



DEAKIN
UNIVERSITY AUSTRALIA

ENVIRONMENT

UNDERGRADUATE



| MELBOURNE | GEELONG | WARRNAMBOOL | OFF CAMPUS

2013

ENVIRONMENTAL MANAGEMENT
AND SUSTAINABILITY

FISHERIES AND AQUACULTURE

FRESHWATER BIOLOGY

MARINE BIOLOGY

WILDLIFE AND
CONSERVATION BIOLOGY



ENVIRONMENT

Discover environment at Deakin University

Whether you'd like to conserve animals and plants for future generations, study diverse marine ecosystems or contribute to environmental management and sustainability, Deakin's environment courses offer you a range of exciting choices.

Our courses take you out of the classroom and into the field to give you the opportunity to gain the type of practical skills that only experience can provide. This hands-on experience, combined with the theoretical knowledge you will also learn, provides you with a mix of skills highly valued by employers.

At Deakin you can choose to pursue your passion for the environment through courses which span land and water environments, allowing you to tailor your studies for the career you want.

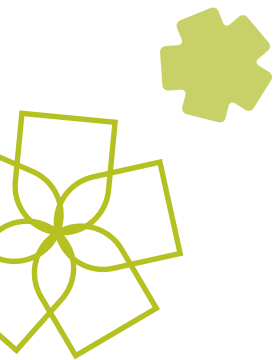
This booklet will tell you about the courses we offer in environment, key features of our courses and career opportunities you can gain from completing a degree at Deakin.

Choosing a university course is an important decision – and we are here to help. We encourage you to gather as much information as possible to help you make an informed decision about which course is best for you.

If you need more information, please contact us on 1300 DEGREE (1300 334 733), email enquire@deakin.edu.au or visit deakin.edu.au.

We look forward to seeing you at Deakin!

The Deakin team



Finding more information

2013 Undergraduate Course Guide

This guide provides an overview of the undergraduate courses Deakin offers, and information about how to apply, our campuses, student services and study options, such as part time and off campus.

To order a copy of this or any other brochure, phone 1300 DEGREE (1300 334 733).

To view brochures online visit deakin.edu.au/future-students/brochures.

2013 undergraduate career booklets

Deakin has a range of undergraduate career booklets which provide more information on areas of study, career opportunities, course overviews and course structures. These career booklets are available in the following areas:

- » architecture and built environment
- » arts, humanities and social sciences
- » business
- » education
- » engineering
- » environment (this booklet)
- » health
- » information technology
- » law
- » nursing and midwifery
- » optometry
- » psychology
- » science
- » sport.

Undergraduate eBrochure

Find out more in our new interactive eBrochure available from deakin.edu.au/ebrochure/undergrad, the Apple App Store and Google play.



Social media @Deakin

Connect with other future students and ask current students and staff about life and study at Deakin.

[facebook.com/discoverdeakin](https://www.facebook.com/discoverdeakin)

twitter.com/discoverdeakin

[youtube.com/discoverdeakin](https://www.youtube.com/discoverdeakin)



Website

Deakin's website offers comprehensive course and fee information including details of new courses, campuses, facilities and support services. Visit deakin.edu.au.

To search for courses and click through to unit descriptions visit deakin.edu.au/courses.

Contact us

Phone 1300 DEGREE (1300 334 733) to speak with a student adviser. You can also contact us via email at enquire@deakin.edu.au.

There are many opportunities throughout the year to visit Deakin, experience a campus tour and talk with representatives face-to-face.

For more information on event dates visit deakin.edu.au. 2012 Open Day dates are listed on the back cover of this booklet.

Contents



Using this booklet

This booklet provides you with detailed information about Deakin's undergraduate courses in environment (for domestic students), including study areas, career opportunities, course overviews and course structures. It is designed to be read in conjunction with the *2013 Undergraduate Course Guide*, which gives an overview of all of Deakin's undergraduate courses, study options, support services and campuses.

Deakin University also produces course guides specifically for international students. To request a copy phone Deakin International on 03 9244 5095.

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Environment at Deakin

Diverse and unique courses

Deakin offers you a choice of courses which allows you to follow your interests and passions: freshwater biology, marine biology, wildlife and conservation biology, fisheries and aquaculture, and environmental management and sustainability.

Our marine biology program is located at Deakin's Warrnambool Campus on the Great Ocean Road coastline. It provides a unique opportunity to study temperate marine biology, in a marine environment that has some of the highest biodiversity in Australia. The course has a strong ecological focus, linking biological and oceanographic processes in the study of marine environments.

Deakin's freshwater biology program has a core focus on the ecology of freshwater ecosystems and sustainable management of water resources, and your learning will be based around the important rivers and wetlands in south-west Victoria.

Our wildlife and conservation biology course was the first to be offered in Victoria with a major focus in this area and concentrates on real-world problem solving and applied solutions to wildlife and conservation issues.

Our fisheries and aquaculture course at Warrnambool emphasises a global perspective on sustainable harvesting and production of aquatic resources, linking fish biology with human requirements for food and better health.

Finally, Deakin's long-running environmental management and sustainability course blends management with science. It provides a basis for developing a career in many different fields such as wildlife management, coastal and marine management, environmental sustainability, natural resources management, environmental protection, and environmental policy and planning.

DID YOU KNOW?

You can defer your studies in most Deakin courses for up to two years. This means you can postpone your studies to work, travel or volunteer and still retain your university place.

Hands-on learning

Deakin's environment courses have a strong focus on fieldwork. You will benefit from the experience that only field trips can provide and have the opportunity to gain real field-based – and job-ready – skills. Depending on your course, field activities can include learning skills such as how to handle native animals, measuring the health of freshwater environments, coastal planning, surveying wildlife populations, conducting sustainability assessments, and studying seals and penguins.

The environment courses at Deakin have a core professional practice unit that includes a discipline-specific industry placement. This puts you in touch with the environment industry through involvement with local councils, community groups and businesses dealing with environmental health issues like pollution control, recycling, ecotourism, as well as biodiversity conservation and management.

Further, as part of your environment studies, you could also have the opportunity to apply for the Department of Sustainability and Environment Cadetship Program, the Science and Technology Work-Integrated Learning (WIL) Program, Earthwatch projects, as well as work towards becoming a Certified Environmental Practitioner through the Environment Institute of Australia and New Zealand.

For more information, please visit deakin.edu.au/scitech/future/wil.

Flexible courses

Our environment courses are flexible so you can choose specialist areas as you progress through your course, and tailor your degree to match your career goals. They will give you a broad qualification that combines the skills for a specialised career with more generic skills which, as a graduate, will provide you with job flexibility and broad career options.

International study opportunities

Give your degree a competitive edge with a Deakin Study Abroad Program. Our Study Abroad and Exchange Office offers various programs including exchange, study abroad, short-term study programs, study tours and international volunteering opportunities. Deakin environment students have studied in a range of countries, including New Zealand, Canada, USA and Costa Rica. For more information on study abroad, please visit deakin.edu.au/future-students/student-exchange/exchange.

First-class facilities

All campuses at Deakin University have state-of-the-art teaching facilities and laboratories. Facilities that support our environment programs include a Geographic Information Systems (GIS) lab, wildlife tracking technology, aquaculture facilities, infrared motion sensing wildlife cameras, and a NATA-accredited water quality laboratory and high-tech research labs. The study of marine biology allows you to experience the environment firsthand through state-of-the-art equipment, including research vessels and remotely-operated underwater vehicles which beam images back to the boat as they are being generated on the sea floor.

In 2011, Deakin announced it was investing more than \$5 million over the next five years in 'an initiative set to place its Warrnambool Campus in the international spotlight for marine science and aquaculture research and teaching'. The initiative includes investing in new equipment and the recruitment of additional research and technical staff to support the expansion of research and teaching activities. As part of the initiative, the University's aquaculture facility will be upgraded to include a marine laboratory with enhanced genetic and fish nutrition facilities, and a new research vessel and oceanographic equipment will expand Deakin's offshore research capability.

Courses aimed at getting you a career

At Deakin we aim to produce high-calibre graduates who are job-ready and have a broad understanding of the career opportunities available in their chosen field. Our courses take you out of the classroom and into the field to gain important practical skills. This experience, combined with sound theoretical knowledge, provides you with the crucial mix of skills that is highly valued by employers.

Industry links

Relationships with organisations such as the Department of Sustainability and Environment, Parks Victoria, the Department of Primary Industries, catchment management authorities, private consultants and local councils ensure our courses are relevant, responsive and progressive.

Lecturers who are active in the industry

Our teaching and research staff are experts in their respective fields, with broad national and international links and experiences. For example, research programs have led to the active involvement of staff in environmental issues of national significance such as river management, salinity control, forest conservation, landscape ecology, coastal management, wildlife conservation and sustainable fisheries. In areas such as these, which are often highly contentious and widely debated in the media and at public forums, our research groups are frequently involved in the decision-making process itself. As a result, our research groups have had a direct influence in shaping environmental management outcomes of critical importance to Australia and the international community.

Research that makes a difference

Much of Deakin's environment research is conducted in partnership with government departments, industry and leading international scientists, and is funded by national and international agencies, often through successful competitive grants. We have ambitious and cutting-edge research programs around our research strengths in wildlife and landscape ecology, marine and freshwater science, environmental management and sustainability, and global change.

Scholarships

Deakin University offers scholarships for academic excellence, access and equity, accommodation and Aboriginal and Torres Strait Islanders, ensuring higher education is accessible for all members of the community.

Scholarships in the Faculty of Science and Technology for environment students include the Dean's Scholars Program, which aims to recognise, reward and nurture high-achieving students who have recently completed Year 12 and who have been admitted through VTAC.

For more information on scholarships, please visit deakin.edu.au/scholarships.

Where do our graduates go?

Graduates of our environment courses have the opportunity to work in the public, private and not-for-profit sectors in a wide range of fields, including agriculture, wildlife conservation and management, environmental management and sustainability, fisheries and aquaculture, natural resources management and marine biology. They have the potential to be involved with environmental developments that hold the key to the future.

Recent Deakin environment graduates have been employed by a range of organisations including:

- » **government**
e.g. Department of Primary Industries, Parks Victoria, Department of Sustainability and Environment, Catchment Management Authorities, local councils
- » **private**
e.g. corporations, environmental consultants
- » **not-for profit**
e.g. The Nature Conservancy, BirdLife Australia, Fishcare.

EMPLOYER PROFILE



Garry Stock
Leader – Cadet and Graduate Programs
Department of Sustainability and Environment

'The Department of Sustainability and Environment (DSE) leads the Victorian Government's efforts to sustainably manage water resources and catchments, climate change, bushfires, parks and other public land, forests, biodiversity and ecosystem conservation.

DSE currently markets directly to Deakin University students, advertising our Cadet Program and our Graduate Program.

The Cadet Program includes providing students with financial support while they complete their studies, work experience, a mentor and two study trips a year.

The two-year Graduate Program allows graduates to undertake an extensive learning and development program, as well as gaining practical experience by working on projects that DSE is involved in.

Deakin University students bring bright minds into the department. DSE is continually looking for potential future leaders to ensure that Victoria positions itself as a world leader in sustainability.'

Courses and ATARs table

	Melbourne Burwood Campus	Geelong campuses	Warrnambool Campus	Page
	Clearly-in ATAR 2012	Clearly-in ATAR 2012	Clearly-in ATAR 2012	
Bachelor of ...				
Environmental Science (Environmental Management and Sustainability) S398	70.50			6
Environmental Science (Freshwater Biology) S382			51.65	7
Environmental Science (Marine Biology) S399			50.10	7
Environmental Science (Wildlife and Conservation Biology) S393	81.65			8
Fisheries and Aquaculture S394			52.95	9
Science and Technology (Dean's Scholars Program in environment)	90.00*		90.00*	10
Associate Degree of Arts, Business and Sciences A200		R/C	R/C	10
Related course				
Bachelor of ...				
Science# S320 <i>With a major sequence in environmental science.</i>	67.00			11
Combined courses <i>With a major sequence in environmental science.</i>				
Bachelor of ... / Bachelor of ...				
Arts/Science# D311	68.10			
Commerce/Science# D321	80.05			
Science/Laws# D331	92.25			
Teaching (Science)/Science# D351	60.30			

Geelong campuses = Geelong Waurn Ponds Campus and Geelong Waterfront Campus.

R/C = A range of criteria are used for selection.

Please refer to the 2013 Undergraduate Science Career Booklet for more information.

* Minimum ATAR and interviews are also taken into consideration.

If a clearly-in ATAR is not listed it means that the course is not available at that campus.

For more information on ATARs please visit deakin.edu.au/future-students/year12.

STUDENT SNAPSHOT



Anna Cuttriss
Bachelor of Environmental Science
(Wildlife and Conservation Biology)
Melbourne Burwood Campus

'The camps and field trips have always been so much fun and I feel like I have learnt more by doing things, rather than just learning in a classroom environment.

These trips have given me hands-on skills that cannot be replicated in a classroom, including radio-tracking skills, GPS and GIS experience, mammal trapping, macroinvertebrate collection and vegetation analysis.

Currently I have a seasonal position as a Project Fire Fighter for Parks Victoria and I also have a cadetship with the Department of Sustainability and Environment so, already, I am using the skills and knowledge that I'm learning at Deakin.

Many of my lecturers and tutors are still contributing to research. Their practical knowledge makes them very inspiring and interesting people to learn from, and I know that what I'm learning is completely relevant to my future career.'

Major study areas

Environmental management and sustainability¹ **B**

This course provides you with the skills and knowledge to manage the complex interaction between people and the environment, and to satisfy society's needs for clean water, fresh air and healthy soils through the sustainable use of natural resources, environments and ecosystem services. You can design your own career direction in environmental management by choosing elective units to specialise in areas such as wildlife management; coastal and marine management; environmental sustainability; natural resources management; environmental protection; and environmental policy and planning.

Fisheries and aquaculture¹ **W**

This course provides you with comprehensive training in fisheries resource management, aquaculture management, and fisheries biology, with a focus on environmental sustainability, particularly renewable resource exploitation and sustainable aquaculture of marine and freshwater species. You will learn about fisheries and aquaculture from a global perspective, including topics such as fish markets, nutrition and farm certification processes, the history of Australian fisheries, fisheries methods and impacts of fishing.

Freshwater biology¹ **W**

This course is designed to enable graduates to contribute in a professional capacity to the study and management of waterways in Australia and overseas. You will gain theoretical and practical expertise as you learn about freshwater biology and ecology, land-water interactions, impacts of humans on water, waterway management and aquaculture, and will develop practical skills during fieldwork focusing on rivers, lakes, wetlands and estuaries.

Marine biology¹ **W**

This course gives you the opportunity to study temperate marine biology in a marine environment with some of the highest biological diversity in Australia. You can experience the marine environment first-hand through state-of-the-art equipment, including research vessels and remotely-operated underwater vehicles which beam images back to the boat as they are being generated on the sea floor. Marine biologists study how marine organisms interact with their living and non-living environments and how marine ecosystems function. They also consider the impact of humans on the marine environment, and how marine resources can be managed.

Wildlife and conservation biology¹ **B**

You will focus on real-world problem solving and applied solutions to wildlife and conservation issues in this course, as you gain theoretical and practical experience in wildlife ecology and research, landscape and vegetation management, biodiversity conservation and management. The hands-on emphasis of the course offers field-based experiences such as extended wildlife field studies trips and regular practical classes in every year level.

Environmental science² **B**

This major focuses on the technical science aspects of environmental science, and aims to provide an even balance between environmental studies on the geosphere, hydrosphere, atmosphere and biosphere.

1 This is offered as a full degree program.

2 This is offered as a major sequence within a full degree program.

KEY

- 3** Course duration in years
- B** Melbourne Burwood Campus
- F** Geelong Waterfront Campus
- G** Geelong Wairn Ponds Campus
- W** Warrnambool Campus
- X** Off campus



DID YOU KNOW?

Deakin allows you to take your studies further by undertaking honours. Studying honours will not only help you stand out in the marketplace but it can also be a pathway to advanced professional training, a postgraduate degree or a research degree, such as a PhD or masters.

Courses

Bachelor of Environmental Science (Environmental Management and Sustainability)

Deakin code	VTAC code	Indicative first year fee	ATAR
S398	16461 (CSP)	\$6050 (CSP) ¹	70.50
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English.		
Non-Year 12 requirements	VTAC Pi form.		

The Bachelor of Environmental Science (Environmental Management and Sustainability) provides you with the skills and knowledge to manage the interaction between people and the environment, and to satisfy society's needs for clean water, fresh air and healthy soils through the sustainable use of natural resources, environments and ecosystem services.

The course has a focus on providing you with practical and relevant skills that will be invaluable to your future career.

You can design your own career direction in environmental management by choosing elective units in areas such as wildlife management, coastal and marine management, and environmental sustainability.

An honours year is available for high-achieving students upon completion of this degree.

Career opportunities

You may choose to pursue opportunities in a wide variety of careers such as environmental planning, environmental policy, sustainability, environmental protection, climate change adaptation and mitigation, industry-based environmental management, waste management, environmental education, catchment management, water resource management, land rehabilitation, pollution control, environmental science, wildlife management, conservation, and coastal and park management.

Work-Integrated Learning

You will have the opportunity to complete a professional practice unit which involves a placement for a minimum of two weeks within a relevant, course-related organisation.

Course structure

You must complete 24 credit points of study, including 13 core units and 11 elective units.

Level 1

SLE010 Laboratory and Fieldwork Safety Induction Program
(0 credit point safety unit)
SLE101 Techniques in Environmental Science
SLE102 Physical Geography
SLE103 Ecology and the Environment
SLE121 Environmental Sustainability
plus four elective units

Level 2

SLE201 Society and Environment
SLE207 Environmental Planning and Impact Assessment
SLE226 Research Methods
SLE231 Hydrology and Water Resources Management
SLE239 Introduction to Geographic Information Systems
plus three elective units

Level 3

SLE301 Professional Practice
SLE303 Managing Environmental Projects
SLE305 Catchment and Coastal Management
SLE308 Policy Instruments for Sustainability
plus four elective units

Elective units

You are required to select at least three of your elective units from the options listed below:

SHD201/SHD301 Creating Sustainable Futures
SLE114 Introduction to Parks and Wildlife Conservation
SLE202 Landscape Evolution
SLE215 Ecotourism and Interpretation
SLE317 Australian Vegetation and Its Management
SLE320 Sustainability and Waste Management
SLE322 Landscape Ecology
SLE328 Oceans, Coasts and Climate Change
SLE332 Geographic Information Systems
SLE342 Risks to Healthy Environments



STUDENT SNAPSHOT



Elizabeth Wemyss
Bachelor of Environmental Science
(Environmental Management and Sustainability)
Melbourne Burwood Campus

'Studying at Deakin is giving me all the relevant knowledge and practical skills to be able to work in the environmental field. The facilities and field equipment are great! We have all the up-to-date software for our computer labs and lots of reliable field equipment such as GPSs and water quality parameter testers.

As part of the course I have been on many field trips. I went to Cape Conran for three days and learnt how to capture and handle small mammals, and I also went on a study tour to Taiwan to look at Asian conservation and sustainability.'

Bachelor of Environmental Science (Freshwater Biology) **3** **W**

Deakin code	VTAC code	Indicative first year fee	ATAR
S382	18121 (CSP)	\$4520 (CSP) ¹	51.65
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English.		
Non-Year 12 requirements	VTAC Pi form.		

Deakin's Bachelor of Environmental Science (Freshwater Biology) provides theoretical and practical expertise in a range of biological, ecological and environmental processes and issues in the freshwater environment.

You will gain knowledge, understanding and skills in the interdisciplinary study of freshwater organisms and their interactions with the living and non-living environment; the influence of biotic, physical and chemical processes on the dynamics of freshwater ecosystems; and the impacts of humans on, and management of, the freshwater environment and its resources. Fieldwork, practical experience and an industry placement will help prepare you for a rewarding career.

An honours year is available for high-achieving students upon completion of this degree.

Career opportunities

Career opportunities for graduates of this course could include estuary planner, laboratory technician, local government sustainability officer, aquatic ecologist, river and wetland health planner, water diversions planning officer, flood or catchment strategy officer, as well as moving into research or pursuing postgraduate study.

Work-Integrated Learning

You will have the opportunity to complete a professional practice unit, which involves a placement for a minimum of two weeks within a relevant, course-related organisation.

Course structure

You must complete 24 credit points of study, including 19 core units and five elective units.

Level 1

SLE010 Laboratory and Fieldwork Safety Induction Program
(0 credit point safety unit)
SLE102 Physical Geography
SLE103 Ecology and the Environment
SLE104 The Blue Planet: Water and Life
SLE105 Aquatic Pollution
SLE106 Essential Skills in Marine and Freshwater Science
SLE144 Marine and Freshwater Biodiversity
SLE161 Aquaculture and the Environment
plus one elective unit

Level 2

SLE201 Society and Environment
SLE231 Hydrology and Water Resources Management
SLE232 Freshwater Biology
SLE244 Aquatic Ecology
SLE251 Research Methods and Data Analysis
SLE252 Environmental Chemistry
SLE261 Diversity of Fishes
plus one elective unit

Level 3

SLE301 Professional Practice
SLE304 Geographic Information Systems: Uses in Aquatic Environments
SLE306 Water Quality and Ecological Health
SLE319 Environmental Planning and Assessment
SLE347 Restoration of Marine and Freshwater Ecosystems
plus three elective units

Elective units

SLE162 Marine and Coastal Environmental Interpretation
SLE254 Genetics
SLE263 Human Impacts on Marine Ecosystems
SLE314 Research Project
SLE315 Comparative Animal Physiology
SLE328 Oceans, Coasts and Climate Change
SLE350 Marine Wildlife

Bachelor of Environmental Science (Marine Biology) **3** **W**

Deakin code	VTAC code	Indicative first year fee	ATAR
S399	18041 (CSP)	\$4520 (CSP) ¹	50.10
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English.		
Non-Year 12 requirements	VTAC Pi form.		

Deakin's Bachelor of Environmental Science (Marine Biology) provides the opportunity to study temperate marine biology in a marine environment with some of the highest biodiversity in Australia.

You will undertake fieldwork in natural marine environments on the Victorian coast, providing an exciting and hands-on program of study.

You can also experience the environment first-hand through state-of-the-art, remotely operated underwater vehicles which beam images back to the boat from the sea floor. The experience brings the marine environment to life, giving you the opportunity to participate in activities like identifying marine plants and animals as the underwater vehicle runs across the seabed. The course has a strong ecological focus, linking biological and oceanographic processes in the study of marine environments.

An honours year is available for high-achieving students upon completion of this degree.

Career opportunities

Career opportunities for graduates of this course could include marine biology tour guide, fishery officer, marine biology consultant, laboratory technician, local government environmental officer, aquaculture manager, sustainability project officer, as well as moving into research or pursuing postgraduate study.

Work-Integrated Learning

You will have the opportunity to complete a professional practice unit, which involves a placement for a minimum of two weeks within a relevant, course-related organisation.

➔ Continued on next page ...



Deakin marine biology students have access to a range of coastal environments right near the Warrnambool Campus.

Courses

Course structure

You must complete 24 credit points of study, including 20 core units and four elective units.

Level 1

SLE010 Laboratory and Fieldwork Safety Induction Program (0 credit point safety unit)
SLE102 Physical Geography
SLE103 Ecology and the Environment
SLE104 The Blue Planet: Water and Life
SLE105 Aquatic Pollution
SLE106 Essential Skills in Marine and Freshwater Science
SLE144 Marine and Freshwater Biodiversity
SLE161 Aquaculture and the Environment
plus one elective unit

Level 2

SLE201 Society and Environment
SLE244 Aquatic Ecology
SLE251 Research Methods and Data Analysis
SLE252 Environmental Chemistry
SLE255 Marine Biology
SLE261 Diversity of Fishes
SLE263 Human Impacts on Marine Ecosystems
plus one elective unit

Level 3

SLE301 Professional Practice
SLE304 Geographic Information Systems: Uses in Aquatic Environments
SLE306 Water Quality and Ecological Health
SLE315 Comparative Animal Physiology
SLE337 Temperate Marine Ecology
SLE347 Restoration of Marine and Freshwater Ecosystems
plus two elective units

Elective units

SLE162 Marine and Coastal Environmental Interpretation
SLE232 Freshwater Biology
SLE254 Genetics
SLE314 Research Project
SLE319 Environmental Planning and Assessment
SLE328 Oceans, Coasts and Climate Change
SLE350 Marine Wildlife

Bachelor of Environmental Science (Wildlife and Conservation Biology) **3 B**

Deakin code	VTAC code	Indicative first year fee	ATAR
S393	14171 (CSP)	\$5530 (CSP) ¹	81.65
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English.		
Non-Year 12 requirements	VTAC Pi form.		

Deakin's Bachelor of Environmental Science (Wildlife and Conservation Biology) is designed to provide theoretical and practical expertise in a range of discipline areas, such as biodiversity, wildlife ecology, landscape and vegetation management, conservation, animal biology and park management.

Content will focus on real-world problem solving and practical solutions to wildlife and conservation issues. Field-based experiences and industry placement opportunities help prepare you for an exciting career.

The course is designed to enable graduates to contribute in a professional capacity to the study and management of wildlife populations both in Australia and overseas.

An honours year is available for high-achieving students upon completion of this degree.

Career opportunities

You will be qualified for a career in wildlife conservation and management, and environmental science, and ready to take up challenging roles such as wildlife officer, conservation officer, wildlife manager, park ranger, project officer, research scientist, wildlife biologist, conservation biologist or landscape ecologist.

Work-Integrated Learning

You will have the opportunity to complete a professional practice unit, which involves a placement for a minimum of two weeks within a relevant, course-related organisation.

GRADUATE SNAPSHOT



Danielle Berkelmans
Bachelor of Environmental Science
(Wildlife and Conservation Biology), 2010
Melbourne Burwood Campus
Employed: Department of Sustainability and
Environment, Native Education, project officer

'I completed an Industry-Based Learning (IBL) placement in the final year of my environmental science degree.

My placement was with the Corangamite Catchment Management Authority (CMA), one of 10 CMAs in Victoria established by the Victorian Government to ensure the protection of natural resources within river catchments.

I was then offered a position with Corangamite CMA before I even completed my course. I felt so fortunate to be able to go straight from study to working. My placement really reinforced my passion for the environment and made me very excited about my future career prospects. It provided me with hands-on experience in the industry, built up my confidence and enabled me to develop new skills.'



KEY

- 3** Course duration in years
- B** Melbourne Burwood Campus
- F** Geelong Waterfront Campus
- G** Geelong Waurn Ponds Campus
- W** Warrnambool Campus
- X** Off campus

Course structure

You must complete 24 credit points of study, including 14 core units and 10 elective units.

Level 1

SLE010 Laboratory and Fieldwork Safety Induction Program (0 credit point safety unit)

- SLE101 Techniques in Environmental Science
- SLE102 Physical Geography
- SLE103 Ecology and the Environment
- SLE111 Cells and Genes
- SLE132 Biology: Form and Function
- SLE151 Biodiversity: A Global Perspective

plus two elective units

Level 2

- SLE201 Society and Environment
- SLE204 Animal Diversity
- SLE220 Wildlife Ecology
- SLE226 Research Methods

plus four elective units

Level 3

- SLE301 Professional Practice
- SLE309 Wildlife Conservation
- SLE310 Ecology of Pest Plants and Animals
- SLE322 Landscape Ecology

plus four elective units

Elective units

You are required to select at least five of your elective units from those listed below:

Conservation practice

- SLE114 Introduction to Parks and Wildlife Conservation
- SLE215 Ecotourism and Interpretation
- SLE239 Introduction to Geographic Information Systems
- SLE302 Wildlife Field Studies
- SLE317 Australian Vegetation and its Management

Biology and ecology

- SLE136 History of Life
- SLE202 Landscape Evolution
- SLE203 Plant Biology
- SLE205 Vertebrate Structure, Function and Evolution
- SLE237 Biogeography
- SLE254 Genetics
- SLE307 Behavioural Ecology
- SLE350 Marine Wildlife

DID YOU KNOW?

Industry representatives sit on our advisory boards to help ensure our courses remain relevant and produce graduates who are job-ready.

Bachelor of Fisheries and Aquaculture **3** **W**

Deakin code	VTAC code	Indicative first year fee	ATAR
S394	18251 (CSP)	\$4520 (CSP) ¹	52.95
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English.		
Non-Year 12 requirements	VTAC Pi form.		

Deakin's Bachelor of Fisheries and Aquaculture provides you with comprehensive training in fisheries resource management, aquaculture management, and fisheries biology, with a focus on environmental sustainability, particularly renewable resource exploitation and sustainable aquaculture of marine and freshwater species. Studies also include marine and freshwater biodiversity, ecology and behaviour, research methods, Geographic Information Systems (GIS) and remote sensing, and environmental chemistry.

Fieldtrips and professional practice activities provide you with the opportunity to gain practical, hands-on skills. The course is focused on developing graduates with strong research and management capabilities with skill sets for a wide variety of work environments.

Career opportunities

Fisheries and aquaculture is a growing field with good job prospects around Australia. In addition to careers in the fisheries and aquaculture fields, graduates may also be employed in food and agriculture based industries, quarantine, wildlife biology, government environmental monitoring, private environmental consulting and museums.

Work-Integrated Learning

You will have the opportunity to complete a professional practice unit, which involves a placement for a minimum of two weeks within a relevant, course-related organisation.

Course structure

You must complete 24 credit points of study, including 20 credit points of core units and 4 credit points of elective units.

Level 1

- SLE010 Laboratory and Fieldwork Safety Induction Program (0 credit point safety unit)
 - SLE102 Physical Geography
 - SLE103 Ecology and the Environment
 - SLE104 The Blue Planet: Water and Life
 - SLE105 Aquatic Pollution
 - SLE106 Essential Skills in Marine and Freshwater Science
 - SLE144 Marine and Freshwater Biodiversity
 - SLE161 Aquaculture and the Environment
- plus one elective unit*

Level 2

- SLE201 Society and Environment
 - SLE217 Aquaculture
 - SLE231 Hydrology and Water Resources Management
 - SLE251 Research Methods and Data Analysis
 - SLE252 Environmental Chemistry
 - SLE255 Marine Biology
 - SLE261 Diversity of Fishes
- plus one elective unit*

Level 3

- MAE322 The Economics of the Environment
 - SLE301 Professional Practice
 - SLE304 Geographic Information Systems: Uses in Aquatic Environments
 - SLE319 Environmental Planning and Assessment
 - SLE329 Advanced Aquaculture[^]
 - SLE343 Fisheries Management[^]
- plus two elective units*

[^] Available from 2014.

Highly recommended elective unit

- SLE315 Comparative Animal Physiology

Courses

Science and Technology (Dean's Scholars Program)

Deakin code	VTAC code	Indicative first year fee	ATAR
Refer to specific course entry	B 14381 (CSP) W 18201 (CSP)	Refer to specific course entry	B 90.00* W 90.00*
Year 12 prerequisites	Applicants must refer to the prerequisites for their specific environmental science course preference. Minimum ATAR of 90.00.		

The Dean's Scholars Program aims to recognise, reward and nurture high-achieving students. A minimum ATAR of 90.00 is required for entry into this course. Scholarships will be awarded annually across the Faculty to Year 12 students admitted to the program through VTAC. Successful applicants will also be offered a professional development program and have a high chance of being selected for the Science and Technology Industry-Based Learning Program.

* Minimum ATAR, interviews are also taken into consideration.

Course structure

You are able to select any one of the undergraduate degrees offered by the Faculty of Science and Technology through this single, campus-based VTAC preference. Refer to specific course entries from the list of environment courses. Refer also to the campus of offer for each course within the specific course entries.

Associate Degree of Arts, Business and Sciences ^

2 G W

Deakin code	VTAC code	Indicative first year fee	ATAR
A200	G 15581 (CSP) W 18221 (CSP)	\$5920 (CSP) ¹	G R/C W R/C
Year 12 prerequisites	VTAC Pi form and an interview. There are no prerequisite studies for this course.		
Non-Year 12 requirements	VTAC Pi form and an interview (phone 03 5563 3601).		

The Associate Degree of Arts, Business and Sciences will help you develop skills in research, written communication, group presentations, critical thinking and learning technologies which increase your chances of success at university. The key advantage of the associate degree is that it provides a supported transition to tertiary study. It allows for entry into a range of target degrees (as approved by Deakin University) offered at the Warrnambool Campus and Geelong Waurn Ponds Campus, or via off-campus study (through our TAFE partner institutions). Completion of the associate degree will give you 18 months credit towards one of these target degrees.

Career opportunities

The associate degree can open doors to employment in a range of fields including administration, marketing, business, management, banking, finance, community work, health, natural resource management and science. You also have the option of continuing your studies to complete a bachelors degree which will provide access to a wide range of careers and employment opportunities.



Deakin environment students getting up close and personal with wildlife.

KEY

- 3** Course duration in years
- B** Melbourne Burwood Campus
- F** Geelong Waterfront Campus
- G** Geelong Waurn Ponds Campus
- W** Warrnambool Campus
- X** Off campus

Course structure

To graduate from the Associate Degree of Arts, Business and Sciences, you must complete a minimum of 16 credit points, comprising core units and elective units. If you are studying through a partner TAFE these credit points can also include credits gained through subjects studied as part of your TAFE diploma course.

The core units will focus on the knowledge and skills you need to be a successful university student. They will provide you with an introduction to studying at university from the perspective of three different disciplines or subjects, and ensure that you become a more self-directed learner. They will also provide support for your study in other subject areas, particularly through the development of academic writing, critical thinking and information technology skills.

In addition to the core units, you will select four electives in your first year and eight in your second year, from units offered by the Faculties of Arts and Education, Business and Law, Science and Technology, and Health. Major sequences in arts, business, education, health and science are available.

You will be guided with your subject selection to ensure you choose units that will provide the maximum credit when using the associate degree as a pathway to a bachelors degree or to optimise employment opportunities.

If you study this course through the Warrnambool Campus or Geelong Waurn Ponds Campus you will also have the option to complete a mentored work placement in your final trimester. This is a great way to gain real-life work experience and enhance your employment opportunities.

Core units – for course offered at the Warrnambool and Geelong Waurn Ponds Campuses**Level 1**

EAD101 Learning for a Knowledge Society
 EAD102 E-Literacy for Contemporary Learning
 EAD104 Work and the Sustainable Society (2 credit points)
plus four elective units from the list below

Level 2

Select eight first or second year level units of a target bachelors degree.

Elective units

You may choose from a range of units offered at first and second level from the Warrnambool Campus, Geelong Waurn Ponds Campus (or off campus) as listed below, or the Work Placement unit which is recommended for those intending to finish at the end of level 2.

ACV101 Studio Art: Painting A
 ACV102 Studio Art: Painting B
 AIA104 Australian Identities: Indigenous and Multicultural
 AIA105 Visions of Australians – Time and Space From 1700 to 2010
 ALC101 Contemporary Communication: Making Sense of Text, Image and Meaning
 ALC102 Contemporary Communication: Making Sense of New Media
 ALW117 Writing for Professional Practice
 ASC101 Introduction to Sociology A
 ASC102 Introduction to Sociology B
 EAD103 Independent Study (recommended)
 EAD105 Applied Community Project (recommended)
 HBS107 Understanding Health
 HBS108 Health Information and Data
 HBS110 Health Behaviour
 MAA103 Accounting for Decision Making
 MAE102 The Global Economy
 MMM132 Management
 MSC120 Business Information Systems
 SIT106 Fundamental Concepts of Mathematics
 SLE102 Physical Geography
 SLE103 Ecology and the Environment

Work placement unit

EAD201 Work Placement (2 credit points)

[^] As part of the Deakin at Your Doorstep Initiative, this course is offered at the Warrnambool Campus or Geelong Waurn Ponds Campus. The University also offers the course through its TAFE partners at their campuses in Bairnsdale, Dandenong, Mornington Peninsula, Portland, Swan Hill and Wangaratta.

Related course**Bachelor of Science – major sequence in environmental science** **3** **B**

Please refer to the 2013 *Undergraduate Science Career Booklet* for more information.

1 The indicative first year fee is an approximate indication of the cost of this course in the first year of full-time study for a Commonwealth Supported Place. We can't specify the exact figure, because fees are charged per unit, not per course, so the actual fees may vary depending on what units you choose to study.

The fees quoted in this booklet are for Australian students in 2012, and may change for 2013 and later years. You can find more information about fees on our website at deakin.edu.au. For information on fees for international students, please visit deakin.edu.au/international.

How to apply

Applying to study at Deakin University is easy. Whether you are a current Year 12 student, TAFE graduate, mature-age student, non-school leaver, or international student studying VCE in Australia, you can apply to study a Deakin undergraduate course through the **Victorian Tertiary Admissions Centre (VTAC)** (unless stated otherwise in the admission guidelines).

When you are applying for a course, make sure you check all of the entry requirements carefully. Most courses have prerequisites and some have additional requirements that you will need to complete to be eligible for selection into that course. For prerequisite and extra requirement information, please visit the VTAC website www.vtac.edu.au.

For more information on how to apply, including special consideration and deferment, check out our *Undergraduate eBrochure* at deakin.edu.au/ebrochure/undergrad or visit deakin.edu.au/future-students/applications-enrolments.

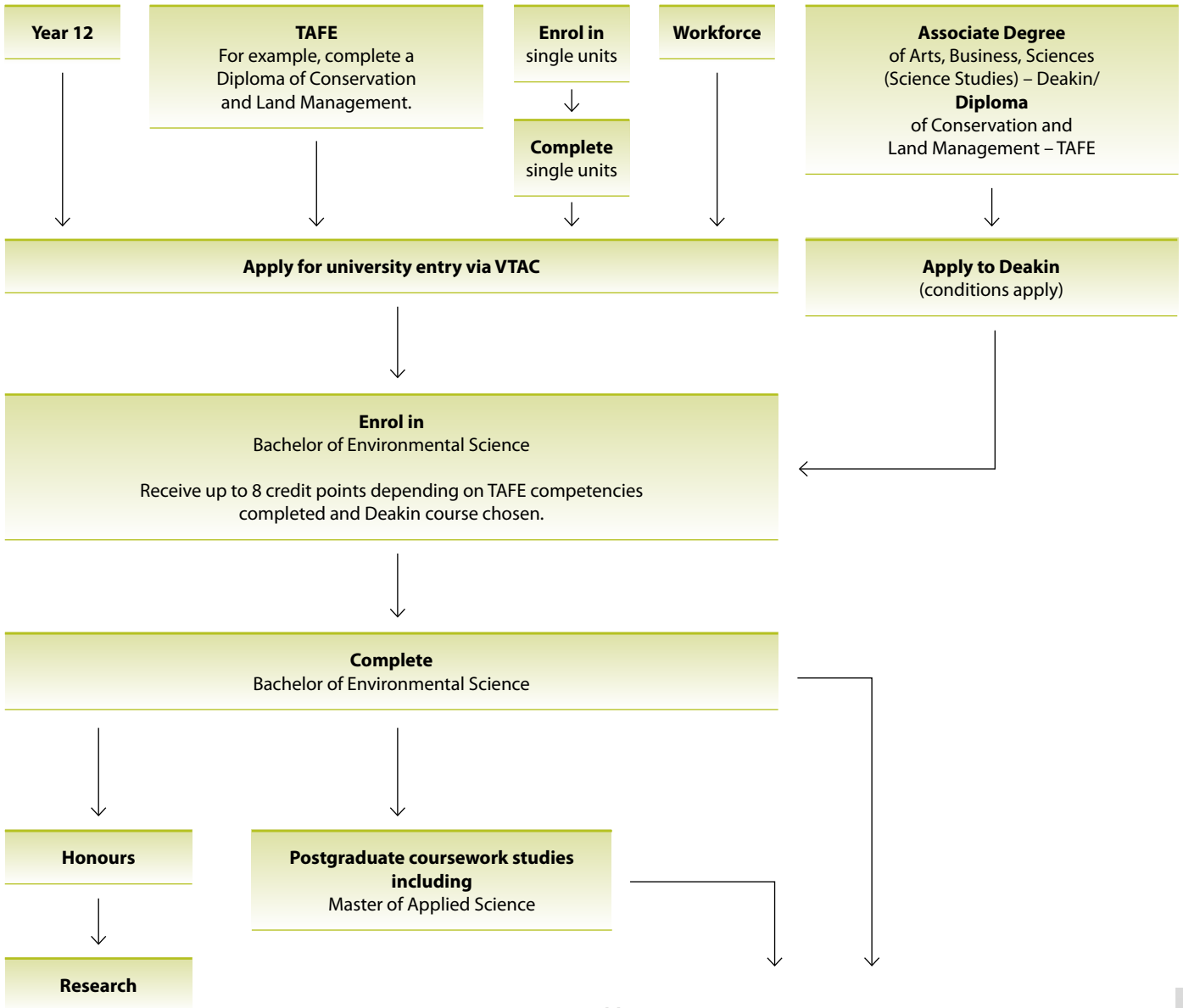
DID YOU KNOW?

Deakin offers a range of scholarships to support students in their studies. For more information, please visit deakin.edu.au/scholarships.

For the latest information about new courses at Deakin University, please visit deakin.edu.au.

Pathways

Pathway programs provide alternative entry options which take into consideration previous qualifications or your time in the workforce. Deakin has pathway options for a range of applicants including current Year 12 students, International Baccalaureate (IB) students and non-school leavers. Examples for environment students include:



Please note applicants are subject to entry requirements.

For more examples of pathways into Deakin University, please visit deakin.edu.au/pathways.

Some possible career options

- » aquatic scientist
- » catchment manager
- » coastal and park planner and manager
- » conservation and environmental analyst
- » conservation and environmental assessment officer
- » conservation and field officer
- » education/teaching employment with statutory authorities responsible for regulation, monitoring and research of the fishing and aquaculture industries
- » environmental consultant
- » environmental manager
- » fire ecologist
- » fisheries assessor
- » fisheries biologist
- » fishery technician
- » freshwater biologist
- » hatchery manager
- » land management officer
- » marine biologist
- » park ranger
- » research scientist
- » wastewater treatment officer
- » water quality officer
- » waterways manager
- » wildlife ecologist
- » wildlife officer

TAFE pathways

If you complete a diploma or advanced diploma at TAFE in a field similar to the Deakin course of your choice, you can then apply for the Deakin course and you may receive credit for your TAFE qualification. In most cases, this will reduce the number of units you need to complete to obtain your Deakin qualification. Plus, upon graduation, you'll have not one, but two qualifications.

Deakin has pathway programs and special credit arrangements with its partner TAFEs (Box Hill Institute in Melbourne, South West TAFE in Warrnambool and The Gordon in Geelong) however all TAFE qualifications are considered for application to Deakin.

The assessment of credit is based on a number of factors and is determined on an individual basis. To find out what credit you are entitled to, please visit deakin.edu.au/courses/credit.

Melbourne Institute of Business and Technology (MIBT)

Deakin University and the Melbourne Institute of Business and Technology (MIBT) have been in partnership for more than 14 years. MIBT can provide an excellent pathway to Deakin for students who do not meet the admission requirements for Deakin University courses. MIBT is located at Deakin's Melbourne Burwood Campus and Geelong Warrnambool Campus, allowing you the opportunity to gain access to Deakin's facilities and services and get involved in uni life.

MIBT may provide a direct pathway to second-year study at Deakin (conditions apply). MIBT diplomas are equivalent to the first year of a Deakin University undergraduate degree. On successful completion of a diploma and meeting University academic entrance criteria, students may be eligible for entry to second year of the relevant Deakin University undergraduate degree.

Deakin's Associate Degree of Arts, Business and Sciences

The Associate Degree of Arts, Business and Sciences (Deakin at Your Doorstep), is a two-year, full-time (or part-time equivalent), 16-credit-point program specifically designed for students who would benefit from a supported entry to tertiary study.

The associate degree course structure provides flexible pathways into tertiary education, and can be used as a guaranteed pathway into a range of Deakin degrees at the Warrnambool Campus, Geelong Warrnambool Campus or off campus. The degree may also be taken as a stand-alone, two-year exit qualification.

Students studying the associate degree at one of our partner TAFE campuses – Advance in Bairnsdale, Chisholm in Dandenong and Rosebud, Sunraysia in Swan Hill, GOTAFE in Wangaratta and South West TAFE in Portland – will study the course concurrently with a diploma qualification.

For more application information, please visit deakin.edu.au/doorstep.

Single unit study (non-award)

You may wish to undertake a single unit of study at Deakin (without being enrolled or accepted into a course). These units are subject to fees and do not lead to a degree, but may be credited towards a degree if you succeed in gaining entry to a course at a later stage.

For more information, please visit deakin.edu.au/future-students/applications-enrolments/applications/single-subject.

Honours

Honours is an optional specialised year of study that allows you to draw together the theory and practical skills gained in previous undergraduate studies and develop an in-depth knowledge of your particular discipline through research and additional coursework and training in research techniques. It is offered in all the Deakin environment degrees.

Honours can offer you a competitive edge in the job market along with providing a pathway into a higher degree – many honours students go on to complete a PhD or other advanced qualifications.

For more information on honours degrees, please visit deakin.edu.au/honours.

For more information on pathways into Deakin University, please visit deakin.edu.au/pathways.

Gain practical experience

Fieldwork is a focus of Deakin's environment courses. This hands-on experience, combined with the theoretical knowledge you will also learn, helps provide you with a mix of skills highly valued by employers.







GRADUATE SNAPSHOT



Josh Gunn
Bachelor of Environmental Science
(Wildlife and Conservation Biology)
Melbourne Burwood Campus
Employed: Conservation Parks Ranger,
Mornington Peninsula Shire.

'I have recently completed my Bachelor of Environmental Science (Wildlife and Conservation Biology). At uni I had the opportunity to pursue my own interests through a great variety of subjects, and to share ideas with like-minded people. I learnt from, and alongside, people with great passion and enthusiasm for their chosen field. Deakin is a great place to study and provides a very supportive environment in which to learn.

I currently work as a Conservation Parks Ranger for the Mornington Peninsula Shire. My role is very interesting and varies greatly from day to day. Weed, feral animal and fauna management, and community education, all form a large part of my role. One of the highlights is my involvement in the development of the shire's feral animal management plan.'

Useful websites for careers in environment

Department of Sustainability, Environment, Water, Population and Communities
www.environment.gov.au

Department of Sustainability and Environment
www.dse.vic.gov.au

Department of Primary Industries
www.dpi.vic.gov.au

Parks Victoria
www.parkweb.vic.gov.au

Environment Institute of Australia and New Zealand
www.eianz.org

Environmental Jobs Network
www.environmentaljobs.com.au

DID YOU KNOW?

Deakin's teaching and research staff are experts in their respective fields, with broad international links and connections with industry.

Find out more

Contact us

P 1300 DEGREE (1300 334 733)
E enquire@deakin.edu.au

deakin.edu.au/scitech/les

For the latest information about new courses at Deakin University, please visit deakin.edu.au.

Further reading

- » 2013 Undergraduate Course Guide
- » 2013 undergraduate career booklets
- » Pathways to Deakin
- » Parents' Guide to University
- » Off-Campus Course Guide
- » Scholarships Guide
- » Accommodation Guide

To order copies of these brochures, phone 1300 DEGREE (1300 334 733) or view them online at deakin.edu.au/future-students/brochures.

Undergraduate eBrochure

Check out our *Undergraduate eBrochure*, available from deakin.edu.au/ebrochure/undergrad, the Apple App Store and Google play.



Discover Deakin online

You can follow Deakin University through Facebook, Twitter and YouTube.

Connect with other future students and ask current students and staff about life and study at Deakin.

facebook.com/discoverdeakin
twitter.com/discoverdeakin
youtube.com/discoverdeakin



Other useful websites

Future students
deakin.edu.au/future-students

Subject information
deakin.edu.au/handbook

Campuses
deakin.edu.au/campuses
deakin.edu.au/tour

Clubs and societies
clsa.org.au/pages/clubs

Scholarships
deakin.edu.au/scholarships

VTAC
www.vtac.edu.au

Important dates 2012

Deakin events

Sunday 12 August
Open Day
Warrnambool Campus

Sunday 19 August
Open Day
Geelong Waurn Ponds Campus and Geelong Waterfront Campus

Sunday 26 August
Open Day
Melbourne Burwood Campus

Deakin will hold additional events for prospective students and parents. Please visit deakin.edu.au/future-students for updates.

Application dates

Early August*
VTAC applications open

Late September*
Timely VTAC applications close

Mid November*
Late VTAC applications close (late fee applies)

Mid December*
Very late VTAC applications close (very late fee applies)

December
Change of Preference

Please check the Deakin University Change of Preference website closer to the date for specific event details, deakin.edu.au/cop.

* Please check dates on the VTAC website www.vtac.edu.au and on the other websites provided.

Careers markets and expos

Melbourne

Thursday 3–Sunday 6 May
The Age VCE Careers Expo

Friday 25–Saturday 26 May
National Careers and Employment Expo

Saturday 16–Sunday 17 June
Reinvent Your Career Expo

Friday 27–Sunday 29 July
Herald Sun Careers Expo

Interstate

Sunday 29–Monday 30 April
Adelaide – Tertiary Studies and Careers Expo

Thursday 13–Sunday 16 May
Perth – Careers, Education and Employment Expo

Thursday 21–Sunday 24 June
Sydney – Western Sydney Careers Expo

Saturday 21–Sunday 22 July
Brisbane – The Tertiary Studies Expo (TSXPO)

Box Hill Institute CRICOS Provider Code: 02411J
Chisholm Institute of TAFE CRICOS Provider Code: 00881F
Gordon Institute of TAFE CRICOS Provider Code: 00011G
Melbourne Institute of Business and Technology (MI BT) CRICOS Provider Code: 01590J
South West Institute of TAFE CRICOS Provider Code: 01575G
Sunraysia Institute of TAFE CRICOS Provider Code: 01985A

More information | Environment

1300 DEGREE (1300 334 733) | enquire@deakin.edu.au | deakin.edu.au/scitech/les

2012 DEAKIN UNIVERSITY OPEN DAYS

**WARRNAMBOOL
CAMPUS**

Princes Highway
Warrnambool Victoria

**12
AUG**

**GEELONG
WAURN PONDS CAMPUS**

Pigdons Road
Waurn Ponds Victoria

**19
AUG**

**GEELONG
WATERFRONT CAMPUS**

1 Gheringhap Street
Geelong Victoria

**19
AUG**

**MELBOURNE
BURWOOD CAMPUS**

221 Burwood Highway
Burwood Victoria

**26
AUG**