

# Engineering, Defence, Computer Science & Information Technology

Engineering | Computer Science | Artificial Intelligence Defence & National Security | Information Technology Engineering Technology | Mathematics | Robotics



# Flinders.edu.au

# **Engineering, Defence, Computer Science & Information Technology**

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# Defence

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The following pages feature undergraduate degree programs and information for domestic students, including SATAC codes, selection ranks and more. For international CRICOS codes, visit flinders.edu.au/international



# **Acknowledgement of Country**

Flinders University acknowledges the Traditional Owners and Custodians of the lands and waters on which its campuses are located. These are the Traditional Lands of the Arrente, Dagoman, First Nations of the South East, First Peoples of the River Murray & Mallee region, Jawoyn, Kaurna, Larrakia, Ngadjuri, Ngarrindjeri, Ramindjeri, Warumungu, Wardaman and Yolngu people. We honour their Elders past, present and emerging.

# At Flinders, it's all about your global career

# **Choose your degree**

Flinders University offers a range of future-focused degrees that will allow you to follow your interest across areas such as engineering, computer science, information technology and defence.

Choose a degree that reflects your passions and graduate with the skills and knowledge to take your place in an ever-changing world.

# Be taught by leaders

Flinders' engineering, defence, computer science and information technology degrees are taught by highly-qualified academics who are active in their respective fields and have the practical skills and industry networks to ensure that you graduate more than ready for the next step in your career path.

# 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.



"Engineering is such an exciting field because it's always changing and evolving, which means that the problems we're faced with today will be completely different in a decade's time. This degree has equipped me with the skills I need for a strong start in the field I'm pursuing, in both technical and professional aspects."

# An Lam

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





# Engineering

# The career of your dreams

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. From robotics to renewable energy, shipbuilding and defence, civil engineering or creating new medical technologies... Flinders engineering graduates are working in a broad range of engineering fields across the globe. You can help design and build tomorrow.

# Graduate ready for success

Flinders Engineering degrees are offered in close collaboration with industry. You'll be plugged into our \$120 million hub of innovation and entrepreneurship at Tonsley, studying alongside some of Adelaide's biggest businesses and globally recognised organisations such as SAGE, Siemens, SIMEC ZEN Energy, Tesla, Micro-X and Rockwell Automation. Graduate career-ready and ready to take on the world.

# Up to 18 months with industry

Flinders' engineering's Work Integrated Learning (WIL) program is South Australia's longest industry placement. All Flinders engineering students have the opportunity to undertake a 20-week industry placement as part of their degree, helping them graduate work-ready. Honours students complete a research placement enabling them to work alongside professional engineers, tackling real-world problems, for up to 18 months in total.

# No. 1 in Australia in Engineering for learning resources<sup>\*</sup>

\* The Good Universities Guide 2020 (undergraduate)

# SA's longest engineering placement<sup>\*\*</sup>

\*\* Public SA-founded universities only

# **Bachelor of Design and Technology**

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.

SATAC code (Tonsley)	244591	3 years full-time
Prerequisites	None	Part-time available
Assumed knowledge	None	Deferrable
2023 selection rank	70.00	_
Guaranteed entry selection rank	75.00	_
TAFElink	Cert IV or above	-
Adjustment factors	Yes	

- Gain an understanding of industrial design, technology and innovation in one degree and learn to match a problem with technology to create a commercial solution.
- 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 workintegrated 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 could open up 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)

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.

SATAC code (Tonsley)	224781
Prerequisites	Yes*
Assumed knowledge	Yes**
2023 selection rank	75.00
Guaranteed entry selection rank	80.00
TAFElink	Dip or above
Adjustment factors	Yes

4 years full-time

Part-time available

Deferrable

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

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

- 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 could open up a range of employment opportunities, including:

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

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

# ENGINEERING

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

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.

224861	5 years full-time
Yes*	Part-time available
Yes**	Deferrable
95.00	_
95.00	_
NA	_
Yes	
itics or	_
	Yes* Yes** 95.00 95.00 NA

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

- 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 could open up a range of employment opportunities, includina:

- 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)**

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.

SATAC code (Tonsley)	224791	4 years full-time
SATAC code (Festival Plaza)	284281	Part-time available
Prerequisites	Yes*	Deferrable
Assumed knowledge	Yes**	
2023 selection rank	75.00	
Guaranteed entry selection rank	80.00	
TAFElink	Dip or above	
Adjustment factors	Yes	
* SACE stage two specialist mathema mathematical methods or equivalent.		
** Knowledge of SACE stage two phy is assumed.	vsics or equivalent	

- 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.
- · 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 could open up a range of employment opportunities, including:

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

### Potential employers include:

- Arup
- Lendlease
- Australian Rail Track Corporation
- City of Marion Council.

# **Bachelor of Engineering** (Electrical and Electronic) (Honours)

Be a part of the next generation of electrical and electronic technology. Electrical engineering is concerned with large-scale electrical systems including renewable power generation and electric motors. Electronic engineering focuses on lower voltage systems such as computer systems, communication networks and integrated circuits.

SATAC code (Tonsley)	244431	4 years full-time
SATAC code (Festival Plaza)	284291	Part-time available
Prerequisites	Yes*	Deferrable
Assumed knowledge	Yes**	
2023 selection rank	75.00	
Guaranteed entry selection rank	80.00	
TAFElink	Dip or above	
Adjustment factors	Yes	
* SACE stage two specialist mathems	atics or	

mathematical methods or equivalent

\*\* Knowledge of SACE stage two physics or equivalent

is assumed.

- The electrical and electronic engineering degree at Flinders allows you to specialise in four areas: advanced electrical engineering, advanced electronic engineering, computer and network systems, and electronic systems and security.
- Our nationally recognised 20-week integrated work placement gives you practical industry experience.
- You will develop both the practical skills and theoretical knowledge needed to design and build electrical and electronic systems and devices.
- The course provides opportunities for interdisciplinary learning with other students from different engineering disciplines.
- Study in world-class facilities in the new technology precinct at Tonsley.

### **Career opportunities**

Your degree could open up a range of employment opportunities, includina:

- computer systems engineer
- electrical power engineer
- electronic engineer
- · security systems engineer
- telecommunications engineer.

#### Potential employers include:

- computer and telecommunications companies
- construction companies
- defence industry
- government and universities
- manufacturing
- mining and resources industry.

lection rank	80.00
	Dip or above
	Yes
ecialist mathema ds or equivalent.	tics or

# Majors – Bachelor of Engineering (Civil) (Honours)

Choose from a range of majors that allow you to follow your interests and graduate ready to take on the world. Flinders Bachelor of Engineering (Civil) (Honours) allows you to select a major in any of the following areas:

# **Civil infrastructure**

This is a broad major that focuses on all aspects of civil engineering covering structural engineering, transport systems, geotechnical engineering and water engineering in depth.

# Environmental engineering

Explore the environmental and sustainability aspects of civil engineering. On top of the solid civil engineering core you will study topics such as sustainable engineering, waste management and hydrochemistry.

# Structural engineering

Study the development of civil engineered structures. To expand on your core civil engineering studies, you will also focus on concrete analysis and design, foundation design, and fatigue and fracture analysis.

# Transport systems engineering

This major focuses on the development of transport solutions in civil engineering. Career focused and industry informed, topics will include transport planning, modelling and remote sensing.

# Majors – Bachelor of Engineering (Electrical and Electronic) (Honours)

Choose from a range of majors that allow you to follow your interests and graduate ready to take on the world. Flinders Bachelor of Engineering (Electrical and Electronic) (Honours) allows you to select a major in any of the following areas:

# Advanced electrical engineering

This major focuses on electrical engineering and includes study in electrical energy systems including high-voltage electrical power and renewable energy.

# Advanced electronic engineering

Supplementing your core studies, this major focuses on the use of electronics as a component of computers, communications technology and control systems.

# Computer and network systems

Study the application of electrical and electronic technology to create computer systems and networked devices.

# Electronic systems and security

Take your studies to the cutting edge. This major focuses on the electromagnetic spectrum and the way in which electronics can be used to assure electromagnetic security.

# **Bachelor of Engineering (Electrical** and Electronic) (Honours)/Master of **Engineering (Mechanical)**

Many companies want engineers that combine the skills of electrical and electronic engineers with those of mechanical engineers.

SATAC code (Tonsley)	244571	5.5 years fu
Prerequisites	Yes*	Part-time av
Assumed knowledge	Yes**	Deferrable
2023 selection rank	95.00	
Guaranteed entry selection rank	95.00	
TAFElink	NA	
Adjustment factors	Yes	

• This degree combination is unique in South Australia.

- Our nationally recognised integrated work placement gives you practical industry experience.
- 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 could open up a range of employment opportunities, includina:
- graduate mechanical, electronic or electrical engineer
- graduate project engineer (mechanical and/or electrical and electronic) • process development engineer/scientist

### Potential employers include:

- design consultancies
- construction companies
- defence industry
- government and universities.

# **Bachelor of Engineering (Civil)** (Honours)/Master of Engineering Management

The civil engineering component is a comprehensive, accredited degree covering the four main civil engineering themes of structures, transport, water and geomechanics. The engineering management component combines the problem-solving and technical design ability of engineering with executive organisational skills and the planning power of business and management.

SATAC code (Tonsley)	244741	5 years
Prerequisites	Yes*	Part-tin
Assumed knowledge	Yes**	Deferr
2023 selection rank	90.00	
Guaranteed entry selection rank	95.00	
TAFElink	NA	
Adjustment factors	Yes	

# **Bachelor of Engineering (Electrical** and Electronic) (Honours)/Master of **Engineering Management**

The electrical and electronic engineering component is a comprehensive, accredited degree providing both a theoretical and a practical basis of electrical and electronic systems. The engineering management component combines the problem-solving and technical design ability of engineering with executive organisational skills and the planning power of business and management.

SATAC code (Tonsley)	244751	5 years full-tim
Prerequisites	Yes*	Part-time availa
Assumed knowledge	Yes**	Deferrable
2023 selection rank	90.00	
Guaranteed entry selection rank	95.00	
TAFElink	NA	
Adjustment factors	Yes	

# **Bachelor of Engineering (Mechanical)** (Honours)/Master of Engineering Management

The mechanical engineering component is a comprehensive, accredited degree providing both a theoretical and a realworld practical basis for designing and developing complex mechanical devices. The engineering management component combines the problem-solving and technical design ability of engineering with executive organisational skills and the planning power of business and management.

SATAC code (Tonsley)	244761	5 years full-
Prerequisites	Yes*	Part-time av
Assumed knowledge	Yes**	Deferrable
2023 selection rank	90.00	
Guaranteed entry selection rank	95.00	
TAFElink	NA	
Adjustment factors	Yes	

# Bachelor of Engineering (Environmental) Bachelor of Engineering Technology (Honours)/Master of Engineering (Civil)

Combine the advantages of being an in-demand environmental engineer with the knowledge needed to become an accredited civil engineer.

SATAC code (Tonsley)	244561	5 years full-tim
Prerequisites	Yes*	Part-time avail
Assumed knowledge	Yes**	Deferrable
2023 selection rank	90.00	
Guaranteed entry selection rank	95.00	
TAFElink	Dip or above	
Adjustment factors	Yes	

\* SACE stage two specialist mathematics or

mathematical methods or equivalent.

\*\* Knowledge of SACE stage two physics or equivalent

is assumed.

# **Bachelor of Engineering Technology** (Advanced Manufacturing and Digital Design)

Constructed with substantial industry input and support, this This four-year combined degree represents a unique and exciting course enables students to learn both the fundamentals and the pathway to work in a cutting-edge, high-technology area. practical application of a range of advanced manufacturing, digital design and industry 4.0 techniques.

244621 Yes* Yes**	3 years full-time Part-time available Deferrable
Yes**	
	Deferrable
70.00	
70.00	
75.00	
Dip or above	
Yes	
	Dip or above

\*\* Knowledge of SACE stage two, physics and general mathematics or equivalent is assumed.

\* SACE stage two specialist mathematics or mathematical methods or equivalent \*\* Knowledge of SACE stage two physics or equivalent is assumed.

# (Systems and Security)

Developed in collaboration with the Defence Science and Technology Group within the Department of Defence, the course encompasses a wide range of communication mediums including radar, radio and microwaves.

SATAC code (Tonsley)	244701
Prerequisites	Yes*
Assumed knowledge	Yes**
2023 selection rank	NA
Guaranteed entry selection rank	NA
TAFElink	Dip or above
Adjustment factors	Yes

3 years full-time Part-time available Deferrable

\* SACE stage one mathematics or stage two general mathematics or equivalent.

\*\* Knowledge of SACE stage two general mathematics or equivalent is assumed

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

SATAC code (Tonsley)	244711
Prerequisites	Yes*
Assumed knowledge	Yes**
2023 selection rank	NA
Guaranteed entry selection rank	NA
TAFElink	Dip or above
Adjustment factors	Yes

\* SACE stage one mathematics or stage two general mathematics or equivalent.

\*\* Knowledge of SACE stage two physics and

mathematical methods or equivalent is assumed

### 4 years full-time

Part-time available

Deferrable

# Bachelor of Engineering (Environmental) Bachelor of Engineering (Maritime) (Honours)

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. They implement environmental engineering law and assess the environmental impact of proposed projects.

SATAC code (Tonsley)	244401	4 years full-time
Prerequisites	Yes*	Part-time available
Assumed knowledge	Yes**	Deferrable
2023 selection rank	75.00	
Guaranteed entry selection rank	80.00	
TAFElink	Dip or above	
Adjustment factors	Yes	

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

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

- Integrates with Flinders' world-class research in environmental science and engineering.
- Our nationally recognised integrated work placement gives you practical industry experience.
- You will develop both the practical skills and theoretical knowledge needed to design and build engineering solutions to environmental problems.
- The course provides opportunities for interdisciplinary learning with other students from different engineering disciplines.
- Study in world-class facilities in the new technology precinct at Tonsley.

### Career opportunities

Your degree could open up a range of employment opportunities, includina:

- water supply and wastewater treatment engineer
- environmental health engineer
- air pollution management engineer

# • environmental impact assessor.

# Potential employers include:

- building and construction companies
- government and universities
- manufacturing industry
- mining and resources industry.

# (Honours)

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.

4 years full-time

Part-time available

Deferrable

SATAC code (Tonsley)	234591
Prerequisites	Yes*
Assumed knowledge	Yes**
2023 selection rank	75.00
Guaranteed entry selection rank	80.00
TAFElink	Dip or above
Adjustment factors	Yes

\* SACE stage two specialist mathematics or 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.

- 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 are 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 could open up a range of employment opportunities, includina:

- marine engineer
- maritime systems engineer
- naval architect
- ocean engineer
- pipeline engineer (subsea).

### Potential employers include:

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

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

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.

SATAC code (Tonsley)	224831	4 years full-time
SATAC code (Festival Plaza)	284321	Part-time available
Prerequisites	Yes*	Deferrable
Assumed knowledge	Yes**	
2023 selection rank	75.00	
Guaranteed entry selection rank	80.00	
TAFElink	Dip or above	
Adjustment factors	Yes	

\* SACE stage two specialist mathematics or

mathematical methods or equivalent

\*\* Knowledge of SACE stage two physics or equivalent

- is assumed.
- 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 could open up a range of employment opportunities, includina:

- 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

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

Choose from a range of majors that allow you to follow your interests and graduate ready to take on the world. Flinders' Bachelor of Engineering (Mechanical) (Honours) allows you to select a major in any of the following areas:

# Mechanical engineering

This major provides a broad focus on all aspects of mechanical engineering, with topics including solid mechanics, mechanics of machines, fluid mechanics and thermodynamics, mechanical design, control systems, manufacturing and mechanics of materials.

# **Electro-mechanical systems**

In many industrial sectors, mechanical engineers with a great understanding of electrical engineering principles are ideally preferred. This major uniquely provides a secondary course of study in electrical engineering on top of the core mechanical engineering topics. As well as the mechanical engineering topics, you will also cover electrical engineering principles, electrical machines, electrical energy and power systems.

# Materials engineering

The development and engineering of materials enable mechanical engineers to design and manufacture products and devices with the best possible performance in service. This major focuses on the use of materials in mechanical systems. As well as the mechanical engineering topics, you will also study areas such as materials structure and characterisation, materials selection and failure analysis.

# Maritime engineering

This major focuses on the use of mechanical systems in a maritime context. Taking this major will not only provide a comprehensive mechanical degree but also cover topics such as shipbuilding and hydrostatics. Students taking this major can transfer to the University of Tasmania at the end of year two to complete a specialised maritime engineering degree.

# Naval shipbuilding

With around 15,000 skilled and professional jobs expected to be created as part of the National Naval Shipbuilding Enterprise, Flinders has partnered with the Naval Shipbuilding College and defence industry primes to ensure our graduates are ready to seize emerging defence careers.

Flinders is the first Australian University to be endorsed for delivering courses aligned with the future employment needs of the naval shipbuilding industry, courses such as the Bachelor of Engineering (Honours) - Mechanical, Electrical and Electronic, Robotics, Software, or Maritime, and our Bachelor of Information Technology (Networks and Cybersecurity Systems).

By studying **engineering** at Flinders, you'll have access to purpose-built teaching and laboratory facilities, personalised teaching, and great staffstudent working relationships.

# ENGINEERING

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

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.

SATAC code (Tonsley)	224871	5 years full-time
Prerequisites	Yes*	Part-time availab
Assumed knowledge	Yes**	Deferrable
2023 selection rank	95.00	-
Guaranteed entry selection rank	95.00	_
TAFElink	NA	_
Adjustment factors	Yes	
+ 0.4.05		-

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

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

- · 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 could open up 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)

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.

ime

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

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.

SATAC code (Tonsley)	224841	4 years full-t
Prerequisites	Yes*	Part-time av
Assumed knowledge	Yes**	Deferrable
2023 selection rank	75.00	
Guaranteed entry selection rank	80.00	
TAFElink	Dip or above	
Adjustment factors	Yes	
* CACE store two specialist methods		

\* SACE stage two specialist mathematics or mathematical methods or equivalent. \*\* Knowledge of SACE stage two physics or equivalent is assumed

- 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 could open up a range of employment opportunities, including

- industrial engineer
- instrumentation engineer
- manufacturing engineer
- mechatronics specialist
- · process and automation engineer scientist.

### Potential employers include:

- Lockheed Martin
- Smart Automation Systems
- Monadelphous
- Simavita
- Rocket Lab
- Airservices Australia

244451	5 years full-time
Yes*	Part-time available
Yes**	Deferrable
95.00	_
95.00	_
NA	-
Yes	
	Yes* Yes** 95.00 95.00 NA

SACE stage two specialist mathematics o

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

### Career opportunities

Your degree could open up a range of employment opportunities, includina:

- 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.

mathematical methods or equivalent.

# **Bachelor of Engineering Science**

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.

SATAC code (Tonsley)	214811
SATAC code (Festival Plaza)	284341
Prerequisites	None
Assumed knowledge	None
2023 selection rank	60.00
Guaranteed entry selection rank	70.00
TAFElink	Cert IV or above
Adjustment factors	Yes

3 years full-time Part-time availabl

Deferrable

- 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 inquiring 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 could open up a range of employment opportunities, including:

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

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

# ENGINEERING

# **Bachelor of Engineering (Software)** (Honours)

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.

SATAC code (Tonsley)	224851	4 years full-time
SATAC code (Festival Plaza)	284331	Part-time available
Prerequisites	Yes*	Deferrable
Assumed knowledge	Yes**	
2023 selection rank	75.00	
Guaranteed entry selection rank	80.00	
TAFElink	Dip or above	
Adjustment factors	Yes	

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

- The degree has been specifically created for students looking to work as professional software engineers.
- 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 could open up 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 Technology** (Systems and Security)

Developed in collaboration with the Defence Science and Technology Group within the Department of Defence, this 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, multispectral sensing, satellite communications, computer networks and telecommunications.

SATAC code (Tonsley)	244701	3 years full
Prerequisites	Yes*	Part-time a
Assumed knowledge	None	Deferrable
2023 selection rank	70.00	
Guaranteed entry selection rank	75.00	
TAFElink	Dip or above	
Adjustment factors	Yes	
* SACE stage one mathematics or sta mathematics or equivalent.	ge two general	
**Knowledge of SACE stage two phy is assumed.	sics or equivalent	

- Unique in Australia for making graduates future-ready and prepared to tackle the most challenging security problems facing Australia.
- Generous scholarships available for high-achieving students.
- · Includes placements and projects in collaboration with the government and defence industry but with applicability well beyond defence.
- Developed in collaboration with the Defence Science and Technology Group within the Department of Defence.

### **Career opportunities**

Your degree could open up a range of employment opportunities, including

- defence research scientist/engineer
- electronic enginee
- electronic security specialist
- information analyst
- physicist
- · telecommunications engineer.

## Potential employers include:

- Department of Defence and other arms of government
- defence industry
- computer and telecommunications industry
- information research and advisory organisations
- cybersecurity firms.

Note that some options within the award, such as project and practicum placement within defence organisations, may be subject to security clearance. For this reason, this award is not available to international students

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

Paired with the Bachelor of Science (Physics), the Bachelor of Engineering Technology (Electronic Systems and Security) has been designed to develop future-ready graduates to help government, industry and academia tackle the most challenging security problems facing Australia.

It encompasses developing the requisite knowledge, skills and real-world experience in the exploitation of the electromagnetic spectrum and provides a pathway to a highly paid and enduring career at the forefront of electronic and electromagnetic technologies.

SATAC code (Tonsley)	244711	4 years full-time
Prerequisites	Yes*	Part-time available
Assumed knowledge	None	Deferrable
2023 selection rank	70.00	
Guaranteed entry selection rank	75.00	
TAFElink	Dip or above	
Adjustment factors	Yes	
* SACE stage one mathematics or sta mathematics or equivalent.	age two general	
**Knowledge of SACE stage two phy	sics and	

mathematical methods or equivalent is assumed.

- Unique in Australia for making graduates future-ready and prepared to tackle the most challenging security problems facing Australia.
- Obtain two degrees in four years of full-time study.
- Generous scholarships are available for high-achieving students.
- Includes placements and projects in collaboration with the government and defence industry but with applicability well beyond defence.
- Articulates to the Bachelor of Engineering (Electrical and Electronic) (Honours) and the Bachelor of Science (Physics) (Honours).
- Developed in collaboration with the Defence Science and Technology Group within the Department of Defence.

### **Career opportunities**

Your degree could open up a range of employment opportunities, including:

- defence research scientist/engineer
- electronic engineer
- electronic security specialist
- information analyst

physicist

- telecommunications engineer.

### Potential employers include:

- Department of Defence and other arms of government
- defence industry
- computer and telecommunications industry
- information research and advisory organisations
- cybersecurity firms.

# Scholarships available

Flinders University in collaboration with Defence Science and Technology are excited to offer scholarships for high-performing Australian students who enrol in the combined Bachelor of Engineering Technology (Electronic Systems and Security)/Bachelor of Science (Physics). Apply to SATAC now.

# **Bachelor of Mathematical Sciences**

# **Bachelor of Mathematical Sciences** (Honours)

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.

SATAC code (Tonsley)	224631
SATAC code (Honours) (Tonsley)	224641
Prerequisites	Yes*
Assumed knowledge	None
2023 selection rank	70.00
2023 selection rank (Honours)	80.00
Guaranteed entry selection rank	70.00
Guaranteed entry selection rank (Honours)	80.00
TAFElink	Cert IV or above
TAFElink (Honours)	Dip or above
Adjustment factors	Yes

# 3 years full-time

lonours years full-ti

Part-time availab

Deferrable

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

- 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 could open up a range of employment opportunities, includina:

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

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



# Flinders Automotive Solar Car Teams program (FAST)

The Flinders solar car program has been running since 2016 and provides a global experience for Flinders students. They get to work closely with industry and leading academics in this field, and are involved as a cross-functional group to develop various aspects of the program from design, mechanical and electrical development through to biomedical support systems, software and on-board IT systems.

The program has so far seen four Flinders Automotive Solar Car Teams (FAST) complete the World Solar Challenge as part of their studies, learning and refining new skills that underpin, enhance and grow their academic learnings to produce job-ready graduates.

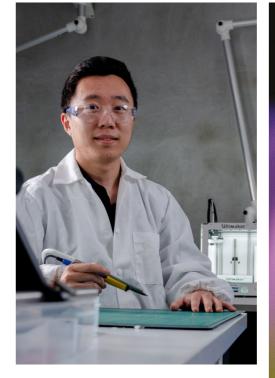
Read how Flinders students are leading the way in our solar car design.



"The world is set to convert 80 per cent of its power via Power Electronics by 2030. Being involved in projects such as FAST will give you, at the very least, an appreciation for energy harvesting, conversion, storage and utilisation that will no doubt be useful in the industry."

**Corbus Hoffman** Design Engineer, REDARC





# 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 twenty-first 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 fiveminute car ride, a 15-minute ride on the Flinders loop bus or a 30-minute walk from the Bedford Park campus.

Tonsley is in touch with industry. Study alongside industry leaders and gain valuable career-ready skills.

# ENGINEERING

# Combined degrees can enhance your job prospects

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 combinations:

# Bachelor of Engineering (Environmental) (Honours)/Bachelor of Science (Environmental Science)

# SATAC code (Tonsley) 244401

With the problems faced by the environment becoming more critical, environmental scientists and engineers are in very high demand. Flinders University offers a unique double degree that combines environmental engineering with environmental science. You'll graduate with two separate degrees, greater career prospects and a competitive edge in the job market.

# Bachelor of Medical Science/Bachelor of Engineering (Biomedical) (Honours)

# SATAC code (Bedford Park) 214421

Broaden your career opportunities by combining specialised medical science studies in areas such as biochemistry, biotechnology, microbiology, molecular biology, neuroscience and more, with the skills to investigate, plan, design, manufacture and maintain systems and equipment that are used in all aspects of health care.

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

# 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
- 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) – Flexible Entry

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.

1 year pat
Part-time
Deferrab
ove
1

 After completion of this pathway, you will be ready for second year in your selected engineering degree.
 \* SACE stage two specialist mathematics or mathematical methods or equivalent.

\*\* Knowledge of SACE stage two physics or equivalent

is assumed.

### 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 (Honours) – General Entry

A feeder to engineering for those with less mathematics, Flinders' general entry pathway to the Bachelor of Engineering (Honours) provides guaranteed entry for students who have passed SACE stage two general mathematics or SACE stage one 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.

SATAC code (Tonsley)	244441	1.5 years full-time
SATAC code (Festival Plaza)	284311	Part-time available
Prerequisites	Yes*	Deferrable
Assumed knowledge	None	
2023 selection rank	70.00	
Guaranteed entry selection rank	80.00	
TAFElink	Dip or above	
Adjustment factors	Yes	
* SACE stage two general mathemati	cs or equivalent	

\* SACE stage two general mathematics or equivalen

# **Bachelor of Engineering Science**

SATAC code (Tonsley)	214811
SATAC code (Festival Plaza)	284341
Prerequisites	None
Assumed knowledge	None
2023 selection rank	60.00
Guaranteed entry selection rank	70.00
TAFElink	Cert IV or above
Adjustment factors	Yes

3 years full-time

Part-time available

Deferrable

# 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 13. Find out more flinders.edu.au/engineeringpathways

# **Computer Science** & Information Technology

# <image>

# Create your own career in an expanding industry

There are a wide range of careers available in computing. Flinders computing will give you the career-ready skills to work in areas such as medical research, climate change, the environment and business.

# Become your own boss

Our focus on innovation and entrepreneurship could see you contribute to the creative industries or the development of new products and services. Your Flinders computing degree could help you make your own way in areas as diverse as business, commerce, defence, medical research, climate change and the environment.

# Study at the cutting edge

Flinders' \$120 million science and technology precinct at Tonsley features state-of-the-art facilities, including specialised collaborative computer and communications network labs. Combined with close ties to industry and incredible placement opportunities, you'll graduate career-ready with a professionally accredited degree.

# No. 1 in SA in Computing & Information Systems for overall educational experience and student support<sup>\*</sup>

The Good Universities Guide 2022 (postgraduate), public SA-founded universities only

# Industry partnerships lead to careers

As an authorised Cisco Academy, Flinders, through its partnership with Cisco, allows you to undertake courses that contribute towards certification as a Cisco certified entry networking technician (CCENT) or Cisco certified networking associate (CCNA).

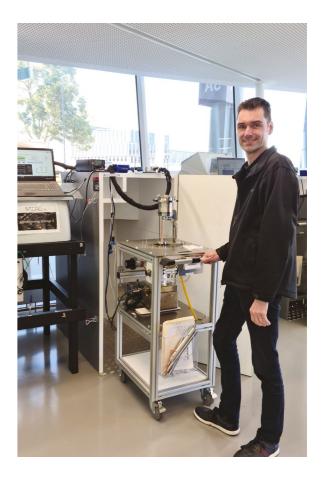
cisco.

# Real-world experience

# Flinders University Work Integrated Learning

(WIL) partner Micro-X designs, develops and manufactures a range of innovative, ultra-lightweight, mobile x-ray imaging systems for medical and security applications.

Micro-X has been involved in the WIL program since early 2018. Systems Engineer Lead Chris Delnooz believes the benefits of Flinders' unique, 20-week WIL program are substantial to both the company and the students taking part.



"We have always employed new graduates; however, the WIL program allows us to assess the students' skills before hiring them. This makes for an ideal recruitment process, where both Micro-X and the student have a good idea what they are committing to when it comes to employment.

Generally, we find interesting projects that a student can take on and own from beginning to end. Students have been able to design and build prototype rigs for CT imaging and perform data collection, algorithm development, software development and electronics design.

We are committed to the development of the next generation of scientists and engineers that will contribute to our culture of innovation and pushing the limits of technology. Providing opportunities for WIL placements is part of that commitment. In addition, we have been able to retain the majority of our placement students as full-time employees after they completed their degree."

# Chris Delnooz

Systems Engineer Lead, Micro-X

# Bachelor of Computer Science (Honours)/Master of Science (Mathematics)

This degree provides both the theoretical paradigms and the practical skills required to design and implement computerbased systems. You will also learn mathematical concepts used to understand, model and describe the world around us to solve a wide range of both theoretical and real-world problems.

SATAC code (Tonsley)	244731	5 years full-time
Prerequisites	Yes*	Part-time available
Assumed knowledge	None	Deferrable
2023 selection rank	95.00	
Guaranteed entry selection rank	95.00	
Adjustment factors	Yes	_
* CACE atoms two mathematical math		

\* SACE stage two mathematical methods or equivalent.

- Gain skills in core computing technologies and knowledge of general computing and programming to an Honours level.
- Complete your Master of Science (Mathematics) to enhance your knowledge of computer science fundamentals.
- Fully accredited by the Australian Computer Society.

# **Career opportunities**

Your degree could open up a range of employment opportunities, including:

- analyst programmer
- computer scientist
- graduate software developer
- information technology officer
- database administrator.

- public agencies
- private agencies
- self-employment.



# **Bachelor of Computer Science Bachelor of Computer Science** (Honours)

Gain the applied skills, tools and techniques to work as a professional software designer and developer. This degree will give you the practical experience required to design efficient, reliable software that meets industry standards. You'll also learn about the hardware on which software runs. You'll graduate with a comprehensive understanding of both the theoretical and practical aspects of computing technologies, prepared for a career in a computing-related field.

SATAC code (Tonsley)	214821	3 yea
SATAC code (Honours) (Tonsley)	224431	Hono 4 yea
SATAC code (Festival Plaza)†	284151	Part
Prerequisites	Yes*	Defe
Assumed knowledge	None	Dere
2023 selection rank	63.00	
2023 selection rank (Honours)	80.00	
Guaranteed entry selection rank	70.00	
Guaranteed entry selection rank (Honours)	80.00	
TAFElink	Cert IV or above	
TAFElink (Honours)	Dip or above	
Adjustment factors	Yes	

\* SACE stage two general mathematics or equivalent. <sup>+</sup>The University is confirming professional site accreditation for the program. This is expected to be finalised by early 2024.

- You'll gain skills in the core computing technologies and knowledge of general computing and programming.
- Develop the necessary expertise in programming and software development to prepare you for work as a professional software designer.
- Gain the theoretical knowledge and skills required for a rewarding career or further computer science research and study.
- You'll learn to work professionally as an individual or in a team.
- You can undertake a 12-week industry placement in your final year.
- This degree is accredited by the Australian Computer Society at the professional level.

### **Career opportunities**

Your degree could open up a range of employment opportunities, includina:

- analyst programmer
- computer scientist
- graduate software developer
- information technology officer
- database administrator

# **Bachelor of Computer Science** (Artificial Intelligence)

# **Bachelor of Computer Science** (Artificial Intelligence) (Honours)

Turn science fiction dreams into reality and build a career creating a world of intelligent, communicating computers and gadgets. You'll study at the leading edge of AI science and learn how artificial intelligence is integrated into areas as diverse as health, online shopping and driverless transport. You'll gain the skills to build systems that have human-like intelligence and understand human expression, emotion and body language.

244221 244231 Yes* None 63.00 80.00
Yes* None 63.00
None 63.00
63.00
80.00
00.00
75.00
85.00
Dip or above
Adv Dip or above
Yes

- 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.

Potential employers include:

Smart Automation Systems

Lockheed Martin

Monadelphous

Airservices Australia

Simavita

Rocket Lab

#### **Career opportunities**

- Your degree could open up a range of employment opportunities,
- including:
- industrial engineer
- instrumentation engineer
- manufacturing engineer
- mechatronics specialist
- · process and automation engineer scientist.

# **Bachelor of Geospatial Information Systems**

In this degree, you'll be taught skills to support change and growth in areas like global warming, urban planning, mining and exploration, archaeology, transportation and biodiversity management. We integrate field-based data acquisition with modern technology, computer workshops and classroombased theory.

SATAC code (Bedford Park)	244721	3 years full-time
Prerequisites	None	Part-time available
Assumed knowledge	None	Deferrable
2023 selection rank	70.00	
Guaranteed entry selection rank	70.00	
TAFElink	Cert IV or above	
Adjustment factors	Yes	

- Study at a university that leads Australia in implementing and teaching the latest geospatial technologies including Esri's ArcGIS Enterprise Geospatial Platform. Study a secondary area including biology, geography and environmental studies, archaeology and criminology.
- Gain practical experience and develop on-the-job use of a range of relevant digital technologies in our dedicated Spatial Information Systems Laboratory.
- · Benefit from teaching and research in ground-based LIDAR and image spectrophotometers.
- · Develop contacts and work skills through an industry placement in an environmental agency.
- The degree meets the international standards of geospatial science.

### **Career opportunities**

Your degree could open up a range of employment opportunities, includina:

- GIS analyst
- GIS data coordinator
- spatial information officer
- land resource information officer
- GIS and knowledge management officer.

### Potential employers include:

- government departments
- regional development centres
- · agriculture and horticulture centres
- not-for-profit agencies
- private companies that supply or collect spatial information.

- IBM • KPMG
- Ericssor
- Australian Bureau of Statistics.

Potential employers include:

ars full-time

ime availa

# **Bachelor of Information Technology Bachelor of Information Technology** (Honours)

Gain the applied skills, tools and techniques to work as a professional software designer and developer. This degree will give you the practical experience required to design efficient, reliable software that meets industry standards. You'll also learn about the hardware on which software runs. You'll graduate with a comprehensive understanding of both the theoretical and practical aspects of computing technologies, prepared for a career in a computing-related field.

SATAC code (Tonsley)	214201
SATAC code (Honours) (Tonsley)	224441
SATAC code (Festival Plaza)*	284431
Prerequisites	None
Assumed knowledge	None
2023 selection rank	60.00
2023 selection rank (Honours)	70.00
Guaranteed entry selection rank	70.00
Guaranteed entry selection rank (Honours)	80.00
TAFElink	Cert IV or above
TAFElink (Honours)	Dip or above
Adjustment factors	Yes

years full-tin

Part-time avail

Deferrabl

\*The University is confirming professional site accreditation for the program. This is expected to be finalised by early 2024

- You'll be taught to analyse, design, implement and manage IT across any enterprise. You can specialise in areas such as network or website management, database administration and project management.
- Understand safe use and how to protect yourself in the digital world.
- · Your learning combines technical prowess with the people-oriented skills required of IT workers.
- You'll gain real-world experience and learn how the IT workplace operates with a 12-week industry placement.
- Gain up-to-the-minute knowledge in IT from guest lecturers to complement your learning.
- This program is accredited by the Australian Computer Society at the professional level.

### Career opportunities

Your degree could open up a range of employment opportunities, including:

- application support analyst
- business intelligence consultant
- graduate developer
- graduate IT consultant
- level one graduate IT help desk analyst.

- Ericsson
- Ultradata Australia
- SA Power Networks
- Boeing Defence Australia
- Australian Bureau of Statistics.

# **Bachelor of Information Technology** (Machine Learning)

# **Bachelor of Information Technology** (Machine Learning) (Honours)

The Bachelor of Information Technology (Machine Learning) produces IT professionals ready to innovate and develop the next generation of machine learning and artificial intelligence based applications. Graduates of this degree will be able to develop sophisticated solutions to complex problems using machine learning techniques and tools.

full-time

SATAC code (Tonsley)	244851	3 years
SATAC code (Festival Plaza)*	284471	Honour 4 years
SATAC code (Honours) (Tonsley)	244861	- Part-tim
Prerequisites	None	
Assumed knowledge	None	- Deferra
2023 selection rank	65.00	Online
2023 selection rank (Honours)	70.00	-
Guaranteed entry selection rank	70.00	-
Guaranteed entry selection rank (Honours)	80.00	-
TAFElink	Cert IV or above	-
Adjustment factors	Yes	

\*The University is confirming professional site accreditation for the program. This is expected to be finalised by early 2024

- Work with partners to design machine learning applications that can be deployed across a wide variety of industries.
- Study a broad range of both information technology and machine learning topics.
- Engage with multidisciplinary teams from across the University in the design and construction of knowledge-based AI-driven systems.
- Gain insight into the current trends in knowledge engineering and its
- Designed to be accredited by the Australian Computer Society.
- Study in our \$120 million science and technology precinct at Tonsley.

### **Career opportunities**

Your degree could open up a range of employment opportunities, including:

- machine learning app developer
- Al analyst
- consultant

### Potential employers include:

- information technology services
- educational institutions
- health industry
- defence industry
- government bodies
- private sector.

# **Bachelor of Information Technology** (Data Analytics)

# **Bachelor of Information Technology** (Data Analytics) (Honours)

The Bachelor of Information Technology (Data Analytics) produces accredited IT professionals ready to manage and innovate in challenging data-rich IT environments. Graduates of this degree will be able to develop systems to analyse, manage and bring insight to large quantities of complex information. They will be well placed to act as the bridge between the data and information needs of an organisation and the computing professionals required to provide the technical solutions.

SATAC code (Tonsley)	244831	3 years full
SATAC code (Festival Plaza)*	284451	Honours 4 years full-
SATAC code (Honours) (Tonsley)	244841	Part-time a
Prerequisites	None	Deferrable
Assumed knowledge	None	
2023 selection rank	65.00	Online
2023 selection rank (Honours)	70.00	
Guaranteed entry selection rank	70.00	
Guaranteed entry selection rank (Honours)	80.00	
TAFElink	Cert IV or above	
Adjustment factors	Yes	
*The University is confirming professi	onal site	

accreditation for the program. This is expected to be

- · Work with partners to design information models for a wide variety of complex, data-rich systems applicable to a wide range of industries.
- Study a broad range of both information technology and data analytics topics.
- Engage with multidisciplinary teams from across the University in the design and construction of database and knowledge-based systems.
- Gain insight into the current trends in data engineering and its uses.
- Designed to be accredited by the Australian Computer Society.
- Study in our \$120 million science and technology precinct at Tonsley.

### Career opportunities

Your degree could open up a range of employment opportunities, includina:

- data engineer
- data analyst
- database administrator
- consultant.

# Potential employers include:

- information technology services
- educational institutions
- health industry
- defence industry
- government bodies
- private sector.

# **Bachelor of Information Technology** (Digital Forensics)

This degree joins Flinders' other branches of forensic science to form one of the most comprehensive suites of forensic science degrees available in Australia. Graduates will cover all the knowledge that a Bachelor of Information Technology graduate would cover plus studies in Forensic Science, Digital and Computer Forensics, Forensic Criminalistics, Internet and Network Forensics, Mobile Device Forensics, Evidence **Evaluation and Crime Scene Management.** 

244641	3 years full-time
244771	Honours 4 years full-time
None	Part-time available
None	Deferrable
65.00	Defettable
70.00	
70.00	
80.00	
Cert IV or above	
Dip or above	
Yes	
	244771 None None 65.00 70.00 70.00 80.00 Cert IV or above Dip or above

- Graduate with in-demand skills across industries
- Learn industry skills with Flinders University's national best-practice work experience and job placements
- Experience the world-class equipment at the Tonsley campus
- Prepare yourself for further study in science or information technology fields
- This degree is accredited by the Australian Computer Society at the professional level.

### Career opportunities

Your degree could open up a range of employment opportunities, including

- technical program manager
- intrusion researcher
- finance analyst
- digital forensic analyst
- investigator.

### Potential employers include:

- government
- private security firms
- banks
- software development companies
- blockchain DeFi companies
- cybersecurity departments
- government bodies
- private sector.

		Deferra	hle	
	None			
	65.00	Online		
	70.00			
k	70.00			
k	80.00			
	0			

finalised by early 2024

# **Bachelor of Information Technology** (Business and Information Systems)

# **Bachelor of Information Technology** (Business and Information Systems) (Honours)

The Bachelor of Information Technology (Business and Information Systems) produces IT professionals ready to manage and innovate in any challenging business IT environment. Graduates of this degree will be well placed to act as the bridge between the business needs of an organisation and the computing professionals required to provide the technical solutions.

SATAC code (Tonsley)	244811
SATAC code (Festival Plaza)*	284441
SATAC code (Honours) (Tonsley)	244821
Prerequisites	None
Assumed knowledge	None
2023 selection rank	65.00
2023 selection rank (Honours)	70.00
Guaranteed entry selection rank	70.00
Guaranteed entry selection rank (Honours)	80.00
TAFElink	Cert IV or above
TAFElink (Honours)	Dip or above
Adjustment factors	Yes



vears full-ti

Part-time availab

Deferrabl

Inline

\*The University is confirming professional site accreditation for the program. This is expected to be finalised by early 2024.

- Study both business and information technology topics.
- Design enterprise systems and work with external partners to develop business systems for a wide range of industries.
- Engage with multidisciplinary teams from across the University in the design and construction of information systems.
- Gain insight into the current trends in enterprise systems and its use.
- Designed to be accredited by the Australian Computer Society.
- Study in our \$120 million science and technology precinct at Tonsley.

### Career opportunities

Your degree could open up a range of employment opportunities, including:

- business analyst
- enterprise systems specialist
- operations specialist
- consultant.

- information technology services
- educational institutions
- health industry
- defence industry
- government bodies
- private sector.

# Bachelor of Information Technology (Game Development)

# Bachelor of Information Technology (Game Development) (Honours)

If you love games and want to learn how to make them, this course will familiarise you with the tools and practices of game development. Alongside entertainment applications, game development is used to create experiences to aid in training, marketing or for social change.

You could develop games to enhance skill development and knowledge acquisition for critical future industries or for current needs across a range of areas from construction to defence, corporate organisations to health care, education to public policy.

full-time

ne availat

SATAC code (Tonsley)	224101
SATAC code (Honours) (Tonsley)	224041
SATAC code (Festival Plaza)*	284461
Prerequisites	None
Assumed knowledge	None
2023 selection rank	65.00
2023 selection rank (Honours)	70.00
Guaranteed entry selection rank	70.00
Guaranteed entry selection rank (Honours)	80.00
TAFElink	Cert IV or above
TAFElink (Honours)	Dip or above
Adjustment factors	Yes
*The University is confirming professic accreditation for the program. This is e	

accreditation for the program. This is expected to be finalised by early 2024.

- Develop the skills required to produce complex interactive systems used in a wide range of training and educational scenarios. You'll gain computing skills required for the development of games, game technologies and user-centred interactive experiences. Build a portfolio of work that demonstrates your capacity for planning, development and program design.
- Undertake a major group project or a work placement.
- Learn the practical skills you'll need to design and develop complex computer-based systems.
- Study in the state-of-the-art facilities at the new \$120 million science and technology precinct at Tonsley.

Potential employers include:

Davidson Technology/ITCOM

Gamelearn

• Imagination Games

Entertainment.

Academy of Interactive

### Career opportunities

### Your degree could open up a range of employment opportunities, including:

- digital content coordinator
- Javascript developer
- game economy designer
- gameplay developer
- game programmer.

# Bachelor of Information Technology (Network and Cybersecurity Systems)

# Bachelor of Information Technology (Network and Cybersecurity Systems) (Honours)

The demand for graduates able to design, implement, maintain and manage networked computer systems is growing rapidly. This degree will equip you with a comprehensive understanding of computer security, communications technology, administration, network engineering, enterprise systems and information networks. You'll graduate with indemand qualifications for the technology-driven marketplace.

ears full-time

rt-time available

eferrable

SATAC code (Tonsley)	224701
SATAC code (Honours) (Tonsley)	224711
SATAC code (Festival Plaza)*	284481
Prerequisites	None
Assumed knowledge	Yes*
2023 selection rank	65.00
2023 selection rank (Honours)	80.00
Guaranteed entry selection rank	70.00
Guaranteed entry selection rank Honours)	80.00
TAFElink	Cert IV or above
TAFElink (Honours)	Dip or above
Adjustment factors	Yes
* SACE stage two mathematical me equivalent.	thods or
*The University is confirming profession accreditation for the program. This is e finalised by early 2024.	

• Develop your skills in computing, IT and cybersecurity.

- Your studies will cover all cutting-edge developments in communications technology like optic fibre technology, cloud computing, and social networking and media.
- You'll learn how to design electronic communications systems that maximise safety and security.
- Learn to work professionally and in a team through group projects, or take the opportunity to gain first-hand industry experience with a 12week industry placement.
- This degree is accredited by the Australian Computer Society at the professional level.

### Career opportunities

- Your degree could open up a range of employment opportunities,
- including:
- network engineer
- systems support officer
- cloud applications net developer
- information and IT security

# analyst.

# Undergraduate Certificate in Industry 4.0

Study 100 per cent online for 6 months and transform your career for a digital world.

The Undergraduate Certificate in Industry 4.0 exposes you to the digital technology that will drive the future. It covers key topics of innovation and Industry 4.0, 3D printing, robotics, IoT, cybersecurity, smart industries and design thinking, also including a digital transformation professional project.

SATAC code	278055	6 months full-time
Prerequisites	None	Part-time available
Assumed knowledge	None	Online only
2023 selection rank	NA	
Guaranteed entry selection rank	NA	

- This course exposes participants to key skills for workplaces of the future.
- It builds capabilities in innovation, industry 4.0 and digital transformation.
- Gain exposure to digital transformation and the benefits of digital technologies including 3D printing, robotics, IoT, cybersecurity and smart industries of the future.
- The course can be done 100 per cent online with an average of three hours online per week, part-time.
- It is a micro-credential that can be completed in 13 weeks (one semester) or part-time at half load over a year.
- Participants graduate with a University Certificate.
- The program also provides a pathway or credit into the Diploma of Digital Technologies and the Bachelor of Information Technology.

# **Career opportunities**

Industry 4.0 and digital upskilling can enhance your career prospects in a range of industries such as:

- shipbuilding
- defence
- advanced manufacturing
- health technologies
- education
- renewables
- space industries.

### Potential employers:

Digital upskilling is of interest to a range of employers in boosting the digital readiness and maturity of their organisations including BAE Systems Australia, SMEs, schools, the defence supply chain, manufacturers and health technology companies.

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ange • Accenture

- Plenary Networks
- Australian Federal Police
- Interactive Intelligence Group

Potential employers include:

• Department of Communications.

# Combined degrees can enhance your job prospects

Combining your degree with a qualification in another discipline will help you develop specialised abilities to stand out from the pack. Studying a combined degree at Flinders is the key to enhancing your career opportunities. Example degree combinations:

# Bachelor of Information Technology (Network and Cybersecurity Systems)/Bachelor of Criminology

# SATAC code (Tonsley) 224701

This exciting combined degree brings together your studies in network and cybersecurity systems with criminology, providing a comprehensive understanding of computer security, communications technology, administration, network engineering, enterprise systems and information networks. Graduates possess high-demand qualifications for the technology-driven marketplace.

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

# Northrop Grumman Scholarship

The Northrop Grumman Scholarship, established in 2018, recognises and supports students enrolled in the Bachelor of Computer Science (Artificial Intelligence) or the Bachelor of Computer Science (Artificial Intelligence) (Honours), awarded on the basis of academic merit and demonstrated interest in pursuing a career in computer science or defence industries. Contact the Dean of Education, for more information at CSE.deanED@flinders.edu.au, and apply for 2024.

# You may also be interested in...

Flinders offers a range of degrees to capture your interest and let you chase your passions. You could take the first steps towards a rewarding career. Explore these degrees:

# **Bachelor of Engineering (Robotics) (Honours)**

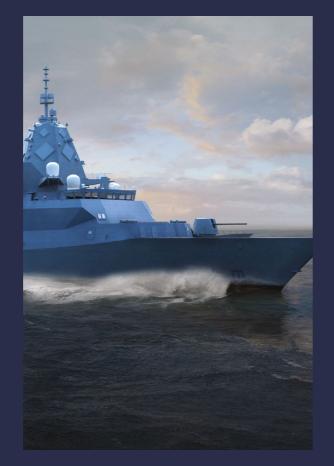
# SATAC code (Tonsley) 224841

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 (Software) (Honours) SATAC code (Tonsley) 224851 SATAC code (Festival Plaza) 284331

Combine the skill of engineering with the power of computer technology. This future-oriented course enables you to choose a course of study with either an electronics or computer science focus. It provides you with a solid foundation in the technical and professional skills and knowledge required to pursue a successful career in the software industry.

# Find out more more at flinders.edu.au/study



# **Defence & National Security**

Flinders University works closely with the defence industry in education, research and development.

Providing world-class research and a range of defence-oriented degrees across diverse fields such as business, science, engineering and information technology, Flinders delivers workready graduates and innovative research and development that keeps the University on the front line of the defence and national security industries.

The combination of cutting-edge research and high-quality teaching makes Flinders the perfect option for anyone interested in the defence industry.

# **Scholarships available**

Flinders University in collaboration with Defence Science and Technology are excited to offer **scholarships** for high-performing Australian students who enrol in the combined Bachelor of Engineering Technology (Electronic Systems and Security)/ Bachelor of Science (Physics) course. Apply to SATAC now.

# No. 1 SA university for learner engagement, skills development, student support and starting salary<sup>\*</sup>

\* The Good Universities Guide 2022 (undergraduate), public SA-founded universities only



# Bachelor of Engineering (Honours) - Flexible Entry

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.

# A pathway with a guaranteed entry to engineering

# Bachelor of Engineering (Honours) – General Entry

Flinders' general entry pathway to the Bachelor of Engineering (Honours) provides guaranteed entry for students who have passed SACE stage two general mathematics or SACE stage one 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.

# **Real-world opportunities**

Flinders students have the opportunity to apply for a range of defence-related scholarships or internships with major defence companies such as BAE Systems, Lockheed Martin, Northrop Grumman, Boeing Defence, Naval Group, Thales, Defence Science and Technology Group and ASC.

# **DEFENCE & NATIONAL SECURITY**

# Choose from a range of degrees, including:

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

Civil engineering deals with the design and construction of major physical infrastructure, including buildings, roads and railways, bridges, airports, dams and pipelines. The problems to be addressed in working with the natural environment, particularly in a low-carbon economy, mean that civil engineering is an exciting and wide-ranging discipline.

# Bachelor of Engineering (Electrical and Electronic) (Honours)

Electrical engineering is concerned with large-scale electrical systems including renewable power generation and electric motors. Electronic engineering focuses 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 (Maritime) (Honours)

Specialise in naval architecture, ocean engineering, or marine and offshore systems by studying maritime engineering at Flinders University.

The Bachelor of Engineering (Maritime) (Honours) has been developed to serve the needs of the maritime engineering design, construction and related industries.

The course is recognised internationally by the Royal Institute of Naval Architects and the Institute of Marine Engineering, Science and Technology, preparing you to become a professional engineer in the maritime engineering industry.

Access state-of-the-art experimental facilities at Flinders University and the Australian Maritime College in Launceston and prepare for career opportunities available in Australia, Europe, USA, UK and Asia.

# **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.

# **Bachelor of Engineering (Robotics) (Honours)**

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 (Software) (Honours)**

This degree has been specifically created for students looking to work as professional software engineers and 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 Science**

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 Technology (Systems and Security)

Developed in collaboration with the Defence Science and Technology Group within the Department of Defence, this 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 (Systems and Security)/Bachelor of Science (Physics)

This four-year combined degree represents a unique and exciting pathway to work in a cutting-edge, high-technology area. Paired with the Bachelor of Science (Physics), the Bachelor of Engineering Technology (Electronic Systems and Security) has been designed to develop future-ready graduates to help government, industry and academia tackle the most challenging security problems facing Australia.

# Bachelor of Information Technology (Network and Cybersecurity Systems) Bachelor of Information Technology (Network and Cybersecurity Systems) (Honours)

Be a power-player and build a career in our networked society. This degree will equip you with a comprehensive understanding of computer security, communications technology, administration, network engineering, enterprise systems and information networks.

# Bachelor of Mathematical Sciences Bachelor of Mathematical Sciences (Honours)

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. The degree is designed to produce industry-focused graduates who are in demand in a range of careers that use mathematics.

# **Bachelor of Business (International Business)**

Develop advanced skills and knowledge relating to international trade and prepare yourself for a global career. Learn how culture, language, political systems and socio-economic factors affect international business practice in core business disciplines of finance, marketing, human resource (HR) management and global sustainability.

# **Bachelor of Business (Management) (Online)**

Build the foundations of a rewarding management career by combining studies across all areas of business practice, including planning, decisionmaking, e-business, marketing, and HR and strategic management.

# Bachelor of Computer Science Bachelor of Computer Science (Honours)

Gain the applied skills, tools and techniques to work as a professional software designer and developer. This degree will give you the practical experience required to design efficient, reliable software that meets industry standards. You'll also learn about the hardware on which software runs. You'll graduate with a comprehensive understanding of all aspects of computing technologies, prepared for an exciting career.

# Bachelor of Computer Science (Artificial Intelligence) Bachelor of Computer Science (Artificial Intelligence) (Honours)

Turn science fiction dreams into reality and build a career creating a world of intelligent, communicating computers and gadgets. You'll study at the leading edge of AI science and learn how artificial intelligence is integrated into areas as diverse as health, online shopping and driverless transport.

You'll gain the skills to build systems that have human-like intelligence and understand human expression, emotion and body language.

# **Starting** at Flinders



# Flinders is ranked in the top 2% of universities in the world\*

\* THE World University Rankings 2023 as a percentage of the total number of universities in the world according to the International Association of Universities

# **This is Flinders**

Flinders' Adelaide campuses include the Bedford Park campus, featuring an award-winning hub and plaza, with retail, food outlets and a state-of-the-art sport and fitness centre.

Flinders at Tonsley houses state-of-the-art facilities and close links to industry. In 2024, our Victoria Square CBD campus will move to the stunning new Flinders at Festival Tower on North Terrace, right beside the Adelaide Railway Station.

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

# - opening 2024

convenience and connectivity. That's why we're taking our presence in the will offer new courses and new career pathways in a new city campus.



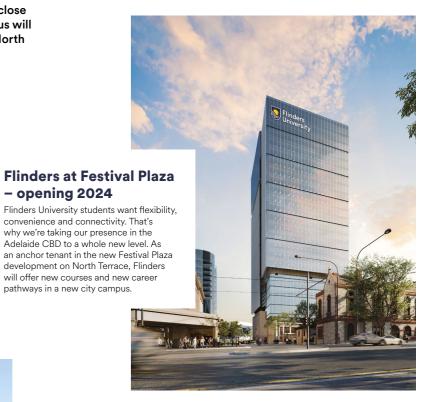
# **Bedford Park**

Flinders' huge main campus features an award-winning hub and plaza, with retail, food outlets and a state-of-theart sport and fitness centre

# Tonsley

Flinders at Tonsley is a place where our students interact with business, and where business interacts with our researchers in areas such as engineering, medical devices and nanoscale technologies.







# **Getting to Flinders**

# **Transport options**

The Flinders Railway Line gets you from the CBD to Tonsley in a super-fast 20 minutes, or to Bedford Park in just 22 minutes. And with free Campus Connector and Tonsley Link bus services running 7am – 6pm Monday to Friday, getting to and from your studies is simple. You'll be able to schedule your day without worrying about missing a single lecture!

flinders.edu.au/loop-bus

# Plan your trip to Flinders:

adelaidemetro.com.au/routes/findrs

# The Flinders railway line is now open

The new Flinders train line has made travel easier and more convenient than ever, linking Bedford Park to our Tonsley campus and the Adelaide city centre, now just 22 minutes away.



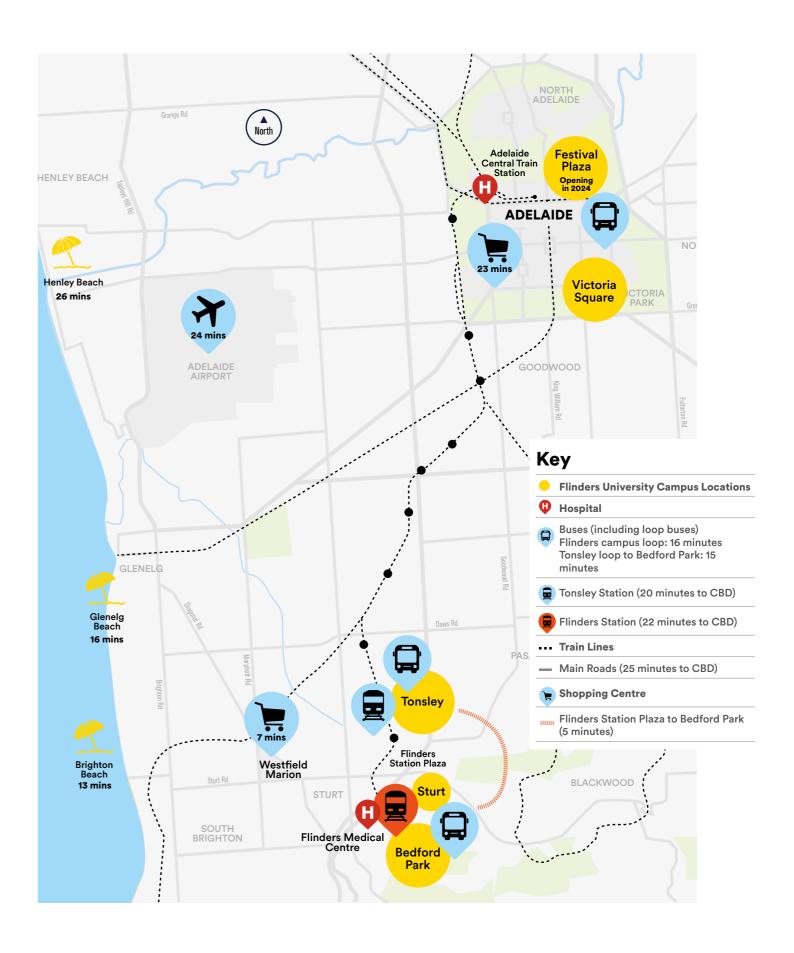


### A new link from the north

Opened in June 2022, the electrified Gawler Rail Line provides services from the northern suburbs to the CBD, with express services expected to take around 48 minutes from Gawler to the CBD.

# Plan your trip to Flinders CBD: adelaidemetro.com.au/routes/gawc





# Get more out of your study

# Begin your journey to a successful career

# **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.

There are dozens of combinations available, so why not explore your interests and find out where a combined degree could take you?

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

Combine your Bachelor of

#### Criminology with

Law and Society, International Relations and Political Science

#### Laws and Legal Practice with

Arts, Business, Criminology, Psychology, International Relations and Political Science

#### **Medical Science with**

Engineering (Biomedical) (Honours)

#### **Psychological Science with**

Criminology

- Business (Human Resource Management)
- Business (Marketing)
- Sport, Health and Physical Activity

Languages

### Science (Forensic and Analytical Science) with

Archaeology Criminology

# Flinders diplomas

Flinders' diploma-level qualifications give you the chance to experience university life without having to commit to long-term study.

The one-year Diploma in Business, Diploma in Sports Management, Diploma in Laws, or Diploma in Arts give you the chance to explore a range of interests, and successful completion allows you to apply for up to one year of credit towards a range of bachelor degrees, and guaranteed entry to the following courses:

- Bachelor of Archaeology
- Bachelor of Arts
- Bachelor of Business
- Bachelor of Business (Human Resource Management, International Business, Management, Marketing, Sports Management)
- Bachelor of Business Economics
- Bachelor of Creative Industries (Digital Media, Film and Television, Interactive Design, Theatre and Performance, Writing and Publishing, Festivals and Arts Production)
- Bachelor of Disability and Community Inclusion
- Bachelor of Disability and Developmental Education
- Bachelor of Engineering Science
- Bachelor of Information Technology
- Bachelor of International Relations and Political Science
- Bachelor of Laws
- Bachelor of Laws (Honours)
- Bachelor of Laws and Legal Practice
- Bachelor of Laws and Legal Practice (Honours)
- Bachelor of Science

Standard University admission requirements apply.

The Diploma in Sports Management will teach you the core skills needed to begin a career in sports management, backed by over 100 hours of practical and hands-on training with Port Adelaide players, management and staff.

The Diploma in Language offers a solid foundation for learning and using a language of your choice, and will help you develop cross-cultural knowledge and skills that are invaluable in international workplaces.

flinders.edu.au/diplomas

# 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 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.

#### flinders.edu.au/year12

### **Guaranteed entry**

If you achieve an ATAR equal to or above the published guaranteed entry selection rank (and you meet course prerequisites) you will be guaranteed a place at Flinders. We offer guaranteed entry for most courses.

### **Indigenous Admission Scheme**

The Indigenous Admission Scheme provides an alternative pathway for Aboriginal and Torres Strait Islander people, who may not have been able to gain entry to university by traditional means, with the opportunity to study at Flinders.

See page 28 for further details.

# **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.

### flinders.edu.au/study/sport/elite-athletes

### **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.

### flinders.edu.au/study/pathways/year-12-entry/research-project

### **School Recommendation Program**

We may consider your school's recommendation about your academic performance as part of your admission into Flinders.

# uniTEST

If you're in Year 12, uniTEST is available to enhance your chances of getting into Flinders. We will select students based on their Year 12 results (60% weighting toward the ATAR selection rank) and uniTEST results (40%). Flinders will also consider applicants based on their uniTEST results (100%) as a standalone entry score (subject to SACE completion and any course prerequisites or specific admissions requirements). If you take the test and don't do well, we will only consider your highest selection rank.

### flinders.edu.au/unitest

### If you haven't achieved the results you expected

If you haven't achieved the results you expected in Year 12, there are a number of pathways to your preferred degree. You can start studying one course and move to another via internal transfer or Flinderslink.

### flinders.edu.au/study/pathways/flinderslink

# **Student support**

# 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.

#### flinders.edu.au/study/pathways/foundation-studies

### **Military pathways**

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

#### flinders.edu.au/study/pathways/military-veterans

### **Special Tertiary Admissions Test (STAT)**

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

### satac.edu.au/stat

Alternatively, you may wish to consider an undergraduate certificate or diploma. These shorter courses allow you the opportunity to explore your interests and to progress to further study. Certificate courses are Commonwealth supported.

flinders.edu.au/pathways

# 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).

### 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.

## flinders.edu.au/tafelink

### **TAFE SA Dual Offers**

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

### Work Integrated Learning

When it comes to landing a job, practical placements can give you the edge you need to succeed.

Flinders' Work Integrated Learning (WIL) will improve your employability by helping you better understand the day-to-day skills employers are looking for, and by giving you the chance to gain real experience in a workplace environment directly related to the course you're studying.

You might take on a work placement or internship, gain hands-on experience through field education, or get involved in projects with industry or community organisations.

Your WIL experience will be designed to help you gain that edge.

Flinders.edu.au/WIL

# 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 oneon-one librarian appointments for assistance with search strategies and finding resources for your assignments.

#### library.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, and the student publication Empire Times, and helps with academic, administrative and welfare issues.

### fusa.edu.au

### Health, Counselling & 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

# **Horizon Award**

The Flinders Horizon Award program sits alongside your academic studies; it is an innovative program that provides further opportunities to develop your professional skills and gain new experiences and insights that will benefit you now and in your future career.

# flinders.edu.au/horizon

# **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

# Yungkurrinthi Student Engagement

Yungkurrinthi Student Engagement is committed to increasing Aboriginal and Torres Strait Islander student access, participation, retention and success at Flinders University. Providing a range of services and supports for Aboriginal and Torres Strait Islander students, our team of highly qualified staff is dedicated to supporting you throughout your student journey.

### flinders.edu.au/study/indigenous-students

# Indigenous Admission Scheme

# Study abroad/scholarships

The Indigenous Admission Scheme provides an alternative pathway for Aboriginal and Torres Strait Islander people, who may not have been able to gain entry to university by traditional means, with the opportunity to study at Flinders.

# Are you eligible?

To be eligible for the Indigenous Admission Scheme you must be an Aboriginal or Torres Strait Islander person in accordance with the Commonwealth definition, which requires you to:

- be of Aboriginal or Torres Strait Islander descent, and
- ullet identify as an Aboriginal or Torres Strait Islander, and
- be accepted as an Aboriginal or Torres Strait Islander in the community in which you live or have lived.

You may be currently studying Year 12 or be a non-school leaver.

# How to apply

- Apply for the course you want to study through the South Australian Tertiary Admissions Centre (SATAC). You will get an application number from SATAC that you will need for your Indigenous Admission Scheme application form.
- 2. Complete the Indigenous Admission Scheme application form online (flinders.edu.au/indigenousadmissions). If you are having trouble completing an online application, you can request a paper-based application via ias@flinders.edu.au or call us on 08 8201 3033.
- 3. An interview is part of the application process, but you will be notified about this.

### **Application and interview dates**

First round applications close late November and second round applications close early January for semester 1. For our midyear intake to a number of courses, applications close in June.

flinders.edu.au/indigenousadmissions



"I originally chose Flinders as they have one of the best facilities for future teachers and fantastic student engagement. Studying at Flinders has been a wonderful experience that has given me the opportunity to discover what I truly want into the future while also providing me with support in every way imaginable. Flinders and Yungkurrinthi have given me the opportunity to meet others with similar ambitions and goals as myself and find the benefit of an education in places I would never have thought to look. As a proud Indigenous woman, I want to use my degree to work in First Nation communities to help our young people make it through their high schooling experience and onto their own future aspirations."

# **Emilee Pyrke**

Bachelor of Arts, Conditional entry to Master of Teaching (Secondary) Over 450 scholarships worth \$2.4 million in total – ranging from \$1,000 to \$20,000.

# 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. Our global study programs are designed to allow students to take their Flinders study overseas and earn academic credit toward their Flinders program. With 70+ overseas partner universities, why wait until you graduate to see the world?

flinders.edu.au/learn-without-borders

# Explore Flinders scholarships

Flinders offers a generous range of scholarships for students in undergraduate courses. With over 450 available scholarships, including scholarships to students from low socio-economic backgrounds, students from rural and regional areas, and Aboriginal and Torres Strait Islander students, you may be eligible for support that will help you achieve your goals at university.

### flinders.edu.au/scholarships

"I always knew I wanted to study overseas at some stage during my degree. A semester exchange gave me the chance to complete topics that weren't available in my home university and experience life in a city that is very different to my own. Having completed a semester overseas, I now have an edge over the countless other students that are completing the same degree as me and have formed memories that will always stay with me."

# **Annelise Smith**

Bachelor of Business (Advanced Leadership)

"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 recipient

# How to apply

# When can I start?

# Glossary

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.

### Key dates

Flinders Open Days: Friday 11 August, Saturday 12 August 2023 Semester 1 2024 start date: 26 February 2024 Semester 1 Orientation week: 19 February 2024 Semester 2 2024 start date: 22 July 2024 Semester 2 Orientation week: 29 July 2024

### Fees and charges

### Your course fees - Commonwealth support

All our courses list indicative fees, but as an undergraduate student your course is Commonwealth supported provided you're an eligible Australian citizen, New Zealand citizen or permanent resident.

Your course being Commonwealth supported means that your course fees are shared between the Australian government and you – with your portion being the student contribution amount.

### **HECS-HELP** loan

You won't have to pay your fees up-front if you're an Australian citizen or holder of a permanent humanitarian visa. You can get a HECS-HELP loan for your student contribution portion of your uni fees. Find out more about costs to plan for while you're at uni at

flinders.edu.au/fees

There are many terms used within a university that may be unfamiliar or confusing. Below are a few terms that may need explanation.

# Admission pathway

Any one of the options available to a prospective higher education student that will enable them to meet the entry requirements of their chosen courses.

# ATAR

The Australian Tertiary Admission Rank (ATAR) is a ranking from 30 (lowest) to 99.95 (highest) agreed by COAG as a nationally equivalent measure of a person's relative academic ranking within their complete age cohort in the year they graduated from senior secondary school.

### **Adjustment factors**

Often referred to as 'bonus points', these are additional points that may be used in combination with an applicant's university aggregate to derive their course selection rank.

# Defer

Delaying the start of a course of study by one year (commencing students only). If you have already enrolled, then you need to withdraw from topics before you can defer.

Not all courses are deferrable. Please visit flinders.edu.au/defer for details.

### **Guaranteed entry selection rank**

Achieve a selection rank equal to or above the published guaranteed entry selection rank and you'll be guaranteed a place at Flinders.

# Major

A sequence of topics required to be taken as defined in your course rule, normally across all years of a course.

### Minor

A sequence of topics required to be taken as defined in your course rule, generally as part of a major.

### Offer round/s

Refers to the series of dates on which offers of higher education places are issued to applicants throughout the year, whether through a tertiary admission centre or directly by a higher education provider.

### **Selection rank**

The ranking that tertiary admission centres and most universities actually use to assess admission to a course. A person's course selection rank can include their ATAR, any adjustments they are eligible for, such as equity or subject adjustments, other contributions calculated on the basis of work experience or previous non-secondary study, portfolio assessments, results of the Special Tertiary Admissions Test, other supplementary tests, etc.

# Check the application dates

Applicants need to apply through the South Australian Tertiary Admissions Centre (SATAC).

# satac.edu.au

# **Read the course information**

 $\bullet\, {\rm Check}$  the admission criteria

- Check the prerequisites
- Check assumed knowledge and additional admission criteria
- Consider combined degrees
- Consider pathways to your degree

# Visit us

Attend 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 satac.edu.au
- Apply for scholarships at flinders.edu.au/scholarships
- Lodge separate Indigenous Admission Scheme (if applicable) at flinders.edu.au/indigenousadmissions

### Accept your offer

Enrol in your subject/topics at

students.flinders.edu.au/my-course/enrolment

# Listing your SATAC preferences

You may enter up to six course preferences that you would like to study. You should list these in the order in which you'd like to study them, with the one you would like most listed first. If you cannot be offered a place in your first preference, you will then be considered for your second preference and so on. It is also important to consider a backup plan. Ensure you include our recommended pathway courses in your preferences.

# Notes





# **Engineering, Defence, Computer Science & Information Technology**

# **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: +618 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: March 2023. 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

