

Specialist program in environmental studies

Convener: Peter Christoff (School of Anthropology, Geography and Environmental Studies)

Environmental issues attract people concerned with the ways in which societies are managing interactions with their environments. We need to understand how environments function, to be able to identify ecological change, and to develop ways of repairing environmental systems, particularly those damaged by human impact. We also need to examine the ways in which societies interact with their environments and the legal, economic, political and ethical ramifications of these interactions. Societies depend on environments for their resources; individuals depend on environments for many sources of satisfaction. As societies develop increasing technical power, as the sheer amount of economic activity increases and as our interactions attain global significance, so it is crucial that governments, corporations, community groups and individuals think deeply about ways of looking after our environment for the benefit of all. The specialist program in environmental studies is designed to provide students with the opportunity to understand all these issues, and to develop skills which will prepare them for careers in the environmental field.

The specialist program in environmental studies is more focused than the ordinary BA major in environmental studies in that students concentrate more of their studies within the environmental field. Students are also provided with a wider range of options from other faculties.

In this program students gain a broad understanding of the way in which environments work, the way in which societies work, and the nature of society-environment interactions. Students also have the opportunity to study one of these areas in greater depth, and to choose elective subjects which suit their own particular environmental interests and career goals.

On completion of this degree, students should:

- have a knowledge of environmental systems and processes;
- possess skills in using techniques that measure components of environmental systems; assess the impacts of different environmental users; and understand how environmental problems arise from the workings of modern urban-industrial societies;
- have a knowledge of environmental valuation and the relationships between development and the environment.

Students who complete the BA (honours) in environmental studies should also be able to design and execute a piece of research about environmental systems or environmental impacts or environmental conflicts, regulation and valuation.

Faculty of Arts requirements

Within the specialist program in environmental studies, only those subjects offered by departments within the Faculty of Arts are arts-approved subjects. See *Arts-approved subject requirement (p.4)* for more information.

The specialist program

The specialist program in environmental studies incorporates areas of study from a range of faculties within the University. Students are encouraged to consult the following area entries in this Handbook for full descriptions of core and elective subjects which may be included in the specialist program in environmental studies.

Faculty of Arts

- *Environmental studies (p.1)*
- *Geography (p.1)*
- *Philosophy (p.1)*
- *Political science (p.1)*
- *Sociology (p.1)*

Faculty of Economics and Commerce

- *Economics (p.1)*

Faculty of Engineering

- *Civil and environmental engineering (p.1)*
- *Geomatics (p.1)*

Institute of Land and Food Resources

- *Bachelor of Agricultural Science (p.1)*
- *Bachelor of Forest Science (p.1)*

Faculty of Science

- *Biology (p.1)*
- *Botany (p.1)*
- *Chemistry (p.1)*

- *Earth sciences (p.1)*
- *Geomatics (science) (p.1)*
- *Zoology (p.1)*

Prerequisites

Applicants must meet the admission requirements of the Faculty of Arts. Individual subjects within the program may have prerequisites for entry. Please check the relevant area of study entries in this Handbook for details.

The program's requirements

In each year of the program students must complete a core of environmental studies subjects, a minimum number of subjects about environmental processes, and a minimum number of subjects about social processes.

In the course of their BA degree (300 points), students majoring in the specialist program in environmental studies must complete:

- at least 75 points of environmental studies and;
- at least 62.5 points of environmental processes and;
- at least 62.5 points of social processes and;
- at least another 50 points in one or more of these areas of study and;
- up to 50 points of elective study.

Structuring study within the program

Students should note that they must have their study plan approved by the convener of the program or by the Head of School.

Students are advised to plan their study in consultation with a school course adviser. Students are welcome to seek advice about the environmental studies program and about their options for study at any time. To make a course advice appointment, contact the SAGES office during business hours.

The specialist program in environmental studies usually takes the following form.

First year

Recommended course structure	Sem.
An introduction to environmental studies	
121-012 Environmental Change (<i>p.2</i>)	1
An introduction to environmental processes	
121-013 Global Ecology and Biogeography (<i>p.2</i>)	2
A minimum of 25 points chosen from:	
625-101 Earth Sciences - The Global Environment (<i>p.1</i>)	1
600-111 Biology of Australian Flora & Fauna (<i>p.1</i>)	2
<i>or</i> other approved subjects in agriculture, chemistry, biology, experimental design and statistics, or forestry.	
An introduction to the study of society	
A minimum of 25 points chosen from anthropology, economics, geography, politics, and/or sociology.	
Elective study of up to 25 points	
It is recommended that 12.5 points of elective study be devoted to subjects dealing with environmental studies, environmental processes and/or the study of society.	

Second year

Recommended course structure	Sem.
Environmental studies	
121-021 Environmental Politics and Management (<i>p.4</i>)	1
And at least one of:	
121-017 Society and Environments (<i>p.3</i>)	2
161-014 Environmental Philosophy (<i>p.8</i>)	N/A
Environmental processes	
121-018 Geomorphology (<i>p.3</i>)	1
121-025 Biodiversity (<i>p.7</i>)	N/A
121-025 Biodiversity is not offered in 2002. Students seeking a specialisation in ecology and/or biogeography within their environmental studies program are recommended to take at least one of:	
654-204 Ecology: Individuals and Populations (<i>p.2</i>) or	1
606-204 Ecology: Communities and Ecosystems (<i>p.1</i>)	2
Students wishing to major in biogeography or ecology and wishing to proceed to 121-030 Applied Ecology in their third year should take at least one of these subjects in their second year. Students in this situation are advised to enrol in:	
606-204 Ecology: Communities and Ecosystems (<i>p.1</i>)	2
One of these subject may count towards a major in environmental studies.	
Study of society	

Recommended course structure

A minimum of 12.5 points chosen from anthropology, economics, geography, politics, and/or sociology.

Elective study of up to 37.5 points to complete 100 points for the year

It is recommended that at least 12.5 points of the elective study be in environmental studies, environmental processes or study of society subjects.

Third year

Recommended course structure

Environmental studies

121-028 Sustainable Development (p.4)	2	Sem.
At least 25 points from:		
121-022 Development and Urban Environments (p.4)	2	
121-432 Environmental Field Class (p.8)	N/A	
121-435 Environmental Management Systems (p.6)	1	

Environmental processes

If the student has not completed 62.5 points of such subjects, the outstanding points should be taken from:

121-025 Biodiversity (p.7)	N/A	
121-025 Biodiversity is not offered in 2002. Students seeking a specialisation in ecology and/or biogeography within their environmental studies program are recommended to take at least one of:		

654-204 Ecology: Individuals and Populations (p.2) or 606-204 Ecology: Communities and Ecosystems (p.1)	1	
Students wishing to major in biogeography or ecology and wishing to proceed to 121-030 Applied Ecology in their third year should take at least one of these subjects in their second year. Students in this situation are advised to enrol in:	2	
606-204 Ecology: Communities and Ecosystems (p.1)	2	
One of these subject may count towards a major in environmental studies.		

121-018 Geomorphology (p.3)	1	
121-030 Applied Ecology (p.5)	2	
Students wishing to take a theory-only version of this subject are recommended to enrol in:		
606-301 Applied Ecology (Theory) (p.2)	2	

This subject shares common content lectures and seminars but excludes laboratory and field components. It will be accepted as a subject counting towards the major in geography and environmental studies.

121-071 Coastal Geomorphology (p.5) and/or subjects in agriculture, ecology, environmental chemistry, experimental design and statistics, physical geography or forestry.	1	
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Study of society

If the student has not completed 62.5 points of such subjects, then outstanding points should be taken from anthropology, economics, geography, politics, and/or sociology.

Some suggested programs of study within the specialist program in environmental studies

The following programs of study are suggestions for ways in which you can structure your studies within the specialist program in environmental studies. They are not compulsory. As long as you fulfil the requirements for the specialist program set out above, you do not have to structure your course to fit in with one of the programs shown below. These suggestions are simply designed to illustrate some of the options available to you.

Environmental studies with economics: a suggested course of study

First year

Recommended course structure

An introduction to environmental studies		
121-012 Environmental Change (p.2)	1	Sem.
An introduction to environmental processes		
121-013 Global Ecology and Biogeography (p.2) and 37.5 points chosen from:	2	
625-101 Earth Sciences - The Global Environment (p.1)	1	
600-111 Biology of Australian Flora & Fauna (p.1) and other approved subjects in agriculture, chemistry, biology, forestry.	2	
An introduction to the study of society		
316-101 Introductory Macroeconomics (p.1)	1 rep 2	

Recommended course structure

316-102 Introductory Microeconomics (p.1) and an approved statistics subject.	1 rep 2	Sem.
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Elective study of up to 25 points

Second year

Recommended course structure

Environmental studies

121-021 Environmental Politics and Management (p.4) and one of:	1	Sem.
161-014 Environmental Philosophy (p.8)	N/A	
121-017 Society and Environments (p.3)	2	

Environmental processes

121-018 Geomorphology (p.3)	1	
121-025 Biodiversity (p.7)	N/A	

121-025 Biodiversity is not offered in 2002. Students seeking a specialisation in ecology and/or biogeography within their environmental studies program are recommended to take at least one of:

654-204 Ecology: Individuals and Populations (p.2) or 606-204 Ecology: Communities and Ecosystems (p.1)	1	
Students wishing to major in biogeography or ecology and wishing to proceed to 121-030 Applied Ecology in their third year should take at least one of these subjects in their second year.	2	

Students in this situation are advised to enrol in:

606-204 Ecology: Communities and Ecosystems (p.1)	2	
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One of these subject may count towards a major in environmental studies.

Study of society

316-202 Intermediate Microeconomics (p.1)	1 rep	Summer
316-201 Intermediate Macroeconomics (p.1)	2	
316-205 Introductory Econometrics (p.1)	1	
or		
316-206 Quantitative Methods 2 (p.1)	1 rep 2,	Summer

Elective study of up to 37.5 points

Third year

Recommended course structure

Environmental studies

121-028 Sustainable Development (p.4) and at least one of:	2	Sem.
121-022 Development and Urban Environments (p.4)	2	
121-432 Environmental Field Class (p.8)	N/A	
121-435 Environmental Management Systems (p.6)	1	

Environmental processes

121-071 Coastal Geomorphology (p.5)	1	
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Study of society

316-324 Environmental Economics (p.4)	N/A	
316-313 Microeconomics (p.3)	1	
316-325 Ecological Economics (p.4) and 316-316 Basic Econometrics (p.3)	2	
or	1	
316-317 Econometrics (p.3)	1	

Elective study to fulfil the degree's 300 point requirement

On completion of this program with the appropriate grades, students are eligible to enter the honours program in economics, in addition to being eligible (subject to appropriate grades) to enter the honours program in environmental studies.

Environmental studies with physical geography: a suggested course of study

First year

Recommended course structure

An introduction to environmental studies		
121-012 Environmental Change (p.2)	1	Sem.
An introduction to environmental processes		
121-013 Global Ecology and Biogeography (p.2) plus 37.5 points chosen from:	2	
625-101 Earth Sciences - The Global Environment (p.1)	1	
600-111 Biology of Australian Flora & Fauna (p.1) and other approved subjects in agriculture, chemistry, biology, experimental design and statistics and forestry.	2	
An introduction to the study of society		

Recommended course structure	Sem.	Recommended course structure	Sem.
37.5 points chosen from anthropology, economics, geography, politics and sociology.		121-025 Biodiversity is not offered in 2002. Students seeking a specialisation in ecology and/or biogeography within their environmental studies program are recommended to take at least one of:	
Elective study of up to 25 points		654-204 Ecology: Individuals and Populations (<i>p.2</i>) or	1
Second year		606-204 Ecology: Communities and Ecosystems (<i>p.1</i>)	2
Recommended course structure	Sem.	Students wishing to major in biogeography or ecology and wishing to proceed to 121-030 Applied Ecology in their third year should take at least one of these subjects in their second year.	
Environmental studies		Students in this situation are advised to enrol in:	
121-021 Environmental Politics and Management (<i>p.4</i>)	1	606-204 Ecology: Communities and Ecosystems (<i>p.1</i>)	2
161-014 Environmental Philosophy (<i>p.8</i>)	N/A	One of these subject may count towards a major in environmental studies.	
121-017 Society and Environments (<i>p.3</i>)	2	Study of society	
121-022 Development and Urban Environments (<i>p.4</i>)	2	12.5 points chosen from anthropology, economics, geography, politics and sociology	
Environmental processes		Elective study of up to 37.5 points	
121-021 Environmental Politics and Management (<i>p.4</i>)	1	Third year	
121-018 Geomorphology (<i>p.3</i>)	1	Recommended course structure	Sem.
Study of society		Environmental studies	
12.5 points chosen from anthropology, economics, geography, politics, sociology.		121-028 Sustainable Development (<i>p.4</i>)	2
Elective study of up to 37.5 points		and at least 25 points from:	
Third year		121-435 Environmental Management Systems (<i>p.6</i>)	1
Recommended course structure	Sem.	or	
Environmental studies		121-432 Environmental Field Class (<i>p.8</i>)	N/A
37.5 points from:		Environmental processes	
121-028 Sustainable Development (<i>p.4</i>)	2	600-303 Environmental Risk Assessment (<i>p.2</i>)	1
or		600-301 Problem Solving in Environmental Science (<i>p.2</i>)	2
121-432 Environmental Field Class (<i>p.8</i>)	N/A	Students who have not completed at least 80 points of the above subjects must chose subjects from:	
121-435 Environmental Management Systems (<i>p.6</i>)	1	121-033 Environmental Hydrology A (<i>p.5</i>)	1
Environmental processes		or	
37.5 points from:		121-029 Environmental Hydrology B (<i>p.5</i>)	1
121-033 Environmental Hydrology A (<i>p.5</i>)	1	121-030 Applied Ecology (<i>p.5</i>)	2
or		Students wishing to take a theory-only version of this subject are recommended to enrol in:	
121-029 Environmental Hydrology B (<i>p.5</i>)	1	606-301 Applied Ecology (Theory) (<i>p.2</i>)	2
121-030 Applied Ecology (<i>p.5</i>)	2	This subject shares common content lectures and seminars but excludes laboratory and field components. It will be accepted as a subject counting towards the majors in geography and environmental studies.	
or		or	
121-071 Coastal Geomorphology (<i>p.5</i>)	1	121-458 Australian Quaternary Environments (<i>p.5</i>)	2
121-458 Australian Quaternary Environments (<i>p.5</i>)	2	121-071 Coastal Geomorphology (<i>p.5</i>)	1
Study of society		or other approved subjects.	
12.5 points of subjects chosen from anthropology, economics, geography, politics or sociology.		Study of society	
Elective study to fulfil the degree's 300 point requirement		If the student has not completed at least 50 points of such subjects, then subjects from anthropology, economics, geography, politics and sociology may be chosen.	
On completion of this program with the appropriate grades, students are eligible to enter the honours program in geography, in addition to being eligible (subject to appropriate grades) to enter the honours program in environmental studies.		Elective study to fulfil the degree's 300 point requirement	
Environmental studies with environmental sciences: a suggested course of study		Environmental studies with ecology: a suggested course of study	
First year		First year	
Recommended course structure	Sem.	Recommended course structure	Sem.
An introduction to environmental studies		An introduction to environmental studies	
121-012 Environmental Change (<i>p.2</i>)	1	121-012 Environmental Change (<i>p.2</i>)	1
An introduction to environmental processes		An introduction to environmental processes	
625-101 Earth Sciences - The Global Environment (<i>p.1</i>)	1	121-013 Global Ecology and Biogeography (<i>p.2</i>)	2
620-160 Experimental Design & Data Analysis (<i>p.5</i>)	1 rep 2, Summer	and 25 points chosen from agriculture, biology or chemistry.	
	2	An introduction to the study of society	
121-013 Global Ecology and Biogeography (<i>p.2</i>)		25 points chosen from anthropology, economics, geography, politics and sociology.	
and 25 points chosen from agriculture, biology or chemistry.		Elective study of up to 25 points	
An introduction to the study of society		Second year	
25 points chosen from anthropology, economics, geography, politics and sociology.		Recommended course structure	Sem.
Elective study of up to 25 points		Environmental studies	
Second year		121-021 Environmental Politics and Management (<i>p.4</i>)	1
Recommended course structure	Sem.	121-022 Development and Urban Environments (<i>p.4</i>)	2
Environmental studies		and at least one of:	
121-021 Environmental Politics and Management (<i>p.4</i>)	1	121-017 Society and Environments (<i>p.3</i>)	2
121-022 Development and Urban Environments (<i>p.4</i>)	2	161-014 Environmental Philosophy (<i>p.8</i>)	N/A
and at least one of:		Environmental processes	
121-017 Society and Environments (<i>p.3</i>)	2	121-018 Geomorphology (<i>p.3</i>)	1
161-014 Environmental Philosophy (<i>p.8</i>)	N/A	600-203 Environmental Measurement (<i>p.1</i>)	2
Environmental processes		121-025 Biodiversity (<i>p.7</i>)	N/A
121-018 Geomorphology (<i>p.3</i>)	1		
600-203 Environmental Measurement (<i>p.1</i>)	2		
121-025 Biodiversity (<i>p.7</i>)	N/A		

Second year**Recommended course structure****Environmental studies**

	Sem.
121-021 Environmental Politics and Management (<i>p.4</i>) and 25 points from:	1
121-017 Society and Environments (<i>p.3</i>)	2
161-014 Environmental Philosophy (<i>p.8</i>)	N/A
121-022 Development and Urban Environments (<i>p.4</i>)	2

Environmental processes

606-204 Ecology: Communities and Ecosystems (<i>p.1</i>)	2
654-204 Ecology: Individuals and Populations (<i>p.2</i>)	1
121-025 Biodiversity (<i>p.7</i>)	N/A

121-025 Biodiversity is not offered in 2002. Students seeking a specialisation in ecology and/or biogeography within their environmental studies program are recommended to take at least one of:

654-204 Ecology: Individuals and Populations (<i>p.2</i>) or	1
606-204 Ecology: Communities and Ecosystems (<i>p.1</i>)	2

Students wishing to major in biogeography or ecology and wishing to proceed to 121-030 Applied Ecology in their third year should take at least one of these subjects in their second year.

Students in this situation are advised to enrol in:

606-204 Ecology: Communities and Ecosystems (<i>p.1</i>)	2
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One of these subject may count towards a major in environmental studies.

or

Study of society

12.5 points chosen from anthropology, economics, geography, politics, sociology.

Elective study:

Students may be permitted to exceed the 50 points elective study requirement in order to take additional subjects to satisfy prerequisites for third year ecology subjects.

Third year**Recommended course structure****Environmental studies**

	Sem.
121-028 Sustainable Development (<i>p.4</i>)	2
25 points from:	
121-432 Environmental Field Class (<i>p.8</i>)	N/A
121-435 Environmental Management Systems (<i>p.6</i>)	1

Environmental processes

Between 25 to 37.5 points from:

121-458 Australian Quaternary Environments (<i>p.5</i>)	2
654-308 Conservation Biology (<i>p.3</i>)	2
121-030 Applied Ecology (<i>p.5</i>)	2

Students wishing to take a theory-only version of this subjects are recommended to enrol in:

606-301 Applied Ecology (Theory) (<i>p.2</i>)	2
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This subject shares common content lectures and seminars but excludes laboratory and field components. It will be accepted as a subject towards the majors in geography and environmental studies.

Study of society

Students may be credited with approved subjects from anthropology, economics, geography, politics and sociology.

Electives

The following subjects are recommended:

606-301 Applied Ecology (Theory) (<i>p.2</i>)	2
654-312 Marine Ecology (<i>p.4</i>)	2

Honours in environmental studies

Students who have completed a major in environmental studies with an average grade of H2B over the second/third year subjects of the program (excluding elective study) are eligible to enter the pure honours program in environmental studies.

See *Environmental studies (p.1)* for details regarding honours entry prerequisites and honours requirements.

Further study

A wide range of postgraduate programs in environmental studies and environmental science are offered by the University of Melbourne. The Faculties of Arts, Science, Commerce, Engineering, and the Institute of Land and Food Resources offer Masters and PhD supervision to students undertaking research in a wide range of areas in the environmental field. There are also a number of postgraduate coursework programs available, many of which focus strongly on the development of specialist professional skills.

The following postgraduate coursework programs are offered by the School of Anthropology, Geography and Environmental Studies within the Faculty of Arts:

- Graduate Certificate in Arts (Environmental Studies)
- Graduate Diploma in Arts (Environmental Studies)
- Postgraduate Diploma in Arts (Environmental Studies)

Career opportunities

Graduates can expect to find creative and interesting employment in a wide variety of situations. Qualifications gained will enable graduates to work as environmental professionals in government departments and regulatory bodies, in private industry and with environmental consulting firms. There is a growing awareness of the need for professional environmental expertise in our region of Asia and the Pacific. Australia is recognised as a leader in this field and many career opportunities are opening up both in Australia and overseas.

Some of the most common opportunities available to graduates of the program are:

- as scientific, planning or education officers in government departments and authorities (for example, dealing with conservation, natural resources, planning, housing, transport, utility supply);
- as officers in private environmental consultancies, planning or exploration firms, collecting evidence about, assessing or warning of the potential of environmental impacts;
- as journalists, teachers or lecturers;
- as planning or project officers for nature conservation bodies such as the Australian Conservation Foundation, the National Trust or Greenpeace;
- as environmental officers for major development companies, such as BHP, mining and oil companies, or any number of smaller organisations that have environmental impacts;
- as environmental consultants to overseas nations, through direct employment, aid programs or international organisations.

For more information

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