Geography

Geography at the University of Melbourne is one of the top-ranking programs of its kind in Australia and New Zealand. Our academic staff enjoy international reputations for their scholarship and engage in original research, including collaborative research with local and international colleagues.

Geography is about the relationship between society and the environment. It integrates both the physical and social sciences to provide students with the skills and conceptual frameworks needed to understand the processes that shape the world around us. Areas of research include social, cultural and economic geography, feminist geographies, urban geography, development studies, Asian studies, indigenous studies, environmental policy and management, plant and animal ecology, and geomorphology. Geography enables students to gain practical and relevant experience by working with staff who apply up-to-the-minute knowledge in a variety of real situations including practical laboratory classes, field trips, and group project work. These practical activities provide opportunities for students to develop transferable skills and to benefit from the leadership of peers, public responsibility and community participation, mentoring, and professional skill development, all of which are highly desirable attributes in the market place. A variety of prospective career pathways is available to students of geography that draw on the analytical and research knowledge gained in this area of study. Alternatively, students are able to expand on their interest and knowledge through an articulated structure of higher degree study at the University of Melbourne.

In addition to the major in geography, the School of Anthropology, Geography and Environmental Studies (SAGES) offers majors in *Anthropology (p.1)*, *Development Studies (p.1)*, and *Environmental Studies (p.1)*. SAGES also offers pathways for students who wish to gain privileged entry into either a Master of Urban Planning or Master of Landscape Architecture: see the entry in this Handbook under *Planning and Design (p.1)*.

Prerequisites

There are no prerequisites for first-year subjects in geography.

The prerequisite for a second/third-year subject in geography is usually two first-year subjects in geography (25 points). Students who have done suitable alternative first-year subjects are advised to consult with the school for permission to enrol. Exemptions may also be granted where second/third-year subjects are taken as part of an approved interdepartmental program with its own entry requirements.

The prerequisite for a third/fourth year geography subject is usually three second/third-year subjects in geography (37.5 points).

Diploma in Arts (Geography)

The Diploma in Arts (Geography) is only available to students who are currently enrolled in a degree course at the University of Melbourne. It consists of a three-year sequence of study, and adds one year to the duration of your degree.

Students must complete 25 points of first-year subjects and 75 points of second/third-year subjects selected from the lists below. Alternatively, students who have completed appropriate background studies at first year may complete 100 points of second/third-year subjects from the list below.

Requirements for a major

A major in geography usually consists of nine 12.5-point subjects, totalling, 112.5 points. It comprises:

- two first-year subjects in geography (25 points); and
- second/third-year subjects in geography totalling 87.5 points.

It is recommended that students take at least one 25-point subject in their third year of study since these subjects incorporate fields of study which are regarded as an important component of training in the discipline.

Subjects for the major		Sem.
121-006	Urban Economic Geography *(p.2)*	1
121-015	Development and the Third World *(p.3)*	2
121-017	Society and Environments *(p.3)*	2
121-018	Geomorphology *(p.3)*	1
121-019	Urbanisation and Urban Development *(p.3)*	2
121-021	Environmental Politics and Management *(p.3)*	1
121-022	Development and Urban Environments *(p.4)*	2
121-023	China in Transition *(p.4)*	1
121-024	GIS and Remote Sensing in Geography *(p.4)*	2
121-222	Field Class in Geography *(p.4)*	1
Students seeking a specialisation in ecology and/or biogeography within their studies in geography are recommended to enrol in at least one of:		
654-204	Ecology: Individuals and Populations *(p.2)* or	1

Subjects for the major		Sem.
606-204	Ecology: Communities and Ecosystems *(p.1)*	2
Students wishing to major in biogeography or ecology and wishing to proceed to:		
121-030	Applied Ecology *(p.6)* in their third year	2
should enrol in at least one of these subjects in their second year. 606-204 is recommended. One of these subjects may count towards a major in geography and environmental studies.		
121-026	The Mobile World: Migration and Tourism *(p.4)*	2
121-028	Sustainable Development *(p.4)*	2
121-033	Environmental Hydrology A *(p.6)*	1
121-029	Environmental Hydrology B *(p.5)*	1
121-030	Applied Ecology *(p.6)*	2
Students wishing to enrol in a theory-only version of this subject are advised 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 may be included in a major in geography and environmental studies.		
121-224	Garma Fieldwork *(p.5)*	2
121-225	Place and Possession *(p.5)*	2
121-226	Native Title *(p.5)*	N/A
121-071	Coastal Geomorphology *(p.6)*	1
121-433	China Field Class *(p.6)*	2
121-434	Fieldwork Research Project *(p.7)*	2
121-435	Environmental Management Systems *(p.7)*	1
121-458	Australian Quaternary Environments *(p.7)*	2
606-301	Applied Ecology (Theory) *(p.2)*	2

Specialist options		Sem.
1. For students wishing to specialise in physical geography		
At least four of:		
121-029	Environmental Hydrology B *(p.5)*	1
121-033	Environmental Hydrology A *(p.6)*	1
121-018	Geomorphology *(p.3)*	1
121-022	Development and Urban Environments *(p.4)*	2
121-030	Applied Ecology *(p.6)*	2
Students wishing to take the 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 may be included in a major in geography and environmental studies.		
121-071	Coastal Geomorphology *(p.6)*	1
121-222	Field Class in Geography *(p.4)*	1
121-310	Fluvial Geomorphology *(p.6)*	2
121-458	Australian Quaternary Environments *(p.7)*	2
606-301	Applied Ecology (Theory) *(p.2)*	2
2. For students wishing to specialise in human geography		
At least four of:		
121-006	Urban Economic Geography *(p.2)*	1
121-015	Development and the Third World *(p.3)*	2
121-019	Urbanisation and Urban Development *(p.3)*	2
121-017	Society and Environments *(p.3)*	2
121-022	Development and Urban Environments *(p.4)*	2
121-023	China in Transition *(p.4)*	1
121-026	The Mobile World: Migration and Tourism *(p.4)*	2
121-028	Sustainable Development *(p.4)*	2
121-224	Garma Fieldwork *(p.5)*	2
121-225	Place and Possession *(p.5)*	2
121-226	Native Title *(p.5)*	N/A
121-228	Critical Human Geography *(p.5)*	1
121-433	China Field Class *(p.6)*	2
121-434	Fieldwork Research Project *(p.7)*	2

Entry to honours

The prerequisites for entry to fourth-year honours in geography are:

- completion of all the requirements for the BA; and
- completion of a major in geography; and
- an average grade of H2B or higher over the second/third-year subjects within the major.

Students should note that the department offers a pure honours program only.

Honours requirements

Students undertaking pure honours in geography must complete:

- 121-517 Geography Thesis *(p.7)* (50 points); and
- 121-402 Geography Coursework *(p.7)* (50 points).

or

- 121-518 Geography Thesis (MYE) *(p.7)* (50 points); and
- 121-403 Geography Coursework (MYE) *(p.8)* (50 points).

Part-time honours is only permitted under exceptional circumstances, subject to approval of the head of school.

Career opportunities

Geography provides students with information and skills relevant to thinking about the relationship between society and the environment. Few would doubt the contemporary relevance of this issue. Environmental considerations are an important and necessary component of doing business for almost all sectors of industry and government. This means that students who are skilled in this area are well equipped to enter the workforce.

Many students entering the workforce find little direct use for the particular knowledge they have acquired while doing their university degree. This is not the case for geography students. The knowledge and skills that students learn when studying geography are much sought after by employers of many kinds. About half of our graduates find their way into jobs which use the specific skills they learnt in geography.

The skills geography provides which are so attractive to prospective employers include analytical and technical skills (in both the physical and social sciences), survey skills (physical and social science), writing and information synthesis, communication and group work skills, computing skills, and knowledge of social and environmental interactions.

Geography graduates have found themselves in many different careers, in government, the private sector, retail and marketing, computing, teaching, human resources and public relations.

For more information

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First-year subjects

121-103 Australia in Asia

Note: Formerly available as 121-011. Students who have completed 121-011 are not eligible to enrol in this subject. This subject is recommended for students wishing to complete a major in Australian studies.

Availability: 1st year

Credit points: 12.5 **HECS-band:** 1

Semester: Not Offered

Description: This subject critically evaluates the question 'Is Australia part of Asia?'. It does so through a range of topics that reveal the complex and varied relationships that exist between Australia and the Asian region: relationships that might variously be described as indifferent, fearful and, more recently, outright enthusiastic. How have these relationships been constituted? How can we account for the changes evident in these relations? These questions are explored through the following topics: newly industrialised nations and reforming socialist economies in Asia; Australia's economic turn to Asia; trade links; geopolitical agreements and treaties; regional images and stereotypes; migration patterns; tourism links; and overseas aid agreements. By the end of the subject students should understand Australia's efforts to re-position itself in relation to Asia; how diverse and changing the Asian region is, and how this influences the region's relationships with Australia; the various ways in which Asia and Australia are linked. Students will also become familiar with relevant concepts in human geography which will assist them in making sense of this complex regional relationship, including globalisation and regionalism, political and economic restructuring, ideas of national and regional identity, and transnationalism. Students will also learn a range of practical skills relevant to human geography and related social science disciplines, including the analysis of census and other statistical data, interpretative analytic skills, and critical thinking.

121-110 Famine in the Modern World

Note: Formerly available as 121-010. Students who have completed 121-010 are not eligible to enrol in this subject. Formerly available as 121-101. Students who have completed 121-101 are not eligible to enrol in this subject.

Availability: 1st year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Jon Barnett

Contact: Two lectures and a 2-hour laboratory or practical class per week *(Semester 1).*

Description: This subject is an evaluation of two contrasting theories of famine. The 'Malthusian' theory argues that famine is a matter of the balance of population and environmental resources. Evidence is drawn together from demography, environmental change and degradation, and the environmental impact of the green revolution. The 'political economy' theory argues that famine is a matter of the distribution of food. Evidence is drawn together to explain differences in access to food within and between societies, including the implications of agribusiness and the global food trade and the effect of war on food supply. The subject also considers the ways in which aid, food, and development policies are informed by these theories. Students who complete the subject should be familiar with these theories and the causes, extent, and possible solutions to famine and food problems.

Assessment: A 2-hour examination (30%), and written work totaling 2000 words comprised of an essay (40%), and practical/tutorial assignments (30%).

121-171 Environmental Change

Note: Formerly available as 121-012. Students who have completed 121-012 are not eligible to enrol in this subject.

Availability: 1st year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Assoc Prof Brian Finlayson

Contact: Two 1-hour lectures and a 2-hour laboratory per week, plus 2 days of fieldwork *(Semester 1).*

Description: This subject is an introduction to the discipline of geography, both physical geography and human geography, and to a major in environmental studies. The subject examines global and regional patterns of natural and human-induced changes in the environment, together with their consequences for human societies. Topics include global patterns in climate, hydrology and water resources, the evolution of different sorts of landscapes, and the social bases of and links to environmental change. Principles are applied to highlight problems in environmental management, such as irrigation and salinisation, sustainable harvesting of forests, and urban runoff. Students should develop skills such as map use and interpretation of satellite photographs, the ability to argue and the presentation and interpretation of data. By the end of the subject students should have an understanding of the complexity that underlies most environmental problems.

Assessment: A 2-hour examination, and written work totalling 2000 words, which consists of a major essay, a field report and continuously assessed practical work.

121-172 Global Ecology and Biodiversity

Note: Formerly available as 121-013. Students who have completed 121-013 are not eligible to enrol in this subject.

Availability: 1st year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Ian Thomas

Contact: Two 1-hour lectures and a 2-hour laboratory per week *(Semester 2).*

Description: This subject serves as an introduction to the disciplines of physical geography and environmental studies, concentrating on the nature of global patterns of species diversity and biogeographic realms. Students will encounter issues such as distribution, properties and functioning of the world's major biomes; soil forming processes and the distribution of soils on a global basis; the nature and scale of human impacts and the restoration and preservation of ecosystems. On completion of the subject students should be familiar with basic ecological concepts and issues on a global scale; be able to identify how environmental variables influence the world's major landscapes; be able to apply basic methods in biogeography; and have an understanding of the extent of human impacts on biomes and biodiversity.

Assessment: Weekly practical exercises totalling 2000 words, and a 2-hour examination.

Second/third-year subjects

121-006 Urban Economic Geography

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: to be advised

Prerequisites: Completion of 25 points of first-year geography and environmental studies, economics or urban planning.

Contact: A 2-hour lecture and two hours of practical classes per week *(Semester 1).*

Description: This subject examines how cities work and provides the tools with which to identify the characteristics of cities. It seeks first to explain the functions performed by cities, how cities work as economic units and how they grow and decline. It seeks secondly to examine the way in which the functions of cities are located in different parts of the city, the key economic sectors in cities and the rules of their location. There is a brief introduction to local development strategies. The subject also introduces students to the information sources that are used in urban analysis, to the principal indicators of urban social and economic well-being and to the tools that are used to analyse cities.

Assessment: Students are required to complete (and obtain a passing mark on) all practical work set in class; this is a hurdle requirement. Students will complete project and essay work equivalent to 2000 words and a 2-hour examination. The examination must be passed in order for the subject to be passed.

Prescribed texts: Much of the detailed reading for practical classes will be derived from fugitive (unpublished) material produced by local municipalities; other material will be drawn from the web.

121-015 Development and the Third World

Note: Formerly available as 121-204/304. Students who have completed 121-204 or 121-304 are not eligible to enrol in this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Anthony Marcus & Dr Salim Lakha

Prerequisites: Completion of 25 points of first-year geography or sociology, or approval of the subject coordinator.

Contact: A 2-hour lecture and a 1-hour tutorial per weel *(Semester 2).*

Description: This subject is an introduction to a range of issues about the relationship between development and the 'third world'. It will explore the basic concepts used in development literature in addition to the many ways that development is understood and applied. Concepts such as 'third world', 'aid' and the 'international development industry' will be critically examined. The key development institutions will be introduced through the use of case studies. The subject will consider the role of local knowledge, grass roots schemes, ecological knowledge, appropriate technology, empowerment, globalisation and modernity in this relationship between development and the 'third world'. At the end of the subject students should be able to discern a range of modernities, approaches to development, and development alternatives that pertain locally within the broader political economies of the 'third world'.

Assessment: A total of 4000 words of written assessment which will comprise of a final essay of 2500 words and other shorter assignments.

121-017 Society and Environments

Note: Formerly available as 121-208/308. Students who have completed 121-208 or 121-308 are not eligible to enrol in this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Fraser MacDonald

Prerequisites: Completion of 100 points of first and/or second-year subjects including at least 50 points at first-year level from approved subjects in your home faculty.

Contact: Three hours of lectures/tutorials per week *(Semester 2).*

Description: This subject examines the relationship between society and environments from a geographical perspective. Starting with the philosophical question "what is nature?", students will be introduced to: different conceptual frameworks for understanding nature as a social entity; the processes by which capitalism structures social/environmental relations; the cultural politics of nature conservation; and the geographies of animal-human relations. Students will address those broad themes through a range of interesting and relevant case material drawn from Western and non-Western examples across the realms of science, public affairs and popular culture. These themes include the concept of wilderness; the (post)colonial politics of the zoo; tourism and the consumption of nature; nature as a corporate accumulation strategy; notions of environmental justice; and radical environmentalisms. Students should complete this subject with an understanding of the interconnections between the natural world and various cultural, political and economic formations.

Assessment: A 2-hour exam and written work totalling 2000 words.

121-018 Geomorphology

Note: Formerly available as 121-212/312. Students who have completed 121-212 or 121-312 are not eligible to enrol in this subject. All BSc students, except those enrolled in the BA/BSc combined course and the BASc course, can only receive credit at the 200-level for this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Wayne Stephenson

Prerequisites: Completion of 25 points of geography, environmental studies or earth sciences at first year or an equivalent approved by the coordinator.

Contact: Two 1-hour lectures and two hours of practical classes per week, including one day of fieldwork *(Semester 1).*

Description: This subject outlines the development of geomorphology as a discipline, the different approaches used to study landforms and theory of landscape processes and evolution. Topics covered include the denudation system; weathering; hillslopes; fluvial processes and landforms; glacial processes and landforms; karst landscapes and processes; deserts and aeolian processes; the coastal system and processes; and landform change during the Quaternary. Emphasis is placed on understanding the geomorphological processes that shape these landscapes. Through lectures, practicals and field exercises students should develop skills in the use of a range of analytical techniques for investigating landform processes and change. Students should also develop an appreciation of the ways landforms and process can be incorporated into environmental management and land use planning.

Assessment: Weekly practical classes, an individual project of 1000 words, an individual field report of 1500 words, and a 2-hour examination. Students must submit both written assignments within deadlines, submit 80% of the laboratory work within deadlines and attend the field trip to be eligible to pass the subject.

Prescribed texts: M A Summerfield, *Global Geomorphology*, Longman 1991. • D S G Thomas & A Goudie, *The Dictionary of Physical Geography*, (3rd ed) Blackwell 2000.

121-019 Urbanisation and Urban Development

Note: Formerly available as 705-489/651. Students who have completed 705-489 or 705-651 are not eligible to enrol in this subject. Students cannot obtain credit for this subject and 705-289 Urbanisation and Urban Development due to content overlap.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Caroline Whitzman

Prerequisites: Completion of at least of 100 points of first and/or second-year subjects including at least 50 points at 100-level from approved subjects in your home faculty.

Contact: Three hours of lectures and tutorials per week *(Semester 2).*

Description: This subject considers theories and interpretations of urbanisation and urban development that have been influential in urban planning and geography over the past three decades. Examining the understandings of the urban in different national and regional contexts (Australian, Western, Asian, post-colonial, multicultural) the subject emphasises the position of cities in contemporary processes of globalisation, and the diverse lives of urban dwellers in different places and circumstances. Students should gain experience in designing and undertaking some original research work using the perspectives discussed.

Assessment: Written work totalling 2000 words, and a 2-hour examination.

121-021 Environmental Politics and Management

Note: Formerly available as 121-219/319. Students who have completed 121-219 or 121-319 are not eligible to enrol in this subject. All BSc students, except those enrolled in the BA/BSc combined course and the BASc course, can only receive credit at the 200-level for this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Peter Christoff

Prerequisites: Completion of 100 points of first and/or second-year subjects including at least 50 points at 100-level from approved subjects in your home faculty. Australian studies students wishing to enrol in this subject would normally have completed first-year Australian studies, see *Prerequisites (p.1)*.

Contact: Twenty 1-hour lectures and ten 1-hour tutorials *(Semester 1).*

Description: This subject explores a range of contemporary Australian environmental issues, examining the history of their emergence and management during the past two centuries of European settlement. Case studies associated with coastal management and urban development, agriculture, forestry and mining, energy use, nature conservation and biodiversity preservation are used to illuminate ways of understanding and managing our unique continent's ecosystems. The subject examines linkages between the scientific, cultural, economic and political dimensions of these environmental problems. Students should become familiar with mechanisms used to contain or resolve recent environmental conflicts, and be able to interpret them in the context of

broader questions relating to ecological governance, sustainable development and intergenerational equity.

Assessment: Written work totalling 4000 words, including a take-home examination, an oral tutorial presentation and tutorial attendance.

121-022 Development and Urban Environments

Note: Formerly available as 121-221/321. Students who have completed 121-221 or 121-321 are not eligible to enrol in this subject. All BSc students, except those enrolled in the BA/BSc combined course and the BASc course, can only receive credit at the 200-level for this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Mark Wang

Prerequisites: Completion of 25 points of first year geography, environmental studies, urban planning or environmental science.

Contact: Two 1-hour lectures and two hours of practicals/seminars per week *(Semester 2).*

Description: This subject examines the impacts of development on urban environments and of urbanisation on urban hydrology, land and biological systems. This subject also covers how these impacts are manifest as problems, and the variety of ways these impacts are managed. The issues discussed include globalisation and impacts on urban environments; urban transport; urban environments and human health; pollution causes and control; urban impact on natural resources; cities and sustainable development. Students should gain an appreciation of the nature of cities as part of, rather than separate from, the general environment; the nature of complex interactions between social structures, natural phenomena, and built environments; and the conflicting political and policy responses to urban environmental issues.

Assessment: An essay of 2000 words, practical exercises, and a 2-hour examination.

121-023 China in Transition

Note: Formerly available as 121-238/338. Students who have completed 121-238 or 121-338 are not eligible to enrol in this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Mark Wang

Prerequisites: Completion of 25 points of first-year geography, economics or Asian studies or approval of the subject coordinator.

Contact: Two 1-hour lectures per week and ten 1-hour tutorials *(Semester 1).*

Description: This subject is about the geography of 'Red Capitalist' China. It introduces students to issues of physical landscape, resources, present livelihood, and people and places in the land of one billion. The focus of the subject is the ongoing socio-economic transformation in post-Deng Xiaoping China including issues such as feeding a billion people; population growth and the one-child-only policy; political changes in the post-Deng era; and is China a Third World country or a major economic power? Students should become familiar with questions of rapid economic growth and the environmental consequences; open door policy and foreign investment; migration and urbanisation; coast-inland conflicts and income polarisation; economic restructuring, sustainable development and environmental degradation; and China in the next century.

Assessment: Written work totalling 4000 words.

121-024 GIS and Remote Sensing in Geography

Note: Formerly available as 121-254/354. Students who have completed 121-254 or 121-354 are not eligible to enrol in this subject. All BSc students, except those enrolled in the BA/BSc combined course and the BASc course, can only receive credit at the 200-level for this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Ray Wyatt

Prerequisites: Completion of 75 points of first-year subjects.

Contact: Two 1-hour lectures and a 2-hour laboratory per week *(Semester 2).*

Description: This subject provides an introduction to the use of geographical information systems (GIS) and remote sensing in geographical enquiry. Topics covered include sources of geographical data, principles of cartography, map projections, global positioning systems, classification of remotely sensed data, topological structures, data compression, data searching, elementary spatial statistics, neural clustering and census mapping. Students who complete this subject should have an appreciation of what GIS and remote sensing can and cannot achieve in geography and environmental studies and how they may develop in the future. Students should also be aware of the ways in which other techniques can be added to GIS and remote sensing and how the latter can alter people's perceptions within businesses, organisations and societies.

Assessment: A 2-hour examination, practical exercises and a project totalling 2000 words.

121-026 The Mobile World: Migration and Tourism

Note: Formerly available as 121-277/377. Students who have completed 121-277 or 121-377 are not eligible to enrol in this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Rachel Hughes

Prerequisites: Completion of 100 points of first and/or second-year subjects including at least 50 points at first-year level from approved subjects in your home faculty.

Contact: Two 1-hour lectures per week and ten 1-hour tutorials *(Semester 2).*

Description: Human mobility is an increasingly common feature of modernity. It is also an intrinsically spatial phenomenon of abiding interest to geographers. This subject examines a number of examples of human mobility in the contemporary world including refugee movements, temporary worker migration, permanent resettlement, diasporic and 'nomadic' communities, and tourism. The subject also introduces students to a number of theoretical issues relevant to contemporary thinking about mobility in the modern world including globalisation and the nation-state, the social construction of difference, mobility and a sense of place, migration and citizenship, geographies of exclusion and the commodification of difference.

Assessment: A 2-hour examination and written work totalling 2000 words.

121-028 Sustainable Development

Note: Formerly available as 121-303. Students who have completed 121-303 are not eligible to enrol in this subject.

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Peter Christoff

Prerequisites: Completion of 25 points of first-year geography or the approval of the subject coordinator.

Contact: Twenty 1-hour lectures and ten 1-hour tutorials *(Semester 2).*

Description: The term 'sustainable development' is widely recognised but little understood, with over 50 definitions reflecting the different understandings of environmental theorists and practitioners. This subject discusses and interprets these key cultural, political and philosophical differences, both in concept and practice. Students will explore global, developed and developing world examples of sustainable development, examining case histories relating to climate change and ozone depletion, fisheries and tropical forest management, population growth and biodiversity preservation. On completion of the subject students should be able to use these cases to illuminate underlying ecological, economic, and social issues associated with different practices of environmental management and have a working understanding of the national and international dimensions of ecological governance.

Assessment: Tutorial attendance 5%, an oral presentation of one tutorial paper 10% and a 3000 word essay 60% (to be completed during semester), and a take home examination of 1000 words 25% (at the end of semester). Each component of assessment must be completed for a student to be able to pass this subject.

121-222 Field Class in Geography

Note: This subject is recommended for students who have completed at least 25 points of first-year geography subjects and who intend to complete a major in geography in either an arts or science degree. A quota applies to this subject and application forms for a quota place are available from the SAGES office. Students will be required to meet some expenses.

Availability: 2nd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: to be advised

Prerequisites: Completion of 25 points of first-year geography.

Contact: Six days of field work in February, and up to six two-hour seminars and presentations during semester *(Semester 1).*

Description: This subject is designed for students intending to major in geography. Over six days of field work in Victoria, students will gain the knowledge and develop the research skills necessary to undertake further study in geography. The subject presents the disciplinary approaches used by geographers to investigate a wide variety of geographical phenomena. After introducing the questions that geographers ask about places, the subject introduces and develops the research skills and methods used by practising geographers, particularly skills in acquiring, analysing and presenting geographical data. During the field week students will indentify questions about and methods of analysing social, economic, environmental and physical conditions at the field location. After the field work, students will complete projects based on their field work and subsequent reading. In semester one, there will be seminars at which student work is presented.

Assessment: A 1500-word research proposal 40%, a 10-minute group presentation 10%, and a 1500-word field report 20% all due during the semester, and a field diary 30% due at the end of semester.

121-224 Garma Fieldwork

Note: This subject will be delivered both on campus and through an intensive fieldwork experience in northeast Arnhem Land, relying on digital, audio-visual and print resources in both Melbourne and the Northern Territory. A quota will apply to this subject. Please contact the department for further details.

Availability: 2nd and 3rd year

Credit points: 25 **HECS-band:** 1

Coordinator: Prof Marcia Langton

Prerequisites: Completion of 100 points of first and/or second-year subjects including at least 50 points of first-year level from approved subjects in your home faculty.

Contact: Two hours of lectures, a 1-hour seminar, and seven days of fieldwork *(Semester 2).*

Description: This subject aims to introduce students to fieldwork and research in Arnhem Land, Northern Territory, as guests of traditional owners of the region. Students from a wide range of disciplines including Geography, Environmental Science, Anthropology, Archaeology, Linguistics, Music, Fine Arts, Cultural Studies, History, Law, Education, Biology and Botany are invited to learn about the region's culture and intellectual traditions, and to contribute to the further development of cross-cultural learning and research strategies between local communities and the university. The subject will also introduce students to key literary and documentary sources by scholars who have worked in Arnhem Land, and to unique literary, audio-visual and digital resources produced by peoples of the region which explore their rich cultural and intellectual heritage. Students will learn about indigenous protocols for learning and the transmission of knowledge through an intensive fieldwork experience in Arnhem Land and contact with organisations that provide services to communities of the region.

Assessment: Written work totalling 8000 words.

121-225 Place and Possession

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Prof Marcia Langton

Prerequisites: Completion of 100 points of first and/or second year subjects including at least 50 points of first year level from approved subjects in your home faculty.

Contact: Two 1-hour lectures per week and ten 1-hour tutorials *(Semester 2).*

Description: In this subject students survey selected case studies, and key ideas and documents in the history of the engagement between colonial and post-federation Australian legal systems and Indigenous land tenure systems, culminating in a consideration of the concept of native title. An array of titles under various statutes, and the anthropological ideas which have informed them, will be examined as to their efficacy in legitimating Indigenous traditions of social affiliation to place and customary ownership. Some key ideas explored in this subject include property; place; group titles; kinship; lineages and customary landholding groups; transmission and succession of customary land tenure; the sociological nature of estates of land and territory and their attributes, such as names, borders, and meanings; the attribution by anthropologists of ownership or possession to clans, 'tribes' or regional linguistic groupings; and dispute-processing in land conflicts, both in customary tradition and Australian history.

Assessment: Written work totalling 4000 words comprising two 2000-word essays.

121-226 Native Title

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 1

Prerequisites: Completion of 100 points of first and/or second-year subjects including at least 50 points of first-year level from approved subjects in your home faculty.

Semester: Not Offered

Description: In this subject the nature of native title is examined in the context of the Mabo decision. Students are introduced to the basic concepts of native title, the key features of the *Native Title Act*, the institutions which deal with native title, and new approaches to settling native title issues. A range of legal, anthropological and geographical issues are surveyed through the lens of native title, and students will become familiar with the issues that arise when there is conflict between colonial or postcolonial and customary land tenure systems. Such issues have to do with notions of property and legal recognition of customary laws. In addition to the legal, anthropological and geographical expert literature on native title issues, a range of Indigenous sources of customary law, particularly relating to land tenure, will be provided via a web site created especially for teaching the prescribed set of topics in this subject. Students will be provided with explanatory visual and documentary materials in order to increase their understanding of Indigenous concepts of customary land tenure, the social groups that exercise rights and responsibilities under these systems, and the key issues for Indigenous people in the negotiation of native title rights. Students who complete this subject will gain an understanding of the procedures for lodging and preparing native title claims; the problems associated with proof and management of native title; the human rights standards that underlie native title statutes; and the legal, anthropological, web and other library resources relating to native title issues.

121-227 Spatial Informatics

Availability: 2nd and 3rd year

Credit points: 12.5 **HECS-band:** 2

Coordinator: Dr Ray Wyatt

Prerequisites: Completion of 25 points of first-year geography or approval of the subject coordinator.

Contact: A 2-hour lecture plus and a 1-hour tutorial per week *(Semester 1).*

Description: The focus will be on the effects of technologies like mobile telephones, the Internet, global position finders, geographic information systems, teleconferencing, SMS messages and electronic mail. They all have potential to impact greatly on the way people conduct their lives in terms of activities and personal relationships. Particular emphasis will be placed on the role played by space in any transformation of human behaviour, along with the spatial outcomes of technological change. Phenomena examined will include people's dynamic mental maps, neuroscience-based spatial perception, access to geographical data, intelligent transport systems and spatial information technology's relationship to disaster preparedness, sustainable development, freedom of assembly and the nature of work.

Assessment: A two-hour examination and written work totalling not more than 2000 words

Prescribed texts: To be advised during semester, but likely to include references such as:

Jan van Dijk, *The network society: social aspects of new media*, Sage 1999. • M I Wilson & K E Corey (eds), *Information tectonics: space, place and technology in an electronic age*, Chichester, Wiley 2000. • M Castells, *The rise of the network society*, Blackwell 2000.

121-228 Critical Human Geography

Availability: 2nd and 3rd year

Credit points: 25 **HECS-band:** 1

Coordinator: Fraser MacDonald & Rachel Hughes

Prerequisites: Completion of 100 points of first and/or second year subjects, including at least 50 points at first year level from approved subject in your home faculty.

Contact: Two 1.5-hour lectures and a 1 hour tutorial per week, three 4-hour field-based practicals held during semester *(Semester 1).*

Description: This subject is concerned with the history and philosophy of geography, covering key theoretical debates in the emergence of the discipline. This subject is also an introduction to cultural geography, and other disciplinary traditions that foreground cultural processes as constituted by, and expressed through, space, place and landscape. General concepts include social construction of places and selves, the exercise of power in and through space, and the inter-relation of local and global processes. Specifically the subject will address topics as diverse as: geographies of empire; postmodernity and urban formations; postcolonial politics and places; the contested nature of globalisation; exclusionary practices and cultures of resistance; cartographic power and modern militarism; iconographies of landscape, and geographies of visual and material culture. These themes will be elaborated by way of specific examples drawn from Australia and overseas. Students who complete this subject will develop skills in qualitative and interpretive analytical methods and critical thinking, be familiar with relevant social theoretical concepts from human geography and elsewhere, and be adept at intergrating theoretical concepts with empirical case material.

Assessment: A tutorial presentation equivalent to 1000 words, written work arising from field-based practicals equivalent to 2000 words, an essay of 3000 words and a 2-hour examination.

Third-year subjects

121-029 Environmental Hydrology B

Note: Formerly available as 121-305. Students who have completed 121-305 are not eligible to enrol in this subject. Credit cannot be obtained for both this subject and 121-033 Environmental Hydrology A *(p.6)* or former Faculty of Arts subjects 121-349 Principles of Environmental Hydrology or 121-350 Techniques in Environmental Hydrology.

Availability: 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Barbara Downes

Prerequisites: 121-018 Geomorphology *(p.3)* or 654-2-4 Ecology: Individuals and Populations or 606-204 Ecology: Communities and Ecosystems or equivalent as approved by the subject coordinator.

Contact: Two 1-hour lectures per week, a 1-hour tutorial per week, and fieldwork totalling 28 hours to be scheduled on weekends *(Semester 1)*.

Description: This subject examines principles in the two disciplines of hydrology and ecology, emphasising the use of both to understand environmental management problems in rivers. The subject examines water in terms of quantity and quality; the physical channel and floodplain systems in which it is conveyed and stored; and the population, community and ecosystem dynamics of the organisms that occupy these systems. Through fieldwork students should develop skills in the observation and the collection and interpretation of field data relating to river channels, habitats and biota. Students should become familiar with the multidisciplinary nature of environmental management and the need for critical examination of ideas in the literature.

Assessment: Fieldwork reports totalling 2000 words, and a 2-hour examination.

Prescribed texts: N D Gordon, T A McMahon & B L Finlayson, *Stream Hydrology: An Introduction for Ecologists*, Wiley International, 1992. • J D Allan, *Stream Ecology: Structure and Functioning of Running Waters*, Chapman & Hall, 1995.

121-030 Applied Ecology

Note: Students who have completed 121-306 or 121-031 are not eligible to enrol in this subject. Credit cannot be obtained for both this subject and 606-301 Applied Ecology (Theory) *(p.2)* due to overlap of content.

Availability: 3rd year

Credit points: 25 **HECS-band:** 1

Coordinator: Prof Neal Enright & Prof Alan Baker

Prerequisites: At least one of 606-201, 606-204, 654-204, or permission of the subject coordinator.

Contact: Two 1-hour lectures, a 1-hour seminar and a 3-hour laboratory per week. A four-day field camp *(Semester 2)*.

Description: This subject will provide a sound background in the application of ecological theory and its practical implementation to present-day issues. Topics will include ecological tools in environmental management; the scientific basis of conservation and management of natural and man-made ecosystems; fire ecology and management; endangered species assessment and management; restoration ecology and contaminated land remediation; urban ecology and landscape management; and the role of ecological research in global problems. By successfully completing this subject, students should gain skills in ecological approaches to the conservation and management of biodiversity and the restoration of degraded ecosystems; acquisition, analysis and critical interpretation of ecological data; preparation, writing and presentation of reports; professionalism in ecological and environmental practice.

Assessment: Written work totalling 8000 words including a 2-hour examination at the end of semester, a fieldwork project report, weekly laboratory exercises, and seminar notes. Students must attend the fieldwork, and a minimum of 80% of scheduled laboratory and seminar classes to be eligible to pass the subject.

121-033 Environmental Hydrology A

Note: Formerly available as 121-360. Students who have completed 121-360 are not eligible to enrol in this subject. Credit cannot be obtained for both this subject and 121-029 Environmental Hydrology B *(p.5)* or former Faculty of Arts subjects 121-349 Principles of Environmental Hydrology or 121-350 Techniques in Environmental Hydrology.

Availability: 3rd year

Credit points: 25 **HECS-band:** 1

Coordinator: Dr Barbara Downes

Prerequisites: 37.5 points of second/third-year subjects including 121-018 Geomorphology *(p.3)* o r 654-2-4 Ecology: Individuals and Populations or 606-204 Ecology: Communities and Ecosystems or equivalent as approved by the subject coordinator.

Contact: Two hours of lectures and three hours of practical work per week, and seven days of fieldwork to be scheduled at weekends *(Semester 1)*.

Description: This subject examines principles in the two disciplines of hydrology and ecology, emphasising the use of both to understand environmental management problems in rivers. The subject examines water in terms of quantity and quality; the physical channel and floodplain systems in which it is conveyed and stored; and the population, community and ecosystem dynamics of the organisms that occupy these systems. Through practicals and fieldwork students should develop skills in acquiring, analysing and presenting hydrological data relating to catchment characteristics, and in identification and proper field sampling of stream biota. Students should become aware of the multidisciplinary nature of environmental management and the need for critical examination of ideas in the literature.

Assessment: Practical and fieldwork reports totalling 6000 words and a 2-hour examination.

Prescribed texts: N D Gordon T A McMahon & B L Finlayson, *Stream Hydrology: An Introduction for Ecologists*, Wiley International, 1992. • J D Allan, *Stream Ecology: Structure and Function of Running Waters*, Chapman & Hall, 1995.

121-071 Coastal Geomorphology

Availability: 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Wayne Stephenson

Prerequisites: Completion of 121-018 Geomorphology *(p.3)* or equivalent as approved by the subject coordinator.

Contact: Twenty-four hours of lectures, 24 hours of practicals, two days of weekend field trips *(Semester 1)*.

Description: This subject examines the development of coastal landforms and the processes responsible for change in the coastal zone. This includes discussion of waves, currents, tides, and changing sea levels, beaches, estuaries, dunes, and rocky coasts. A theoretical understanding of the subject is developed through examining conceptual models of coastal development and behaviour. By the end of the subject students should have an appreciation of the dynamism of the coastal zone and an understanding of its physical workings and be aware of techniques to measure processes and change in the coastal environment.

Assessment: Written work totalling 4000 words. Students must submit 80% of the laboratory classes within deadlines and attend field trips to be eligible to pass the subject.

Prescribed texts: P D Komar, *Beach Processes and Sedimentation*, 2nd edn, Prentice Hall, 1998. • C Woodroffe, *Coasts*, Cambridge 2002.

121-310 Fluvial Geomorphology

Availability: 3rd year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Assoc Profs Rutherfurd & Finlayson

Prerequisites: Completion of 25 points of second/third-year subjects. Completion of either 121-018 Geomorphology or 121-033 Environmental Hydrology A or an appropriate number of courses in Environmental Engineering or Earth Sciences. Candidates with sufficient professional experience may also be considered.

Contact: Two 1-hour lectures per week, two 2-hour practicals, four 3-hour practicals, and a three-day field trip *(Semester 2)*.

Description: Fluvial geomorphology is the study of the role of rivers in shaping the morphology of the earth. This subject builds on the grounding in introductory geomorphology provided by 121-018. Students who complete the course will not only see the landscape with new eyes, but they will have the beginnings of a capacity to manage stream systems at a professional level. We will emphasise a strong process based approach based on sediment transport and deposition, coupled with examination of modern stream channel change in the light of changes over the last two million years. The focus of the course will be the unique streams of Australia.

Assessment: Six practical reports, a 1500-word essay, a 1500-word field report (in the form of a journal article) and a 2-hour exam.

Prescribed texts: D Knighton, *Fluvial Forms and Processes: A New Perspective*, Arnold 1998.

606-301 Applied Ecology (Theory)

See full subject details on page 2.

Third/fourth-year subjects

121-433 China Field Class

Note: Formerly available as 121-036. Students who have completed 121-036 are not eligible to enrol in this subject. This is a quota subject. Quota forms can be obtained from SAGES reception or via SAGES home page.

Availability: 3rd and 4th year

Credit points: 25 **HECS-band:** 1

Coordinator: Dr Mark Wang

Prerequisites: Completion of 200 points including at least 50 points from subjects in geography, urban planning, environmental studies and environmental science at second/third year or permission of the subject coordinator. (121-023 China in Transition is recommended). Students enrolled in the Master of Contemporary Asian Analysis and students completing a major in Asian studies within the BA degree are exempt from these prerequisites. A quota form must be completed.

Contact: Twenty-two days of intensive instruction including 20 days in China and 24 hours of seminars *(Semester 2).*

Description: This subject consists of a three-week field trip to China in July with some pre-departure classes/seminars in Melbourne in Semester 2. The subject is designed to develop students' interests in Asia, in China in particular, and in the impacts of economic and social development on the environment. While in China, students will interact with local academics and environmental managers who will inform them about issues and processes in China. This will be supplemented by site visits. The field trip will be under the supervision of the subject coordinators. Students are responsible for the cost of airfares, accommodation and food.

Assessment: A research diary of 6000 words for 3rd year, 6500 words for 4th year, and a research proposal or essay of 4000 words for 3rd year, 4500 words for 4th year.

121-434 Fieldwork Research Project

Note: Formerly available as 121-037. Students who have completed 121-037 are not eligible to enrol in this subject. This is a quota subject. Students wishing to take this subject for arts points must obtain written permission from the Head of SAGES. Students wishing to take this subject for science points in a BSc degree must have their research proposal approved by the Associate Dean, Academic Programs, in the Faculty of Science.

Availability: 3rd and 4th year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Assoc Prof Ian Rutherfurd

Prerequisites: An advanced level of achievement (H1 or H2A standard) in at least 50 points of approved second/third-year geography or environmental studies subjects in your home faculty. Any student wishing to enrol must have written permission from the Head of SAGES. (See note above)

Contact: A 1-hour weekly meeting with the supervisor/coordinator, and a minimum of 65 hours of research and writing during the semester *(Semester 2).*

Description: A special study based on field research in an area of interest arising from one or more geography/environmental studies subjects taken by the student. Students will gain a thorough understanding of a particular geographical or environmental issue and how it relates to the broader perspective of the relevant discipline. The subject will demonstrate how to research and evaluate a wide range of literature sources for information on the chosen topic; and how to design, carry out and prepare a report which may involve the collection of some primary data. The subject is especially aimed at students who wish to engage in research activities overseas.

Assessment: A research proposal essay of 1000 words, and a research report of 3000 words for 3rd year, 4000 words for 4th year, and a hurdle requirement of a 15-minute oral presentation.

121-435 Environmental Management Systems

Note: Formerly available as 950-300/121-039. Students who have completed 950-300 or 121-039 are not eligible to enrol in this subject.

Availability: 3rd and 4th year

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Ray Wyatt

Prerequisites: At least 50 points of second-year subjects approved for environmental science or equivalent. Familiarity with quantitative methods (mathematics or modelling or statistics) is recommended.

Contact: Twenty-four hours of lectures and 24 hours of practical classes *(Semester 1).*

Description: This subject explores alternative approaches to using management systems for grappling with the complexities of the natural environment. It covers project management, decision support systems, risk management and scheduling as well as cost benefit analysis, monitoring and controlling the externalities that arise from interference with the natural environment. It also covers the question of environmental standards in Australia and elsewhere, including transparency, accountability and auditing compliance.

Assessment: A 3-hour examination, and practical exercises totalling 4000 words for 3rd year, 5000 words for 4th year.

121-458 Australian Quaternary Environments

Note: Formerly available as 121-358/121-032. Students who have completed 121-358 or 121-032 are not eligible to enrol in this subject. This subject is run as a 10-day intensive field trip, usually to either Tasmania or Queensland. A quota applies. Students should contact the SAGES Office for further details. All BSc students, except those enrolled in the BA/BSc combined course and the BASc course, can only receive 25 points science credit at the 300-level for this subject.

Availability: 3rd and 4th year

Credit points: 25 **HECS-band:** 1

Coordinator: Dr Ian Thomas

Prerequisites: Students taking this subject must have already completed 37.5 points at second/third year, including at least one of: 121-025 Biodiversity, 121-018 Geomorphology, 600-201 Physical Environment, 621-221 Geological Methods, 606-204 Plant Ecology, 654-204 Animal Ecology, 107-007 Prehistoric Archaeology, 107-005 Archaeology of Western Asia.

Contact: Twenty hours of lectures and 60 hours of fieldwork to be conducted over a 10-day intensive field trip, 12 practicals/seminars to be conducted over the remainder of the semester *(Semester 2).*

Description: The Quaternary encompasses the past 2.5 million years of earth and human history. In this subject students will encounter topics such as climate changes, dating methods, glacial/interglacial cycles, sea level changes and associated biotic responses, palynology, the effects of hunter-gatherers on the environment, Quaternary geomorphology, and the development of modern landscapes. On completion of the subject students should be familiar with aspect of the Quaternary such as the major forces which have driven environmental change; the processes which operated to shape physical landscapes; the nature of anthropogenic impacts on landscapes. Students should acquire field and laboratory skills in palaeoenvironmental methods; in Quaternary geomorphological methods; and methods to analyse and reconstruct past environments.

Assessment: An assignment of 4000 words for 3rd year, 5000 words for 4th year, and a field report and exercises totalling 4000 words for 3rd year, 5000 words for 4th year. Students must attend at least 80% of scheduled practical classes to be eligible to pass this subject.

Fourth year/postgraduate subjects

121-517 Geography Thesis

Availability: 4th year

Credit points: 50 **HECS-band:** 1

Coordinator: Dr Barbara Downes

Prerequisites: Admission to the postgraduate diploma or fourth-year honours in geography.

Contact: Regular contact with the supervisor *(Year long).*

Description: An approved topic/research project selected in consultation with the supervisor/s. The student will also write a research proposal and give an oral presentation on the proposed research.

Assessment: A thesis of 15 000 words. Hurdle requirement: 2000 word research proposal, oral presentation of 30 minutes; attendance at departmental research seminars.

Prescribed texts: M Webber, *Writing Theses: A Manual for Honours and Masters Students*, Research Paper No.14, School of Anthropology, Geography & Environmental Studies.

121-518 Geography Thesis (MYE)

Availability: 4th year

Credit points: 50 **HECS-band:** 1

Coordinator: Dr Barbara Downes

Prerequisites: Admission to the postgraduate diploma or fourth-year honours in geography.

Contact: Regular contact with the supervisor *(Semester 1, repeat 2).*

Description: An approved topic/research project selected in consultation with the supervisor/s. The student will also write a research proposal and give an oral presentation on the proposed research.

Assessment: A thesis of 15 000 words.Hurdle requirement: 2000 word research proposal, oral presentation of 30 minutes; attendance at departmental research seminars.

Prescribed texts: M Webber, *Writing Theses: A Manual for Honours and Masters Students.*, Research Paper No. 14, School of Anthropology, Geography & Environmental Studies, The University of Melbourne.

121-402 Geography Coursework

Note: In this subject research modules are offered in intensive mode over summer. Students should consult Dr Ray Wyatt, the modules coordinator, for details by November in the year prior to enrolment.

Availability: 4th year

Credit points: 50 **HECS-band:** 1

Coordinator: Dr Barbara Downes

Prerequisites: Admission to the postgraduate diploma or fourth-year honours in geography.

Contact: Regular contact with the supervisor plus a total of 92 contact hours comprising 12 hours of contact in each of three research methods modules (36 hours); twelve 1-hour formal contact sessions with the supervisor of the literature review (12 hours); 36 hours of formal seminars on research design,

and philosophy and scope of the discipline; and eight hours of oral project presentation *(Year long).*

Description: The subject comprises three components: a course of lectures and seminars, held throughout the year, which addresses a range of issues related to contemporary research in geography and to the historical and philosophical evolution of the discipline; preparation of an extended review of the literature related to the subject matter of the student's individual thesis, covering both specific research in this area, and also the broader context within which the review is situated; research methodology lectures and practical exercises covering three methodology areas chosen from the following possible list: Geographical Information Systems; SPSS; Writing Skills for Thesis Students; Library Skills; Questionnaire Design; Survey Analysis; Managing Your Thesis; Ethics in Research; Researching Culture; Using Computers in Research; Research Design; Evaluation Research; Observation Methods; Introduction to Statistics; Painting as an Entry to History; Researching Vulnerable Groups; Storytelling and Narrative Analysis; History and the New Critical Theory; Geocomputing; The Sociological Intervention; Planning a Fourth-Year Research Project; Field Methods; and Research for Professional Practice.

Assessment: A total of 20 000 words comprising a research proposal of 2000 words, a literature review of 6000 words, practical exercises on research methods for three elective modules totalling 6000 words, an essay and short seminar papers totalling 4000 words, and two oral presentations totalling 40 minutes on research proposal and research results equivalent to 2000 words.

121-403 Geography Coursework (MYE)

Note: In this subject research modules are offered in intensive mode over January and February. Students should consult the SAGES office for details by November in the year prior to enrolment.

Availability: 4th year

Credit points: 50 **HECS-band:** 1

Coordinator: Dr Barbara Downes

Prerequisites: Mid-year admission to the postgraduate diploma or fourth-year honours in geography.

Semester: Semester 1, repeat 2

Description: As for 121-402 Geography Coursework *(p.7)*.

Assessment: As for 121-402 Geography Coursework *(p.7)*.

121-410 Philosophy and Scope of Geography

Availability: 4th year

Credit points: 12.5 **HECS-band:** 1

Prerequisites: Admission to the postgraduate diploma or fourth-year honours in geography.

Semester: Not Offered

Description: This subject examines the nature and origins of Geography as a discipline. It enables students to develop an understanding of the major conceptual debates and current developments in the various branches of the discipline. It also provides a philosophical and methodological framework within which to place individual research investigations, and discusses the ways in which research is presented and communicated to the wider community.

121-411 Literature Review

Availability: 4th year

Credit points: 12.5 **HECS-band:** 1

Prerequisites: Admission to the postgraduate diploma or fourth-year honours in geography or environmental studies.

Semester: Not Offered

Description: This subject requires students to prepare an extended critical review of the literature on some aspect of the discipline. The individual topic is chosen by the student in consultation with the student's thesis supervisor and the 4th year coordinator. The area of review will be determined during regular meeting and discussion between student and supervisor. Regular meeting will be held to discuss the development of academic arguments in the review. Preparation of the review will include an extensive literature search by the student on the defined topic and critical appraisal of drafts by the supervisor prior to final submission of the review.

121-454 Computer-aided Policymaking

Note: Formerly available as 166-108. Students who have completed 166-108 are not eligible to enrol in this subject. This is a web-based subject. Students must have access to a Windows-based computer that has a CD-ROM reader, can connect to the internet, and has a standard form of internet browser.

Availability: 4th year and postgraduate

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Ray Wyatt

Prerequisites: Admission to the postgraduate diploma or fourth-year honours in geography, the Bachelor of Public Policy and Management (Honours). the Diploma in GIS, or an approved masters program.

Contact: One hundred and twenty hours on-line *(Semester 1, repeat 2, Summer).*

Description: This subject derives practical policy-making lessons from the way that well known software has been written. It addresses many current issues within contemporary policy-making practice, such as 'top-down versus bottom-up policy-making'; 'the theory-practice divide'; 'problem decomposition'; and the 'management of uncertainty'. Four key software packages are given particular emphasis: *CyberQuest*, *Strad*, *Expert Choice* and *Strategizer*.

Assessment: A 1000-word assignment and a 3000-word research essay for 4th year, a 1000-word assignment and a 4000-word research essay for masters students.

Prescribed texts: R Wyatt, *Computer-aided Policymaking: Lessons from Strategic Planning Software,* E & FN Spon/Taylor & Francis, 1999.

121-503 Research Methods and Design

Note: Strict enrolment deadlines apply to subjects taught during the Summer Semester. Any enrolment in, or withdrawal from, this subject for the Summer Semester must be made in line with HECS census dates, see page 8.

Availability: 4th year and postgraduate

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Ray Wyatt

Prerequisites: Admission to the postgraduate diploma or fourth-year honours or any masters coursework degree.

Contact: Fourth year students: twenty-four hours of lectures/practical classes offered in intensive mode with some modules offered on weekends. Students should seek information about the specific timing of each module from the subject coordinator. Masters students: thirty-six hours of lectures/practical classes offered in intensive mode with some modules offered on weekends. Students should seek information about the specific timing of each module from the subject coordinator *(Summer semester).*

Description: This subject will introduce students to a range of research methodologies relevant to both their chosen careers and their thesis research. Students will choose three methodology 'modules' from the list of modules available. The program coordinator or thesis supervisor must approve the choice of modules. The actual modules offered vary from year to year, but typically, they cover topics such as Introduction to Statistics for Social Scientists, Descriptive Statistics, Inferential Statistics, Survey Design and Analysis, Geographical Information Systems, Geocomputing Narrative Analysis, In-depth Interviewing, Participant Observation, Electronic Focus Groups and Experimental Design Analysis.

Assessment: Written work totalling 5000 words for fourth-year students, 6000 words for masters students.

121-537 Heritage and Cultural Environments

Availability: 4th year and postgraduate

Credit points: 12.5 **HECS-band:** 1

Coordinator: to be advised

Prerequisites: Admission to the postgraduate diploma or fourth-year honours or any masters coursework degree.

Contact: A 2-hour seminar per week and up to four days of fieldwork *(Semester 2).*

Description: This subject provides students with advanced level analysis and interpretation of the range of issues associated with cultural resource management. The subject advances student knowledge of cross cultural issues as they relate to resource management and examines specific issues pertaining to the evaluation and management of cultural resources. On completion of the subject, students should develop an understanding and/or knowledge of: the structures of governance that protect cultural resources in variously scaled jurisdictions; the methods used to evaluate cultural resources - technical and cultural; paleoenvironments and the identification of changes within the environment (eg. fire-induced environmental change); resource management systems that integrate different types of environmental knowledge and practice, including Traditional Ecological Knowledge; management of various heritage landscapes; illustrative cases of the complexities of cultural resource management.

Assessment: Written work totalling 5000 words.

Prescribed texts: A subject reader will be available.

121-542 GIS for Environmental Policy Making

Note: Formerly available as 121-414/038. Students who have completed 121-414 or 121-038 are not eligible to enrol in this subject.

Availability: 4th year and postgraduate

Credit points: 12.5 **HECS-band:** 1

Coordinator: Dr Ray Wyatt

Prerequisites: Admission to the postgraduate diploma or fourth-year honours in geography, or the Masters of Environment program.

Contact: A 2-hour lecture/seminar and a 2-hour practical/laboratory class per week *(Semester 2)*.

Description: This subject gives students of environmental planning and policy making a sophisticated knowledge of computer-assisted methods for geographical analysis. Topics covered include data coding, database structures, spacial algorithms, interpolation, geostatistics, digital elevation mapping, analysis of spatial patterns, buffering, surface topology, drainage networks, errors in spatial analysis, numerical modelling, neural network prediction and clustering, network analysis, scripting and modern policy making software. Students who complete this subject will have a good knowledge of the strengths and weaknesses of GIS for policy-making, experience at GIS manipulation, insight into how innovative techniques can extend the capabilities of GIS and awareness of how the GIS can improve social and environmental management procedures.

Assessment: Practical assignments equivalent to 3000 words, and a 2-hour examination.