Welcome

You are about to start on the greatest intellectual adventure you could possibly imagine and I’m delighted that you’re considering coming to study with us at the University of South Australia.

You’ll find that we are a university for the 21st century; we educate tomorrow’s professionals and conduct research to solve today’s challenges.

With a vibrant and diverse student body comprised of about 34,000 students, the University of South Australia is the State’s largest university. We offer more than 200 degree programs in business, education, arts, social sciences, health sciences, information technology, engineering and the environment.

We are South Australia’s leading university for graduate careers and are ranked first in the State for overall student satisfaction (2014 Good Universities Guide). Our reputation for excellence around the world also continues to grow as the youngest university in Australia ranked in both QS ‘Top Universities’ and Times Higher Education’s top 50 of world universities under 50 years old. QS also ranks UniSA in the top 10 of universities aged under 25.

Our reach extends into South Australian industry through more than 2000 connections including partnerships with Hewlett-Packard and Hills Ltd. It also extends across the globe through powerful partnerships with global universities Shandong, Tianjin and Beijing Normal Universities in China, Keio University in Japan, Trinity College in Dublin and numerous collaborative efforts with universities elsewhere in Europe and in North America.

If you decide that the University of South Australia is the right place for you, we will do everything possible to set you on the career of your choice so that, as a graduate, you can take your place as one of the new professionals driving national and international economies through your skills, capabilities and innovation potential.

I hope that you will consider joining us and I look forward to seeing you on campus soon.

Professor David G. Lloyd
Vice Chancellor and President

Acknowledgement of Country
UniSA respects the Kaurna, Boandik and Barngarla peoples’ spiritual relationship with their country. We also acknowledge the diversity of Aboriginal peoples, past and present. Find out more about the University’s commitment to reconciliation at unisa.edu.au/RAP

2015 Events

Open Day 2015
Sunday, 16 August
City West and City East campuses
unisa.edu.au/openday

Built Environment Preview Day
Tuesday, 25 August, 5.30–7.00pm
City East campus

Switch On: Mawson Lakes
Thursday, 27 August, 4.00–7.30pm
Mawson Lakes campus
unisa.edu.au/infosessions
Your study options explained

Find the right study option for you, no matter where you are in your career.

This guide contains all of the University of South Australia’s study options in the science and environments area, so you can find the right degree for you.

Maybe you’re at the very start of your university experience, finishing high school or considering study in an area that has always interested you for the first time. If so, then an undergraduate degree is probably the right fit for you.

Perhaps you have been working in your field for some time and you’re looking to take that next step. A postgraduate coursework degree can help you further your career.

Alternatively, you could be a specialist in your field with something to give back. Make your mark with a research degree.

Whether you are starting out, stepping up or giving back, we have a study option to suit your journey.

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Focused on the future

We’ve got some exciting plans for the future with new learning spaces in health, science and innovation – all in the heart of Adelaide’s booming West End.

➤ Jeffrey Smart Building (JSB): the JSB has quickly become our new student home. Based at the City West campus, you can borrow books, grab a coffee, charge your laptop, book a study room or even enjoy a free outdoor movie.

➤ Great Hall: the University is commencing construction on this brand-new space in 2015. Once complete, it will host graduation ceremonies, student sporting events, exhibitions, a gym, swimming pool and more.

➤ Sci | C | Ed: part of the University’s new Health Innovation Building (construction commencing in 2015), the Science | Creativity | Education Studio will provide a new space for students and industry to innovate, create and collaborate.
Study. Solutions. Connections. We’ve prioritised the right elements to build an industry-connected, globally enterprising university.

**Study** Educating tomorrow’s professionals

With employment rates that exceed the state and national averages, our graduates will be front and centre as the leaders and innovators of tomorrow.

As South Australia’s largest university, we offer a wide and varied range of programs in arts, education, social sciences, business and law, health sciences as well as aviation, engineering and IT, environments, science and mathematics.

> 91 per cent of UniSA graduates going on to full-time work are employed in a professional occupation within four months of completing their degree. *(Graduate Destination Survey)*

**Solutions** End-user focused research

We are a solutions-oriented university, taking on the challenges of the future and aligning our research towards providing answers in these areas.

> Australia’s leading university for interdisciplinary research. *(U-Multirank 2015)*

**Connections** Partnering with industry

Real solutions don’t happen without great partnerships and we’re teaming up with local icons and international heavyweights to drive the advancements behind a better society.

> Collaborating with more than 2000 companies worldwide.
Evolving possibilities

We observe the planet through the lens of expert knowledge and go beyond to unlock answers for tomorrow’s future.

**Built Environment and Construction Management and Economics**

The built environment program is the only degree of its kind in South Australia and is a pathway directly into the Bachelor of Construction Management and Economics (Honours).

The construction management and economics program is unique in South Australia and one of the most accredited programs in the country, securing our graduates employment worldwide. Learn fundamental skills in building and quantity surveying and gain an insider’s perspective of the construction industry before you graduate through 100 days of supervised experience. You will also have access to industry-relevant research through the Barbara Hardy Institute.

[unisa.edu.au/construction](http://unisa.edu.au/construction)

**Environmental and Geospatial Science**

Environmental science explores the interaction between people and the natural environment with the aim of taking on the environmental challenges of the future. Discover dynamic natural and urban landscapes through regular field trips and develop your knowledge with experienced academic staff and leading-edge surveying and mapping technologies including Geographical Information Systems (GIS).

Geospatial science blends spatial analysis with environmental management and modelling to produce graduates with mapping and surveying capabilities. Listed in 2014 by McCrindle research as a degree of high employment opportunity, nine out of 10 graduates secure full-time work in their chosen field. Our program is also the SA Board of Surveyors preferred pathway for entry into UniSA’s Master of Surveying.

[unisa.edu.au/enviroandgeo](http://unisa.edu.au/enviroandgeo)

**New - Joan and Martin Timlin Memorial WISE Scholarships**

Each year from the beginning of 2015 until 2017, four $10,000 Joan and Martin Timlin Memorial WISE Scholarships will be offered to female undergraduate applicants who enrol in a science, technology, mathematics or engineering degree at UniSA. No application is necessary. Successful candidates will be selected based on their SACE performance in STEM subjects such as Mathematical Studies, Chemistry, Biology and Physics.

[unisa.edu.au/WISE](http://unisa.edu.au/WISE)

**Urban and Regional Planning**

The urban and regional planning program is the most-established planning program in Australia, providing you with a vast graduate and industry network. Learn how to design, manage and plan ecologically sustainable, socially just and economically productive cities and gain the industry-specific skills and knowledge sought by employers through 60 days of supervised work experience, all while benefitting from the University’s 60-year heritage in planning education.

[unisa.edu.au/urbanplanning](http://unisa.edu.au/urbanplanning)

**Science**

The University of South Australia’s science program produces graduates capable of working across a diverse range of industries including medicine and pharmaceuticals, manufacturing, environmental management, oil and mining, information technology, defence and more.

[unisa.edu.au/scienceandmaths](http://unisa.edu.au/scienceandmaths)
Learn a language while you study

The ability to speak a second or third language is an invaluable skill in today’s global environment and our Diploma in Languages provides a unique opportunity to learn French, Italian, Japanese or English (as an Additional Language) alongside your professional studies. Tailored to all ranges of fluency, you can pick up a new language from the very beginning or refine pre-existing speaking, writing and listening skills.

Find out more in the communication, international studies and languages guide or visit unisa.edu.au/languages

Division of Information Technology, Engineering and the Environment

We are the only South Australian university in the 2014 Times Higher Education World University Rankings for Engineering and Technology.

We have a proud history of furthering education and research in the fields of science and technology to stimulate innovation in Australia and internationally.

With a focus on teaching and research in the areas of science, information technology, engineering, mathematics and the natural and built environments, our three schools are underpinned by the division’s high quality research, producing outstanding learning outcomes and research results.

You may also be interested in...

If a career in environments and science interests you, you may also be interested in studying:

- Architecture
- Civil engineering
- Health and medical sciences
SCIENCE: ONE OF UniSA’s MOST FLEXIBLE DEGREES

91% OF OUR BUILDING GRADUATES SECURE EMPLOYMENT FOLLOWING GRADUATION
MyUniversity 2014

THEORETICAL KNOWLEDGE HAND-IN-HAND WITH EXPERIENTIAL LEARNING

URBAN PLANNING 1st IN AUSTRALIA FOR OVERALL SATISFACTION
MyUniversity 2014

100 DAY WORK PLACEMENT CONSTRUCTION MANAGEMENT

SCIENCE: ONE OF UniSA’S MOST FLEXIBLE DEGREES
Building a sustainable future

The top five reasons you need to study science and environments at UniSA.
Your future begins here

Kick start your tertiary learning and career with undergraduate study.

Undergraduate study is often the first step in tertiary learning. It provides an entry point into university and an introduction to the fundamental skills needed for your future profession, as well as some more specialised knowledge. As such, a completed undergraduate qualification is often a starting point for gaining professional accreditation in many areas. These include engineering, law, architecture, physiotherapy, urban and regional planning and more.

unisa.edu.au/future

Qualifications include:
- Diploma: 1-2 years
- Associate Degree: 2 years
- Bachelor: 3-4 years
- Bachelor (Honours): 4 years

*study times are approximate and based on a full-time study load
^or 1 year in addition to a 3-year bachelor program

Who is it for?
- High-school leavers
- Long-term employees seeking a career change
- Professionals and tradespeople seeking to upskill
- People from a wide range of backgrounds seeking to further their employment prospects and/or gain new knowledge

Find out more:
- Entry requirements: see page 24 of this guide
  programs.unisa.edu.au
- How to apply:
  unisa.edu.au/apply
Bachelor of Urban and Regional Planning (Honours) IHPG

Key features

- South Australia’s only undergraduate planning degree recognised by the Planning Institute of Australia (PIA).
- Number one in Australia for Overall Satisfaction in the 2014 MyUniversity graduates survey.
- International field study trips to Malaysia or Vietnam annually.
- 60 days of supervised work experience in an urban planning workplace.

Overview

Urban planners create spaces that provide a high quality of life and range of opportunities for all. They put ideas into practice by using their observational and analytical capabilities and their interest in the community. This program introduces you to the concepts and knowledge central to urban and regional planning including sustainable development, spatial planning, urban design, environmental management, land economics, property markets, regional planning, social and community planning, and community consultation. You may choose electives in the areas of environmental or social and community planning that will help you define your future career in the corresponding international development organisations, branches of state government and private sector consultancies.

Environmental planning and policy electives focus on climate change, ecological sustainability and environmental protection. Social and community planning electives delve into topics such as social inclusion, strategic planning and community development.

Career opportunities

Urban planners consult and advise in a variety of sectors including:

- federal, state and local government departments
- private planning consultancies
- property development firms
- local authorities and individuals
- regional development projects in Asian or Pacific countries.

Professional accreditation

This program is recognised by the Planning Institute of Australia (PIA).

UniSA College pathways

Pathways into this program are available through the following UniSA College program:

- Foundation Studies
Associate Degree in Built Environment

**ENTRY**
- SATAC 415011
- ATAR (Feb 2015 cut-off) 61.75
- Preferred score (guaranteed entry) n/a
- CRICOS program code 075591G
- TAFE minimum entry CertIV
- Prerequisites none
- Assumed knowledge none

**Key features**
- Pathway into the Bachelor of Built Environment.
- Learn in the Experiential Learning Suite at City East campus.
- Provides entry into the third year of the Bachelor of Built Environment.

**Overview**
The Associate Degree in Built Environment is a two-year program that educates and trains you to a paraprofessional level in building and construction management. The program is identical to the first two years of UniSA’s Bachelor of Built Environment and upon successful completion you will be eligible to apply for admission into the third year of the bachelor program. You will also have access to the Experiential Learning Suite located at the City East campus, a multifunctional space that provides you with a spectrum of opportunities to develop career knowledge and interact not only with other students but with new technologies.

**Career opportunities**
Some roles you may find employment in upon completion of this program include:
- elementary site supervisor or manager
- assistant quantity surveyor
- estimator
- administrator
- construction planner
- clerk of works
- manager of a residential construction business.

**Bachelor of Built Environment**

**ENTRY**
- SATAC 414301
- ATAR (Feb 2015 cut-off) 65.45
- Preferred score (guaranteed entry) 75
- CRICOS program code 057385G
- Prerequisites none
- Assumed knowledge none

**Key features**
- Pathway into the fourth year of the Bachelor of Construction Management and Economics (Honours).
- Learn in the Experiential Learning Suite at City East campus.
- Provides entry into the fourth year of the Bachelor of Construction Management and Economics (Honours).

**Overview**
This program provides you with the education and training necessary to enter the sector of the construction industry relating to residential and low-rise buildings. Students who successfully complete this program may enter directly into the fourth year of the Bachelor of Construction Management and Economics (Honours). Learn in the Experiential Learning Suite located at the City East campus, a multifunctional space that provides you with a spectrum of opportunities to develop career knowledge and interact not only with other students but with new technologies.

**Career opportunities**
Graduates of this program may find employment in a variety of roles in the residential and low-rise sector of the construction industry including:
- project manager
- construction manager
- supervisor or estimator
- construction planner
- clerk of work
- contract administrator.

**Professional accreditation**
The program is professionally endorsed by the Australian Institute of Building (AIB).

**UniSA College pathways**
Pathways into this program are available through the following UniSA College program:
- Foundation Studies
Bachelor of Construction Management and Economics (Honours) IHCN

**Overview**
This program provides you with the education and training required to reach a professional level in the building industry, in the quantity surveying and or building surveying professions. Gain valuable industry insight before you graduate through a minimum of 100 days of supervised work experience over the course of your studies and interact with industry and research experts within the community. This program has a strong connection with the Barbara Hardy Institute and its researchers who conduct high quality research in the fields of urban ecology and sustainability.

**Career opportunities**
You will graduate from this program with the skills and knowledge to perform in a wide range of roles within the construction industry including:
- project manager
- construction manager
- supervisor
- estimator
- construction planner
- contract administrator
- quantity surveyor
- building surveyor
- technical specialist in construction-related areas.

**Professional accreditation**
This program meets the education requirements for corporate membership of the Australian Institute of Quantity Surveyors (quantity surveying graduates), the Australian Institute of Building Surveyors, the Board of Quantity Surveyors, Malaysia, the Royal Institute of Chartered Surveyors (UK), the Singapore Institute of Surveyor and Valuers and the Hong Kong Institute of Surveyors. It also meets professional membership of the Australian Institute of Building (AIB). Graduates are fully exempt from the written examinations of the Chartered Institute of Building (UK).

**Alternative pathways**
The Bachelor of Built Environment program (IBBE) provides an alternative pathway for entry into this program. Alternatively, the Associate Degree in Built Environment (ITBG) provides a pathway to the Bachelor of Built Environment. You may transfer into this program with full credit for the courses you completed in the Associate Degree and/or Bachelor of Built Environment. See pathways map below for more detail.

**Pathways into construction management**

1. **YEAR 12**
   - Completion of Year 12 with required ATAR

2. **STAT TEST**
   - 18 years of age or older

3. **TAFE**
   - Diploma OR Advanced Diploma in a related field
   - Note: Up to 15 years credit may be available depending on the Diploma or Advanced Diploma taken

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**FIRST YEAR**
- Quantity Surveying 1
- Construction Communication R
- Construction 1
- Construction Management 1N

**SECOND YEAR**
- Construction Management 2N
- Contract Administration 1
- Structures 2
- Building Estimating 1N
- Quantity Surveying 2R
- Building Surveying Science 1
- Construction Science 2N

**THIRD YEAR**
- Construction and Fire Engineering 1N
- Development Economics N
- Building Surveying Science 2
- Contract Administration 2
- Research Theory and Practice
- Civil and Commercial
- Construction Analysis
- Construction and Fire Engineering 2N
- Development Law

**FOURTH YEAR**
- Building Research Project 1 (Honours)
- Integrated Project
- AND ANY TWO OF THE FOLLOWING THREE COURSES:
  - Quantity Surveying 3R
  - Construction Management 3
  - Building Surveying Science 3
  - Building Research Project 2 (Honours)
  - Industry Based Learning
- AND ANY TWO OF THE FOLLOWING THREE COURSES:
  - Quantity Surveying 4R
  - Construction Management 4
  - Building Surveying Science 4

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**Work as**
- Specialist construction manager
- Specialist building surveyor
- Specialist quantity surveyor
- Postgraduate study

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**Work at**
- Para-professional level
- General construction practitioner
- Project manager
- Quantity surveyor
- Building surveyor
- Construction planner
- Construction manager
- Project manager
Bachelor of Geospatial Science  

**ENTRY**  
SATAC: 43/4981  
ATAR (Feb 2018 cut-off): 73.8  
Preferred score (guaranteed entry): 70  
TAFE minimum entry: Cert IV  
CRICOS program code: 074118G  
Prerequisites: Mathematical Studies  
Assumed knowledge: Physics

**Overview**  
Geospatial science encompasses environmental mapping and spatial analysis for a range of purposes including land surveying, environmental management and modelling. This program focuses on the various elements of geospatial science including Geographical Information Systems (GIS), remote sensing, mapping and land surveying. Courses in mathematics and applied physics assist with complex modelling issues and provide a base for you to pursue a career in surveying. You will have access to state-of-the-art satellite positioning equipment and industry standard software for processing geospatial data.

**Career opportunities**  
Geospatial science graduates may find work in local, state or federal government departments or in private spatial consultancies in roles including but not limited to:  
- geospatial technician  
- imagery scientist  
- ecological modelling assistant  
- cartographer.

**Key features**  
- Theoretical knowledge complemented by hands-on experience through a series of field trips.  
- Provides a pathway into the Master of Surveying. Listed in 2014 by McCrindle research as a degree of high employment opportunity.  
- Engage with industry experts through guest lectures and learn in modern facilities including the Experiential Learning Suite at the City East campus.  
- Common first year with the Bachelor of Geospatial Science – transfer with credit for the courses you have completed.

**Unisa College pathways**  
Pathways into this program are available through the following Unisa College programs:  
- Diploma in Science and Technology  
- Foundation Studies

**Honours**  
Students completing this degree with an average GPA of 5.0 or above are eligible to apply for admission to the one-year Bachelor of Sustainable Environments (Honours) (LHST).

**Further study**  
Graduates interested in a surveying career may go on to study the Master of Surveying at the University of South Australia. See page 20 for more information.

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Bachelor of Environmental Science  

**ENTRY**  
SATAC: 43/4921  
ATAR (Feb 2018 cut-off): 62.9  
Preferred score (guaranteed entry): 70  
TAFE minimum entry: Cert IV  
CRICOS program code: 070414J  
Prerequisites: none  
Assumed knowledge: none

**Overview**  
This program provides the skills and knowledge to prepare you for a number of careers in the exciting and broad area of environmental sustainability. Incorporating teaching and learning from across the environmental science discipline in subjects such as ecology, soil science, geography and social sciences you will gain a broad base of knowledge in this exciting area.

You will undertake in-depth examinations of relevant topics in biological and earth sciences as well as mastering the essential skills of GIS (Geospatial Information Systems). You will also have many opportunities to gain experience in the field working on real projects for prospective employers.

**Career opportunities**  
Environmental scientists graduates are well qualified to work in a wide range of roles in the following industries:  
- environment and natural resources  
- park, water and forestry services  
- local councils and primary industries  
- fisheries  
- education  
- nature-based tourism  
- agriculture, horticulture and pastoral  
- non-profit environmental and conservation organisations and landscape groups.

**Unisa College pathways**  
Pathways into this program are available through the following Unisa College programs:  
- Diploma in Science and Technology  
- Foundation Studies

**Honours**  
Students completing this degree with an average GPA of 5.0 or above are eligible to apply for admission into the one-year Bachelor of Sustainable Environments (Honours) (LHST).
Bachelor of Sustainable Environments (Honours) LHST

Entry
SATAC 4BH010*
CRICOS program code 065286K
*entry requires completion of a three-year bachelor program

Overview
Environmental sustainability is one of the biggest challenges we face in our global community. Organisations are conducting business within complex legal structures, while stakeholder demands are increasing and environmental performance expectations are becoming more time-consuming. Many local and interstate organisations are now required to demonstrate proactive management of the environmental impacts of their business activities. This one-year program is for students who have a completed bachelor degree in a related discipline, typically with a GPA of 5.0 or more and evidence of research capability. It prepares you for postgraduate research through a specific project. You will develop an understanding of the value of a multi-disciplinary approach to research in the area of sustainability. Many research areas in sustainability are too complex for a single discipline to address; therefore you will learn about how to integrate information from a variety of disciplines and may choose to work on a research topic that requires a multi-disciplinary approach or a more traditional discipline-based project.

Career opportunities
Graduates of this program are equipped for dynamic careers in environmental sustainability working in a variety of industries and agencies including:
> mining, manufacturing, engineering and environmental sectors
> federal, state and local government agencies (for example the Environmental Protection Authority, the Department of Environment and Natural Resources, and the Department of Sustainability, Environment, Water, Population and Communities etc.)

Key features
> Strong links to a rich campus research environment including; Barbara Hardy Institute, Centre for Environmental Risk Assessment and Remediation, SA Water Centre for Water Management and Reuse.
> Multidisciplinary approach to projects and problem-solving, a skill sought after by industry.

Growing an environmental career
Racheal Ki

Student, Bachelor of Environmental Science

A long standing passion for the environment and biology, and conversation with an alumnus from the University of South Australia drew Racheal Ki to the University’s Bachelor of Environmental Science.

“Being brought up in the island of Borneo, I believe that nature has always been my driving passion to pursue my studies in environmental science.”

Racheal enjoys the hands-on experiences and field trips all around South Australia and the opportunity to travel to Indonesia. Racheal describes her fieldwork as ‘very valuable’, saying ‘these experiences are a gateway for my personal development.’ The program has helped Racheal’s career development by giving her skills “that can’t be taught in classrooms, especially teamwork, leadership, communication and empathy.”

“There will be challenges ahead but with all the ability and skills that I managed to develop throughout my studies in UniSA, I am certain that I will be a step ahead of everyone else in coping with the real working world out there.”
Bachelor of Science (Advanced Materials) LBAM

ENTRY
- SATAC 43401
- ATAR (Feb 2015 cut-off) 91.15
- TAFE minimum entry 60.6
- CRICOS program code 07431D
- Prerequisites - none
- Assumed knowledge - see program detail

FIRST YEAR
- Professional and Technical Communication
- Science Major A – course 1
- Science Major B – course 1
- Elective 1
- Statistics for Laboratory Sciences
- Science Major A – course 2
- Science Major B – course 2
- Elective 2

SECOND YEAR
- Science Major A – course 3
- Science Major A – course 4
- Science Major B – course 3
- Elective 3
- Science Major B – course 4
- Science Major B – course 5
- Science Major A – course 5
- Elective 4

THIRD YEAR
- First Semester (SP 1, 2 or 3)
  - Science Major A – course 6
  - Science Major A – course 7
  - Science Major B – course 6
  - Elective 5
- Science Major A – course 8
- Science Major B – course 7
- Science Major B – course 8
- Elective 6

Assumed knowledge
Assumed knowledge for this program depends on your choice of major as follows:
- Applied physics: SACE Stage 2 Physics and Mathematical Studies
- Biology or Chemistry: SACE Stage 2 Chemistry
- Mathematics: SACE Stage 2 Mathematical Studies

UniSA College pathways
Pathways into this program are available through the following UniSA College programs:
- Diploma in Science and Technology
- Foundation Studies

Honours
Entry into the Honours program Bachelor of Science (Honours) LHSC is available to those who have achieved a credit-level average. Honours requires one additional year of study and can lead to postgraduate research (PhD or master) study.

Become a teacher
The Bachelor of Science may also be studied as a pathway into the Master of Teaching (Secondary) degree. Find out more on page 16.

Key features
- Access multi-million dollar facilities including the Materials and Minerals Science Learning and Research Hub.
- Supported by a strong research environment.

Overview
Advanced materials exist in countless forms in the world around you and are key in many innovative and scientific advances. Focusing on key priority fields for South Australia, such as mining, water, and energy, this program gives you the edge you need for an exciting career in science. This branch of science separates precious metals in minerals processing, to find materials and coatings for everyday items. Some examples include: implants that are not rejected by the human body, or solutions that secure fresh water supply and decontaminate soil resources. Advanced materials are also used to create carbon fibres which are stronger than steel, coatings on glasses that darken when out in the sun, materials for long-life batteries and nanoparticles in medicine at the cutting edge of drug delivery.

Career opportunities
Graduates of this program may find careers using advanced materials to develop products and solutions in the following industries:
- mining and mineral
- high-tech defence
- government and private research
- water management
- engineering
- health care
- radiation protection
- environment protection.

UniSA College pathways
Pathways into this program are available through the following UniSA College programs:
- Foundation Studies

Honours
Honours degree programs are available for advanced materials graduates with meritorious academic results. Honours requires one additional year of study and can lead to postgraduate research (PhD or master) study.

Prerequisites
Students seeking entry into this program must have completed the following prerequisites:
- SACE Stage 2 Science
  (Chemistry, Physics, Biology or Geology)
- SACE Stage 2 Mathematics
  (Mathematical Methods, Studies or Specialist Mathematics)
Bachelor of Science (Honours) (Nano- and Biomaterials) LHSC

**ENTRY**

SATAC 4BH009*
CRICOS program code 045411J
Prerequisites none
Assumed knowledge none

*entry requires completion of a three-year bachelor program

**Key features**

> Access multi-million dollar facilities including the Materials and Minerals Science Learning and Research Hub.
> Scholarships available.
> This program is supported by a centre of excellence for research into chemistry and physics.

**Overview**

This program provides you with an opportunity for advanced study and introductory research experience in the field of nano- and biomaterials. You will be well suited to the program if you were a high achieving student throughout your undergraduate program. You will also be prepared for postgraduate research or for employment as a professional scientist. If accepted into this program, you may apply for scholarships offered by the University of South Australia.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Research Project Preparation</th>
<th>Advanced Topics in Materials and Interfaces 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honours Research Project 1</td>
<td>Advanced Topics in Materials and Interfaces 2</td>
</tr>
<tr>
<td>Honours Research Project 2</td>
<td></td>
</tr>
</tbody>
</table>

**Career opportunities**

Specialist careers for those with advanced skills and knowledge in nano- and biomaterials include:

> product development
> quality control and/or consultancy
> professional scientific research in nano- and biomaterials
The possibilities of science

Douglas Howard
Student, Bachelor of Science

Douglas chose to study at the University of South Australia after hearing it is ‘much more practical and sets you up more for employment. The practical side of it is much more enticing!’

Douglas also enjoys studying and socialising at Mawson Lakes campus. ‘(It’s) close enough to the city, but far enough to not be busy. Public transport is really easy to catch and it’s easy to find a car park,’ Douglas said.

During his studies, Douglas had the privilege of being recognised for the most distinguished performance in his applied physics courses and was awarded the John Dalby Prize. When Douglas completes his program he aspires to continue onto an Honours program in nano- and biomaterials followed by a PhD in applied physics. ‘Ultimately, I would like to get a job working for DSTO (the Defence Science and Technology Organisation); I would love working in that industry and making a potential difference to our way of life.’
Realise your potential

Take your career to the next level with postgraduate coursework.

Coursework degrees provide advanced professional and technical skills that extend beyond the fundamental knowledge and skills taught at undergraduate level. They are an ideal way to gain the further skills and knowledge needed to pursue positions in management and also provide a competitive edge in the job market.

Qualifications are available at graduate certificate, graduate diploma and master levels, with varying durations and entry requirements depending on the level of study. Flexible modes including part-time and full-time study options, as well as on-campus and online delivery, are available to help you balance your studies with your life.

Qualifications include:
- **Graduate Certificate**: 6 months
- **Graduate Diploma**: 1 year
- **Master**: 1–2 years

*Study times are approximate and based on a full-time study load.

Who is it for?
- Recent university graduates
- Qualified professionals seeking specialised knowledge in their field
- Unqualified professionals who have significant work experience and are looking to undertake study in their field

Find out more:
- **Entry requirements**: see program for more information
- **How to apply**: programs.unisa.edu.au

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Graduate Diploma in Built Environment (Building Surveying) **IGBE**

**Nested with:** Graduate Certificate in Built Environment (Building Surveying)

**ENTRY**

<table>
<thead>
<tr>
<th>SATAC</th>
<th>(GradDip) AGBD097</th>
<th>(GradCert) AGC075</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start date</strong> (SP=study period)</td>
<td>SP2 SP5</td>
<td></td>
</tr>
<tr>
<td><strong>Program fees</strong></td>
<td>CSP</td>
<td></td>
</tr>
</tbody>
</table>

*Graduate diploma program

**Key features**

> Strong industry links.
> Offered externally, supported by a flexible online teaching and learning environment.
> Designed to meet the educational requirements for Building Surveyor level accreditation by the AIBS.

**Overview**

The Graduate Diploma in Built Environment (Building Surveying) is designed to provide students from a variety of backgrounds with the necessary skills and knowledge to become building surveyors in Australia and beyond. This program gives insight into the roles of a building surveyor and the profession, equipping you with the knowledge, skills and understanding necessary to take a responsible leadership role in this field. It has a graduate certificate qualification nested within it allowing you to easily transition into the graduate diploma upon completion of the graduate certificate with credit for courses already completed.

**Career opportunities**

Building surveying graduates form the largest cohort of professional (tertiary qualified) Building Surveyors and Private Certification Practitioners in all three tiers of government as well as private industry in Australia. Some roles graduates may perform include:

> building control surveyor
> private certifier
> construction managers
> construction engineers
> asset managers.

**Professional recognition**

The successful completion of this program is designed to meet the educational requirements for Building Surveyor level accreditation by the AIBS (Australian Institute of Building Surveyors). For further information visit aibs.com.au. Such accreditation is provisional until the program produces its first graduates.

**Entry requirements**

Applicants into this program must have:

> completed a bachelor degree in built environment, engineering, surveying, architecture, or project management from a recognised university, OR
> completed a Graduate Certificate in Built Environment (Building Surveying) from UniSA or equivalent from a recognised university.

**Important information**

This program is taught in fully online mode. It is not available to international students studying onshore under a student visa.
Master of Environmental Management and Sustainability LMEV

Specialisations
> Natural Resource Management
> Water Resources Management

ENTRY
SATAC 4CM006 (Natural Resource Management)
4CM007 (Water Resources Management)

Start date (Prereq study period) SP2 SP5
Program fees A$27,250 pa
CRICOS program code 081823A (Natural Resource Management)
081826J (Water Resources Management)

Key features
> Flexible options include a range of electives to tailor your chosen specialisation.
> Developed by industry leaders in response to industry demand.

Overview
This program will suit you if you are seeking to develop the skills and knowledge necessary to work as an environmental and sustainable management professional.

Natural Resource Management
You will develop multidisciplinary skills to understand, analyse and apply systems thinking, spatial data management and project management skills to manage resources within a sustainability framework.

Water Resources Management
You will develop skills in advanced water resources management, principles and technologies, with particular emphasis on the management of water infrastructure and water quality and treatment.

Career opportunities
Employment opportunities include positions in:
> federal and state government departments and agencies
> local authority departments and agencies
> large private sector industries (e.g. tourism, hospitality, planning)
> engineering and consulting companies
> and non-government organisations (there are many aid and welfare organisations operating sustainability initiatives in developing countries).

Exit points
An exit point is available at the successful completion of first semester of the program with a graduate certificate level qualification. A second exit point is available at the successful completion of the first year with a graduate diploma level qualification.

Entry requirements
Applicants are required to have a completed bachelor degree, bachelor Honours degree, graduate certificate, or a graduate diploma in a related discipline from a recognised higher education institution or equivalent. Applicants with similar qualifications from a recognised higher education institution or equivalent will be assessed on a case-by-case basis.

Advanced standing
Some applicants may be eligible to enter the program with advanced standing and complete the requirements of the Masters in less than two years. Please visit programs.unisa.edu.au and search for the program LMEV for more information.

StUDENTS COMPLETE ONE OF THE FOLLOWING OPTIONS:
Environmental Management and Sustainability Project
Elective
Elective
OR
Environmental Research Project E

ELECTIVES
Climate Change and Adaptation Studies
Environmental Management
Design of Flood and Drainage Systems
Environmental Engineering and Modelling
Geographical Information Systems and Analysis
Green Infrastructure
Groundwater Hydrology
Principles of Project Management
Research Data Analysis
Surface Water Hydrology
Sustainable Irrigation Management
Water Quality Management
Water Quality Processes N

OPENWATERS
Environmental Impact Assessment N
Ethics, Governance and Sustainability
Introduction to Regional and Urban Planning
Spatial Analysis and Modelling
Sustainable Development Assessment
Sustainable Urban Design
Sustainable Urban Design Workshop
Transport and Planning
Transport Policy
Urban Biodiversity Conservation and Restoration
Wildlife in Cities

WATER RESOURCES MANAGEMENT ELECTIONS
Advances in Water Technology
Hydrology and Water Resources
Advanced Topics I
Water Quality Modelling

Open Universities Australia programs
Students can also study the following postgraduate programs through Open Universities Australia (OUA):
> Master of Project Management: 2 years
> Graduate Diploma in Project Management: 1 year
> Graduate Certificate in Project Management: 6 months

Full-time program duration in EFTSL (Equivalent Full-time Student Load)
Commonwealth-supported (see page 24 for more information)
Surveying a future from the outset

Marko Curcic
Graduate, Master of Surveying

After receiving an introduction to the industry through his year 10 work experience project Marko Curcic had decided ‘after a week’ that he would study surveying at university. ‘Work experience outside of university gives you an understanding of all of the theory you learn at university and also familiarises you with using modern equipment.’

As the only institution to offer surveying at the postgraduate level, Marko chose to pursue his ambition with the University of South Australia, because of the reputation it has among employers. Studying at the Mawson Lakes campus, Marko enjoys the ‘up-to-date technology’ and ‘great environment amongst students.’

Marko works as a casual surveyor for a top Adelaide surveying firm alongside his studies, providing him with a connection to the industry before graduation. ‘The practical experience in both cases was and has been very valuable to my career development and overall learning.’

Overview
The Master of Surveying is designed to develop your theoretical knowledge, professional ethics and practical skills to be able to undertake professional land surveying measurements and analysis.

Career opportunities
As a graduate, you may find employment in the land boundary (cadastral) and engineering surveying areas. Students are eligible to enter into an agreement with the Surveyors Board of South Australia to undertake training in cadastral surveying, which will lead to formal licensing by the Board.

Exit point
An exit point is available at the successful completion of first year with the award of Graduate Diploma in Surveying.

Entry requirements
Applicants should have a completed bachelor degree in a related discipline from a recognised higher education institution or equivalent qualification. This degree will have strength in geospatial science and will reside in disciplines such as Geographical Information Systems (GIS), science, environmental science, natural resource management and geography. Applicants must have passed university coursework with the following content:

- maps and coordinate systems
- geographical information systems
- urban planning
- remote sensing
- land surveying including GPS
- earth systems/geology
- mathematics (preferably engineering mathematics)
- physics.

Graduates of UniSA’s Bachelor of Geospatial Science are eligible for entry into this program.
Master of Urban and Regional Planning IMUB

Nested with:
Graduate Diploma in Urban and Regional Planning (IGUR)

ENTRY
SATAC Code (Master) 4CM004

GradDip 4GD002

Start date (SP=study period): SP2 SP5
Program fees: CSP
CRICOS program code: 07195U*

*master program

Overview
Planners undertake challenging and exciting work in a variety of spheres at local, national and international levels, and are involved in a diverse range of professional activities including urban design and environmental, social, heritage, transport and community planning including the development of sustainable cities. This program has a graduate diploma nested within it allowing you to easily transition from this into the master program upon completion of the graduate diploma.

Career opportunities
Previous graduates have found work in state and national agencies on projects such as:
> planning and design of new towns and suburbs
> energy-efficient housing
> new public transport services
> assessment of development proposals in local and state government
> the protection of heritage buildings and landscapes
> coastal planning

Opportunities also exist in the private sector including planning consultancy companies and property and urban development companies.

Professional recognition
Recognised by the Planning Institute of Australia (PIA), this program provides full exemption from the educational requirements for PIA membership. Holding this professionally accredited qualification enables graduates to apply for corporate membership of PIA and undertake training to gain status as a Professional Certified Planner. Graduates will be required to undertake continuing professional development offered by PIA.

Entry requirements
Applicants are required to:
> hold a degree in any discipline with a credit average or above, or equivalent; or
> have completed the Graduate Diploma in Urban and Regional Planning.

Planning a future in creating diverse urban environments
Alyce Brewis
Graduate, Bachelor of Urban and Regional Planning with Honours
Student, Doctor of Philosophy in Planning

After working as a planner with Nolan Rumsby Planners and the Adelaide Hills Council, Alyce decided to pursue a PhD in planning working with the same academics who supervised her Honours thesis. Researching the ‘strategic application of the creative city ethos in metropolitan Adelaide,’ Alyce is able to explore the urban policy environment and how it supports or hinders creative enterprise within Adelaide. ‘The project is of significance to Alyce who considers ‘the creation of functional, pleasant and inclusive environments’ important to civic life. Alyce believes planning offers a rewarding career with the opportunity to assist people through a sometimes complex process and to tangibly contribute to the urban environments in which people live, work and play.’

‘Planning is one of the few professions providing opportunities to contribute to the development of strategic directions affecting both the nature of place and the quality of experiences within those spaces,’ Alyce says.
Contribute to your field

Make a lasting contribution to the body of knowledge in your field.

Research degrees are an advanced program of study that allow you to investigate a topic with relevance to your field. Under the supervision of world-class researchers you will learn and apply advanced research methodologies to produce new knowledge and provide solutions to challenges within your discipline area.

unisa.edu.au/resdegrees

Qualifications include:

- **Masters by Research**: 2 years*
- **Professional Doctorate**: 4 years
- **Doctor of Philosophy (PhD)**: 4 years*

*study times are approximate and based on a full-time study load.

* in total including examination time. Students must be prepared to submit 3-6 months prior to official completion of their program.

Who is it for?

- Recent university graduates who have completed Honours or Masters by Research study (for PhD and Professional Doctorates)
- Qualified professionals seeking to make new advances and contribute to the body of knowledge in their field (for Masters by Research)

Find out more:

**Entry requirements**: see program for more information

unisa.edu.au/resdegrees-eligibility

**How to apply**:

unisa.edu.au/apply
Doctor of Philosophy (LPHD)
Masters by Research (LMIE)

Key features
> Work with world-class supervisors.
> Engage with industry, government, education providers and professionals to solve real-world problems.
> Dedicated support and services for research students.

Overview
A research degree with the Division of Information Technology, Engineering and the Environment will enable you to immerse yourself in a flourishing technology hub of theoretical, applied and cross-disciplinary research. Professional doctorates foster excellence in professional practice by developing the capacity of individuals to lead development of knowledge in their professional contexts.

Our innovative research degree programs will provide you with advanced academic and professional research skills. A majority of these programs are offered at Mawson Lakes campus with some offered at City East campus.

Doctor of Project Management (IPPJ)
In addition to the project management specialisation of the Doctor of Philosophy (LPHD) program, the University also offers a separate Doctor of Project Management. The program is a rigorous program of advanced study and research, designed specifically to meet the needs of industry and professional groups.

Discipline areas
> Mechanical and Manufacturing Engineering
> Electrical and Information Engineering
> Applied Physics
> Systems Engineering
> Computer and Information Science
> Mathematics
> Statistics
> Bioinformatics
> Transport Engineering (LPHD)
> Construction Management (LPHD)
> Project Management (LPHD & IPPJ)
> Environmental Science (LPHD)
> Building
> Planning
> Sustainable Environments
> Engineering (Civil)
> Water Engineering (LPHD)
> Geoinformatics
> Environmental Remediation and Public Health
> Minerals and Materials

Entry requirements
Minimum entry requirements to be considered eligible for entry into a research program include:
> Honours 1, Honours 2A or an appropriate master degree or equivalent – eligible to be considered for admission into PhD, or Professional Doctorate.
> Bachelor degree – students with a relevant bachelor degree of at least three years with a minimum credit average are eligible to be considered for admission into Masters by Research.
> Other postgraduate and undergraduate degrees – eligible to be considered for admission into Masters by Research, or, PhD or Professional Doctorate with the demonstration of research capabilities via an assessment of relevant quality publications and professional experience.
> No tertiary qualifications – eligible to be considered for admission into Masters by Research with the demonstration of research capabilities via an assessment of relevant quality publications and professional experience.

Note: eligibility for entry into a research program is also subject to an assessment of the proposed research, the availability of a supervisor and any school or research-specific eligibility requirements.
Study at UniSA – the basics
Minimum entry requirements for undergraduate bachelor degrees and associate degrees

Applying with Year 12
Applicants are required to have successfully completed the South Australian Certificate of Education (SACE) with:
> a competitive ATAR; and
> the fulfilment of the program’s prerequisite requirements (where applicable).
Applicants may also be eligible to compete for entry if they have completed the program’s prerequisite requirements and have one of the following:
> Completed an interstate or overseas qualification considered by the University as equivalent to SACE.
> Completed the International Baccalaureate Diploma with a minimum score of 24 points.

Bonus Points
Universities in South Australia offer bonus points to Australian high school students applying for entry into university via the following schemes:
> SA Universities Equity Scheme – provides bonuses for students coming from specified schools, as well as individuals experiencing disadvantage.
> SA Language, Literacy and Mathematics Bonus Point Scheme – provides bonuses for students who successfully complete a language other than English, or specified English and Mathematics subjects.

Need some help? For further information, visit unisa.edu.au/bonuspoints or contact Future Student Enquiries by phone (08) 8302 2376 or submit an enquiry via unisa.edu.au/enquiry

UniSA Preferred
UniSA Preferred is a scheme that offers guaranteed entry into many UniSA programs for domestic Year 12, TAFE and other registered training organisation (RTO) students. If your ATAR (including any bonus points) or TAFE/RTO award meets the UniSA Preferred score for that program, you have met any prerequisites, and you have listed the program as your first preference, you are in. It’s guaranteed.

Unisa.edu.au/preferred

Alternative pathways
Entering your chosen program straight from high school is not the only pathway into UniSA. Applicants may also meet the minimum requirements to apply for entry (via competitive selection) through one of the following pathways:

Tertiary Transfer – completion of at least half a year of full-time equivalent study at UniSA or a recognised higher education institution. You can apply using your Grade Point Average (GPA).

Higher Education Diploma – completion of a higher education diploma from the UniSA College (applicable programs listed on each bachelor program in this guide), the South Australian Institute of Business and Technology (SAIBT), or another recognised higher education institution. For more information visit saibt.sa.edu.au

Special Entry – a competitive Special Tertiary Admissions Test (STAT) score. A personal competencies statement or employment experience may also be considered for some programs.

TAFE/Registered Training Organisations (RTO) – applicants may be eligible for entry with the completion of an award from TAFE or another Registered Training Organisation at AQF Certificate IV or above.

UniSA Foundation Studies – completion of the Foundation Studies program (listed on each applicable bachelor program in this guide) offered by UniSA College.

Open Universities Australia – completion of at least four Open Universities Australia (OUA) courses at an undergraduate level or higher.

Before applying
All applicants should check and ensure that they meet all entry and prerequisite requirements before applying. For more information on entry requirements, visit unisa.edu.au/future

Support and scholarships
UniSA offers services to assist rural and/or socio-economically disadvantaged students, Indigenous Australians and people with a disability. For more information, contact (08) 8302 2376 or visit unisa.edu.au/future

How to apply to the University of South Australia
Applications to most programs at UniSA are administered through SATAC (South Australian Tertiary Admission Centre) for more information visit unisa.edu.au/apply

Fees
All domestic undergraduate students at the University of South Australia are in Commonwealth-supported places. Students in these places pay a contribution of their fees depending on the program chosen and the contribution band in which those courses are classified (see table below). The amount of your student contribution also depends on the unit value of your courses of study.

As per the Australian Government guidelines, the student contribution amounts for 2015 are:

<table>
<thead>
<tr>
<th>Band</th>
<th>Area of study</th>
<th>Student contribution For one year of full-time load (1 EFTSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Humanities, behavioural science, social studies, foreign languages, visual and performing arts, clinical psychology, nursing and education</td>
<td>$0 - $6,152</td>
</tr>
<tr>
<td>2</td>
<td>Computing, built environment, health, engineering, surveying, agriculture, Mathematics 1, statistics, science</td>
<td>$0 - $8,768</td>
</tr>
<tr>
<td>3</td>
<td>Law, dentistry, medicine, veterinary science, accounting, administration, economics, commerce</td>
<td>$0 - $10,226</td>
</tr>
</tbody>
</table>

Some postgraduate programs are also Commonwealth-supported (or CSP), while others are full fee-paying (the fees for these are listed on each applicable program in this guide). For more information on fees including eligibility for Commonwealth-supported places, deferring your student contribution through HECS-HELP, FEE-HELP loans, or fee information relating to international students please visit unisa.edu.au/fees

unisa.edu.au/pathways

unisa.edu.au/future

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facebook.com/UniSAMawsonLakes

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twitter.com/UniversitySA
twitter.com/UniSAnewsroom

Youtube
youtube.com/unisouthaustralia

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instagram.com/universitysa

LinkedIn
linkedin.com/company/university-of-south-australia

Our @SamstagMuseum listed as a top thing to do in #Adelaide in @nytimes ‘52 places to go in 2015’

#worldsbiggestbike
#bigbikechallenge #theydidit
#guinnessworldrecord
#tourdownunder #teamunisa
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CRICOS provider number 00121B
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