Environmental Science

Undergraduate Handbook 2018



SCIENCE SCHOOL OF ENVIRONMENT

Welcome to the School of Environment

Undergraduate studies in Environmental Science focuses on real-world problems and the application of science to understanding environmental issues.



The Environmental Science major aims to understand the environment using input from a wide variety of science disciplines including Biological Sciences, Chemistry, Earth Sciences, Physical Geography, Geology, Physics and Engineering in conjunction with social sciences such as Economics and Human Geography. This understanding can be applied to the assessment and solution of environmental problems caused by human activity.

This major is one of the core subjects offered by the School of Environment. We offer a diverse range of courses for undergraduate and postgraduate study. The school houses a vibrant community of more than 50 instructors and researchers. The mix of interests creates a rich training and research environment.

I am confident that you will find studying Environmental Science a satisfying and rewarding experience, and we look forward to working with you to meet your academic goals.

PROFESSOR PAUL KENCH Head of School

Our subject is ranked in the top 100 worldwide

QS World University Rankings by subject 2017



Undergraduate studies in Environmental Science

Environmental Science studies the environmental effects of human activity and is dedicated to protecting and restoring natural heritage, minimising human impact and restoring environmental degradation.

The Environmental Science major is designed to be taken in conjunction with another major from the BSc schedule such as Biological Sciences, Chemistry, Earth Sciences, Geography, Mathematics or Physics. Our courses complement other science subjects and so can be taken individually to follow your own interests. Environmental Science is a good option to add as a second major to your BSc.

What you will gain

Environmental Science offers diverse skills, techniques and knowledge. You will gain practical knowledge and will also develop critical understanding of theory and concepts. Some of the skills you will learn include:

- · Conservation project management techniques
- Techniques used in policy and planning for sustainable development
- · Computer modelling of environmental problems
- Understanding of human interactions with
 environmental systems and processes
- Scientific understanding of environmental problems

BSc major in Environmental Science

The Environmental Science major must be taken in conjunction with another major subject. You study for a BSc by choosing courses to suit the rules for both your chosen major as well as Environmental Science, along with other subjects of relevance or interest. In your first year of University study, you should enrol in Stage I courses only. You should take a range of subjects but ensure that you include ENVSCI 101 as well as the appropriate courses for your chosen major.

Complementary majors

While there are a number of options for complementary majors the following have been recommended by Environmental Science staff:

- Biological Sciences
- Earth Sciences
- Geography
- Geophysics
- Marine Science

www.science.auckland.ac.nz/doublemajors



Planning your majors



- 1. Courses in a minimum of three subjects listed in the BSc Schedule.
- 2. At least 180 points (12 courses) must be above Stage I
- 3. Up to 30 points (two courses) may be taken from outside the Faculty
- 4.30 points (two courses) must be taken from the appropriate General Education Schedules for BSc students
- 5. At least 75 points must be at Stage III, of which 60 points must be in the majoring subject

To view regulations for majors and course descriptions: www.calendar.auckland.ac.nz BSc degree requires: 360 points (24 x 15 point courses). Each box represents one 15 point course. It is recommended that students enrol in eight courses each year.

For course planning and enrolment: www.science.auckland.ac.nz/student-centre

For more information on UG study in Environmental Science: www.science.auckland.ac.nz/environment-ug

Undergraduate Environmental Science courses

Course code	Course title	Semester
Stage I		
ENVSCI 101	Environment, Science and Management	2
Stage II		
ENVSCI 201	Natural and Human Environmental Systems	1
ENVSCI 203	Discovering Environmental Modelling	2
Stage III		
ENVSCI 301	Environmental Science in Practice	1
ENVSCI 303	Environmental Science, Risk and Society	2
Other complementary courses		
SCIGEN 101	Communicating for a Knowledge Society	1,2
Note that SCIGEN 101 is a recommended option for students needing to satisfy the Academic English Language Requirement (AELR).		
SCIGEN 201	Innovating for a Knowledge Society	1
MARINE 202	Principles of Marine Science	1
SCIGEN 301	Engaging in a Knowledge Society	1

For course descriptions: www.science.auckland.ac.nz/environment-ug



Careers in Environmental Science

The skills you will develop in our undergraduate and postgraduate programmes will equip you for many jobs in government, consultancy, environmental and community organisations, industry and education.

You will find our graduates in diverse jobs, ranging from local government field officers, through to teachers, lecturers, iwi liaison, environmental officers, laboratory technicians and environmental consultants. Generally, to have a challenging career in environmental science, you need a postgraduate qualification as well as your BSc. Employers in the sectors relevant to Environmental Science look for PGDipSci or MSc degrees. They find our graduates well prepared for the diverse challenges outside the University. In recent years our graduates have been employed by the following New Zealand organisations:

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Air New Zealand
City, district and regional councils
Cawthron Institute
Carter Holt Harvey
Beca Carter

Department of Conservation
ERMA
Fernz Corporation
Glenbrook Steel Mill
Institute of Environmental Science and Research (ESR)
Institute of Geological and Nuclear Sciences (GNS)
Golder Assoc (environmental consultants)
Landcare Research
Meritec (consultants)
Ministry for the Environment
Mobil New Zealand
National Institute of Water and Atmosphere (NIWA)
Pacific Steel
Pattle Delamore (consultants)
Sanford Fisheries
Scion
SERCO (consultancy)
UNESCO
AECOM (environmental consultants)
Watercare Services Ltd
World Wide Fund for Nature (WWF)

Larissa Cherrie is studying toward a Bachelor of Science majoring in Environmental Science and Geography.

"My biggest passion is the New Zealand environment and its conservation.

"Environmental Science and Geography cover a wide range of topics, from the processes of the physical environment to human implications on the natural environment. It is especially important for me to understand how human actions ultimately negatively affect the natural environment. Understanding these processes can help us mitigate human actions and provide a healthy environment for the next generation.

"During my study, I've had the opportunity to work with DoC, Auckland Council, Kiwi Encounter and various Kiwi Trusts in the past. So coming to University, my goal was to widen my environmental knowledge and advance my career. My ultimate goal is to be working in the field, either as a park ranger or a researcher, sharing knowledge about how to protect the environment.

"I have enjoyed how approachable the lecturers from the School of Environment are. Students within the school are extremely friendly and as a result I have created lifelong friends."

Helpful information

Academic dates www.auckland.ac.nz/dates Academic Integrity Course www.auckland.ac.nz/academic-integrity Accommodation www.accommodation.auckland.ac.nz Buy coursebooks www.science.auckland.ac.nz/resource-centre **Career Development and Employment Services** www.auckland.ac.nz/careers Course advice and degree planning in Science www.science.auckland.ac.nz/student-centre General education www.auckland.ac.nz/generaleducation How to apply www.apply.auckland.ac.nz How to enrol www.auckland.ac.nz/enrolment International students www.international.auckland.ac.nz Māori and Pacific students www.science.auckland.ac.nz/tuakana Need help? www.askauckland.ac.nz Rainbow Science Network for LGBTI students www.science.auckland.ac.nz/rainbowscience Scholarships and awards www.scholarships.auckland.ac.nz Support for students www.science.auckland.ac.nz/support

Environmental Science Adviser

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Applications for new students close on 8 December for Semester 1 or 1 December for summer school.

Questions about Environmental Science? environment@auckland.ac.nz

Disclaimer

Although every reasonable effort is made to ensure accuracy, the information in this document is provided as a general guide only for students and is subject to alteration. All students enrolling at the University of Auckland must consult its official document, the University of Auckland Calendar, to ensure that they are aware of and comply with all regulations, requirements and policies.



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