

UNDERGRADUATE GUIDE

ENVIRONMENTAL, FOREST &
MARINE SCIENCES **2017**



Southern Cross
University

ENVIRONMENTAL SCIENCE
FOREST SCIENCE
MARINE SCIENCE

REGIONAL & URBAN PLANNING
SCIENCE



Jayden Kachel, marine science student.

It's all about U

scu.edu.au/enviroscience

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SCHOOL OF ENVIRONMENT, SCIENCE & ENGINEERING

The School of Environment, Science and Engineering is a leader in environmental sustainability, and draws on SCU's outstanding research strengths.

State-of-the-art facilities include the science and engineering precinct at the Lismore campus, and the University's National Marine Science Centre in Coffs Harbour which provides advanced analytical equipment and resources for marine science students and researchers.

Courses combine academic rigour, laboratory work, field trips, professional experience and industry internships to maximise career opportunities. All environmental, marine and forest science courses are available by distance education.

Studying at SCU

Studying at Southern Cross University involves a range of learning experiences. It can vary based on your course of study, your location and your mode of study.

You may take part in face-to-face lectures, workshops and tutorials, video-conferenced lectures, podcasts, online units and discussion forums using cutting-edge technologies. You can bring your own device onto campus and use SCU's extensive wireless network or access study materials off-campus as long as you have an internet connection.

Students rub shoulders with leading experts in the environmental sciences at regular guest lectures and on field trips. They access labs featuring advanced analytical equipment, specifically for geochemistry, microscopy, aquaculture, genetic analysis, wood science and Geographic Information Systems, as well as labs for biology, chemistry and geology. (See facilities and resources on page 11.)

For a short video about the School of Environment, Science and Engineering, visit:

scu.edu.au/environment-science-engineering

View a field trip at:

scu.edu.au/environment-science-engineering/fieldtrips

Why study at SCU?

- ★ Ranked in the top 500 universities in the world.
Times Higher Education World University Rankings 2015-2016
- ★ Outstanding research achievements. Rated 'at world standard' or above in 24 research areas.
Excellence in Research for Australia 2015 (ERA)
visit: scu.edu.au/era
- ★ Rated 'well above world standard' in Geochemistry; Oceanography; Environmental Science and Management; Zoology; Crop and Pasture Production; Forestry Sciences; and Agricultural and Veterinary Sciences. Rated 'above world standard' in Earth Sciences; Environmental Sciences; Soil Sciences; Ecology; and Fisheries Sciences.
- ★ Field trips to areas of ecological significance including World Heritage rainforests, subtropical forests and coastal and marine ecosystems.
- ★ Remarkable campus locations in a stunning, ecologically diverse region which serves as a living laboratory.



Degrees which put you in the workplace

An internship program is available for students undertaking studies in **environmental science, marine science and management** and in **science**. Internships are undertaken as part of the course, to gain work-ready skills and establish valuable professional networks and industry contacts before graduation. They provide students with the opportunity to gain volunteer workplace experience to supplement the practical skills and the theoretical foundations provided throughout their studies, and to engage with industry representatives from the early stages of their course.

Forestry students complete 16 weeks of practical workplace experience during their studies in a forestry-related area including plantation and forested regions across Australia. Students are assisted to find paid and/or volunteer work placements that complement their studies.

Final-year students of the **regional and urban planning** degree undertake an eight-week internship in the planning field, where the practical application of their knowledge is applied in a work environment.

BACHELOR OF ENVIRONMENTAL SCIENCE

The Bachelor of Environmental Science produces graduates who can manage the environment for future generations and focuses on building scientific knowledge and practical skills in land, water, and flora and fauna conservation.

As well as lectures and tutorials, students undertake classes in the School's scientific laboratories equipped with advanced analytical equipment.

Field trips feature in many units offered in this course, enabling students to gain first-hand knowledge and a range of hands-on skills in many differing environments. The University is located near a variety of unique study environments, including significant wetlands and estuaries, forests, coastal and inland national parks, and urban and rural development.

Majors

Coastal Management provides insights into processes that affect our use of the coastal zone. Students explore the impact of climate change, land use planning, protected area management, economics, and people in the coastal environment.

Environmental Resource Management focuses on conducting wildlife surveys, conserving fauna and flora and rehabilitating degraded land for future generations.

Fisheries and Aquaculture Management integrates fisheries biology, stock management, habitat protection, and aquaculture studies with environmental management. Students focus on developing strategies to maintain a sustainable fishery/aquaculture enterprise. Some third year subjects for this major will be taught as intensive residential courses at the National Marine Science Centre in Coffs Harbour.

Waste Management and Resource Recovery develops multidisciplinary skills that support innovation in providing solutions to dealing with waste and waste minimisation, now and in the future.

Professional recognition

Graduates are eligible for membership of the Environment Institute of Australia and New Zealand.

Professional placement

Students can complete an eight-week professional placement to gain industry experience. Interns can work with organisations across the environmental science spectrum including local, state or federal government agencies; private consultancies; or business enterprises in Australia or overseas.

Your career

In public and private sectors, national park and protected area management, environmental protection, waste management, environmental impact assessment and monitoring, environmental education and interpretation, sustainable forestry, fisheries management, aquaculture, ecotourism, land/river/coast care programs; and in environmental science research.

Summary

Locations: Lismore, Distance Education[#]

Duration: 3 years full-time or 6 years part-time

UAC code: 334100

QTAC code: 054001

Total units: 24 | **Indicative ATAR:** 68 | **Indicative OP:** 14

[#] Distance education students attend compulsory residential workshops at Lismore campus.

Tristan Sloan

Executive Officer, Amateur Fishermen's Association of the Northern Territory
Bachelor of Applied Science (major in fisheries and aquaculture management)
Now Bachelor of Environmental Science



Recreational fishing is worth more than \$100 million to the Northern Territory (NT) economy (second only to mining).

With 5 000 members and a base of 40 000 recreational fishers, Tristan Sloan's job as head of the Amateur Fishermen's Association NT takes him from a boat on the Adelaide River discussing crocodile prevention strategies with rangers; to lobbying politicians in the corridors of Parliament House in Darwin; to sitting down with traditional owners discussing permit systems and recreational fishing access on Indigenous land.

"Fishing is the prime recreational activity up here, it's a lifestyle, so as a group the recreational fisher's vote is very strong and heavily influences the politics of NT. I get to see a vast amount of the Territory that most people never set eyes on. I never imagined I'd be working for a political lobby group. In many ways it's a dream job but the scope of activities is enormous. I deal with a broad range of issues that have an impact on the environment, tourism and fishing. I provide consultation to oil and gas interests proposing seismic exploration and drilling for oil and natural gas on the seabed, through to providing recreational fishing advice and input on international tourism marketing campaigns."

BACHELOR OF FOREST SCIENCE AND MANAGEMENT

Forest management is a science concerned with the nature of forest ecosystems and best management of these systems – not only for timber but for biodiversity conservation, protection of catchments, storage of carbon and other essential functions.

Forestry graduates develop skills and an understanding of the multifaceted aspects of sustainable resource management. They have the opportunity to specialise in small or large-scale plantations, restoration forestry, provision of environmental services, wood utilisation, forest inventory and planning, and international forestry.

Changes in the industry drive a continuing demand for degree-qualified foresters able to work in production, conservation and restoration forestry. Native forests continue to be important sources of high-value wood and require managers in public forest agencies and national parks where the focus is on fire management, weed and feral animal control and other important issues.

The course places an emphasis on field work and many trips to native and planted forest types. These provide an opportunity for students to learn key skills in forest science, in evaluating vegetation and planning management options. The NSW Northern Rivers region offers a variety of accessible subtropical environments close to the Lismore campus.

Most lectures and tutorials are taught via online activities and video-linked or podcast virtual classes. The course includes compulsory residential teaching periods at Lismore campus that all students must attend. These occur toward the middle of sessions 1 and 2, and comprise approximately one-to-four days of lab classes and field work.

Major areas of study

The course is distinctive for providing graduates with a strong foundation in forest science and incorporates field-based practicums and interactive tutorials. It also focuses on the business aspects of industrial forest management, while acknowledging the importance of alternatives such as small-scale farm forestry, mixed-species plantations and managed private native forests.

Professional recognition

Graduates are eligible for membership of the Institute of Foresters of Australia.

Professional placement

Students complete 16 weeks of practical workplace experience during their studies in a forestry-related area including plantation and forested regions across Australia. Students are assisted to find paid and/or volunteer work placements that complement their studies.

Your career

In field forestry plantation establishment and management; use of geographic information systems; natural resource management and environmental planning; native forest management, fire prevention and control; forest resource assessment; policy development; pest and disease management; agroforestry and farm forestry advisory services; forest growth modelling and yield prediction; protected area management; international forestry focused on developing countries, reserve management; and in forestry research.

Summary

Locations: Lismore, Distance Education[#]

Duration: 4 years full-time or 8 years part-time

UAC code: 334102

QTAC code: 054021

Total units: 32 | **Indicative ATAR:** 68 | **Indicative OP:** 14

[#]Distance education students attend compulsory residential workshops at Lismore campus.



Frank Bailey
Operations Officer –
Sustainable Forest Management
Western Australia Department of Parks
and Wildlife
Bachelor of Applied Science (Forestry)
*Now Bachelor of Forest Science and
Management*

Frank Bailey's bushfire expertise saw him join Australia's national contingent sent to help tackle dozens of wildfires burning across Canada in 2015. The fires destroyed almost two million hectares of forest in Alberta and British Columbia. As division supervisor, Frank was responsible for an international crew on the fire line.

"I'm based in the Perth Hills district but at critical times I can be sent anywhere across WA or the country to help fight fires. I was deployed to the 2009 Black Saturday fires in Victoria and more recently I went to Canada, my first overseas deployment. I'd always hoped to go to Canada or the US, so it was a great opportunity to provide the skills I've learned to assist someone else. Canadian fire crews had been busy for about four months and had run out of resources and needed a break. We were sent to a place called High Level, a forest fire district in north-western Alberta. I was in charge of a 40-person crew from Ontario, with other fire fighters from Mexico, Australia and other Canadian provinces also at the fire."

Frank has worked for WA Department of Parks and Wildlife since relocating to Perth after graduation.

"The Department is a leader in bushfire management. In my opinion, we undertake prescribed burning better than anyone around that I know of. When I'm managing a fire or a prescribed burn I can have up to 40 people reporting to me. I'm involved in all facets of state forest operations, whether it's managing the forest industry (like tree marking, monitoring and auditing) or the mining industries that are in there extracting gold or bauxite/aluminium, through to general liaison with local governments or government agencies. This also includes liaison with private landholders who back onto the forest, and the public who use state forest for recreation."

Frank said SCU's forestry degree was relevant and valuable.

"The Lismore campus is blessed to be on the doorstep of national parks, state forests and plantation industries, so there were regular field trips. Completing 16 weeks of workplace experience helps define what you like, whether it be native forests, or plantation inventory, or native forests silviculture. By working each summer and winter break – locally on the NSW North Coast and also in Tasmania and South Australia – I realised that native forest silviculture and fire management was what I wanted to do."



BACHELOR OF MARINE SCIENCE AND MANAGEMENT

This course develops practical skills in managing a range of tropical and subtropical coastal and marine environments focusing on the Solitary Islands, Cape Byron and Great Barrier Reef marine parks.

First year general science and most second year environmental science units are based at Lismore campus. Some second year and most third year units are based at the University's National Marine Science Centre (NMSC) in Coffs Harbour, situated near the Solitary Islands Marine Park. Units taught at the NMSC are usually run as intensive courses with a compulsory six-day on-campus period for all students. In these units, students study specialist topics such as ocean change biology, marine community biology, marine pollution and marine ecosystem management.

The NMSC is part of the School of Environment, Science and Engineering. It provides students, academics and professional researchers practical opportunities in the study of marine science and management (read more about the NMSC on page 11).

Other highlights of this degree include units in marine mammal conservation and coral reef ecology. The coral reefs unit integrates the skills taught throughout the course and includes an extended residential period on a Great Barrier Reef island.

Major areas of study

While this course has no majors, it combines marine science with contemporary management concepts. The course includes the units Marine Mammals and Coral Reef on the Edge with a strong focus on conservation and management issues that challenge the marine environment. Additional specialist marine science units include Ocean Change Biology, Pollution of the Marine Environment, Successful Sampling and Marine Systems Science and Management.

Professional recognition

Graduates are eligible for membership of the Environment Institute of Australia and New Zealand. During the course, students will have the option to gain a nationally recognised qualification in scientific scuba diving.

Professional placement

Students can complete an eight-week professional placement to gain industry experience. Interns can work with organisations across the marine science spectrum including local, state or federal government agencies; private consultancies; or business enterprises in Australia or overseas.

Your career

In public and private environmental sectors as a consultant, marine park planner, marine biologist and ecologist, marine reserve officer, aquaculturalist, fisheries manager, project officer, technical officer, state coordinator; and in marine research.

Summary

Locations: Lismore, Distance Education[#]

Duration: 3 years full-time or 6 years part-time

UAC code: 334104

QTAC code: 054101

Total units: 24 | **Indicative ATAR:** 68 | **Indicative OP:** 14

Distance education and on-campus students complete their final-year units at the National Marine Science Centre in Coffs Harbour, which are delivered as intensive, residential workshops.

[#] Distance education students attend compulsory residential workshops at the Lismore campus.



BACHELOR OF ENVIRONMENTAL SCIENCE/BACHELOR OF MARINE SCIENCE AND MANAGEMENT

This four-year full-time (or part-time equivalent) combined degree brings together the terrestrial aspects of environmental management with marine science and management. It aims to produce graduates who can manage the environment for future generations. The degree focuses on building scientific knowledge and practical skills in land and water management, and flora and fauna conservation, as well as having an emphasis on field training in a range of tropical and subtropical coastal and marine environments.

Majors

Coastal Management provides insights into processes that affect our use of the coastal zone. Students explore the impact of climate change, land use planning, protected area management, economics, and people in the coastal environment.

Environmental Resource Management focuses on conducting wildlife surveys, conserving fauna and flora and rehabilitating degraded land for future generations.

Fisheries and Aquaculture Management integrates fisheries biology, stock management, habitat protection, and aquaculture studies with environmental management. Students focus on developing strategies to maintain a sustainable fishery/aquaculture enterprise. Some third year subjects for this major will be taught as intensive residential courses at the National Marine Science Centre in Coffs Harbour (read more about the NMSC on page 11).

Professional recognition

Graduates are eligible for membership of the Environment Institute of Australia and New Zealand.

Professional placement

Students can complete an eight-week professional placement to gain industry experience. Interns can work with organisations across the environmental science spectrum including local, state or federal government agencies; private consultancies; or business enterprises in Australia or overseas.

Your career

Careers in environmental science include national park and protected area management, environmental protection, waste management, environmental impact assessment and monitoring, environmental education and interpretation, sustainable forestry, fisheries management, aquaculture, ecotourism, land/river/coast care programs; and in environmental science research. Careers in marine science include as a consultant, marine park planner, marine biologist and ecologist, marine reserve officer, aquaculturalist, fisheries manager, project officer, technical officer, state coordinator; and in marine research.

Summary

Locations: Lismore[^], Distance Education[#]

Duration: 4 years full-time or 8 years part-time

UAC code: 334112

QTAC code: 054211

Total units: 32 | **Indicative ATAR:** 68 | **Indicative OP:** 14

[^] Lismore students complete their third and final year units at the National Marine Science Centre in Coffs Harbour, which are delivered in intensive mode.

[#] Distance education students attend compulsory residential workshops at the Lismore campus and at the National Marine Science Centre in Coffs Harbour.

* All marine units are taught at the National Marine Science Centre in Coffs Harbour and are usually run as intensives with a compulsory six-day on-campus period for all students.

NEW IN 2017

BACHELOR OF ENVIRONMENTAL SCIENCE/BACHELOR OF PLANNING

The Bachelor of Environmental Science/Bachelor of Planning (*University approval pending*) focuses on preparing students for the workplace and producing graduates who can manage the environment and shape planning outcomes. Students undertake work-integrated learning and a planning research project.

This combined degree concentrates on building knowledge and practical skills in land, water, and flora and fauna conservation, plus abilities in urban design, land use management, governance, planning law and the administration of plans.

In addition to lectures and tutorials, students undertake classes in the School's laboratories and field work in a unique range of study environments including wetlands, estuaries, forests, national parks and local development sites.

Majors

Students can elect to complete one of the following majors or alternatively a work placement plus an integrated research project.

Environmental Resource Management focuses on conducting wildlife surveys, conserving fauna and flora and rehabilitating degraded land for future generations.

Waste Management and Resource Recovery develops multidisciplinary skills that support innovation in providing solutions to dealing with waste and waste minimisation, now and in the future.

Professional recognition

Graduates are eligible for membership of the Environment Institute of Australia and New Zealand.

Jacqui Taylor

Northern Marine Campaigner
Australian Marine Conservation Society (AMCS)
Bachelor of Applied Science (majoring in Marine Science Management)

Now Bachelor of Marine Science and Management

Jacqui Taylor has always been passionate about connecting people with nature, whether as a dive instructor, tour guide, filmmaker, whale researcher or working with Indigenous sea rangers to map and record their management of sea country. Now as northern marine campaigner AMCS, she's raising the community's awareness about threats to the Timor and Arafura seas of the Top End.

"What I like most about my job is knowing I'm making a real contribution to the protection of our marine environment in the north of Australia where we have some of the last healthy tropical waters of the planet. Because AMCS is not-for-profit, we have the capacity to influence decision-makers and question all tiers of government. I organise and rally the community against issues that have a detrimental effect on marine life and ecosystems, like seabed mining and the winding back of marine sanctuary zones. People who study environmental science are usually people who are passionate about the environment. In collaboration with scientists, business owners and the wider community, AMCS is able to provide a platform for positive action and a well-balanced and important environmental perspective that isn't offered elsewhere."

Jacqui does media interviews, talks to politicians, speaks at rallies and public meetings, and creates campaigns, promotional material, websites and videos.

"I really like the medium of film as a way to engage people in understanding the value of conservation."

Professional placement

Students can complete an eight-week professional placement to gain industry experience. Interns can work with organisations across the environmental science spectrum including local, state or federal government agencies; private consultancies; or business enterprises in Australia or overseas.

Your career

Careers in environmental science include national park and protected area management, environmental protection, waste management, environmental impact assessment and monitoring, environmental education and interpretation, sustainable forestry, fisheries management, aquaculture, ecotourism, land/river/coast care programs; and in environmental science research.

Careers in planning include in large development companies and private planning consultancies; in city, regional and country areas and internationally. Planning fields include: urban design, development assessment, housing, recreational planning, environmental protection and transport planning, statutory planning, urban and regional planning, natural resource management and local government planning.

Summary

Locations: Lismore

Duration: 4 years full-time or 8 years part-time

UAC code: 334105

QTAC code: 054811

Total units: 32 | **Indicative ATAR:** 68 | **Indicative OP:** 14



BACHELOR OF REGIONAL AND URBAN PLANNING (HONOURS)

The Bachelor of Regional and Urban Planning (Honours) provides graduates with the environmental, engineering, legal, economic, social and urban design skills required to work as planners throughout Australia and internationally.

Students develop the capacity to produce and critique environmental, economic, social, transport and urban design plans, utilise relevant acts and case law, implement planning regulations and policies, analyse data, assess social and environmental impacts, identify and resolve planning problems, communicate in written, oral and graphical form and resolve planning conflicts.

Graduate planners will have the knowledge and skills to design, allocate and manage land use, implement suitable governance, interpret planning law and implement and administer plans.

The distinctive features of this course include engineering, sociology, environmental science and law units, and a focus on sustainable regional and rural communities.

Major areas of study

The course incorporates cross-disciplinary studies to equip graduates with an understanding of the social, environmental, economic and legal background required to practice as a professional planner. It provides integrated learning experiences in other disciplines including environmental science and management, engineering, law, and social science, to prepare graduates for employment in a wide range of urban and regional planning positions.

In the final year, students undertake a planning research thesis or an impact assessment project. The thesis enables students to explore critical planning issues and gives them the opportunity to contribute to new knowledge in their chosen topic. The project enables students to hone their social and environment impact knowledge and skills. The practical application of planning skills suitable for the workforce will also come together in the final year of study through the capstone project.

Professional recognition

Southern Cross University is undertaking staged accreditation for the degree from the Planning Institute of Australia (PIA) and has received interim accreditation until 2019. Accreditation also enables the degree to be recognised worldwide. Graduates and students are eligible to apply for membership of PIA.

Professional placement

At the end of the third year of study students undertake an eight-week (40 day equivalent) internship in the planning field. The internship seeks to introduce students to the requirements of the working environment and to refine and practise workplace skills in a structured setting with the support of the University.

Students gain exposure to the practical application of their knowledge and skills in readiness to enter the workforce. The internship also provides students with a structured framework to develop their generic workplace skills such as preparing a resume, addressing selection criteria and resolving conflict.

Your career

In federal, state and local government; in large development companies and private planning consultancies; in city, regional and country areas and internationally. Planning fields include: urban design, development assessment, housing, recreational planning, environmental protection and transport planning, statutory planning, urban and regional planning, natural resource management and local government planning.

Summary

Locations: Lismore

Duration: 4 years full-time or 8 years part-time

UAC code: 334110

QTAC code: 054801

Total units: 32 | **Indicative ATAR:** 68 | **Indicative OP:** 14

Megan Yates

Bachelor of Regional and Urban Planning (Honours)
Trainee Development Planner, Richmond Valley Council

Megan has been employed as a Trainee Development Planner through the Youth Employment Strategy (YES) program at Richmond Valley Council, which included a scholarship to study at SCU.

“At work I’m doing admin for the planners and building inspectors. I get to see all the development applications (DAs) that come through Council across residential, commercial and industrial, so I get an understanding of everything that happens with the DAs and the legislation and policies that relate to them.

“I run and take minutes for Council’s pre-lodgement meetings where developers and the public who have a proposal consult with Council before they lodge their DA. It gives them a chance to discuss the proposal and any possible constraints that may hinder the DA process. I run an internal assessment process called DAP (Development Assessment Panel) which involves Council’s planning, engineering and environmental health staff. DAP considers all planning DAs that are being approved, any new applications, and Section 96 modifications. I look forward to taking on more responsibility as I go through my degree.”





BACHELOR OF SCIENCE

The Bachelor of Science provides a broad education in science as well as the opportunity to specialise in an area of interest through the study of several majors.

Majors

Biology provides students with a broad base for understanding principles governing life processes at all levels – molecular, cellular, organismal, and ecological. There is a strong focus on human impacts. The management of ecosystems is embedded throughout the major.

Engineering ensures students have a sound base of environmental engineering knowledge coupled with principles of physical and biological sciences.

Environmental Chemistry gives students the knowledge to solve chemically related environmental problems. Students will also gain an overview of sediment and aquatic chemistry, which includes laboratory analysis of materials.

Human Biology provides students with an area of specialisation within the health sciences. Students gain knowledge in physiology, anatomy, nutrition, and exercise and health science.

Information Technology enables students to specialise in computing technology including programming, system design and web development.

Mathematics provides an area of specialisation for students in advanced mathematical skills. Subject areas can include an overview of algebra, calculus, physics and more complex analysis and group theories.

Psychology provides an overview of a range of psychological theories including learning and memory, psychological assessment, and research in the psychology discipline.

Professional placement

Students can complete an eight-week internship placement to gain industry experience. Interns work with organisations across the science spectrum including local, state or federal government agencies; private consultancies; or business enterprises in Australia or overseas.

Your career

In public and private sectors as a resource manager and sustainability advisor and planner, policy developer, biologist, ecologist, health scientist; and in scientific research.

Summary

Location: Lismore[^], Distance Education

Duration: 3 years full-time or 6 years part-time

UAC code: 334116

QTAC code: 054611

Total units: 24 | **Indicative ATAR:** 68 | **Indicative OP:** 14

[^] Some units may only be available to study by distance education or at specific campuses and some include compulsory residential workshops.



ASSOCIATE DEGREE OF SCIENCE

The **Associate Degree of Science** is a two-year (full-time or part-time equivalent) course that equips students with knowledge and skills in areas including environmental, health and physical sciences. Graduates of the Associate Degree of Science are guaranteed entry into the following linked degrees: Bachelor of Science, Bachelor of Environmental Science, Bachelor of Marine Science and Management, Bachelor of Forest Science and Management, Bachelor of Engineering (Honours) in Civil Engineering and Bachelor of Engineering (Honours) in Mechanical Engineering. Graduates of the Associate degree may receive up to 16 units of credit (advanced standing) towards their Bachelor degree (depending on course and units studied).

The **Diploma of Science** is a one-year (full-time or part-time equivalent) course. It is available as an entry point, equipping students with foundational knowledge and skills and is a pathway to the Associate degree. The Diploma offers up to eight units of credit (advanced standing) into the above Bachelor degrees (depending on course and units studied).

Graduates of both courses can seek para-professional work in a range of industries, including positions as field assistants, laboratory assistants, revegetation officers and environmental monitoring officers. All Associate degree students are offered extra support while studying.

For more information, visit: scu.edu.au/scucollege

Facilities and resources

Depending on their chosen degree, students in the School of Environment, Science and Engineering have access to laboratories at the Lismore campus across a range of scientific disciplines.

Laboratories feature advanced analytical equipment, specifically for geochemistry, microscopy, aquaculture, genetic analysis, wood science and Geographic Information Systems (GIS) as well as labs for biology, chemistry and geology.

Field equipment includes boats and 4WD vehicles, fish and animal sampling equipment, sediment samplers, diving equipment, underwater video recorder, geotechnical and geochemical data collection equipment, and a portable weather station and data loggers.

SCU also operates the National Marine Science Centre (NMSC) in Coffs Harbour, on the northern side of the city, in walking distance to Charlesworth Bay, and adjacent to the Solitary Islands Marine Park, a protected marine habitat.

The NMSC provides the perfect setting for third and fourth-year marine science students and researchers to undertake field work. Facilities include a flow-through seawater supply system that supplies labs, tank farm, hatchery and aquarium room; aquaculture farm; broodstock facility and hatchery; and a survey and research vessel providing a platform for scuba diving, water and sediment sampling and fish collection.

Civil and mechanical engineering students (see separate brochure) have access to world-class engineering facilities that enable effective practical teaching and high level experimental research. These include three research laboratories and two teaching laboratories equipped with state-of-the-art equipment covering a range of sub-disciplines including: materials conditioning and testing, concrete and structures testing, fluids/hydraulics testing, and mechanics and physics. Students have access to computers with specialist engineering software.

Key dates for 2017 entry

SCU has a teaching calendar of three sessions.

Depending on the course of study, this can enable students to spread their study load, or to accelerate and complete their degree in less time than the usual duration indicated on the course pages.

All dates in the table opposite are provisional only and may be subject to change. For the most up-to-date information visit the SCU teaching calendar page at: scu.edu.au/teachingcalendar

UAC and QTAC dates may also be subject to change. For the latest information visit: www.uac.edu.au
www.qtac.edu.au

Also note that late UAC and QTAC applications incur an extra fee.

CAMPUS TOURS AVAILABLE ALL YEAR ROUND

T: 1800 626 481 **E:** campustours@scu.edu.au

| | |
|---|---|
| Rising Stars Scholarship applications for 2017 | Open July 2016 Check website for closing dates scu.edu.au/scholarships |
| UAC and QTAC on time applications for 2017 entry (Session 1) | Open early August 2016 Close late September 2016 |
| STAR Entry Scheme opens | Early July 2016 |
| STAR Entry Scheme offers | Early December 2016 |
| SCU Info Days | 2, 7 and 9 December 2016 |
| UAC and QTAC main round offers <i>For the full list of offer rounds visit the UAC and QTAC websites</i> | Mid January 2017 |
| Session 1 teaching dates | 27 February – 26 May 2017 |
| Orientation | 22 – 24 February 2017 |
| Session 2 teaching dates | 10 July – 6 October 2017 |
| Orientation | 5 – 7 July 2017 |
| Session 3 teaching dates | 6 November 2017 – 31 January 2018 |
| Orientation | 1 – 3 November 2017 |

5 steps to SCU

1 Choose a course



scu.edu.au/courses

2 Find out more



campustours@scu.edu.au
scu.edu.au/yourfuture
E: futurestudent@scu.edu.au
Freecall: 1800 626 481

3 Apply



To study on campus (full-time or part-time) apply via UAC www.uac.edu.au or QTAC www.qtac.edu.au
To study by distance education, apply online direct to SCU
scu.edu.au/howtoapply

4 Accept your offer



scu.edu.au/gettingstarted

5 Enrol in units



scu.edu.au/enrol

International students

Southern Cross University welcomes international students. This guide however is not intended for their use. International students should contact SCU International.

W: scu.edu.au/international

E: intoff@scu.edu.au

T: 02 6620 3876



School of Environment, Science
& Engineering

The information in this brochure was correct at the time of publishing (April 2016). All University courses are subject to change by the University and the information provided in this brochure should be used as a guide only. To the extent permitted by law, SCU excludes all liability arising from the use of, or reliance on, the information contained in this brochure.