The School of Environment, Science and Engineering has one of the largest environmental science programs in Australia.* Its degrees enable students to focus on different aspects of environmental management combining academic rigour, laboratory work, field trips and professional experience through industry internships.

Students have access to excellent teaching laboratories and field equipment at Lismore campus and the University’s National Marine Science Centre in Coffs Harbour while the natural environs of our campuses provide perfect living laboratories. All environmental, marine and forest science degrees can be studied on campus at Lismore or by distance education augmented with on-campus workshops.

In the 2012 Excellence in Research for Australia national report the University received the top rating of five for research ‘well above world standard’ in the specific fields of geochemistry, zoology, crop and pasture production and forestry sciences. In the broader research fields, the University received the top rating of ‘well above world standard’ in earth sciences, and agricultural and veterinary sciences.


**Why study with us?**

- Field trips and professional internships.
- Remarkable campus locations which serve as living laboratories.
- Marine units taught at the National Marine Science Centre in Coffs Harbour.
- Leader in environmental sustainability.
- Cutting-edge field equipment and scientific laboratories.

**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 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. Students gain direct contact with professionals, industry organisations and potential employers in the field of natural resource management.

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

Final-year students of the new regional and urban planning degree (subject to University approval) will be able to undertake work-integrated learning and a research project to prepare for the workforce.
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 and supported by technical staff.

Field trips feature in many units offered in this course, with the University located near a variety of unique study environments, including significant wetlands and estuaries, forests, coastal and inland national parks, and urban and rural development. Students gain first-hand knowledge of a range of hands-on skills and environments through the field trips run throughout the course.

Professional recognition
The University is seeking accreditation from the Environment Institute of Australia and New Zealand.

Professional placement
Students can elect to complete an eight-week industry internship for practical experience, to supplement the theory and field work components of the course. Students gain industry experience in organisations across the environmental science spectrum including local, state or federal government agencies; private consultancies; or business enterprises in Australia or overseas.

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 prepares graduates to work in areas such as protected area management, catchment management and environmental restoration. Students learn how to conduct wildlife surveys, conserve fauna and flora and rehabilitate 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.

Graduates are employed in national parks and protected area management, environmental protection, environmental impact assessment and monitoring, environmental education and interpretation, sustainable forestry, fisheries management, aquaculture, ecotourism, and land/river/coast care programs, and in the private sector and all tiers of government.

Your career
Graduates can build careers in a range of fields including urban design, development assessment, housing, recreational planning, environmental protection and transport planning. There are opportunities to work in federal, state and local government departments, large development companies and private planning consultancies in city, regional and country areas. There are employment opportunities within Australia and internationally in the fields of statutory planning, urban and regional planning, natural resource management and local government planning.

Your career
Graduates can build careers in a range of fields including urban design, development assessment, housing, recreational planning, environmental protection and transport planning. There are opportunities to work in federal, state and local government departments, large development companies and private planning consultancies in city, regional and country areas. There are employment opportunities within Australia and internationally in the fields of statutory planning, urban and regional planning, natural resource management and local government planning.

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: 13

*Distance education students attend compulsory residential workshops at Lismore campus.

BACHELOR OF REGIONAL AND URBAN PLANNING (HONOURS)

The Bachelor of Regional and Urban Planning (Honours) (subject to University approval) equips students with the legal, environmental, social, design and engineering skills required to work as planners throughout Australia. Graduates will be skilled to perform the duties of a planner in a professional and ethical manner, to design, allocate and manage land use in urban and rural environments, as well as implement suitable governance, interpret planning law and implement and administer plans.

Professional recognition
The University is seeking accreditation from the Planning Institute of Australia (PIA) for this new course.

Professional placement
The final year of the course focuses on preparing students for the workplace. Students undertake work-integrated learning and a research project.
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.

The Bachelor of Forest Science and Management has been designed in consultation with a range of forestry stakeholders to meet a shortage of degree-qualified foresters.

Forestry graduates develop skills and an understanding of the multi-faceted 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 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.

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

Professional placement
Students complete 16 weeks of practical workplace experience in a forestry-related area during their studies including in plantation and forested regions across Australia. Many students have found paid work experience through trainee positions with public or private forestry agencies.

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.

Your career
Forestry graduates are typically employed in the following fields: field forestry in 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 forestry research.

Summary

<table>
<thead>
<tr>
<th>Locations: Lismore, Distance Education*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration: 4 years full-time or 8 years part-time</td>
</tr>
<tr>
<td>UAC code: 334102</td>
</tr>
<tr>
<td>QTAC code: 054021</td>
</tr>
<tr>
<td>Total units: 32</td>
</tr>
</tbody>
</table>

*Distance education students attend compulsory residential workshops at Lismore campus. Residentials may also be held at teaching facilities in Mt Gambier, South Australia, subject to class size.
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 marine science and fisheries 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, aquaculture, marine pollution and marine ecosystem management.

Other highlights 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.

The NMSC is part of the School of Environment, Science and Engineering. It provides students, academic and professional researchers practical opportunities in the study of marine science and management.

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 may elect to undertake an eight-week industry internship during their studies for practical experience to supplement the theory components of the course.

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: 13

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

Bachelor of Marine Science and Management | scu.edu.au
BACHELOR OF SCIENCE

The Bachelor of Science offers a program of study central to a broad education in science. The course includes a selection of majors from a range of disciplines that enable students to focus on their areas of interest.

Professional placement
Students can elect to complete an eight-week industry internship during their studies for practical experience to supplement the theory components of the course.

Majors
- **Biology** (some units are studied by distance education with on-campus residential workshops)
- **Engineering**
- **Environmental Chemistry**
- **Human Biology** (some units can also be studied at the Gold Coast or by distance education)
- **Information Technology** (units are available to study by distance education only)
- **Mathematics** (units are available to study by distance education only)
- **Psychology** (units are available to study at Coffs Harbour or by distance education)

The degree prepares graduates for continuing study and/or professional participation in diverse fields across public and private sectors and creates opportunities for careers as resource managers and sustainability advisors and planners, policy developers, as biologists and ecologists, or health scientists. Graduates also have opportunities to specialise in disciplines, or develop careers as researchers by undertaking postgraduate coursework or research.

Your career

**Summary**
- **Location:** Lismore*
- **Duration:** 3 years full-time or 6 years part-time
- **UAC code:** 334116
- **QTAC code:** 054611
- **Total units:** 32 | **Indicative ATAR:** 68 | **Indicative OP:** 13

*Some units may only be available to study by distance education and some include residential workshops.

ASSOCIATE DEGREE OF SCIENCE

Offered through SCU College

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 such as engineering. The course includes a pathway to Southern Cross University’s 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 Clinical Sciences. Graduates of the Associate Degree of Science can seek para-professional work in a range of industries, including positions as field assistants, laboratory assistants, revegetation officers and environmental monitors.

For more information visit [scu.edu.au/scucollege](http://scu.edu.au/scucollege)
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.

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

Professional placement
Students have the opportunity to undertake an eight-week industry internship during their studies for practical experience to supplement the theory components of the course.

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 prepares graduates to work in areas such as protected area management, catchment management and environmental restoration. Students learn how to conduct wildlife surveys, conserve fauna and flora and rehabilitate 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.

Your career
Depending on majors completed in the degree, graduates are suited to positions in national parks and protected area management; environmental protection; environmental impact assessment and monitoring; environmental education and interpretation; sustainable forestry; fisheries management; aquaculture; and ecotourism. Typically, they may also find positions in land/river/coast care programs, within the public and private environmental sectors, as consultant marine park planners; marine biologists and ecologists; marine reserve officers, aquaculturalists; fisheries managers; project officers; technical officers; state coordinators; or as managers in the private sector and all tiers of government.

Graduates also have opportunities to develop careers as researchers by undertaking further studies in Honours and postgraduate research degrees.

Summary

<table>
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<tr>
<th>Locations: Lismore*, Distance Education#</th>
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<tbody>
<tr>
<td>Duration: 4 years full-time or 8 years part-time</td>
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<tr>
<td>UAC code: 334112</td>
</tr>
<tr>
<td>QTAC code: 054211</td>
</tr>
<tr>
<td>Total units: 32</td>
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</tbody>
</table>

*Lismore students complete the 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.

Equipment and facilities
Students have access to laboratories on Lismore campus across a range of scientific disciplines that feature advanced analytical equipment, especially for geochemistry, microscopy, aquaculture, genetic analysis and wood science. 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, portable weather station and data loggers. Students also have access to the National Marine Science Centre, which is part of the School of Environment, Science and Engineering. Located in Coffs Harbour, adjacent to the Solitary Islands Marine Park, this interesting setting provides practical opportunities in the study of marine science and management for both students and researchers.
Applying to study on campus

For full details go to: scu.edu.au/howtoapply

If you are planning to study on campus, either as a full-time or part-time student, you will need to apply online through either the Universities Admission Centre (UAC) or Queensland Tertiary Admissions Centre (QTAC) – either can process your application.

**Contact details for UAC:**
W: www.uac.edu.au
T: 02 9752 0200

**Contact details for QTAC:**
W: www.qtac.edu.au
T: 07 3858 1222

**Tip:** When applying through UAC or QTAC, first list the courses that interest you, in your preferred order. Then list your second choice – courses you’d be prepared to study if you missed out on your first choice, and which might assist you to get into one of your first choice courses later on.

Applications to begin Session 1 studies via UAC or QTAC generally need to be lodged by the last working day in September of the previous year, as applications after that date will incur a late fee.

For information on all our courses visit scu.edu.au/courses

Applying to study by distance education

If you are planning to study by distance education, you can apply online direct to Southern Cross University.

**scu.edu.au/howtoapply**
E: futurestudent@scu.edu.au
Freecall: 1800 626 481

**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

2015 important dates*

Southern Cross University has a teaching calendar of three equal 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. For the most up-to-date information, visit the SCU teaching calendar page at: scu.edu.au/teachingcalendar

<table>
<thead>
<tr>
<th>Session 1 teaching dates</th>
<th>16 February – 30 May 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>11 – 13 February 2015</td>
</tr>
<tr>
<td>UAC and QTAC on time applications for 2015 entry (Session 1) <a href="http://www.uac.edu.au">www.uac.edu.au</a>  <a href="http://www.qtac.edu.au">www.qtac.edu.au</a></td>
<td>Open early August 2014</td>
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<td></td>
<td>Close late September 2014</td>
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<tr>
<td>Session 2 teaching dates</td>
<td>22 June – 3 October 2015</td>
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<tr>
<td>Orientation</td>
<td>17 – 19 June 2015</td>
</tr>
<tr>
<td>UAC and QTAC applications for 2015 entry (Session 2)</td>
<td>Open early August 2014</td>
</tr>
<tr>
<td></td>
<td>Close late May 2015</td>
</tr>
<tr>
<td>Session 3 teaching dates</td>
<td>19 October 2015 – 30 January 2016</td>
</tr>
<tr>
<td>Orientation</td>
<td>14 – 16 October 2015</td>
</tr>
<tr>
<td>UAC and QTAC applications for 2015 entry (Session 3)</td>
<td>Open early August 2015</td>
</tr>
<tr>
<td></td>
<td>Close mid-September 2015</td>
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</tbody>
</table>

For the most up-to-date application information, including applying direct to the University, visit: scu.edu.au/howtoapply www.uac.edu.au or www.qtac.edu.au

*QTAC, UAC, teaching, orientation and scholarship application dates are subject to change. Please refer to their websites. Late QTAC and UAC applications may cost more.

This brochure is a guide to Southern Cross University and the undergraduate studies offered by the University. The information set out in this brochure is an expression of intent only and should not be taken as a firm offer or undertaking. The information contained in this brochure is correct at time of printing and the University reserves the right to make alterations to any information contained within this publication without notice. Copyright Southern Cross University April 2014, SCU4726