

Careers & Employability Service

The Careers and Employability Service helps give you the edge in your career. CareerHub, our online employment portal, offers personalised job opportunities, career planning, programs to help you broaden your skills and experience, access to employer events and career-related resources. Whatever you are studying, CareerHub can help you find your direction and start your career.

flinders.edu.au/careers

Flinders Connect

Flinders Connect can help with everything from enrolment and fees to exams and graduation. You can also access Flinders Connect for specialist services in admissions, careers and IT help. A range of support services is also available.

flinders.edu.au/flindersconnect

Flinders Library

Our extensive library is more than a book repository. We provide a range of services such as computing and printing, document delivery and one-on-one librarian appointments for assistance with search strategies and finding resources for your assignments.

libraryflin.flinders.edu.au

Flinders Living

Flinders is the only university in Adelaide that gives you the opportunity to live on campus, and both University Hall and Deirdre Jordan Village are located within the Bedford Park campus. The wide range of social, sporting and community activities also enhances the student experience at Flinders Living.

flinders.edu.au/living

Flinders University Student Association

The Flinders University Student Association (FUSA) continues a long tradition of active student involvement and represents the rights and interests of students. FUSA manages social events, non-sporting clubs and societies, the student publication Empire Times, and helps with academic, administrative and welfare issues.

fusa.edu.au

Health, counselling and disability services

Managing your health is important. We have facilities and services available to help you look after your physical and mental health.

flinders.edu.au/hcd

Transition to university

Starting at university is a big step; let’s make it easier. The Student Learning Centre provides a range of services from writing and mathematics support to assistance with study and time-management skills.

students.flinders.edu.au/study-support/slc

Yunggorendi Student Engagement

Yunggorendi Student Engagement provides high quality support services for Aboriginal and Torres Strait Islander students at Flinders University. Our team of highly qualified Indigenous and non-Indigenous staff connect to Indigenous and non-Indigenous communities on local, national and international levels.

flinders.edu.au/yunggorendi



PATHWAYS TO STUDY

Whether you are a school leaver or returning to study at a later date, there are many ways to gain admission to Flinders University. Explore your options and find the entry path that’s right for you.

If you have recent secondary education

Year 12 Entry

Most Year 12 applicants enter university via the traditional entry method, where offers are made to eligible applicants with the highest selection rank until all places in the degree are filled. Your selection rank is used by Flinders to assess your admission to a course and is based on your ATAR plus any adjustment factors for which you are eligible.

Elite Athlete Pathway

If you've officially represented your school or state at a national level competition, we'll consider your school's recommendation about your academic potential when you apply.

Research Project B Pathway

If you have strong results in the Research Project B subject you will be considered for entry into Flinders on the basis of your Year 12 results and Research Project B performance.

uniTEST

If you're in Year 12, uniTEST may enhance your chances of getting into Flinders. We will select students based on Year 12 results and uniTEST performance.

If you have some higher education

Tertiary Transfer

If you have completed at least one semester of full-time equivalent study at university, you may be able to transfer to study at Flinders University using your grade point average (GPA).

If you have vocational education and training (VET)

TAFElink

Flinders offers guaranteed entry to selected degrees for applicants who have completed a TAFE/VET certificate IV or higher-level qualification, as long as degree prerequisites are met.

TAFE SA Dual Offers

Flinders University together with TAFE SA offer over 45 dual offer pathways in various disciplines.

Adult Entry

The adult entry scheme enables people aged 18 years and over to apply to study at Flinders via the Special Tertiary Admissions Test (STAT). Applications are made via SATAC.

If you have work and life experience

Foundation Studies

The Foundation Studies program has been designed to introduce you to university study in a supportive learning environment. Open to people from all backgrounds, Foundation Studies provides a pathway to gain entry to most degrees at Flinders and offers guaranteed entry into some degrees.

Military Pathways

Use your military service in the Australian Defence Force as a pathway to a Flinders University degree.

Special Tertiary Admissions Test (STAT)

Adult entry to university via the Special Tertiary Admissions Test (STAT) assesses your ability to study at a tertiary level.

A pathway to all degrees

Bachelor of General Studies

Begin your journey to a successful career. Flinders' Bachelor of General Studies is a flexible degree designed to prepare you with communication skills, a firm grasp of ethics and the confidence to make connections across geographical, disciplinary, social and cultural boundaries.

flinders.edu.au/study/pathways

WHEN CAN I START?

Flinders offers two admissions cycles each year for undergraduate degrees.

Semester 1 – March start

Applications open in August for commencement the following year.

Semester 2* – July start

Mid-year applications open in August for commencement in July the following year.

*Not all degrees are offered for semester 2 entry. Check our midyear site for details: flinders.edu.au/midyear

HOW DO I APPLY?

Check the application dates

Applicants need to apply through the South Australian Tertiary Admissions Centre (SATAC): satac.edu.au

Read the course information

- check the admission criteria
- check the prerequisites
- check assumed knowledge and additional admission criteria
- consider combined degrees
- check English language requirements
- consider pathways to your degree

Visit us

- register for Flinders Open Days
- check other upcoming events at: events.flinders.edu.au

Contact us if you have any questions

- call: 1300 354 633 (local call cost)
- email: askflinders@flinders.edu.au

Apply

- apply through SATAC at: www.satac.edu.au/apply-now
- apply for scholarships at: flinders.edu.au/scholarships
- lodge separate Indigenous application (if applicable) at: flinders.edu.au/study/pathways/indigenous-admission-scheme

Accept your offer

Enrol in your subject/topics at: students.flinders.edu.au/my-course/enrolment

KEY DATES

Flinders Open Days:

Monday 10 - Saturday 15 August 2020

Semester 1 2021 start date:

1 March 2021

Semester 1 Orientation week:

22 February 2021

Semester 2 2021 start date:

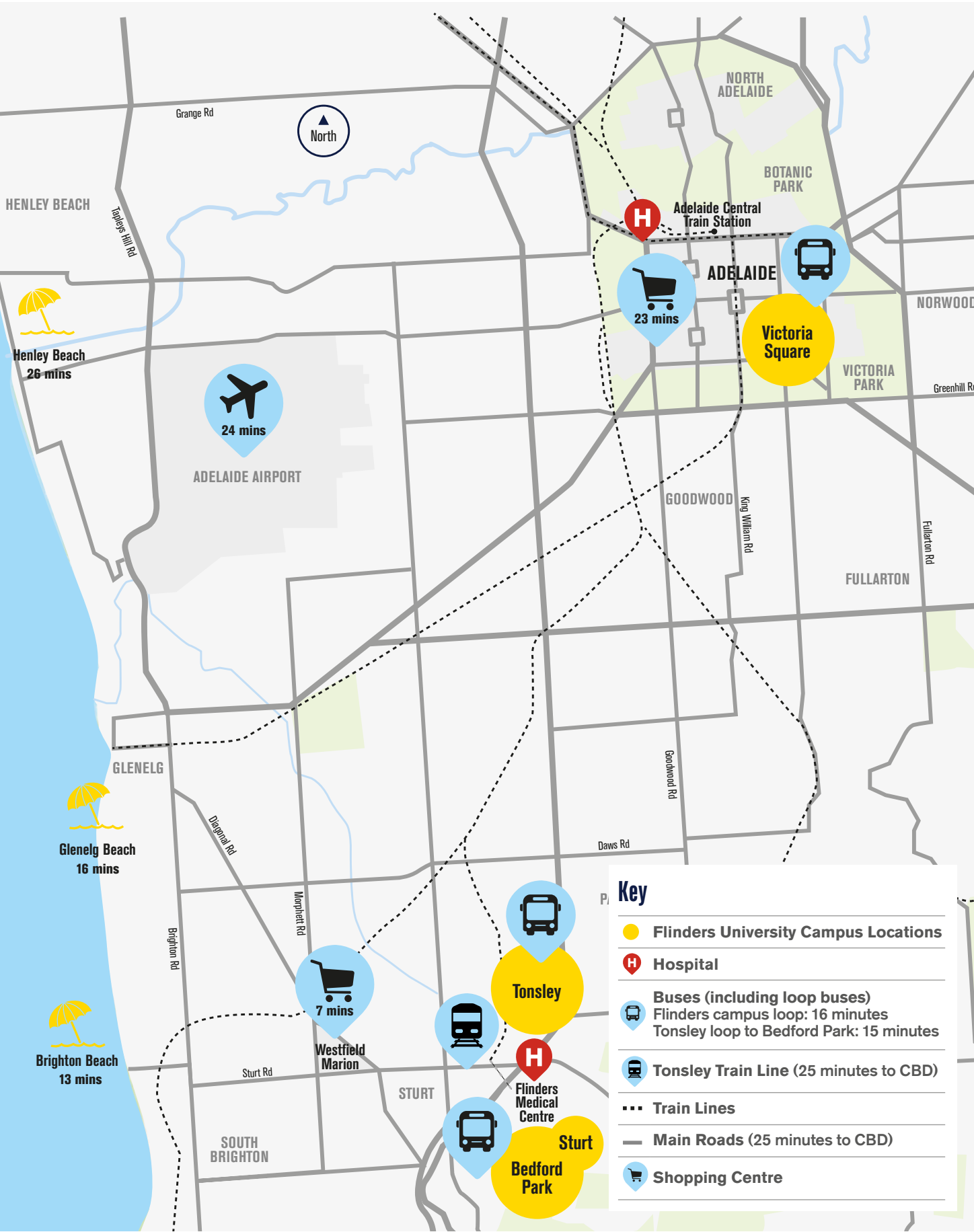
26 July 2021

Semester 2 Orientation week:

19 July 2021

THIS IS FLINDERS

Flinders’ huge main campus features an award-winning hub and plaza, with retail, food outlets and a state-of-the-art sport and fitness centre. Take a virtual tour of Flinders University and explore our amazing locations. It’s the next best thing to being here! flinders.edu.au/vr





FLINDERS FOR ENGINEERING

CONTACT US

Our friendly staff are available to answer your questions:

1300 354 633 (local call cost) | askflinders@flinders.edu.au | flinders.edu.au/ask

International students should contact:

+61 8 8201 2727 | flinders.edu.au/international | INTLAdmissions@flinders.edu.au

Every effort has been made to ensure the information in this brochure is accurate at the time of publication: April 2020. Flinders University reserves the right to alter any course or topic contained herein without prior notice. Alterations are reflected in the course information available on the University's website. CRICOS No. 00114A



Flinders
UNIVERSITY