



# Environmental Management

Finding creative ways to save the planet

“Studying Environmental Management helped me build a broad knowledge base in natural science and resource management which has been valuable for working on a diverse range of projects at the EPA”

Sam Lang – BAppSc (Hons) 2011  
Advisor at the Environmental Protection Authority

From climate change and deforestation to soil erosion and species losses, the world seems plagued by a catalogue of disasters that no-one can stop. The good news is more and more people are on the case. Environmental Management is about coordinating these efforts – investigating problems, developing solutions, and working in multi-disciplinary teams to get things done.

Otago’s Bachelor of Applied Science (BAppSc) in Environmental Management teaches you about the science of environmental systems and problems. It covers the wider social, economic and political context, including the requirements of environmental legislation. Environmental Management gives you skills and knowledge to find creative responses to environmental challenges.

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## Why study Environmental Management

As an Environmental Management graduate, you'll work with decision-makers, governments, and large businesses, making a practical contribution to environmental problems in New Zealand and overseas.

By studying Environmental Management you'll gain a comprehensive and flexible qualification. The course will develop a wide range of research, analysis, communication and computing skills, and prepare you to take advantage of the numerous career pathways in environmental management.

## Career opportunities

Environmental management skills are in demand around the world. In New Zealand, environmental management has been given an enormous boost as a career option over the past two decades, with the introduction of some major pieces of legislation, in particular the Resource Management Act, the Hazardous Substances and New Organisms Act, and the Biosecurity Act. And there are plenty of opportunities to practise overseas, as long as you familiarize yourself with the local statutory requirements.

Many large companies now employ environmental management staff to work directly with their other staff, and to deal with local and central government. Those with overseas operations will need personnel with an international perspective in their training, something emphasized in the Otago course.

Many export companies now need environmental accreditation in order to secure markets in Europe, Japan, North America and elsewhere. Helping companies meet the requirements of such accreditation and certification schemes will be a major employment opportunity in coming years.

There is now a very large environmental consulting sector, contracting to private and public sector organisations. This kind of work tends to have plenty of variety, not to mention opportunities for travel.

There is always high demand in this area for graduates with a thorough understanding of the new environmental management scene backed up by specific scientific skills.

## Background required

Students from a range of backgrounds are welcome to study for Otago's BAppSc in Environmental Management. You'll need an interest in environmental matters, and preferably a solid science grounding to Year 13 level.

## What is the Bachelor of Applied Science?

The strength of the Applied Science programme is its outward focus – developing market-ready graduates with wide-ranging skills and practical experience in the workplace.

Applied Science is a three-year undergraduate degree with open entry at 100 level. An Honours year is available to those students who achieve an appropriate academic standard.

Every Applied Science degree has a compulsory minor or second major, in a subject area that's directly relevant and will deliver complementary skills. The programme encourages real-world awareness, enabling you to apply what you have learned to any organisation you work for.

## What will I study?

The required papers at 100-level are:

ENVI 111	Environment and Society
GEOG 101	Physical Geography
GEOG 102	Human Geography

and one of MATH 160, 170, STAT 110.

From second year onwards, you'll go into environmental systems in depth, studying a range of geography papers. You'll also select other papers for your minor or second major subject, plus other papers to match your interests.

NB: Check the Guide to Enrolment for the latest enrolment material each year.

## What will I learn?

You'll gain a theoretical and practical understanding of environmental processes, such as climatology, geomorphology, biogeography, hydrology and soil science. Your learning will incorporate sustainable development, integrated resource management, and environmental planning and policy. You'll also learn the skills such as field methods, data analysis tools and research methodology.

## How will I study?

As well as learning theory in lectures, you'll gain hands-on experience in practical classes. This means field trips, working in computer labs, and undertaking practical assignments such as group research projects to examine heavy metal pollution in rural areas, or the impacts of human actions on coastal dune systems.

## Can I combine my Environmental Management study with other subjects?

A minor or second major is compulsory for the Bachelor of Applied Science. Your first year course is very flexible and you can select papers that keep your options open for second year – for example you can tailor a course that will also cover the prerequisites for most of the other BAppSc subject majors.

The minor or second major you choose will tailor your studies to match your own particular strengths and passions, but also match demand from the workforce, for the skill-sets most needed.

## PROFILE Deborah Rowley

Being born in Dunedin, I was keen to study in my hometown; Otago has a great reputation and is a highly regarded University.

I'm passionate about the Environment and knew I wanted to work in this field. I attended one of the University Open Days and that's where I found out about Environmental Management: it's designed to give you flexibility to study topics you enjoy while learning valuable skills to apply within a work environment. The range of courses offered is interesting and helps to give an understanding of how the environment, business, economics and society interact.

I had a predominant focus on physical geography, in particular freshwater systems and geology. I completed a minor in Applied Geology and was able to cross credit some of these papers. I also completed an Honours degree, my topic being focused on soil moisture.

All of this was very applicable to what I do now. I'm currently employed by BP Australia Pty Ltd as an Environmental Project Manager where my role requires me to manage BP's environmental

liabilities and liability prevention. I oversee mainly BP's retail sites in Victoria, Tasmania and South Australia. My role requires me to engage Environmental consultants to undertake various environmental assessments or remediation projects – a lot of the skills to both undertake the assessment/remediation and project management are learnt in the fundamentals of Environmental Management.

If you're considering Environmental Management, I recommend you try out a broad range of papers in your first year or two to see what aspects of the environment you enjoy. The environmental field is broad with a variety of jobs once you finish your degree, perhaps have a think after your first couple of years of study about what type of job you would like, and then focus in on these papers.



For questions about  
Environmental Management  
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