THE UNIVERSITY OF AUCKLAND
NEW ZEALAND

2011

Geology, Environmental Science, Geography, Environmental Management

Postgraduate Handbook

Contents

2011 Geology, Environmental Science, Geography, Environmental Management Postgraduate Handbook

Editors

David Hayward, Ilse Hindle, Marie McEntee, Susan Owen, Igor Drecki and Louise Cotterall

Cover photography

Rosanna Stoney
ENVSCI 737 field trip to Great Barrier Island

Note

This handbook is intended to assist students planning postgraduate courses in Environmental Management, Environmental Science, Geography and Geology in 2011. It should be read in conjunction with *The University of Auckland Calendar*, the official document in which degree programmes, entry requirements and regulations are listed. All students intending to enrol in courses in the School should consult the *Calendar*.

The School of Environment is managed through the Faculty of Science, but all courses in the Geography programme have equal standing both in the Faculty of Arts and the Faculty of Science. Thus, students enrolling in the Geography programme can enrol in diplomas or degrees from either faculty.

For details on student services please refer to the *Student Handbook 2011: A to Z* which is available from the Student Information Centre, ClockTower building.

View our website www.environment.auckland.ac.nz for handbook amendments.

Disclaimer

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

Welcome to the School of Environment

Professor Glenn McGregor
Director
School of Environment

This Handbook details the postgraduate courses and programmes available to you in Geography, Geology, Environmental Management, Environmental Science and Geographical Information Science and highlights the teaching and research interests of staff in this programme.

The School of Environment (ENV) comprises a team of more than 40 academics, 20 highly qualified technical and administrative staff and a lively postgraduate and undergraduate community. ENV has excellent equipment and laboratory facilities and, of course, offers access to wonderful field sites both in New Zealand and elsewhere in the wider Asia-Pacific region.

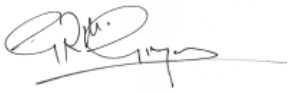
Our vision as a School of Environment is to be a nationally and internationally influential community of scientists and social scientists who

excel in research, teaching and learning that enhances understanding and applications relating to society, place, earth systems and environment, especially in NZ and the Asia Pacific region.

Related to this, research and teaching interests across ENV fall into six broad themes namely Pacific Futures, Urban Dynamics, Living with Environmental Change, Earth Systems and Resources, Globalisation and Contested Environments.

The programmes of postgraduate study in the School of Environment are detailed in this handbook where the full range of degree and diploma options available can be found. From these you can gain a real sense of the varied and exciting career options to which our programmes in the School may lead.

If you would like guidance on course selection and content please do not hesitate to get in touch with the programme adviser for whom the contact details are listed in this handbook and on our website at www.environment.auckland.ac.nz.



Professor Glenn McGregor
Director
School of Environment

Photo: J Bade

Important dates

8 December 2010
Deadline for new students to submit Application for Admission if 2011 programme includes only Semester One and Semester Two courses. Only one Application for Admission is required.

Applications received after this date may be accepted if there are places available.

Summer School - 2011	
Lectures begin	Thursday 6 January
Deadline to withdraw from Summer School courses	1 week before the end of lectures
Lectures end	Friday 11 February
Study break / exams*	Monday 14 February - Wednesday 16 February
Summer School ends	Wednesday 16 February
Semester One - 2011	
Semester One begins	Monday 28 February
Mid-semester break / Easter	Friday 11 April - Saturday 26 April
Graduation	Thursday 28 April - Friday 6 May
Deadline to withdraw from Semester One courses	3 weeks before the end of lectures**
Lectures end	Saturday 4 June
Study break / exams*	Saturday 4 June - Monday 27 June
Semester One ends	Monday 27 June
Inter-semester break	Tuesday 28 June - Saturday 16 July
Semester Two - 2011	
Semester Two begins	Monday 18 July
Mid-semester break	Monday 29 August - Saturday 10 September
Graduation	Tuesday 20 September - Thursday 22 September
Deadline to withdraw from Semester Two courses	3 weeks before the end of lectures**
Lectures end	Saturday 22 October
Study break / exams*	Saturday 22 October - Monday 14 November
Semester Two ends	Monday 14 November
Semester One - 2012	
Semester One begins	Monday 27 February 2012

* Aegrotat and Compassionate Applications must be submitted within 1 week of the date that the examination affected took place.

** Deadline for withdrawal from double Semester courses is three weeks before the end of lectures in the second semester.

Contact information

School of Environment (ENV)

Physical location

Environmental Management, Environmental Science and Geography
Human Sciences Building 201
10 Symonds Street
Auckland 1010

Geology
Science Building 301
23 Symonds Street
Auckland 1010

Postal address

School of Environment
The University of Auckland
Private Bag 92019
Auckland 1142
New Zealand

Email: environment@auckland.ac.nz
Phone: 64 9 373 7599 ext. 85923 or 88465
Fax: 64 9 373 7434
Web: www.environment.auckland.ac.nz

International students

(International students are students who are not citizens or permanent residents of New Zealand or Australia)

For general information, contact:

International Office

The University of Auckland
Private Bag 92019
Auckland 1142
New Zealand

Email: international@auckland.ac.nz
Phone: 64 9 373 7513
Fax: 64 9 373 7405
Web: www.auckland.ac.nz/international

School contacts

We encourage you to discuss your postgraduate programme with one of the people listed below.

General Inquiries

Academic Programmes Administrator

Dr Angela Keogh
Email: a.keogh@auckland.ac.nz
Phone: 373 7599 ext. 85923
Room: 680 (6th Floor Reception), Building 201, City Campus

Associate Director Academic

Dr David Hayward
Email: d.hayward@auckland.ac.nz
Phone: 373 7599 ext. 88545
Room: 440, Building 201, City Campus

Postgraduate Programme Advisers

Environmental Management

Dr Susan Owen
Email: s.owen@auckland.ac.nz
Phone: 373 7599 ext. 85185
Room: 558, Building 201, City Campus

Environmental Science

Dr George Perry
Email: george.perry@auckland.ac.nz
Phone: 373 7599 ext. 84599
Room: 436, Building 201, City Campus

Geography

Assoc Prof Hong-key Yoon
Email: hk.yoon@auckland.ac.nz
Phone: 373 7599 ext. 88466
Room: 695, Building 201, City Campus

Geographic Information Science

Prof Pip Forer
Email: p.forer@auckland.ac.nz
Phone: 373 7599 ext. 85183
Room: 691, Building 201, City Campus

Geology and Applied Geology

Dr Lorna Strachan
Email: l.strachan@auckland.ac.nz
Phone: 373 7599 ext. 83522
Room: 1007, Building 301, City Campus

Geophysics

Dr Barry Brennan
Email: b.brennan@auckland.ac.nz
Phone: 373 7599 ext. 88809
Room: 512, Building 303, City Campus

Masters Programme Adviser

Dr Neil Mitchell
Email: n.mitchell@auckland.ac.nz
Phone: 373 7599 ext. 88367
Room: 551, Building 201, City Campus

PhD Programme Adviser

Assoc Prof David O'Sullivan
Email: d.osullivan@auckland.ac.nz
Phone: 373 7599 ext. 84963
Room: 689, Building 201, City Campus

Photo: L Strachan

Admission and enrolment procedures

New Students

For ALL students not enrolled at The University of Auckland in 2010, apply online at www.auckland.ac.nz/apply_now. If you are unable to access our website, please call or visit the Student Information Centre.

Student Information Centre

Room 112
Level 1 (Ground Floor)
The ClockTower Building 105
City Campus
22 Princes Street
Auckland 1010

Hours: 8am - 6pm (Mon - Fri) and
9am - 12pm (Sat and peak times)
Email: studentinfo@auckland.ac.nz
Phone: 0800 61 62 63 or
64 9 373 7599 ext. 88199
Fax: 64 9 367 7104
Web: www.auckland.ac.nz/apply_now

Postgraduate applications should be received by 8 December 2010, but applications can be accepted after this date if places are available in the programme.

If you want to take courses at Summer School, applications close 1 December 2010.

Only one application is required.

After submitting your application

Your application will be acknowledged by email. Your application will be assessed and, if successful, an "Offer of a place in a programme" letter will be mailed to you. You may receive a conditional offer, but final approval will be dependent on fulfillment of the conditions of admission to the University and the programme.

During the application process, you will be given a Net ID and password, which will allow you to access Student Services Online. Here you will be able to monitor the progress of your application and check if further documentation is required.

Student Services Online

Web: www.auckland.ac.nz/apply_now

Once you have accepted an offer of place, you will gain access to the Enrolment module on Student Services Online. You can then proceed to enrol in courses online. Individual departments may need to be contacted for enrolment to be completed.

Returning Students

If you are currently enrolled at The University of Auckland in 2010 and are applying for a new programme (for example MSc after completion of BSc(Hons)), you should apply using Student Services Online.

Student Services Online

Web: www.auckland.ac.nz/apply_now

You will be able to enrol through Student Services Online, but if you would like help, please call 0800 61 62 63 or visit the Student Information Centre (see left for contact details) or the Faculty of Science and Faculty of Arts Student Centres. Individual departments may need to be contacted for enrolment to be completed.

Faculty of Science Student Centre

Ground Floor
Science Centre Building 301
City Campus
23 Symonds Street
Auckland 1010

Arts Students' Centre

Level 4
Human Sciences Building 201
City Campus
10 Symonds Street
Auckland 1010

The University of Auckland will be open for enrolment from November 2010 to the end of February 2011. You are welcome to attend at any time during normal office hours to seek academic or enrolment advice or assistance in completing your enrolment.

Changing courses

Choose carefully at the beginning. It is however, possible to add and delete courses within the first two weeks of each semester, without penalty (ie tuition fees are refunded for deletions). After this time, you may not enrol in new courses for that semester, and if you are unable to continue a course a 'withdrawal' appears on your academic record. Withdrawing from courses can be done with consultation of the Associate Dean (Academic Programmes) until the third week before the end of lectures. However, tuition fees are not refundable in these cases. The regulations for changing courses are outlined in the latest version of The University of Auckland Calendar.

Enrolment instructions received by students will indicate how to go about adding and deleting courses once semesters have begun.

Points Structure

Students enrolled in a normal full time course of study complete 120 points per year. The courses in most postgraduate degrees carry a value of 15 points.

Transition Points Structure

Transition regulations apply to all students who commenced study in their programme at this university prior to the 2006 academic year.

The Transition regulations were written to ensure that students are able to complete their qualification without disadvantage in terms of duration of study or the proportion of their qualification to be completed.

Transition regulations are available in the Transition Regulations Handbook. This handbook is available from the Science Faculty Student Centre, the Short Loans Library and online at www.science.auckland.ac.nz/transition-regulations.

Photo: E Sharp

Postgraduate enrolment - where to from here?

Enquire

Visit www.auckland.ac.nz or contact our student advisers for any information you need.
Phone: 0800 61 62 65 | **Email:** studentinfo@auckland.ac.nz
Student Information Centre: Room 112, ClockTower, 22 Princes St, Auckland

Apply for a place in a programme(s)

Do you have internet access, or can you come on to campus to our help labs?

Yes

- Log on to www.auckland.ac.nz
- Click on Apply Now
- Complete the online Application for a place in your programme(s) of choice
- New students will receive an acknowledgement email including Net ID and password details for accessing Student Services Online (the online enrolment system)
- Applications will require details of the courses you intend to study towards your postgraduate qualification. If these details are required by the programme you are applying for, you will be asked to complete those details.

No

Phone: 0800 61 62 63
(or +64 9 923 1909 if overseas)

Email: studentinfo@auckland.ac.nz

The ClockTower Call Centre will forward required information to you.

Offer

Your programme(s) will be assessed by the relevant department and the Faculty of Science, and if accepted, an offer email will be sent to you.

To see the status of your application(s), log on to www.auckland.ac.nz and click on Apply Now. Select "Apply for admission to the University", and log in to Student Services Online.

Accept

- Accept or decline your offer of a place in a programme online. Remember – you still need to enrol in your courses!

Enrol in your choice of courses

Enrol in courses via Student Services Online using your login and password.

For help with choosing courses you can:

- refer to www.science.auckland.ac.nz or to publications relating to your programme, or to The University of Auckland Calendar. For programme publications call 0800 61 62 65. The Calendar is for sale in bookshops or can be accessed from www.auckland.ac.nz Click on "Current Students" then "University Calendar" in the Quick Links box
- go online to check the timetable for your chosen courses
- for more information visit the Faculty of Science Student Centre, Ground Floor, Building 301, 23 Symonds Street
  Phone: 64 9 373 7599 ext 87020 | **Email:** scifac@auckland.ac.nz
- or call 0800 61 62 65.

Pay your tuition fees.

You are now a University of Auckland student. Congratulations!

About research in the School of Environment

Our vision as a School of Environment is to be a nationally and internationally influential community of scientists and social scientists who excel in research, teaching and learning that enhances understanding and applications relating to society, place, earth systems and environment, especially in NZ and the Asia Pacific.

The research and teaching interests of the School fall into six broad themes. These are listed below. More details are available on the School website:

School of Environment website

Web: www.environment.auckland.ac.nz/research/

Earth Systems and Resources

This theme seeks to understand earth system processes that drive change in and on the Earth to advance our fundamental knowledge of the earth's surface and crust, the localisation of mineral deposits, energy resources, geo-fluids, and geohazards.

Contacts for Earth Systems and Resources theme

Dr Jeff Mauk
Email: j.mauk@auckland.ac.nz

Dr Julie Rowland
Email: j.rowland@auckland.ac.nz

Contested Environments

Research emphases include: resource management and conservation; restoration and ecosystem services; coastal, catchment and water resources management and the role of place formation, environmental communication, indigenous rights and citizen participation in shaping the legitimacy of environment related decision-making.

Contacts for Contested Environments theme

Professor Gary Brierley
Email: g.brierley@auckland.ac.nz

Dr Brad Coombes
Email: b.coombes@auckland.ac.nz

Globalising Processes

Research in this theme includes globalising economic relations, transnational mobilities, emerging indigenous knowledge networks, global scale hazards, and interpretations and experiences of climate change.

Contacts for Globalising Processes theme

Professor Richard Le Heron
Email: r.leheron@auckland.ac.nz

Dr Nick Lewis
Email: n.lewis@auckland.ac.nz

Living with Environmental Change

This theme focuses on the knowledge and tools that are needed to make informed choices about the future, especially planning for and dealing with the consequences of environmental change. This includes using the record of past environmental change and hazardous natural events to help inform the future.

Contacts for Living with Environmental Change theme

Associate Professor Paul Augustinus
Email: p.augustinus@auckland.ac.nz

Dr Jan Lindsay
Email: j.lindsay@auckland.ac.nz

Pacific Futures

Research in this theme explores the challenges to the traditional patterns of 'life' in small island Pacific nations, including sovereignty and territoriality, transformations in governance, the environmental and geopolitical changes that challenge of development and sustainable livelihoods, and the pressures of migration and urban expansion.

Contacts for Pacific Futures theme

Associate Professor Paul Kench
Email: p.kench@auckland.ac.nz

Dr Ward Friesen
Email: w.friesen@auckland.ac.nz

Urban Dynamics

The focus is on elaborating how cities 'work' and settlements take form, through theoretical, methodological and empirical investigations of biophysical processes, economic development, environmental management, political change, population diversity, well being and cultural identities.

Contact for Urban Dynamics theme

Professor Robin Kearns
Email: p.kearns@auckland.ac.nz

Facilities for Research

The School of Environment is well resourced in terms of teaching and support staff with over 40 teaching and research staff, including a range of biophysical, ecological, and social science staff, as well as 20 technical and general staff, including computer consultants, field and laboratory technicians, cartographers, and administrative and secretarial staff to assist with postgraduate studies and research. The School occupies its own wing of the Human Sciences Building 201, 10 Symonds Street in the central city as well as Level 1 of Building 301 in the Science Centre on the City Campus. These spaces contain well-equipped research and teaching laboratories, computing resources, workspaces and a range of facilities for students.

Photo: P Roest

Photo: J Lindsay

Environmental Management

Photo: P Kench

Environmental Management is a set of policy, regulatory, advocacy and market-based mechanisms which transform human behaviour to achieve society's goals for the environment. Environmental Management is offered at a postgraduate level to enable students with strong disciplinary skills to gain the understanding and critical thinking skills required to become environmental stewards, policy makers and managers. Consequently, our programmes emphasise the application of your existing knowledge to environmental problem solving.

The postgraduate programmes in Environmental Management were established in 2003, but they reflect a much longer commitment to environmental inquiry within Geography and Environmental Science programmes at The University of Auckland. The Postgraduate Diploma in Environmental Management has witnessed considerable growth since its inception, doubtless because of its close connections with cognate programmes and readily combinable courses in Environmental Science, Geography and other teaching subjects at The University of Auckland.

Course work as part of the Postgraduate Diploma in Science (Environmental Management) includes consideration of applied ecology, systems approaches, sustainable development, social and cultural drivers, economics, participatory processes, policy and governance. In addition, you may take courses from a range of associated disciplines including environmental science, geography, planning, law, biology, politics, community health and development studies.

Graduate career prospects

The number of jobs in the environmental field is increasing through economic, social and legislative changes. Our graduates are employed by industries, environmental consultancies, tertiary institutions, and regulatory authorities at local, regional and national levels, both in New Zealand and overseas. For example, in recent years our graduates have been employed by the following New Zealand organizations:

- Air New Zealand
- Alliance Group
- Auckland Regional Transport Authority
- Beca Carter
- Bell Gully Barristers and Solicitors
- Cawthron Institute
- City and District councils
- Department of Conservation
- Ecomatters
- Fernz Corporation
- Landcare Research
- Meritec (Consultants)
- Metro Water
- Ministry of Fisheries
- Ministry for the Environment
- National Institute of Water and Atmosphere (NIWA)
- Pattle Delamore (Consultants)
- Regional Councils
- Royal Forest and Bird Protection Society
- Royal Society of New Zealand
- Sandford Fisheries
- Scion
- SERCO Consultancy
- UNESCO
- URS (Environmental Consultants)
- WaiCARE
- Watercare Health Care
- World Wide Fund for Nature (WWF)

Environmental Management qualifications pathway

We welcome students from diverse backgrounds to study Environmental Management. The entry requirement for the PGDipSci in Environmental Management is an approved BA, BCom, BE, BSc, BPlan, LLB or equivalent degree. To beconsidered elligible for entry to the PGDipSci (Environmental Management) students must have at least C+ average in their best five courses at Stage III. The

Postgraduate Diploma (PGDipSci) in Environmental Management can normally be completed in one year and is made up of eight courses, as specified below.

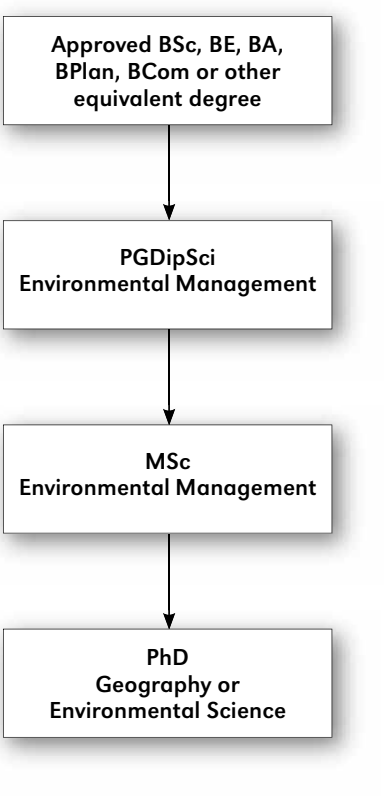
The Master of Science (MSc) in Environmental Management is a research degree of one year (fulltime) that leads to a thesis. Admission to the MSc programme requires an average grade of B- for the courses taken in the PGDipSci. In addition, applicants must have an approved research proposal and the support of a supervisor. See Page 53 for further details on the MSc programme.

The degree of Doctor of Philosophy (PhD) may be of interest to those interested in advanced research in Environmental Management. However, the subject is not available for the PhD and so students normally take their PhD in either Environmental Science or Geography. See page 54 for further details on the PhD programme.

Postgraduate Adviser for Environmental Management

Dr Susan Owen
Email: s.owen@auckland.ac.nz
Phone: 373 7599 ext. 85185
Room: 558, Building 201, City Campus

Photo: T Nolan



Postgraduate Diploma in Science (Environmental Management)

The PGDipSci in Environmental Management emphasizes the use of interdisciplinary knowledge in pursuit of sustainable development. Our goal is to provide students with a sound understanding of the ecological, social and economic factors which underlie environmental problems and drive environmental change, as well as the processes, tools and methods that can be applied to them.

The programme draws on a wide range of expertise from within and outside the School of Environment. A key feature of the programme is that it draws students from a variety of backgrounds. This diversity enriches the programme and provides valuable learning and networking opportunities.

As is indicated in the table of programme requirements, some elements of the programme are prescribed, while others enable choices which reflect your interests. Choose your 'electives' carefully and seek advice where appropriate. Note also that some electives will require special permissions.

Enrolling in elective courses

You should discuss your options for elective courses with the Programme Adviser as early as possible. Consider the scheduling of classes when choosing your electives. Following acceptance into the programme, you must enrol online in all core and elective courses via Student Services Online, but for courses outside of ENV there may be additional enrolment requirements, including permission from relevant course coordinators or graduate advisers. You will need to obtain advisers' signatures on a Course Selection Worksheet (PD14 form) for all non-ENV courses.

1. The Programme Adviser for Environmental Management may approve your enrolment in courses from the School of Environment (ENV) – ie, those with an ENVSCI, GEOG or GEOLOGY course code. For ENV courses, including electives, there are no additional steps beyond online enrolment but, if you are concerned that you lack the specialised background which is required for particular courses, discuss that first with their coordinators.

2. For courses outside of ENV you will need to obtain permission from the relevant Postgraduate Adviser for the subject associated with those courses before enrolling online in them. A PD14 form ('Course Selection Worksheet: PGDipSci Environmental Management') may be downloaded from www.env.auckland.ac.nz/pdfs/PD14.pdf. Take the PD14 form with you to the relevant adviser, have them sign the form and, when you have obtained all necessary signatures, return it to the Programme Adviser for Environmental Management, then enrol in your courses online through Student Services Online.

The PGDipSci (Environmental Management) programme

One Core, research preparation course (15 points)	
ENVSCI 701 Research Practice in Earth, Environmental and Geographical Sciences	15 points
At least four courses from the following (60 points)	
ENVMGT 741 Social Change for Sustainability	15 points
ENVMGT 742 Ecosystem Complexity and Adaptive Management	15 points
ENVMGT 743 Environmental Policy	15 points
ENVMGT 744 Resource Management	15 points
ENVMGT 746 Collaborative Environmental Management	15 points
ENVMGT 747 Current Issues in Sustainability	15 points
Up to three courses from 700 level courses as approved by the programme adviser (45 points)	
A range of courses from the following subjects have been pre-approved as appropriate choices for the PGDipSci in Environmental Management: Biological Science (**BIOSCI**), Development Studies (**DEVELOP**), Environmental Science (**ENVSCI**), Geography (**GEOG**), Environmental Law (**LAWENVIR**), Planning (**PLANNING**), Population Health (**POPHLTH**) and Psychology (**PSYCH**). The details of these pre-approved courses and the relevant Postgraduate Advisers may be found on the School of Environment website: www.environment.auckland.ac.nz/postgraduates	

Environmental Science

Photo: I Kularatne

Environmental Science is offered at a postgraduate level to enable students with strong disciplinary skills to gain the tools required to become environmental scientists. If studying full-time, a PGDipSci can normally be completed in one year, a MSc in one year, and a PhD progamme can be completed in three to four years. A PGDipSci comprises entirely coursework, whereas an MSc is a one year research thesis.

At postgraduate level, Environmental Science is the interdisciplinary, applied scientific study of natural and managed environments. The application of your existing science skills and the scientific approach to environmental problem solving is emphasised. The central philosophy is that environmental science provides the knowledge to enable society to sustainably manage the environment, through education and research.

The programme includes aspects of environmental effects assessment and monitoring, water quality, air quality, freshwater and terrestrial ecology, environment restoration, sustainable management of ecosystems, rare species management, biodiversity monitoring, pest invasions and risk assessment.

The postgraduate programme in Environmental Science is well established, and well recognized by employers. It has been running for more than 10 years, with over 400 graduates. In a recent survey of past graduates, all of those we were able to contact (>90%) were working in the environmental sector. The complementary programme in Environmental Management enables Environmental Science students to interact with and explore a greater diversity of environmental expertise; including law, economics, environmental planning, policy, resource management and community conservation approaches.

Some courses are delivered as a learning module (four days of lectures, often followed by a self-directed research project) to allow attendance by people in full-time jobs and those from out of Auckland.

Prizes, scholarships and awards

The following prizes are awarded to postgraduate students: the **Lucy Beatrice Moore Prize** in Environmental Science, for the best grade for an MSc thesis in Environmental Science; and the **Marian Cranwell Prize**, for the best MSc thesis or PhD dissertation in Environmental or Ecological Science.

The following awards area available – application details are available from the Scholarships Office (www.auckland.ac.nz/uoa/scholarships).

Craig Memorial Scholarship

To encourage Maori students to undertake PG study in Environmental Science or Mathematics.

Norman Thom Award

For postgraduate research in Environmental Science.

Bart Baker Memorial Scholarship

To support Honours, Masters or Doctoral research in vertebrate pest management.

In addition, please see Page 65 for further details of scholarships and financial support available in the School of Environment.

Environmental Science qualifications pathway

The Postgraduate Diploma (PGDipSci) in Environmental Science can normally be completed in one year and the Masters in Science (MSc) in Environmental Science will require one year thereafter. A PGDipSci comprises coursework, whereas a MSc is a 1 year research thesis.

The entry requirement for the PGDipSci in Environmental Science is a BSc in any related discipline; for example, but not limited to:

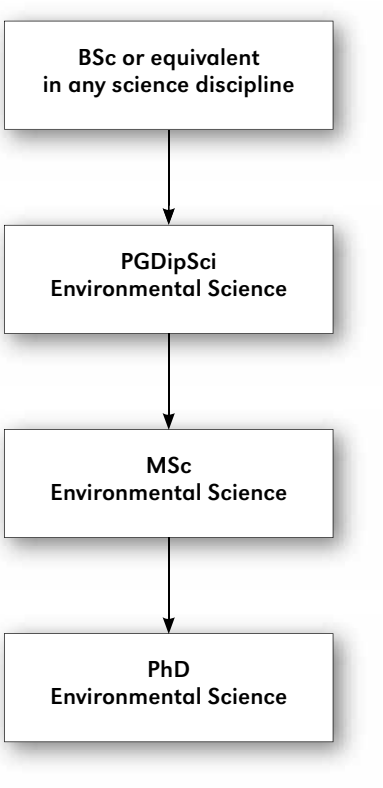
geography, geology, biology, environmental chemistry. To be considered eligible for entry to the PGDipSci (Environmental Science) students must have at least C+ average in their best five courses at Stage III. You do not need to have completed the undergraduate Environmental Science Specialisation offered by the University of Auckland. You do not even need to have taken any Environmental Science undergraduate courses, although normally an interest in the environment would mean that you would have had some exposure to Environmental Science at an undergraduate level.

Students who wish to continue their study after a PGDipSci can apply for the MSc programme. To gain entry to the MSc an average grade of B- or higher, or an equivalent qualification is required. The MSc degree is a one-year programme for full-time students. You may also enrol part-time and take up to two years to complete the qualification. The overall requirement is a 120 point research thesis on a thesis topic chosen in consultation with a supervisor. A thesis proposal, including a budget, is required at the time of application to the MSc programme. An application will not be processed without this proposal. A brief progress report is required by the end of July (or December for those starting in Semester Two). See Page 53 for further details on the MSc programme.

The degree of Doctor of Philosophy (PhD) may be of interest to those interested in advanced research in Environmental Science. See Page 54 for further details on the PhD programme.

Postgraduate Adviser for Environmental Science

Dr George Perry
Email: george.perry@auckland.ac.nz
Phone: 373 7599 ext. 84599
Room: 436, Building 201, City Campus



Postgraduate Diploma in Science (Environmental Science)

This section provides a more detailed guide to the learning opportunities offered in Environmental Science. Keep in mind that this booklet does not replace The University of Auckland Calendar which sets out formal regulations and requirements for planning a degree.

Please note, information contained in this handbook is correct at the time of going to press, but may be subject to change. View our website for any amendments.

The PGDipSci (Environmental Science) emphasises the use of interdisciplinary science and relevant technical skills in the prevention and resolution of environmental problems that face industry, regulators and communities in the Asia-Pacific region and beyond. It has been offered as a

prescribed option of the general PGDipSci since 1996. Although it may lead directly onto a MSc, the PGDipSci is also a well recognised qualification in its own right. It is often completed as a 'standalone' by students who may already have postgraduate qualifications in a related field but wish to attain an environmental qualification. The schedule of studies can be designed to suit a student's personal situation and requirements. You may select a fulltime (one year) or part-time (up to four years) programme of study.

The PGDipSci (Environmental Science) programme

Two core, research preparation courses (30 points)	
ENVSCI 701 Research Practice in Earth, Environmental and Geographical Sciences	15 points
ENVSCI 711 Assessing Environmental Effects	15 points
At least four courses from the following (60 points)	
ENVSCI 704 Modelling of Environmental and Social Systems	15 points
ENVSCI 713 Air Quality and Atmospheric Processes	15 points
ENVSCI 714 Water Quality Science	15 points
ENVSCI 716 Aquatic Ecological Assessment	15 points
ENVSCI 733 Biodiversity Management and Conservation	15 points
ENVSCI 734 Landscape and Restoration Ecology	15 points
ENVSCI 737 Applied Terrestrial Ecology	15 points
ENVSCI 738 Water and Society	15 points
ENVMGT 742 Ecosystem Complexity and Adaptive Management	15 points
ENVMGT 744 Resource Management	15 points
GEOG 745 Hydrogeomorphology and River Restoration	15 points
GEOG 746 Dynamic Coasts	15 points
GEOG 748 Fragile Coasts, Vulnerable Communities	15 points
GEOG 749 Climate and Society	15 points
GEOG 771 Spatial Analysis and Geocomputation	15 points
GEOLOGY 705 Geohazards	15 points
Up to two courses from 700 level courses as approved by the programme adviser (30 points)	

Photo: B Alloway

Geography

Photo: K Morgan

The School has maintained a postgraduate degree programme in Geography, of international standing, for many years. Graduates are well regarded in the New Zealand employment scene and many have gone on to establish high-profile, influential careers in the private and public sectors. A postgraduate degree in Geography can be an important step towards a successful and rewarding career. Postgraduate training provides for an advanced level of knowledge, as well as contributing to the development of skills that are sought by employers. For some career paths, a postgraduate degree is much more than an advantage — it is a necessity.

A Masters degree and other postgraduate qualifications in Geography give people a strong competitive edge in the employment market, not just by virtue of the qualification, but also because of the high reputation of qualifications granted by The University of Auckland.

Students are given the opportunity to extend their understanding of the human and natural environments, establishing the foundation for interesting careers in such areas as resource management; hydrology and water resources; coastal management; climatology; social, economic and environmental research; health research; business management and analysis; geographic information studies; economics and market research; education; policy development and analysis; research management and community advocacy.

Participants in geography postgraduate programmes gain other important work skills including:

- research design and practice
- project and time management
- report preparation
- advanced communication skills
- information capture, processing and analysis
- computer processing and analysis skills
- ethical awareness

Prizes, scholarships and awards

The following prize is awarded to postgraduate students in Geography: the **Kenneth Cumberland Prize** for the best Masters thesis in Geography in previous year.

The following awards are available — application details are available from the Scholarships Office (www.auckland.ac.nz/uoa/scholarships).

Steve Britton Scholarship

This provides assistance towards field expenses for Masters degree research in the geography of development in the South Pacific.

Market Economics Ltd

Scholarships are available for Honours dissertations (2) and Masters research in Geography with a particular focus on economic geography.

In addition, please see Page 65 for further details of scholarships and financial support available in the School of Environment.

Geography qualifications pathway

Graduate Diploma in Science (GradDipSci) and Graduate Diploma in Arts (GradDipArts) are intended for students who do not have sufficient background in Geography to enrol in the postgraduate programmes. These are one-year, full-time programmes of study of 120 points, and comprising courses in Geography selected from the BSc/BA or BSc/BA(Hons) schedules. For further details please refer to the School of Environment Undergraduate Handbook 2011.

The Postgraduate Diploma in Science (PGDipSci) and Postgraduate Diploma in Arts (PGDipArts) programmes in Geography are one-year full-time programmes of study comprising 120 points. These can be started in either Semester 1 or Semester 2 and are made up of eight courses, as specified below. The Postgraduate Diploma (PGDipSci or PGDipArts) is available for students who have a BSc or BA with at least a C+ average

in their best five geography courses at Stage III. For those students who took double majors the minimum requirement is at least a C+ average for their best four geography courses at Stage 3 plus their best grade from the other majoring subject.

The Bachelor of Science Honours and Bachelor of Arts Honours degrees are 120 point programmes completed over one year for full-time students, or two years of part-time study. They must be commenced in Semester 1. The programmes include six courses as specified below, plus a 30 point Dissertation (GEOG 789), which should be undertaken in Semester 2. The BSc(Hons) and BA(Hon)s are available for students who have a BSc or BA degree in Geography, who achieved at least a B average over 90 points at Stage III, including at least 45 points in their Geography major.

The Master of Science (MSc) and Master of Arts (MA) degrees are one-year programmes for full-time students. You may also enrol part-time and take up to two years to complete these qualifications. Entry requires a completed BSc(Hons)/PGDipSci, BA(Hons)/PGDipArts, or an approved equivalent, from which a B- average was attained in at least 90 points (ie, six 15 point courses). The overall requirement is a 120 point research thesis on a thesis topic chosen in consultation with a supervisor. A thesis proposal, including a budget, is required at the time of application to the MSc/MA programme. An application will not be processed without this proposal. A brief progress report is required by the end of July (or December for those starting in Semester Two). See Page 53 for further details on the MSc and MA programmes.

The degree of Doctor of Philosophy (PhD) may be of interest to those interested in advanced research in Geography. See Page 54 for further details on the PhD programme.

Postgraduate Adviser for Geography

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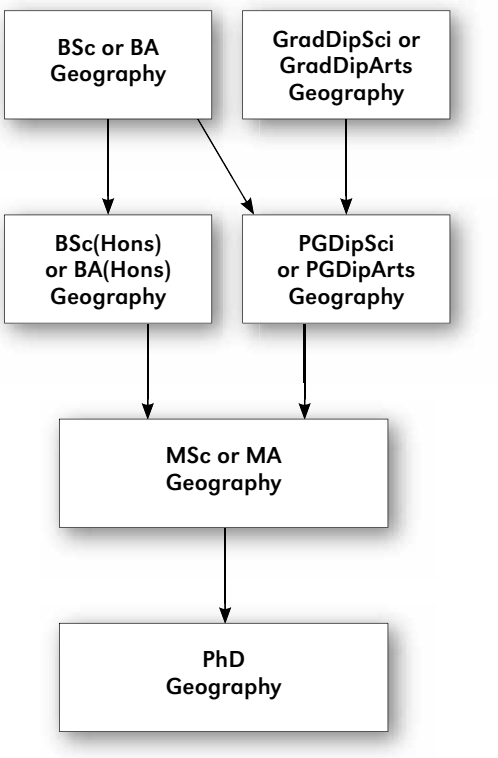


Taught postgraduate programmes in Geography

This section describes the structure for the PGDipSci, PGDipArts, BSc(Hons) and BA(Hons) programmes in Geography. Please keep in mind that this booklet does not replace The University of Auckland Calendar which sets out formal regulations and requirements for planning a degree. Please note also that the information contained in this handbook is correct at the time of going to press, but may be subject to change. You may check for amendments on our website.

The BSc(Hons), BA(Hons), PGDipSci and PGDipArts programmes

One core, research preparation course (15 points)	
ENVSCI 701 Research Practice in Earth, Environmental and Geographical Sciences	15 points
For BSc(Hons) at least four courses from the following (60 points) **or** **for BA(Hons), PGDipSci and PGDipArts at least five courses from the following** (75 points)	
ENVMGT 741 Social Change for Sustainability	15 points
ENVMGT 743 Environmental Policy	15 points
ENVMGT 744 Resource Management	15 points
ENVMGT 746 Collaborative Environmental Management	15 points
ENVSCI 704 Modelling of Environmental and Social Systems	15 points
ENVSCI 713 Air Quality and Atmospheric Processes	15 points
ENVSCI 737 Applied Terrestrial Ecology	15 points
ENVSCI 738 Water and Society	15 points
GEOG 711 Emerging Economic Spaces	15 points
GEOG 712 Land, Place and Culture	15 points
GEOG 714 Population, Mobilities and Health	15 points
GEOG 715 Development and New Regional Geographies	15 points
GEOG 717 Contemporary Issues in Human Geography	15 points
GEOG 732 Quaternary Environmental Change	15 points
GEOG 738 Future Food and Biological Economies	15 points
GEOG 745 Hydrogeomorphology and River Restoration	15 points
GEOG 746 Dynamic Coasts	15 points
GEOG 748 Fragile Coasts, Vulnerable Communities	15 points
GEOG 749 Climate and Society	15 points
GEOG 771 Spatial Analysis and Geocomputation	15 points
GEOG 772 Sensing Technology and Data Analysis	15 points
GEOG 773 Visualisation and Cartography	15 points
GEOG 779 Programming, GIS Customisation and Web-mapping	15 points
GEOLOGY 705 Geohazards	15 points
GEOLOGY 713 Tectonic Geomorphology	15 points
For BSc(Hons) and BA(Hons) only (30 points)	
GEOG 789 Honours Dissertation in Geography	30 points
For BSc(Hons) only (15 points)	
Up to one course (15 pts) from 700 level courses as approved by the Programme Adviser for Geography	
For PGDipSci and PGDipArts only (30 points)	
Up to two courses (30 pts) from 700 level courses as approved by the Programme Adviser for Geography	

Geographic Information Science

Photo: J Drecki

Students with an interest in Geographic Information Science (GIScience) may choose to tailor their Geography programme to include a range of GIScience courses. The School of Environment has a number of relevant courses that can be taken as part of the Geography postgraduate programme.

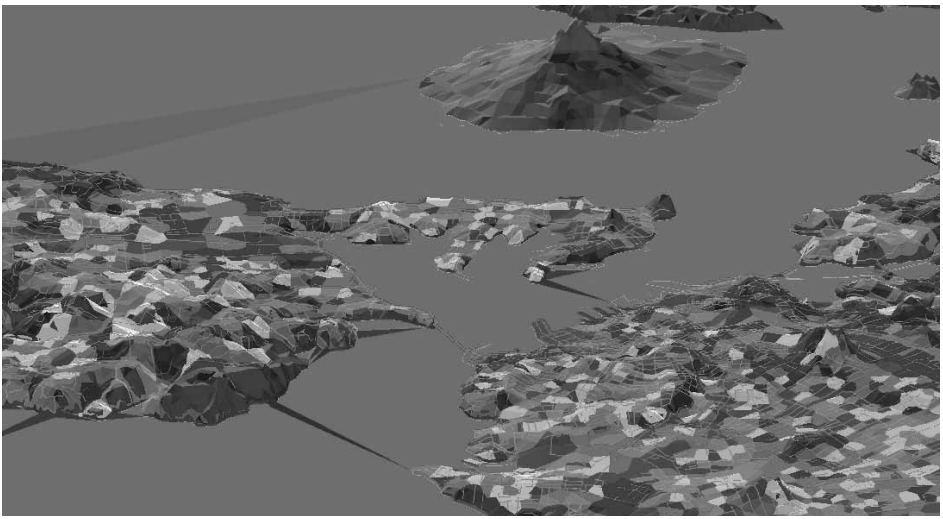
Geographic Information Science — defined here broadly to include geographic information systems, technology, spatial analysis, practice and related theory — is a rapidly developing field, both in its own right and in its connections to disciplines in the social, physical, health, biological and earth sciences and to engineering. Professionals in a wide range of fields use geographic information systems (GIS) to turn geographic data into maps, tables and other kinds of information needed to make informed decisions. In a rapidly changing world, detailed, up-to-date geographic data are indispensable for governance, for commerce, and for research intended to improve our understanding of social and environmental systems.

By taking the range of suggested courses students will have an opportunity to consider issues around spatial definition and measurement, geographic representation, data capture, spatial cognition, approaches to analysis informed by spatial thinking, critical and scientific methodology and associated tools and techniques and the synergies between data, geographical theory and the impact of spatial technologies. Students will gain an understanding of the significance of the diverse approaches constituting GIScience, of the different philosophies which underlie them and of how each contributes to knowledge creation in the wider enterprises of geography. Of importance is also the consideration of the societal impacts of GIScience in respect of the management of spatial data and geographical change, and of privacy and human spatiality.

GIScience qualifications pathway

Graduate Diploma in Science (GradDipSci) is intended for students who do not have sufficient background in Geography or GIScience to enrol in the postgraduate programme. These are one-year, full-time programmes of study of 120 points, and comprising courses in Geography selected from the BSc or BSc(Hons) schedules, with an emphasis on GIScience. For further details please refer to the School of Environment Undergraduate Handbook 2011.

Photo: P Forer



The Postgraduate Diploma in Science in Geographic Information Science (PGDipSci) is a one-year full-time programme comprising 120 points. It may be commenced in either Semester 1 or Semester 2 and is made up of eight courses, as specified below. The Postgraduate Diploma (PGDipSci) is available for students who have a BSc or BA with at least a C+ average in their best five courses at Stage III.

The Master of Science in Geography (MSc) degree is a one-year programmes for full-time students. You may also enrol part-time and take up to two years to complete these qualifications. Entry requires a completed PGDipSci or an approved equivalent, from which a B- average was attained in at least 90 points (i.e. six 15 point courses). The overall requirement is a 120 point research thesis on a thesis topic chosen in consultation with a supervisor. A thesis proposal, including a budget, is required at the time of application to the MSc programme. An application will not be processed without this proposal. A brief progress report is required by the end of July (or December for those starting in Semester Two). See page 53 for further details on the MSc programmes.

The degree of Doctor of Philosophy in Geography (PhD) may be of interest to those interested in advanced research in GIScience. See page 54 for further details on the PhD programme.

Postgraduate Adviser for Geographic Information Science

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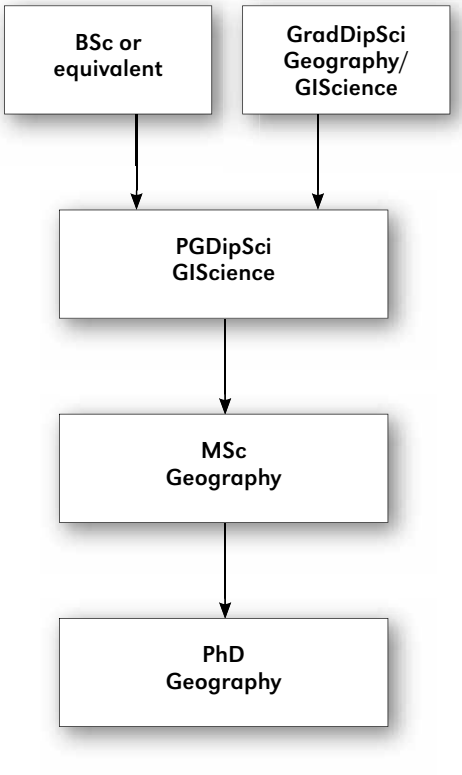

Postgraduate Diploma in Science (GIScience)

This section describes the structure for the PGDipSci programme in Geographic Information Science. Please keep in mind that this booklet does not replace The University of Auckland Calendar which sets out formal regulations and requirements for planning a degree. Please note also that the information contained in this handbook is correct at the time of going to press, but may be subject to change. You may check for amendments on our website.

The PGDipSci (GIScience) programme

One core, research preparation course (15 points)	
ENVSCI 701 Research Practice in Earth, Environmental and Geographical Sciences	15 points
At least five courses from the following (75 points)	
ENVSCI 704 Modelling of Environmental and Social Systems	15 points
GEOG 759 Research Topics in Geography	15 points
GEOG 771 Spatial Analysis and Geocomputation	15 points
GEOG 772 Sensing Technology and Data Analysis	15 points
GEOG 773 Visualisation and Cartography	15 points
GEOG 779 Programming, GIS Customisation and Web-mapping	15 points
Up to two courses from 700 level courses as approved by the programme adviser (30 points)	

Photo: H Ogawa

Geology, Applied Geology and Geophysics

Photo: B O Figuera

The increasing world population means that more energy, food, water and minerals are required from the Earth. Geologists play a vital role in finding and developing these resources, as well as protecting the environment as resources are extracted. Geologists also play critical roles in protecting the communities we live in by predicting and monitoring hazards such as volcanic eruptions, earthquakes, landslides and subsidence.

A postgraduate degree, usually BSc (Hons), PGDipSci or MSc, is the professional qualification required for geologists/geophysicists to advance in the industry and provides the basis for those wanting to undertake a PhD and/or pursue a career in research in geology or related disciplines.

Professional activities

Geoscience Society of New Zealand

The Geoscience Society of New Zealand Inc. is the national professional body of geologists and geophysicists and includes practicing professionals, recent graduates, and post-graduate students. The national organisation has a local Auckland branch, for which the contact is Dan Hikuroa (email: d.hikuroa@auckland.ac.nz). The Society produces three newsletters per year and runs an annual scientific conference, rotating to different locations around New Zealand. In addition, the Auckland branch puts out three local newsletters per year, and advises members of lectures by email. Membership is $30 per year for students and $70 per year for ordinary members (payment before 31st July). For details see http://gsnz.org.nz/

New Zealand Geotechnical Society

The New Zealand Geotechnical Society (a technical group of the Institution of Professional Engineers, New Zealand) holds meetings at frequent intervals in the evenings, in the School of Engineering. These are of interest to a wide audience including engineers, geologists, environmental scientists, planners, contractors etc. Geology graduates are most welcome, and several have joined the society in recent years. See Warwick Prebble or Marc-Andre Brideau for further information or consult the webpage: www.nzgs.org/.

New Zealand Geothermal Association

The New Zealand Geothermal Association (NZGA) is a scientific, educational and cultural organisation with an objective to encourage, facilitate and promote coordination of activities related to New Zealand and worldwide research, development and application of geothermal resources. The NZGA is an affiliated member of the International Geothermal Association (IGA) and of the Royal Society of New Zealand (RSNZ). Student membership is $10 per year. The web-site URL is: www.nzgeothermal.org.nz

Australasian Institute of Mining and Metallurgy

The local branch of the Australasian Institute of Mining and Metallurgy holds an annual meeting that geologists working in the NZ mining industry and academics attend. The branch also organise local and technical meetings, field trips and short courses. Further information is available at: www.ausimm.co.nz/welcome.html

Prizes, scholarships and awards

The following prizes are awarded to postgraduate students in Geology: the **Jeff Allen Memorial Prize** to a full-time student undertaking an MSc. thesis who has returned to study after a significant period away from academia; and the **Bartrum Memorial Prize** awarded on the basis of merit to a BSc(Honours) or MSc student.

The following awards area available – application details are available from the Scholarships Office (www.auckland.ac.nz/uoa/scholarships).

Geology Centennial Awards

Available only to Geology students doing BSc(Hons) or MSc theses.

Brothers Memorial Award

Available to BSc(Hons), MSc and PhD students who are undertaking field-based geological research

R.J. Mowat Memorial Scholarship in Geology

One annual award of $2,500 available to MSc or BSc (Hons) students undertaking a marine-related topic.

Natasha Divich Memorial Award

An annual award of $3,000 to assist students undertaking thesis work for a Masters degree in Geology.

GHD Australian Engineering Geology Scholarship

To provide fees and costs related to MSc research in Engineering Geology.

In addition, please see Page 65 for further details of scholarships and financial support available in the School of Environment.

Geology qualifications pathway

Graduate Diploma in Science (GradDipSci) is intended for students who do not have sufficient background in Geology to enrol in the postgraduate programmes. It is one-year, full-time programme of 120 points, and comprising courses in Geology selected from the BSc or BSc(Hons) schedules. For further details please refer to the School of Environment Undergraduate Handbook 2011.

The Bachelor of Science (Honours) and Postgraduate Diploma in Science are one-year programmes that include advanced coursework; and, in addition, the BSc(Hons) programme provides some opportunity for independent research.

Students who want to take a BSc(Hons) or PGDipSci will need to have fulfilled the requirements for a BSc, including:

- A major in Geology for the programmes in Geology and Applied Geology; or
- At least 45 points from the courses **GEOLOGY 361** and **GEOPHYS 330-333** for the Geophysics programme.
- For entry to BSc(Hons), students will need to have passed at least 90 points at Stage III with an average grade of at least B.

The structure of the programmes are outlined in the tables on Pages 34-35. The programme in Geology provides for comprehensive coverage across the discipline, whilst allowing students to focus on aspects of Geology that are of particular interest to them. The Applied Geology programme is designed for students wanting to develop skills across the interface between Geology and Engineering and requires that postgraduate engineering courses be included in the degree. The programme in Geophysics is designed for those wanting to take courses across the breadth of geophysics.

The Master of Science (MSc) is a one-year research degree that may be taken after a BSc(Hons) or PGDipSci. Students who want to do a MSc will need to have completed the requirements for a BSc(Hons) or PGDipSci and have achieved an average grade of at least B- in 90 points – 75 points of which must be in 700 level courses. The MSc is available in the subjects of Geology, Applied Geology and Geophysics. The overall requirement is a 120 point research thesis on a thesis topic chosen in consultation with a supervisor. A thesis proposal, including a budget, is required at the time of application to the MSc programme. An application will not be processed without this proposal. A brief progress report is required by the end of July (or December for those starting in Semester Two). See Page 53 for further details on the MSc programme.

The degree of Doctor of Philosophy (PhD) is a 3-4 year research degree that may be taken after an MSc (or in some cases BSc(Hons)). A PhD is available in Geology only; students with postgraduate qualifications in Applied Geology

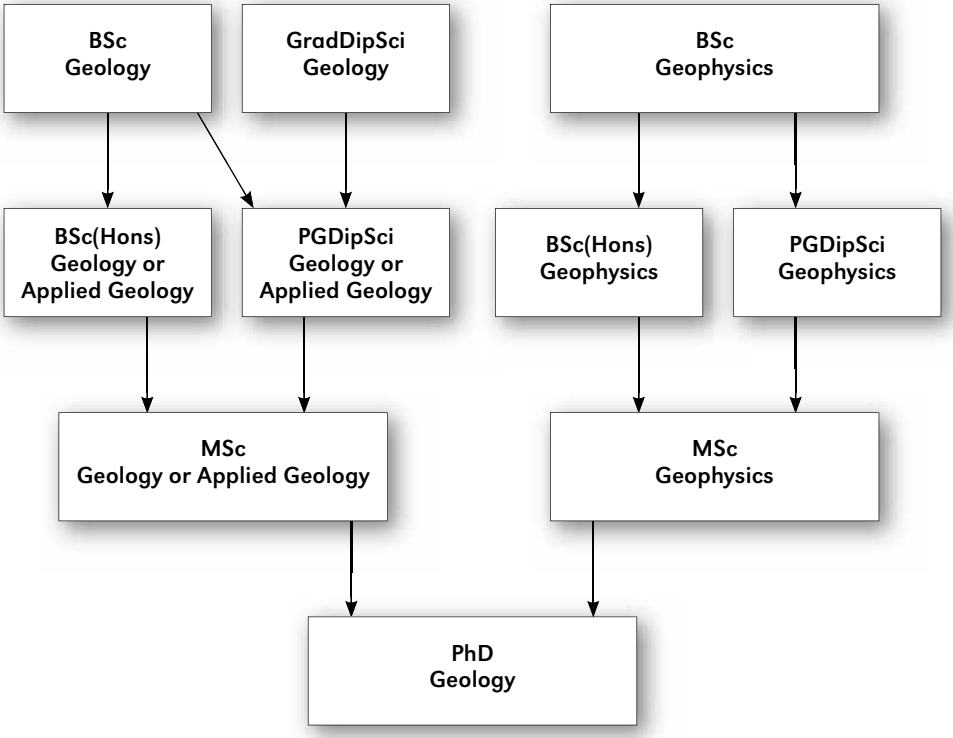

Photo: S Storm

may apply for entry to a PhD Geology; while those with postgraduate qualifications in Geophysics may apply for entry to a PhD in either Geology or Physics, depending on the scope of their previous qualifications. See Page 54 for further details on the PhD programme.

Postgraduate Adviser for Geology and Applied Geology

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Taught postgraduate programmes in Geology, Applied Geology and Geophysics

This section provides a more detailed guide to the learning opportunities offered in Geology, Applied Geology and Geophysics. Keep in mind that this booklet does not replace The University of Auckland Calendar which sets out formal regulations and requirements for planning a degree.

Please note, information contained in this handbook is correct at the time of going to press, but may be subject to change. View our website for any amendments.

The BSc(Hons) and PGDipSci programmes in Geology

One core, research preparation course (15 points)	
ENVSCI 701 Research Practice in Earth, Environmental and Geographical Sciences	15 points
For BSc(Hons) at least three courses from the following (45 points) **or** **for PGDipSci at least four courses from the following** (60 points)	
GEOLOGY 701 Engineering Geological Mapping	15 points
GEOLOGY 703 Geothermal Geology and Geochemistry	15 points
GEOLOGY 705 Geohazards	15 points
GEOLOGY 713 Tectonic Geomorphology	15 points
GEOLOGY 721 Past Life and Ancient Environments	15 points
GEOLOGY 741 Mineral Deposit Geochemistry	15 points
GEOLOGY 752 Understanding Volcanic Systems	15 points
GEOLOGY 754 Pure and Applied Sedimentology	15 points
GEOLOGY 771 Engineering Geology	15 points
GEOLOGY 772 Hydrogeology	15 points
GEOPHYS 761 Advanced Applied Geophysics 1	15 points
GEOPHYS 762 Advanced Applied Geophysics 2	15 points
GEOPHYS 763 Advanced Applied Geophysics 3	15 points
GEOPHYS 780 Special topic in Geophysics	15 points

For BSc(Hons) only (60 points)	
GEOLOGY 789 Honours Dissertation in Geology	30 points
Up to two courses (30 pts) from 700 level courses as approved by the Programme Adviser for Geology	
For PGDipSci only (45 points)	
Up to three courses (45 pts) from 700 level courses as approved by the Programme Adviser for Geology	

The BSc(Hons) and PGDipSci programmes in Applied Geology

One core, research preparation course (15 points)	
ENVSCI 701 Research Practice in Earth, Environmental and Geographical Sciences	15 points
For BSc(Hons) and PGDipSci at least three courses from the following (45 points)	
GEOG 746 Dynamic Coasts	15 points
GEOLOGY 701 Engineering Geological Mapping	15 points
GEOLOGY 703 Geothermal Geology and Geochemistry	15 points
GEOLOGY 705 Geohazards	15 points
GEOLOGY 713 Tectonic Geomorphology	15 points
GEOLOGY 754 Pure and Applied Sedimentology	15 points
GEOLOGY 771 Engineering Geology	15 points
GEOPHYS 761 Advanced Applied Geophysics 1	15 points
GEOPHYS 762 Advanced Applied Geophysics 2	15 points
GEOPHYS 763 Advanced Applied Geophysics 3	15 points
GEOPHYS 780 Special topic in Geophysics	15 points
and (30 points)	
At least 30 points from approved courses within Part IV of the Bachelor of Engineering (Honours) Schedule or the Master of Engineering Studies Schedule	
For BSc(Hons) only (30 points)	
GEOLOGY 789 Honours Dissertation in Geology	30 points
For PGDipSci only (15 points)	
Up to one course (15 pts) from 700 level courses as approved by the Programme Adviser for Applied Geology	

The BSc(Hons) and PGDipSci programmes in Geophysics

At least one course from the following (15 points)	
PHYSICS 731 Wave Propagation	15 points
PHYSICS 732 Fluid Mechanics and Applications	15 points
For BSc(Hons) only (105 points)	
GEOPHYS 789 BSc(Hons) Dissertation in Geophysics	30 points
75 points from approved 700 level courses in Applied Mathematics, Geology, Geophysics or Physics	
For PGDipSci only (105 points)	
105 points from approved 600 or 700 level courses in Applied Mathematics, Geology, Geophysics, Physics or other Science subjects as approved by the Programme Adviser for Geophysics	

Course descriptions

Photo: B O'Connor

Cracking the course code

All courses have a title and an alphanumeric code number. You need to pay attention to these codes when planning your course of study. Please note that some specialist Environmental Science courses use an intensified module approach, normally four days, full time study, preceded by reading and followed by a self-directed research project.

Semester codes

SS	Summer School
S1	First Semester
S2	Second Semester

Location code

C	City Campus
T	Tāmaki Campus

Important note

While the postgraduate courses offered by the School of Environment do not have formal prerequisites it is important to note that each course presumes either specific, advanced knowledge in a particular field or a level of general academic attainment. Please note the advice given for each course. If you are concerned that you may not have a suitable background for a particular course but wish to enrol please contact the course co-ordinator for clarification on assumed knowledge and course structure.

ENVSCI 701

Research Practice in Earth, Environmental and Geographical Sciences

Students will consider multiple ways of knowing and understanding research in a broader context and in relation to disciplinary specific examples. Students will be challenged to critically analyse ways of understanding and thinking and use this knowledge to: assemble and represent information, perform analyses and predict outcomes, validate or critique the process, and communicate or question findings.

Semester:	S1 C
Points:	15 points
Format:	weekly lectures and tutorials
Coordinator:	David Hayward
Assessment:	100% coursework
Prerequisites:	none
Programme:	this course is required for the following programmes: Environmental Management, Environmental Science, Geography, Geographical Information Science, Geology and Applied Geology

Photo: L Stone

ENVMGT 741

Social Change for Sustainability

How social change happens and how to improve the uptake of sustainability. This course covers the theoretical frameworks that contribute to our understanding of how social change occurs, and their use in the development of sustainability programmes. Includes the methodologies used to gain insight into attitudes, behaviour and values, and their use as a basis for decision-making in environmental management.

Semester:	S2 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Willie Smith
Assessment:	50% coursework, 50% final examination
Prerequisites:	none
Programme:	this is one of the core options for both the Environmental Management and Geography programmes

ENVMGT 742

Ecosystem Complexity and Adaptive Management

This course addresses the theoretical and practical aspects of adaptive management in complex social-ecological systems. Key concepts discussed include ecosystem complexity, ecosystem services, vulnerability, resilience, scientific uncertainty, precautionary principle, and adaptive management.

Semester:	S2 C
Points:	15 points
Format:	one 3 hour lecture per week for the first six weeks of Semester Two
Coordinator:	Luitgard Schwendenmann
Assessment:	50% coursework, 50% final examination
Prerequisites:	none
Programme:	this is one of the core options for the Environmental Management programme

ENVMGT 743

Environmental Policy

Debates surrounding environmental policy and governance provide insights into the complexities of environmental management issues. Examples of environmental governance will be considered from global to local scales. The roles of international agencies, nation-states, civil society and corporations in shaping environmental policy and governance are examined.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Susan Owen
Assessment:	50% coursework, 50% final examination
Prerequisites:	none
Programme:	this is one of the core options for both the Environmental Management and Geography programmes

ENVMGT 744

Resource Management

A review of advanced principles, concepts and approaches to the sustainable management of natural resources. Case studies emphasise the need for conflict resolution, equitable allocation, and decentralised decision-making to address the social and environmental impacts of resource utilisation.

Semester:	S2 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Karen Fisher

Assessment:	50% coursework, 50% final examination
Prerequisites:	none
Restriction:	GEOG 751
Programme:	this is one of the core options for both the Environmental Management and Geography programmes

ENVMGT 746

Collaborative Environmental Management

An exploration of participatory management and its potential for engaging communities, resource users and stakeholders in the pursuit of sustainable development. Students will examine strategies for incorporating local knowledges within conservation practices and for reconciling natural resource management with human welfare, social justice and indigenous rights.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Brad Coombes
Assessment:	50% coursework, 50% final examination
Field trip:	a three day field trip will be held in the week prior to the start of the Semester One (22-24 February)
Prerequisites:	none
Restriction:	GEOG 753, ENVISCI 735
Programme:	this is one of the core options for both the Environmental Management and Geography programmes

ENVMGT 747

Current Issues in Sustainability

A topical review of approaches to sustainability as applied within a particular industry or sector.

Note: this course will be available pending staff availability. More information will be provided mid Semester One, 2011.

Semester:	S2 C
Points:	15 points
Format:	TBA
Coordinator:	TBA
Assessment:	TBA
Prerequisites:	none
Restriction:	ENVMGT 745

ENVSCI 704

Modelling of Environmental and Social Systems

The following themes are emphasised: (i) building and using models to investigate environmental and social problems, (ii) understanding the utility of modelling in various disciplines, and (iii) appreciating how dynamic phenomena can be represented and analysed computationally. The course provides an understanding of modelling concepts, approaches and applications, and methods for determining the suitability of a particular modelling approach for a given task.

Semester	S2 C
Points	15 points
Format	taught as four day intensive course, usually offered in the week before Semester Two starts
Coordinator	George Perry and David O'Sullivan
Assessment	100% coursework
Prerequisites	no formal prerequisites, but knowledge equivalent to that covered in courses such as **STATS 101, MATH 108, GEOG 250, BIOSCI 209, ENVSCI 310** will be assumed
Programme	this is one of the core options for the Environmental Science, Geography and Geographic Information Science programmes

ENVSCI 711

Assessing Environmental Effects

A focus on the interdisciplinary, scientific assessment of environmental activities within the New Zealand context. Methodologies used in the assessment, monitoring and regulation of environmental effects, trends and risks will be critically assessed. Aspects of the RMA, including consenting procedures and the role of public and professional participants in the process, will be discussed.

Semester:	S1 C
Points:	15 points
Format:	taught as five 3 hour sessions, plus one field-day; and usually offered in the second-half of Semester One
Coordinator:	George Perry
Assessment:	60% coursework, 40% final examination or test
Prerequisites:	no formal prerequisites, but graduate level scientific knowledge is assumed
Programme:	this is a required course for the Environmental Science programme and an approved course for the Environmental Management programme

ENVSCI 713

Air Quality and Atmospheric Processes

Monitoring, modelling and management will be considered with emphasis on air quality standards and guidelines and applications of science and technology to indoor and outdoor air pollution prevention, mitigation and remediation. Case studies and practical work will link the theoretical and practical aspects of air quality science.

Semester:	S2 C
Points:	15 points
Format:	taught as six 5 hour sessions, and usually offered in the second-half of Semester Two
Coordinator:	Jenny Salmond
Assessment:	60% coursework, 40% final examination or test
Prerequisites:	none
Programme:	this is one of the core options for both the Environmental Science and Geography programmes

ENVSCI 714

Water Quality Science

An overview of all potential water contaminants, their sources and behaviour. Includes demonstrations of monitoring techniques and modelling systems for water quality impact prediction and assessment of effects for both point and non-point sources. Identification of major national and global water quality issues. Application of science and technology to water pollution assessment, prevention, and treatment. Case studies and practical (field and laboratory) work.

Semester:	S1 C
Points:	15 points
Format:	Taught as a four day intensive course, and usually offered in the first half of Semester One
Coordinator:	Angela Slade
Assessment:	70% coursework, 30% final examination or test
Prerequisites:	none
Programme:	this is one of the core options for the Environmental Science programme

ENVSCI 716

Aquatic Ecological Assessment

Application of science to freshwater ecological assessment, management and restoration. Assessment techniques and interpretation of risks associated with natural and anthropogenic disturbance of aquatic ecosystems. Monitoring and reporting of condition and health of aquatic environments. Relevant policy, strategic and legislative frameworks, and national and regional perspectives on applied freshwater management. Course includes case studies and practical work (including field trip).

Semester:	S2 C
Points:	15 points
Format:	taught as a four day intensive course, and usually offered in the first week of the Semester Two mid-semester break
Coordinator:	TBA
Assessment:	70% coursework, 30% final examination or test
Prerequisites:	no formal prerequisites, but an understanding equivalent to **BIOSCI 330** is assumed
Programme:	this is one of the core options for the Environmental Science programme

ENVSCI 733

Biodiversity Management and Conservation

The management of species, ecosystems and conservation areas, including potential synergies and conflicts between different uses. Biosecurity and the management of invasive species in a conservation context . Biodiversity management and conservation in terrestrial and aquatic habitats. National and international mechanisms for the sustainable management of natural resources.

Semester	S1 T
Points	15 points
Format	taught as a four day intensive course, and usually offered in the first half of Semester One
Coordinator	TBA
Assessment	50% coursework, 50% final examination
Prerequisites	no formal prerequisites, but an understanding equivalent to **BIOSCI 394** is assumed
Programme	this is one of the core options for the Environmental Science programme and an approved course for the Environmental Management programme
Capacity	This course is limited to 35 students

ENVSCI 734

Landscape and Restoration Ecology

The integration of ecological principles and ecological services at the landscape level for both management and restoration. Topics include: the ecology of fragmented ecosystems, metapopulation issues, ecological genetics, biota-physical environment interactions, the consequences and techniques for restoration of damaged ecosystems and mitigation of the effects of development. Emphasis will be on sustainable solutions including biophysical, legal, social, cultural and economic considerations. Includes overnight field trip.

Semester:	S1 C
Points:	15 points
Format:	taught as a 3 day field trip, plus two full days post-field trip; and usually offered in the first half of Semester One
Coordinator:	Neil Mitchell
Assessment:	50% coursework, 50% final examination
Field trip:	dates to be confirmed (usually week 8). A three day residential course based at the Leigh Marine Laboratory
Prerequisites:	no formal prerequisites, but an understanding equivalent to **BIOSCI 393** is assumed
Programme:	this is one of the core options for the Environmental Science programme

ENVSCI 737

Applied Terrestrial Ecology

The dynamics of change in terrestrial ecosystems with a focus on forest and wetland environments. The effects of factors such as climate change and fire in New Zealand's terrestrial ecosystems will be considered. Students will be introduced to modern methods for vegetation assessment and monitoring, including multivariate statistical methods. Students are required to participate in a residential field course as this is a major component of **ENVSCI 737**.

Semester:	S2 C
Points:	15 points
Format:	taught as a 6 day field trip, plus a half-day session post-field trip; and usually offered in the second half of Semester Two
Coordinator:	George Perry
Assessment:	70% coursework, 30% final examination
Advice:	no formal prerequisites but assumes knowledge of ecology equivalent to **BIOSCI 394** or **BIOSCI 396** and data analysis equivalent to **GEOG 250** or **BIOSCI 209**
Programme:	this is one of the core options for both the Environmental Science and Geography programmes, and an approved course for the Environmental Management programme
Capacity:	this course is limited to 35 students

ENVSCI 738

Water and Society

The effects of modern lifestyles on water resources are explored to develop ideas for sustainable infrastructure in future setttlements. The importance of human behaviour in water system function is examined, along with the mechanisms used to influence those behaviours.

Semester:	S2 C
Points:	15 points

Format: taught as ten 3 hour lectures, plus a ½ day workshop and a one day field trip, and usually offered in Semester Two

Coordinator: Sam Trowsdale

Assessment: 100% coursework

Prerequisites: none

Programme: this is one of the core options for both the Environmental Science and Geography programmes, and an approved course for the Environmental Management programme

GEOG 711

Emerging Economic Spaces

Examines globalising economic processes, localising forces, and the practices of economic actors in the production of emerging economic spaces. The course considers contemporary analytical and conceptual debates, including global value chains, geographic imaginaries, new economies, and diverse economies.

Semester: S2 C

Points: 15 points

Format: one 2 hour lecture per week

Coordinator: Richard Le Heron

Assessment: 40% coursework, 60% final examination

Restriction: **GEOG 724**

Prerequisites: none

Programme: this is one of the core options for the Geography programme

GEOG 712

Land, Place and Culture

Contemporary geographic perspectives on society and culture, focusing on a review of traditional and new cultural geographic approaches to the constructions of place and environment, ethnicity, gender and identity.

Semester: S1 C

Points: 15 points

Format: one 2 hour lecture per week

Coordinator: Hong-key Yoon

Assessment: 40% coursework, 60% final examination

Prerequisites: no formal prerequisite, but an understanding of material to at least a C+ standard in stage 3 papers in human geography will be assumed

Programme: this is one of the core options for the Geography programme

GEOG 714

Population, Mobilities and Health

An exploration of the changing nature of human populations, the dynamics of human mobilities, the determinants of health status and evolving modes of health care provision.

Semester: S1 C

Points: 15 points

Format: one 2 hour lecture per week

Coordinator: Robin Kearns

Assessment: 40% coursework, 60% final examination

Restriction: **GEOG 725** and **GEOG 726**

Prerequisites: no formal prerequisites, but an understanding of material to at least a C+ standard in stage 3 papers in human geography will be assumed

Programme: this is one of the core options for the Geography programme

GEOG 715

Development and New Regional Geographies

'Development' is place-dependent and takes place at a range of scales. This course considers economic, socio-cultural, geopolitical and environmental transformations of nations, regions, communities, and emerging or post-foundational political spaces focussing on examples from Pacific, Asia and New Zealand.

Semester:	S2 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinators:	Nicolas Lewis
Assessment:	40% coursework, 60% final examination
Restriction:	**GEOG 721**
Prerequisites:	none
Programme:	this is one of the core options for the Geography programme

GEOG 732

Quaternary Environmental Change

The theory, application and interpretation of the output of a range of Quaternary paleoenvironment reconstruction tools including geomorphological data, dendroclimatology, microfossil indicators of change and environmental isotopes with a focus on New Zealand and the SW Pacific. Dating tools used to constrain the timing of the events will also be considered.

Semester:	S2 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Paul Augustinus
Assessment:	40% coursework, 60% final examination
Prerequisites:	none
Programme:	this is one of the core options for the Geography programme

GEOG 738

Future Food and Biological Economies

Investigates contemporary understandings, issues and strategies relating to the development of biological economies and food networks in the context of the globalising food economy. Addresses transformations in agro-food complexes and questions of nature-society relationships to do with 'sustainable' and 'resilient' food production and consumption.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Nicolas Lewis
Assessment:	40% coursework, 60% final examination
Prerequisites:	none
Programme:	this is one of the core options for the Geography programme and an approved course for the Environmental Management programme

GEOG 745

Hydrogeomorphology and River Restoration

Catchment-scale perspectives are used to analyse spatial and temporal variability in river forms and processes. River responses to human disturbance are placed in a longer-term evolutionary context. Prospective 'river futures' are appraised, linking principles from geomorphology and hydrology to provide a physical platform with which to frame management applications (especially river rehabilitation options).

Semester:	S1 C
Points:	15 points
Format:	three 2 hour lecture sessions in addition to field class
Coordinator:	Gary Brierley
Assessment:	100% coursework
Field trip:	a 7–10 day field trip to various rivers on either the North or South Island
Prerequisites:	no formal prerequisite but final year undergraduate experience in a related field required, or at the discretion of the course supervisor
Programme:	this is one of the core options for the Geography programme

GEOG 746

Dynamic Coasts

An advanced study of the driving mechanisms and associated processes that shape coastlines. The course uses and explores the morphodynamic concept as an integrating theme. Lecture topics examine wave hydrodynamics; surfzone circulation; fluid-sediment interactions and larger scale morphodynamics. Using sandy beach systems as the starting point we branch out to consider the dynamics of other coastal settings (e.g. gravel beaches, estuaries, coral reefs) and examine approaches to model coastal behaviour.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	TBA
Assessment:	40% coursework, 60% final examination
Prerequisites:	no formal prerequisites, but an understanding equivalent to **GEOG 351** is assumed
Programme:	this is one of the core options for both the Geography and Applied Geology programmes

GEOG 748

Fragile Coasts, Vulnerable Communities

Coastal communities are commonly perceived to be threatened by coastal change. The coast is the most dynamic landform on earth and the coastal zone is host to 80% of the world's population. This combination of dynamic physical and human landscapes poses unique management challenges. This course explores the dimensions of vulnerability in a coastal setting. It recognises that vulnerability is a function of physical coastal dynamics, the history of human occupation and ultilisation of the coast and governmental decision making. We examine methods to determine vulnerability of and risk to coastal settlements and evaluate the policy and regulatory frameworks used to manage risk to coastal communities. National and international examples are used, from both developed and developing countries, to highlight key coastal vulnerabilities.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Paul Kench
Assessment:	100% coursework
Prerequisites:	none
Programme:	this is one of the core options for the Geography programme and an approved course for the Environmental Management programme

GEOG 749

Climate and Society

An examination of inter-relationships between climate and society. The sensitivity of selected biophysical and human activity systems to climate will be investigated and the actual and potential impacts of climatic variability and change investigated. Impact themes will vary from year to year, but are likely to be drawn from hydrology and water resources, agriculture, human health, ecosystems, and energy.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Anthony Fowler
Assessment:	50% coursework, 50% final examination
Prerequisites:	no formal prerequisites, but an understanding equivalent to **GEOG 332** is assumed
Programme:	this is one of the core options for the Geography programme and an approved course for the Environmental Management programme

GEOG 771

Spatial Analysis and Geocomputation

Approaches and challenges to analysing spatial data. Specific techniques covered will include measures of spatial autocorrelation, geographical regression, point pattern analysis, interpolation, overlay analysis, and an introduction to some of the newer geocomputation methods such as neural networks and cellular automata.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	David O'Sullivan
Assessment:	50% coursework, 50% final examination
Prerequisites:	no formal prerequisite but an understanding equivalent to **GEOG 318** is assumed
Programme:	this is one of the core options for both the Geographic Information Science and Geography programmes

GEOG 772

Sensing Technology and Data Analysis

Acquisition of airborne imagery, very high resolution satellite imagery, ground penetrating radar data, and LiDAR data. Geospatial data referencing, geometric and thematic accuracy of geospatial data, image classification and accuracy assessment, multitemporal data analysis, integrated processing of images using GPS and GIS data.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Jay Gao
Assessment:	60% coursework, 40% final examination
Prerequisites:	no formal prerequisite but an understanding equivalent to **GEOG 317** is assumed
Programme:	this is one of the core options for both the Geographic Information Science and Geography programmes

GEOG 773

Visualisation and Cartography

Introduction to field of cartography, drawing contrasts with new approaches to geovisualisation facilitated by information visualisation and statistical graphics. Human perceptual and cognitive systems as related to visual displays. Principles of sound perceptual and cognitive map design. Planning, creation and delivery of cartographic and visualisation-based projects. Review of emerging and future trends in this fast-changing field.

Semester:	S2 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Pip Forer
Assessment:	60% coursework, 40% final examination
Prerequisites:	none
Programme:	this is one of the core options for the Geographic Information Science and Geography programmes, and an approved course for the Environmental Management programme

GEOG 779

Programming, GIS Customisation and Web-mapping

Spatial databases, spatial data structures and algorithms and converting and handling spatial data. Introduction to programming (in Python). Principles of object- and component-oriented architectures including details relating to ArcGIS as an example. Open source and open standards, web-mapping as a case-study.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	TBA
Assessment:	100% coursework
Prerequisites:	no formal prerequisites, but 15 points from **GEOG 317-319**, or equivalent is assumed
Programme:	this is one of the core options for both the Geographic Information Science and Geography programmes

GEOLOGY 701

Engineering Geological Mapping

This field based course provides hands-on experience in outcrop mapping, geomorphic mapping and simple field testing of rocks and soils for geotechnical purposes. A variety of rock masses and soil masses in the Auckland region will be mapped during 8 days of fieldwork. Two days of tutorial follows. You will be able to develop the art of observation and description, draw engineering geological models and recognise and map geotechnical hazards.

Semester:	SS C
Points:	15 points
Format:	this course runs from 8-18 February inclusive; and is largely taught as a non-residential field course
Coordinator:	Warwick Prebble
Assessment:	entirely based on the field mapping assignments
Prerequisite:	**GEOLOGY 372**
Programme:	this is one of the core options for both the Geology and Applied Geology programmes

GEOLOGY 703

Geothermal Geology

Geothermal systems are dynamic and of vital significance to national energy requirements. The course overviews the geologic, hydrologic and geochemical features of geothermal systems with emphasis on those occurring in New Zealand. Topics include the geologic setting of geothermal fields, exploration, heat and mass transfer, fluid compositions and boiling and mixing, geology of reservoirs, fluid/mineral equilibria, alteration and reservoir geothermometry.

Semester: S2 C

Points: 15 points

Format: one 2 hour lecture per week

Coordinator: Paul Hoskin

Assessment: 100% coursework

Prerequisites: none

Programme: this is one of the core options for both the Geology and Applied Geology programmes

GEOLOGY 705

Geohazards

Introduction to contemporary methods used to identify and assess natural hazards, and the techniques used for the probabilistic forecasting, spatial representation and communication of hazards. The course also explores the relationship between hazard information, risk mitigation and emergency management. There will be a strong focus on case studies.

Semester: S2 C

Points: 15 points

Format: one 2 hour lecture per week, plus one 2 day field trip

Coordinator: Jan Lindsay

Assessment: 50% coursework, 50% final examination

Prerequisites: none

Programme: this is one of the core options for the Geology, Applied Geology and Geography programmes

GEOLOGY 713

Tectonic Geomorphology

New Zealand is an ideal location in which to investigate the interplay between tectonics and geomorphic processes. This will be demonstrated by combining relevant cases studies and field practise whereby students will develop skills in report writing and handling of some of the data, literature and tools necessary to conduct field research in active tectonics and landform generation.

Semester: S1 C

Points: 15 points

Format: one 2 hour lecture per week, plus a 3-5 day field trip - timing to be negotiated

Coordinator: Julie Rowland

Assessment: 60% coursework, 40% final examination

Restriction: **GEOG 743, GEOLOGY 712, GEOLOGY 773**

Prerequisites: none

Programme: this is one of the core options for the Geology, Applied Geology and Geography programmes

GEOLOGY 721

Past Life and Ancient Environments

Paleontological data are used in hydrocarbon exploration, resource assessment, sequence stratigraphy, sedimentary basin analysis, dating/correlation of rocks, and evaluation of global biodiversity, paleobiogeography, and life's evolution. This course examines fossils as research tools to decipher past biology, events and environments (Archean to Quaternary in age).

Semester: S1 C

Points: 15 points

Format: one 2 hour lecture per week

Coordinator: Kathy Campbell

Assessment: 60% coursework, 40% final examination

Prerequisites: none

Programme: this is one of the core options for the Geology programme

GEOLOGY 741

Mineral Deposit Geochemistry

Advanced teaching in geochemistry, that relates to mineral deposits, and examines case histories of ore deposits, to allow critical assessment of recent advances in research that underpins understanding of ore deposits.

Semester: S1 C

Points: 15 points

Format: one 2 hour lecture per week, plus a two day field trip

Coordinator: Jeff Mauk

Assessment: 50% coursework, 50% final examination

Prerequisite: **GEOLOGY 302**

Restriction: **GEOLOGY 742**

Programme: this is one of the core options for the Geology programme

GEOLOGY 752

Understanding Volcanic Systems

Understanding how and why volcanoes erupt from magma processes in mantle to eruption at the surface. All tectonic settings and explosive and effusive processes are examined. Volcanic hazards and resource exploration in volcanic terrain is also covered.

Semester: S2 C

Points: 15 points

Format: one 2 hour lecture per week

Coordinator: Phil Shane

Assessment: 50% coursework, 50% final examination

Prerequisites: none

Restriction: **GEOLOGY 751**

Programme: this is one of the core options for the Geology programme

GEOLOGY 754

Pure and Applied Sedimentology

An integrated account of aspects of advanced sedimentology from sediment source to sink. Critical examination of recent and ongoing, pure and applied, research into the dynamics of sedimentary environments and their recognition in the ancient record.

Semester: S2 C

Points: 15 points

Format: 2 hours a week plus a half day fieldtrip

Coordinator: Lorna Strachan

Assessment: 50% coursework, 50% final examination

Prerequisite: no formal prerequisites, but knowledge of sedimentology and sedimentary processes at the level covered in **GEOL 202** and/or **GEOG 201** will be assumed

Programme: this is one of the core options for both the Geology and Applied Geology programmes

GEOLOGY 771

Engineering Geology

Geology applied to engineering investigation, design and construction and to land evaluation. The focus will be on the application of analysis techniques in engineering geology. Attendance is expected at NZ Geotechnical Society meetings and seminars. The course includes two one-day field exercises.

Semester:	S1 C
Points:	15 points
Format:	one 2 hour lecture per week
Coordinator:	Marc-Andre Brideau
Assessment:	100% coursework
Prerequisite:	no formal prerequisites, but knowledge of engineering geology and practical methods at the level of **GEOLOGY 372** will be assumed
Programme:	this is one of the core options for both the Geology and Applied Geology programmes

GEOLOGY 772

Hydrogeology

Examination of groundwater process, use and management.

Semester:	S2 C
Points:	15 points
Format:	one 2 hour lecture per week plus laboratories
Coordinator:	Wayne Russell
Assessment:	TBA
Prerequisites:	none
Programme:	this is one of the core options for the Geology programme

GEOPHYS 761

Advanced Applied Geophysics 1*

Theory and practice of seismic and ground penetrating radar methods. Topics include basic theory, theory of methods, data acquisition, data processing and interpretation. Students are required to select four of the five topics.

** This course will not be offered in 2011*

GEOPHYS 762

Advanced Applied Geophysics 2*

The theory and practice of gravity, magnetic and electrical methods. Topics include basic theory, theory of methods, data acquisition, data processing and interpretation of gravity and magnetic data and of electrical data. Students are required to select four of the five topics.

** This course will not be offered in 2011*

GEOPHYS 763

Advanced Applied Geophysics 3

While **GEOPHYS 761** and **GEOPHYS 762** are not being offered in 2011, **GEOPHYS 763** will be available, but content will be restricted to the four modules dealing with the physical principles of seismic wave propagation, signal processing, gravity and magnetic methods, and electrical and electromagnetic methods.

Semester:	S1 C
Points:	15 points
Format:	selected 2 hour, weekly lectures
Coordinator:	Barry Brennan
Assessment:	50% coursework, 50% examinations
Prerequisite:	**GEOLOGY 361** or 15 Points in Stage III Physics or Geophysics
Restriction:	**GEOPHYS 761, GEOPHYS 762**

Programme: this is one of the core options for the Geophysics, Geology and Applied Geology programmes

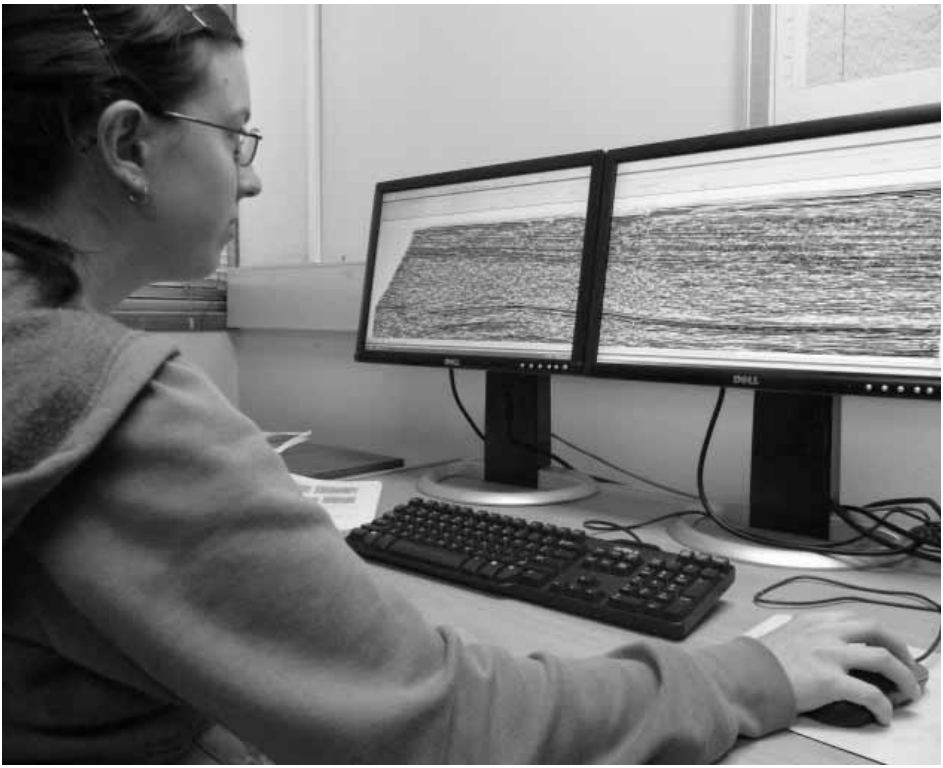
GEOPHYS 780

Special Topic: Critical States in the Earth

A practical course covering new developments in geophysical modelling. Course begins with a fieldtrip and includes lectures, labs and a computation project designed to give students a fundamental understanding of real-earth complexity in fluid/rock interactions. Wide application to topical issues in the earth sciences such as reservoir characterisation, CO_2 sequestration, groundwater modelling, pollution monitoring and earthquake processes. The nature and scales of heterogeneity in crustal systems will be introduced and computational tools for seismological and geofluid flow modelling will be used to develop advanced problem-solving skills.

Semester:	S2 C
Points:	15 points
Format:	two 2 hour lectures per week
Coordinator:	Jennifer Eccles
Assessment:	100% coursework
Prerequisites:	background in Maths and Physics to Stage II level and proficiency at Matlab (or equivalent) will be assumed

Photo: L Cotterall



Masters and PhD programmes

Photo: H Ogawa

The Masters programmes

The Master of Science (MSc) and Master of Arts (MA) degrees are one-year programmes for full-time students. You can also enrol part-time and take up to 2 years. The degrees require the successful completion of a 120 point research thesis. Thesis topics may be drawn from a wide range of areas and are chosen in consultation with a supervisor and the Masters Tutor.

For entry to an MSc or MA (in Geography only) you must have completed an Honours degree or Postgraduate Diploma in the appropriate subject, or an equivalent. In this qualifying programme you need to have achieved a minimum GPA of 4 – which is equivalent to a B- average. You will also need the approval of a supervisor for your proposed thesis project.

Before you commence enrolment you should discuss your options with the Masters Tutor and potential supervisors. It is important to commence discussions about your project well in advance of applying to the masters programme..

Masters Tutor

Dr Neil Mitchell
Email: n.mitchell@auckland.ac.nz
Phone: 373 7599 ext. 88367
Room: 551, Building 201, City Campus

The following Masters degree programmes are offered by the School of Environment, and for each the appropriate enrolment course codes are indicated.

Subject	Degree(s)	Course enrolment codes
Environmental Management	Master of Science (MSc)	**ENVMGT 796A** and **ENVMGT 796B**
Environmental Science	Master of Science (MSc)	**ENVSCI 796A** and **ENVSCI 796B**
Geography	Master of Science (MSc) Master of Arts (MA)	**GEOG 796A** and **GEOG 796B**
Geology	Master of Science (MSc)	**GEOLOGY 796A** and **GEOLOGY 796B**
Applied Geology	Master of Science (MSc)	**GEOLOGY 795A** and **GEOLOGY 795B**
Geophysics	Master of Science (MSc)	**GEOPHYS 796A** and **GEOPHYS 796B**

Photo: H Ogawa

The PhD programme

The School offers excellent facilities for study towards the PhD, which is a purely research degree. Currently over 50 students are enrolled in the School's PhD programmes in Environmental Science, Geography and Geology. The School is actively seeking to expand its involvement in Doctoral-level education. People who enrol in the PhD programme are expected to complete the requirements in three to four years.

Candidates for the degree are assessed on the basis of a thesis only.

Entry

Entry to the PhD programme can take place at any time during the year.

Admission is usually limited to people who have attained a Bachelors degree with Honours or a Masters degree with First Class of Second Class (Division I) Honours. However, the major criteria are that applicants have a proven ability to carry out independent research, and that they have appropriate supervision arranged in the School. Therefore, students contemplating a PhD project in the School should contact potential supervisors, or the Head of Postgraduate Research, to discuss their application and to present a written proposal for the thesis project, covering the topic envisaged, logistics and means of funding.

These materials, together with degree transcripts, letters of reference, and evidence of English language proficiency are formally presented to the University and School through the on-line Expression of Interest (EOI) system.

EOI

Web: www.science.auckland.ac.nz/uoa/fp-phd/

It is important to note that due to financial constraints, the School can only support thesis projects which fit into its areas of expertise and have a good chance of being adequately funded.

Transitional arrangements

In some instances, students will need to complete a number of postgraduate courses before being considered eligible to apply for PhD enrolment. In addition, some students may be asked to continue English language training, as part of their enrolment.

Application

For information on applying for entry to the PhD programme please visit the following website:

Applying for a doctorate

Web: www.auckland.ac.nz/applying-for-a-doctorate

To provide the Graduate Centre with sufficient detail to assess your application you will need to fill out the online Expression of Interest form. This link can be found at the website above.

Head of Postgraduate Research

Assoc Prof David O'Sullivan
Email: d.osullivan@auckland.ac.nz
Phone: 373 7599 ext. 84963
Room: 689, Building 201, City Campus

Structure of the PhD programme

First year

During the first year the University requires that candidates complete a fully developed research proposal and present a seminar to the School.

In the School of Environment we will schedule your seminar date during the first six months of your enrolment. This is to enable you to make any necessary changes to your research plans, while still allowing plenty of time for you to progress your research during the first year.

Both the seminar and research proposal must be approved by the Postgraduate Research Committee of the School before the end of the first year at the latest.

In addition to preparing and presenting your research proposal, you are also required to complete a substantial piece of writing during your provisional year. In many cases, this will be the literature review and/or other preliminary chapters of the final thesis. Many students also make significant progress with their research in the first year, by identifying field sites, obtaining ethics approval for their research (if required), and developing their expertise in the methods they will use for their research.

Confirmation of enrolment beyond the provisional year is dependent on satisfactory completion of the above activities. Your research proposal is submitted along with the Doctoral Provisional Year Report (DPYR) for Faculty approval towards the end of your provisional year.

Subsequent years

Each year of enrolment students complete a Doctoral Annual Report in conjunction with their supervisor(s). The Doctoral Provisional Year and Annual Reports provide opportunities for students and supervisors to keep the research on track.

Photo: H Ogawa

Academic staff research interests

Photo: P Roest

School of Environment (ENV) academic staff

Paul Augustinus BSc (Melb.), BSc(Hons) (Tas), PhD (Waik.)
Associate Professor
Email: p.augustinus@auckland.ac.nz
Phone: 373 7599 ext. 87603
Room: 1068, Building 301, City Campus

Research interests
Quaternary paleoclimates; Glacial geomorphology in Antarctica and Australasia; Long-term landscape evolution

Lyndsay Blue BSc (Cant.), Dip.Tch (Chch), MSc (Lond.), MPhil (Planning) (Hons) (Auck.)
Senior Tutor
Email: l.blue@auckland.ac.nz
Phone: 373 7599 ext. 88443
Room: 732, Building 201, City Campus

Research interests
Environmental management; Cultural ecology in the South West Pacific; Bridging education

Gretel Boswijk BA, PhD (Sheffield)
Senior Lecturer
Email: g.boswijk@auckland.ac.nz
Phone: 373 7599 ext. 83886
Room: 437, Building 201, City Campus

Research interests
Dendrochronology; Dendroclimatology; Environmental change

Belinda Bray BSc, MSc, PhD (Otago)
Lecturer
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Phone: 373 7599 ext. 83034
Room: 556, Building 201, City Campus

Research interests
Communication of science to non-academic audiences; Informal science learning opportunities for education groups; Interaction between science and society

Marc-André Brideau BSc(Hons), MSc, PhD (S. Fraser)
Lecturer
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Phone: 373 7599 ext. 85195
Room: 1069, Building 301, City Campus

Research interests
Engineering geology; Slope stability; Natural hazards; Rock engineering

Gary Brierley BA(Hons) (Durham), MSc, PhD (S. Fraser)
Professor
Email: g.brierley@auckland.ac.nz
Phone: 373 7599 ext. 88956
Room: 672, Building 201, City Campus

Research interests
Fluvial geomorphology; River rehabilitation; Water resources management

Kathleen A Campbell BSc (Calif.), MSc (Wash.), PhD (S. Calif.)
Associate Professor
Email: ka.campbell@auckland.ac.nz
Phone: 373 7599 ext 87418
Room: 1065, Building 301, City Campus

Research interests
Paleoecology; Paleoenvironments; Sedimentology; Earth History

Mick Clout BSc (Edin.), PhD (Auck.)
Professor (jointly appointed with School of Biological Sciences)
Email: m.clout@auckland.ac.nz
Phone: 373 7599 ext. 85281
Room: 332, Building 733, Tāmaki Campus

Research interests
Conservation biology; Impacts and management of invasive species; Ecology and behaviour of birds and mammals

Brad Coombes BA(Hons), PhD (Otago)
Senior Lecturer
Email: b.coombes@auckland.ac.nz
Phone: 373 7599 ext. 88455
Room: 686, Building 201, City Campus

Research interests
Resource and environmental management; Indigenous participation in conservation; Sustainability and environmental justice

Chris de Freitas BA(Hons), MA (Toronto), PhD (Q'ld.)
Associate Professor
Email: c.defreitas@auckland.ac.nz
Phone: 373 7599 ext. 85283
Room: 557, Building 201, City Campus

Research interests
Environmental climatology; Climate resource assessment; Climate-society interaction

Mark Dickson BSc(Hons) (Massey), PhD (Wollongong)
Lecturer
Email: m.dickson@auckland.ac.nz
Phone: 373 7599 ext. 88329
Room: 432, Building 201, City Campus

Research interests
Coastal processes; Geomorphic modelling; Rock and gravel coasts; Coastal management

Joe Fagan MA (Auck)
Senior Tutor
Email: j.fagan@auckland.ac.nz
Phone: 373 7599 ext. 85381
Room: 679, Building 201, City Campus

Research interests
People; Management of coastal systems; Tourism

Karen Fisher MSocSc (Waikato), PhD (ANU)
Lecturer
Email: k.fisher@auckland.ac.nz
Phone: 373 7599 ext. 88410
Room: 670, Building 201, City Campus

Research interests
Environmental management; Water governance; Participatory development; Development and the environment

Pip Forer MA (Oxf.), PhD (Bris.)
Professor
Email: p.forer@auckland.ac.nz
Phone: 373 7599 ext. 85183
Room: 691, Building 201, City Campus

Research interests
Geographic information systems and visualization; Society and spatial technologies; Space, time, accessibility and urban spatial processes; Modeling tourist movements and impacts; Health geographics; Geodemorgraphics and economic development; Environments for Flexible Learning in Geography

Anthony Fowler MA, PhD (Auck.)
Senior Lecturer
Email: a.fowler@auckland.ac.nz
Phone: 373 7599 ext. 85380
Room: 435, Building 201, City Campus

Research interests
Climate change; Hydroclimatology; Dendroclimatology

Ward Freisen BA (Calgary), BA(Hons) (Carleton), PhD (Auck.)
Senior Lecturer
Email: w.friesen@auckland.ac.nz
Phone: 373 7599 ext. 88612
Room: 675, Building 201, City Campus

Research interests
Economic, population and urban geographies; Migration, ethnicity and identity; Development and livelihoods; Tourism; Pacific Islands

Mark Gahegan BSc(Hons) (Leeds), PhD (Curtin)
Professor
Email: m.gahegan@auckland.ac.nz
Phone: 373 7599 ext. 88061
Room: 554, Building 201, City Campus

Research interests
Geographic information systems and science; Geovisualization; e-Research and e-Education; Spatial analysis and geocomputation; Representing and computing with knowledge; Remote sensing; Geodemographics and epidemiology; Spatial technologies and their impacts on society

JC Gaillard PhD (Univ. de Savoie)
Senior Lecturer
Email: jc.gaillard@auckland.ac.nz
Phone: 373 7599 ext. 89679
Room: 560, Building 201, City Campus

Research interests
Thematic interests: disaster risk reduction (DRR), participatory tools for DRR, ethnicity and DRR, gender and DRR, armed conflicts and disasters, post-disaster resettlement; Regional focus: Philippines, Indonesia, Comoros, Cape Verde, Guadeloupe, Nepal, France, New Zealand

Jay Gao BE (Wuhan Tech.), MS (Toronto), PhD (Georgia)
Senior Lecturer
Email: jg.gao@auckland.ac.nz
Phone: 373 7599 ext. 85184
Room: 681, Building 201, City Campus

Research interests
Geographic information systems; Remote sensing and image analysis; Spatial analysis

David Hayward BA (Lanc.), MS, PhD (Penn. State)
Senior Lecturer
Email: d.hayward@auckland.ac.nz
Phone: 373 7599 ext. 88454
Room: 440, Building 201, City Campus

Research interests
Economic geography (regional economic analysis and development); Commodity chains and international trade

Paul Hoskin BSc(Hons) (Auck.), GDipTchng&Lrng (Chch), PhD (ANU), D. Habil. (Freiburg)
Associate Professor
Email: p.hoskin@auckland.ac.nz
Phone: 373 7599 ext. 89345
Room: 1062, Building 301, City Campus

Research interests
Geothermal geology; Geochemistry; Analytical geochemistry

Robin Kearns MA (Auck.), PhD (McMaster)
Professor
Email: r.kearns@auckland.ac.nz
Phone: 373 7599 ext. 88442
Room: 674, Building 201, City Campus

Research interests
Urban social dynamics; Neighbourhood design and active travel; Health geography; Children's geographies; Post asylum geographies; Geographies of aging

Paul Kench MA (Auck.), PhD (UNSW)
Associate Professor
Email: p.kench@auckland.ac.nz
Phone: 373 7599 ext. 88440
Room: 735, Building 201, City Campus

Research interests
Coastal processes; Coral reefs; Coastal management

Richard Le Heron MA (Massey), PhD (Wash.)
Professor
Email: r.leheron@auckland.ac.nz
Phone: 373 7599 ext. 88453
Room: 438, Building 201, City Campus

Research interests
Policy and governance in New Zealand's agri-food economy; Globalisation, governmentality and geography; Supply chain realignment and competitive repositioning; Globalising dairy industry; Nature-society relations; Discourses and practices of sustainability; Post-structuralist political economy; Sites of research-led learning; Learning regions, networks and governance

Nicolas Lewis MA, PhD (Auck.)
Senior Lecturer
Email: n.lewis@auckland.ac.nz
Phone: 373 7599 ext. 88214
Room: 733, Building 201, City Campus

Research interests
Neo-liberalism as governmentality; Political economy and political geography; Governance and the making of industries; Geographies of education; The New Zealand wine and fashion industries; The political economy of the small islands in the Pacific

Jan Lindsay MSc (Auck.), PhD (University of Giessen, Germany)
Senior Research Fellow in Volcanic Hazard and Risk
Email: j.lindsay@auckland.ac.nz
Phone: 373 7599 ext 88678
Room: 503, Building 435, City Campus

Research interests
Petrology and geochemistry of volcanic rocks; Volcanic hazard and risk assessment; Risk communication; Emergency management

Marie McEntee MA(Hons) (Auck.), LTCL
Senior Tutor
Email: m.mcentee@auckland.ac.nz
Phone: 373 7599 ext. 82499
Room: 553A, Building 201, City Campus

Research interests
Science Communication; Agricultural Extension; Social learning for sustainable resource management; Participatory research

Glenn McGregor MSc (Auck.), PhD (Cant.)
Professor, Director of School
Email: g.mcgregor@auckland.ac.nz
Phone: 373 7599 ext. 85284
Room: 684, Building 201, City Campus

Research interests
Synoptic climatology; Climate and health; Large scale hydroclimatology; Climate and society

Jeffrey L Mauk BSc (N.Carolina), MSc (Montana), PhD (Mich.), SEG, AUSIMM
Senior Lecturer
Email: j.mauk@auckland.ac.nz
Phone: 373 7599 ext 87419
Room: 1067, Building 301, City Campus

Research interests
Geology and geochemistry of metallic mineral deposits, especially epithermal gold deposits; Relations between organic matter and ore deposits; Tectonostratigraphic settings of Proterozoic mineral deposits; Aqueous and petroleum fluid migration in sedimentary basins

Neil Mitchell MA (Oxf.), MSc (Wales), PhD (Newcastle, UK)
Senior Lecturer
Email: n.mitchell@auckland.ac.nz
Phone: 373 7599 ext. 88367
Room: 551, Building 201, City Campus

Research interests
Restoration ecology; Conservation; Analysis and modeling of species/environment interactions including species distributions and responses to climate change

Barry O'Connor MSc, PhD (Auck.)
Senior Tutor
Email: b.oconnor@auckland.ac.nz
Phone: 373 7599 ext 88638
Room: 1009, Building 301, City Campus

Research interests
Cenozoic radiolaria; Taxonomy, biostratigraphy, evolution, paleogeographic distribution of Southwest Pacific radiolaria; Imaging techniques for microfossils

David O'Sullivan BA (Cambridge), MSc (Glasgow), PhD (London)
Associate Professor
Email: d.osullivan@auckland.ac.nz
Phone: 373 7599 ext. 84963
Room: 689, Building 201, City Campus

Research interests
Geography of personal names; Spatial modeling; Geographic information science; Urban neighborhood change

Susan Owen MA, PhD (Auck.)
Senior Tutor
Email: s.owen@auckland.ac.nz
Phone: 373 7599 ext. 85185
Room: 558, Building 201, City Campus

Research interests
Environmental governance; Climate change adaptation in small island states

George Perry BSc (Hons), MSc (Cant.), PhD (Melbourne), PGCAP (London)
Senior Lecturer
Email: george.perry@auckland.ac.nz
Phone: 373 7599 ext. 84599
Room: 436, Building 201, City Campus

Research interests
Vegetation dynamics and plant ecology; Landscape ecology; Environmental modelling; Spatial statistics and spatial analysis

Warwick Prebble MSc (Well.), PhD (Auck.)
Senior Lecturer
Email: w.prebble@auckland.ac.nz
Phone: 373 7599 ext 87591
Room: 1036, Building 301, City Campus

Research interests
The influence of lithology and defects upon slope movement and on physical properties of rock and soils; Geologic hazards and geotechnical mapping; Geotechnical studies of volcanic deposits and landforms, weak rock slopes and South Island mountains

Julie Rowland PhD (Otago), BSc(Hons) DipTchg (ACE)
Senior Lecturer
Email: j.rowland@auckland.ac.nz
Phone: 373 7599 ext 87412
Room: 1066, Building 301, City Campus

Research interests
Structural controls on crustal fluid redistribution in active hydrothermal systems and epizonal mineral deposits; Magmatic continental rift systems - their structure, evolution and hydrology

Jennifer Salmond MA (Oxon), MSc (Birmingham), PhD (British Colombia)
Lecturer
Email: j.salmond@auckland.ac.nz
Phone: 373 7599 ext. 88650
Room: 433, Building 201, City Campus

Research interests
Urban air pollution; Urban meteorology; Boundary layer meteorology; Meso-scale flows

Luitgard Schwendenmann BSc (Bingen), MSc (Karlsruhe), PhD (Göttingen)
Lecturer
Email: l.schwendenmann@auckland.ac.nz
Phone: 373 7599 ext 84301
Room: 687, Building 301, City Campus

Research interests
Carbon and nutrient cycling; Ecosystem functioning; Tropical ecosystems; Stable isotopes; Ecohydrology; Global change

Phil Shane MSc, PhD (Well)
Senior Lecturer
Email: pa.shane@auckland.ac.nz
Phone: 373 7599 ext 87083
Room: 174, Building 301, City Campus

Research interests
Geochemistry and geochronology of silicic magma systems; Tephrochronology; Volcanic geology

Angela Slade BSc(Hons), PhD (Auck.)
Lecturer / Postdoctoral Research Fellow
Email: a.slade@auckland.ac.nz
Phone: 373 7599 ext 83894
Room: 1023, Building 301, City Campus

Research interests
Isotope geochemistry; Water quality and aqueous geochemistry

Ian Smith BSc (Well.), PhD (ANU)
Associate Professor
Email: ie.smith@auckland.ac.nz
Phone: 373 7599 ext 87416
Room: 1075 Building 301, City Campus

Research interests
Petrology and geochemistry of volcanic rocks in the Southwest Pacific; Volcanology and petrology of NZ Cenozoic volcanic sequences; Magma chamber processes

Willie Smith MA (Aberdeen), MSc, PhD (McGill)
Associate Professor
Email: w.smith@auckland.ac.nz
Phone: 373 7599 ext. 83142
Room: 560A, Building 201, City Campus

Research interests
Natural resources; Rural systems; Science and public policy

Lorna Strachan BSc (Hons) (Leeds), PhD (Cardiff)
Lecturer
Email: l.strachan@auckland.ac.nz
Phone: 373 7599 ext 83522
Room: 1007 Building 301, City Campus

Research interests
Deep marine sedimentary processes and products; Field sedimentology; Seismic interpretation; Experimental sedimentology

Sam Trowsdale BSc(Hons) (Kingston), PhD (Sheff.)
Lecturer
Email: s.trowsdale@auckland.ac.nz
Phone: 373 7599 ext. 88710
Room: 1063, Building 301, City Campus

Research interests
Urban hydrology; Water and society; Water sensitive urban design; Positive impact living

Mel Wall BA, MA (Auck.)
Senior Tutor
Email: m.wall@auckland.ac.nz
Phone: 373 7599 ext. 87949
Room: 671, Building 201, City Campus

Research interests
Social geographies; Race, youth and cultural difference

Hong-Key Yoon BA (Seoul), MS (Brigm.Yng.), PhD (U.C.Berkeley)
Associate Professor
Email: hk.yoon@auckland.ac.nz
Phone: 373 7599 ext. 88466
Room: 695, Building 201, City Campus

Research interests
Cultural geography; Cultural attitudes to the environment; East Asia; Ethnic mosaic in Auckland

Photo: K Campbell

General information

Photo: External Relations, The University of Auckland

General advice to postgraduate students

Financial help

Assistance

The School of Environment provides some limited financial assistance to students enrolled in its graduate programmes. Details are indicated below.

Tutorships/Teaching Assistants

Students can apply for a position as a Teaching Assistant/Tutor. These positions are limited in their availability. If you are interested in tutoring, contact the Academic Programmes Administrator for advice. Appointments are based on academic background.

Postgraduate Research Fund

The School maintains a contestable Graduate Research Fund which is used to provide supplementary support for doctoral research. Applications, with a full budget for the research, need to be submitted through the student's supervisor by the end of March or end of August each year. PhD research funds (PReSS accounts) are administered through The University of Auckland Research Office. Eligible expenses, for which partial support may be given, include field travel, data purchase, conference registration, chemical or equipment purchases, technical field costs and technician support, photographic reproductions, photocopying and postage for surveys.

Outside agencies

Students can obtain financial assistance towards the completion of their research from various outside agencies. This is usually arranged through the student's supervisor. As financial support of this kind depends very much on the topic of the research and the willingness of relevant agencies to invest in graduate work, students entering the programme should not assume that research funds from outside agencies will be available. Students intending to seek outside assistance must discuss their proposal with the Postgraduate Adviser and their supervisor.

Scholarships

Citizens and permanent residents of New Zealand are eligible to apply for the following University of Auckland scholarships:

Doctoral Scholarships

- $25,000 plus fees/annum in 2011

Maori and Polynesian Doctoral Scholarships

- $25,000 plus fees/annum in 2011

Masters/Honours Scholarships

- $10,000/annum including fees in 2011

Maori and Polynesian Masters/Honours Scholarships

- $10,000/annum including fees in 2011

Application forms for the Doctoral Scholarships can be obtained from the Scholarships Office, Room 123, The Clock Tower building. The application forms must be returned to the Scholarships Office not later than 1 November 2010. People wishing to be considered for the Masters/Honours scholarships should write to their Head of Department, indicating:

(a) Their intention to enrol at the University

(b) The programme in which they will be enrolling (BSc(Hons), BA(Hons), MA or MSc)

(c) Their interest in being considered for a Masters/Honours scholarship

For University of Auckland students it is not necessary to supply an academic transcript in support of the application. Prospective applicants should note that these scholarships are limited in availability and that only those people with first class academic records are likely to attain an award.

Other scholarships are available to students enrolled at the University, some of which may be available to students enrolled in the graduate programmes in the School. In recent years, for instance, MA/MSc students received scholarship support from the Health Research Council, the Northland Regional Council and the Whakatane Historical Society. A full listing of scholarships is provided in the Scholarships, Prizes and Awards Handbook, which is available from the Scholarship Office.

Overseas Student Scholarships

For students from overseas, funding for graduate programmes is limited. Prospective applicants are directed to the following possible sources of financial assistance.

The University of Auckland International Doctoral Scholarship

These awards are available to a limited number of overseas students from outside New Zealand and Australia, based on academic merit. Information on the availability and method of application can be obtained from the International Office of the University.

NZ Official Development Assistance Postgraduate Scholarships

Provides funds in support of graduate studies in New Zealand for students from some developing countries. These scholarships provide assistance with fees, living expenses and travel. Information on the availability and method of application can be obtained from the International Office of the University.

Fulbright Scholarships

Students from the United States can apply for grants from the Fulbright Foundation to support a period of study at graduate level in New Zealand. The awards are normally for a period of one year and cover travel expenses, tuition fees, and provide a living allowance. Information can be obtained from the Fulbright Programme Adviser at most universities in the United States or from the Institute of International Education, 809 United Nations Plaza, New York, NY 10017-3580. The closing date is usually mid-October for awards, to be taken up not earlier than June of the following year.

Social life in the School

The School of Environment at Auckland has developed and maintains an excellent reputation as an enjoyable place to work. Postgraduate students and staff participate in a wide range of social as well as professional activities.

Postgraduate orientation

At the beginning of each academic year, all staff and postgraduate students are invited to attend an orientation day. This is an information session and social occasion, offering postgraduate students and staff the opportunity to get to know each other.

School seminars

Research seminars involving academic visitors, staff and PhD students are held regularly. Postgraduate students are expected to attend and to participate in these sessions. The School of Environment Seminar Series runs most weeks (Thursday 1-2pm). At these seminars staff, students and visitors present their research findings and/or discuss current issues.

Communication and liaison

The School attempts to ensure good avenues for communication between graduate students and the staff. This is provided for through the Postgraduate Advisers, through the Postgraduate Staff/Student Consultative Committee (PGSSCC), and through students' supervisors. The Postgraduate Student Committee comprises members of staff and student representatives. The PGSSCC meets regularly throughout the year, to discuss matters of concern regarding the graduate programme. A ENV Postgraduate Committee also meets to discuss policy relating to the graduate programme. Other less formal avenues for communication are also available. If you experience problems with supervision, or any other difficulty associated with your research programme, you should attempt to resolve them as soon as possible. It is usually best to approach your supervisor in the first instance, explaining either verbally or in writing what the problem is, and how it might be resolved. If this is not appropriate, or you are still unhappy, you should approach your Postgraduate Adviser.

Facilities for students

The School provides students with a number of research and study facilities at the City Campus.

Workspace

The School provides workspace at the City Campus for as many tutors and full time graduate students as possible. Pressure on workspace means students are likely to share space with a number of other people.

Laboratories, field equipment and technical resources

Research and teaching in the School is supported by several laboratories, including hydrology, geomorphology and general purpose labs. There is also an array of field equipment, including standard field recorders, boats and all-terrain vehicles. Postgraduate students may be assisted in their research and fieldwork by research and teaching technicians employed by the School.

There are specialised geology, chemistry and ecology laboratories that are provided with analytical facilities and instruments and all the facilities you might expect of a modern well-appointed laboratory. They are supplemented with a wide range of basic and research grade analytical reagents.

Computers

The School has extensive computing facilities, including the University's Spatial Analysis Facility, a major hardware and software resource at the City Campus. This includes areas containing workstation computers, multi-format printers, access to UNIX and Windows computational servers, and a range of major mainstream computational, GIS, remote sensing, visualisation and soft photogrammetry applications. Combined with GPS facilities and significant data holdings these offer considerable opportunities for research work with geographic data. The School also provides dedicated facilities to graduate students with access to general desktop computers and printers.

Visiting postgraduate students

Postgraduate students from overseas universities, who are carrying out thesis research in New Zealand, are encouraged to spend time in the School. In recent years graduates from the Universities of Cologne, Guelph, Bristol, Aberdeen, Edinburgh, Waterloo and Amsterdam have been in residence.

Expressions of interest must be made in writing to the School's Head of Postgraduate Research, at least six months before arrival and acceptance as a Visiting Postgraduate Student is contingent on identification of an academic supervisor in the School.

International students

Students from over 80 different countries choose to study at The University of Auckland and their different perspectives enrich the entire university community.

The School welcomes applications to the Masters, Postgraduate Diploma of Science, and PhD programmes from International Students. Those for whom English is a second language must, however, recognise that all instruction and examinations are in English (see Page 6 for **Contact information** relating to the Auckland International office).

Application process

All international students (i.e. anyone who is not a citizen or permanent resident of New Zealand or Australia) should complete their application on-line, using the University's web-based system, Student Services Online. Should there be difficulty in accessing this on-line application form, a hard copy of the application form can be requested from the International Office.

Student Services Online

Web: www.auckland.ac.nz/apply_now

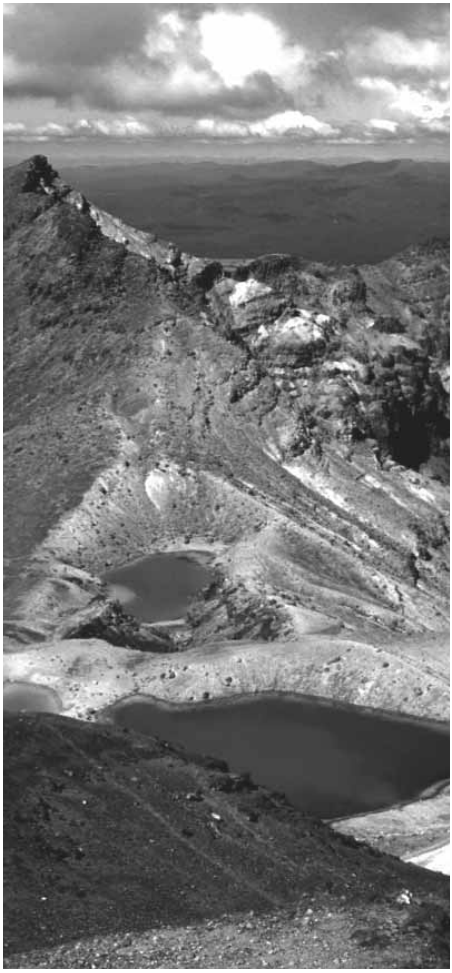
Applications for admission to Masters, Honours and Postgraduate Diploma programmes close on 8 December 2010 for admission at the start of the next academic year (beginning of March). Applications received after this date may be accepted if there are places available. PhD candidates may apply at any time.

Applicants should take note of the particular programme requirements when they complete the online application for admission for International Students. If your application is not complete, it will delay the process. It usually takes at least 6-8 weeks to process graduate applications.

International Students are advised to apply well in advance in order to allow plenty of time to make other arrangements that will depend on the admission decision eg, travel bookings, visa applications.

All applicants whose first language is not English must provide satisfactory evidence of their proficiency in English, in the form of an IELTS or TOEFL score. Minimum scores are: IELTS 6.5 with no band less than 6.0 in the academic module, TOEFL 575 with a TWE score of 4.5 (or computer-based TOEFL 233 with a TWE score of 4.5). International students must have a Student Visa before they can begin their university studies.

Photo: I Drecki



Examinations, assessment and academic honesty

Applications for Aegrotat and Compassionate Consideration

An application may be made for aegrotat or compassionate consideration, by candidates who may have been prevented from being present at an examination, or who consider that their preparation for or performance in an examination has been seriously impaired by temporary illness or injury or exceptional circumstances beyond their control. This also applies to tests, but not assignments.

Application forms are available online, or from the relevant campus Student Health and Counselling Services and Examinations Office.

The application form must be submitted to the University Health and Counselling Service within one week of the date that the examination affected took place, or if more than one examination has been affected, then within one week of the last of those examinations.

Following the decision of Senate on an application for Aegrotat or Compassionate Consideration, a student may apply for reconsideration of that decision no later than four weeks after the student is notified of Senate's decision. Please refer to The University of Auckland Calendar for the official regulations.

Missed examinations

Students who discover that they have missed an examination through their own mistake cannot sit the examination at another time unless it is for a Masters or Bachelors Honours degree. The student must contact the Examinations Office immediately and complete an application for Special Pass Consideration. Please refer to the Examination Regulations in the Calendar.

Assessment

Our courses comprise of lectures and laboratory exercises that generally run within one 12-week semester. In each course you will be expected to complete coursework, which is marked and contributes to the final grade for the course. Coursework may include essays, short exercises, longer research reports and tests. In addition, most courses have examinations, which are taken at the end of the semester under strict conditions. Your instructors will advise you on what to expect in the final examinations.

Coursework and examinations are marked using the following scale: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-. The first nine of these are passing grades and indicate that the work is of acceptable quality for the completion of the course. Assessments may be awarded as letter grades (above) or as marks, using a standard scale. Copies are available from the School.

Academic honesty, cheating and plagiarism

Cheating is viewed as a serious academic offence by The University of Auckland. The University will not tolerate cheating, or assisting others to cheat. Penalties are set by the Discipline Committee of the Senate and may include suspension or expulsion from the University.

What is cheating?

Cheating, in the context of University coursework and examinations, is the act of attempting to gain an unfair advantage by violating the principle that lies behind all University work – that of intellectual and scholarly integrity.

Work students submit for grading – in coursework and examinations – must ultimately be their own

work, reflecting each student's learning and performance. To cheat is to be intellectually dishonest by passing off as your own, work that has been done by someone else. It is also unjust in that it devalues the grades and qualifications gained legitimately by other students.

All staff and students have a responsibility to prevent, discourage and report cheating.

Examples of forms of cheating

- Copying from another student during a test or examination, whether or not there is collusion between the students involved
- Using the work of other scholars or students when preparing coursework and pretending it is your own by not acknowledging where it came from. This is called plagiarism. Course coordinators, lecturers or tutors are the appropriate people with whom you should discuss how to use and acknowledge the work of others appropriately
- Making up or fabricating data in research assignments, or the writing up of laboratory reports
- Impersonating someone else in a test or examination, or arranging such impersonation
- Submitting the same, or a substantially similar, assignment that you have done, for assessment in more than one course
- Misrepresenting disability, temporary illness/injury or exceptional circumstances beyond one's control, then claiming special conditions
- Using Material obtained from commercial essay or assignment services, including web-based sources.

Group work

On the whole, the University requires assessment of the work of individual students. On those rare occasions where the work of a group of students is assessed, group members need to make sure that the workload is shared equally. Course coordinators will determine their own procedures for dealing with cases where the final piece of work reflects unequal participation and effort.

Student support

Typically students cheat because they are having difficulty managing workloads, feel that the course content is too difficult or experience difficulties with the language of the course. None of these reasons are justification for cheating. There are many people and services at the University to assist students. Options of people to approach include:

- the course convenor/coordinator, lecturer, tutorial head, lab demonstrator
- Head of Department
- faculty-level official
- Student Learning Centre or Library staff
- AUSA or other students' association representatives
- health and counselling services staff.

The University subscribes to the Turnitin originality checking service. Students may be required to upload their coursework to this web site.

Turnitin

Web: www.turnitin.com

Students should also consult the University's major academic referencing resource.

Referen©ite

Web: www.cite.auckland.ac.nz

The following website provides further information about the key principles and practices underlying academic honesty, and related resources:

Academic honesty and plagiarism

Web: www.auckland.ac.nz/honesty

University Library Te Tumu Herenga

The University Library consists of the General Library and 12 subject-specific libraries with over 2.2 million volumes, a world-class digital library collection, 4700 study spaces with 1100 of those providing access to computers.

General Library

Most science serials are now available electronically. The majority of the science book collection is shelved on Level M where you will also find printed serial collections for biology, marine science, chemistry, computer science, food science, geology, physics, mathematics and statistics. Geography, computer science and psychology serials are shelved with the book collection.

Tāmaki Library has resources in computer science, physics, psychology and sport and exercise science.

Leigh Marine Research Laboratory Library has marine science resources.

Courses, tours and training

Tours and hands-on courses will give you the confidence to use the University Library, its Information Commons service and all its resources. If you are a new student, the following courses are recommended:

- Library and Resources Overview: an introduction to the University Library resources and services.
- Database Searching: how to choose and use databases.
- Uni IT Essentials: covers University IT facilities, Netaccount and NetID, Cecil, Webmail, wireless and other electronic resources.

To book a Library course visit www.library.auckland.ac.nz/booking

Services

Library services include Ask a Librarian Service, Enquiry Desk, Information Commons Help Desk, Inter-Campus Library Delivery Service, Interlibrary Loan and Document Delivery and the Short Loan Collection.

Subject Librarians

Visit the subject librarians in Science Information Services on Level M. Consultation sessions are available during visits made by the Subject Librarian to the School.

Borrowing and accessing resources

Your student ID card is your Library card. Use it to access the photocopiers, printers and to borrow items. You also have 24-hour access via the Library website:

General Library

Web: www.library.auckland.ac.nz

Photo: L Cotterall

Services and support for students

Information Commons

Designed as information hubs, the Information Commons give you computer access and learning support, as well as proving group and individual study areas. You'll find these facilities at our City, Grafton and Epsom campuses.

Use one of the Information Commons computers or laptops to access your coursework through Cecil (the University's e-learning system), send email and browse the Internet, and to complete coursework using MS Office, Adobe Master Collectionand other software. You can retrieve information from the library databases, e-journals, e-books and electronic course materials - including recommended readings. You also have access to printers, scanners and photocopiers. Wireless networking technology is available.

At the Kate Edger Information Commons on the City Campus you will find computer training rooms, the Student Learning Centre, a Disabilities Resource room, the Library's Short Loan service and the English Language Self-Access Centre (ELSAC).

The IC Helpdesks provide walk-in, roaming, email and telephone support with all aspects of student computing resources and services. If you want to develop your IT and information literacy you can attend a training course, use electronic resources on the Library and Information Commons web sites or ask a staff member for help.

Information Commons

Email: ichelpdesk@auckland.ac.nz
Phone:373 7599 ext. 82333
Web: www.information-commons.auckland.ac.nz

Student Learning Centre

The Student Learning Centre (SLC) facilitates the development of effective academic learning and performance skills for all students enrolled at the University. Qualified tutors of the Centre provide learning instruction, advice and support through workshops, individual consultations, and online resources:

Skills areas covered include:

- Learning skills, eg, reading, note-taking, learning styles
- Writing skills, eg, question analysis, planning and structuring, summarizing and paraphrasing, referencing, editing.

  - Thinking Skills, eg, critical thinking, constructing arguments

  - Test and exam skills, eg, multi-choice and short answer questions, exam essays, exam sitting strategies
- Self-management skills, eg, time/workload management, motivation, academic assertiveness
- Computer skills, eg, MS Word/Excel/ PowerPoint; SPSS; EndNote
- Mathematics and Statistics support for specific credit courses
- Support for students with English as an Additional Language (EAL), eg, sentence structure, paragraph writing, academic style

The Centre caters for the academic needs of Māori students through its Te Puni Wananga programme, and for the needs of Pacific students through the Fale Pasifika programme. In addition, the SLC has specialist tutors who can provide assessment, instruction, and support for students with specific learning disabilities.

It is necessary to register with the SLC to utilise its services; this costs $10 for the calendar year.

- Postgraduate Skills eg: Project/thesis writing, research methods, seminars
- Te Puni Wānanga – Support for Māori students
- Fale Pasifika – Support for Pasifika students
- English as an Additional Language (EAL) eg: Critical thinking, reading, writing
- Mathematics and Statistics – Support for specific credit courses
- Computer Skills eg: MS Word (Formatting)/ Excel/PowerPoint; SPSS; EndNote
- Students experiencing learning/other disabilities eg: Handwriting, spelling, writing

It is necessary to register with the SLC to utilise our services, this costs $10 for the calendar year.

Student Learning Centre

Centre for Academic Development
Level 3, Information Commons
9 Symonds Street
City Campus

Email: slc@auckland.ac.nz
Phone:373 7599 ext. 88850
Web: www.slc.auckland.ac.nz

Diagnostic English Language Needs Assessment (DELNA)

DELNA is only available to students who have accepted a place and enrolled at The University of Auckland. It cannot be used to exclude you from a particular programme and the results do not appear on your academic record.

The screening is a 30 - minute compulsory assessment that includes a vocabulary task and a text editing task. It enables us to quickly identify whether or not you need assistance with the demands of academic English. If you do require assistance, you will undertake the second part of the assessment.

You should book your screening assessment during Orientation Week or the first week of semester by going online to:

DELNA booking

Web: www.delna.auckland.ac.nz/booking

The diagnosis is only necessary if your screening results suggest you need assistance with academic English language skills. This two-hour assessment includes a listening, reading and writing task. It enables us to recommend appropriate English language enrichment options.

If you do need to improve your skills, you will be invited to discuss your needs with the DELNA Language Adviser and guided to sources of effective English language enrichment within the University.

DELNA

Web: www.delna.auckland.ac.nz

English Language Self Assess Centre (ELSAC)

ELSAC is the place where you can:

- get advice about your particular English language needs for university study
- use a huge variety of English language resources
- come any time for as long as you like, Monday to Friday between 9am and 5pm. Visit the ELSAC space, real and virtual, and chat to Siew, Rebecca or Penny - we're all experienced English language teachers.

ELSAC services are free for as long as you are enrolled at The University of Auckland.

ELSAC

Level 1, Kate Edger Information Commons

Email: elsac@auckland.ac.nz
Phone:373 7599 ext. 82134
Web: www.elsac.auckland.ac.nz

International students

iSPACE is an area for international students to meet other students, obtain information and attend organised activities and workshops. You will have access to international magazines so that you can find out what is happening in your country. You can attend regular workshops and information sessions to help you adjust to living in New Zealand. There will be social and cultural activities to help you make friends.

iSPACE

Level 4, Kate Edger Information Commons

Pastoral care for international students

If you need to talk to someone about problems or difficulties you may be having, you can speak to one of the International Student Advisers. They offer a free and confidential service to help you seek assistance with any issues related to your studies, accommodation, health, money, adjusting to life in New Zealand, work or immigration. You will also have access to all other support services at the University.

Support for students

Equal Educational Opportunity (EEdO)

The School of Environment is committed to encouraging the participation and success of all students who have the desire and potential to achieve academically, and welcomes students from a wide variety of backgrounds. Several initiatives aim to support students from groups under-represented at University.

Punanga Huihuinga Wananga is a retreat/ study space for Maori students in the School of Environment:
Room: 553f, Building 201, City Campus

Our **Kaiawhina** welcomes and mentors Maori students
Room: 553f, Building 201, City Campus

Our **Pasifika Student Adviser** offers assistance to Pacific Island students:
Room: 550, Building 201, City Campus

Asian students wanting advice and support are invited to contact:

Jay Gao
Email: jg.gao@auckland.ac.nz
Phone:373 7599 ext. 85184
Room: 681, Building 201, City Campus

For further information please contact the **School of Environment (ENV) EEdO Adviser**:

Lyndsay Blue
Email: l.blue@auckland.ac.nz
Phone:373 7599 ext. 88443
Room: 732, Building 201, City Campus

EEdO team

The University of Auckland EEdO team assists and advises students regarding entry to the University and provides a variety of on-campus support. Check their website at:

EEdO

Web: www.eo.auckland.ac.nz

Disability Coordinators

Email: disabilities@auckland.ac.nz
Phone:373 7599 ext. 88808

Maori Equity Adviser

Email: m.taurere@auckland.ac.nz
Phone:373 7599 ext. 87311

Pacific Islands Equity Adviser

Email: c.fetokai@auckland.ac.nz
Phone:373 7599 ext. 87844

Women in Science Equity Adviser

Dr Belinda Bray
Email: b.bray@auckland.ac.nz
Phone:373 7599 ext. 83034

Harassment

It is possible in the large and complex society of the University that students may encounter problems with the behaviour of staff or fellow students. This behaviour may be harassment if it is unwanted, unacceptable or offensive. University policy is that harassment on any grounds - including but not restricted to, sexual, racial, religious, and academic - is totally unacceptable. For informal and confidential assistance in dealing with harassment problems, students may approach any member of the Resolve Network (a list of their names can be found on posters displayed around campus). The university's harassment policy can be accessed from the university's website.

Resolve Network

Web: www.auckland.ac.nz/mediation

WAVE student support service

The W.A.V.E Department exists to provide a support network, a voice and services to improve the quality of student life at The University of Auckland. W.A.V.E is an acronym to describe the four major areas that the department works in: Student Welfare, Student Advocacy, Student Voice and Student Education.

If a student is unhappy about something at the University or needs help sorting out a problem, the dedicated W.A.V.E. team is there to help.

Hardship grants

If a student need help with food, accommodation, travel or medical costs they can apply for an AUSA Hardship Financial Assistance Grant. The Welfare Officer also provides emergency food parcels for students in need.

Email: welfare@ausa.or.nz

Parents Space

There is a dedicated kitchen and study area for students to use, with or without your children, at AUSA House on 4 Alfred Street. The resources that are available include; port-a-cot, high chair, change table, TV/Stereo, computer & printer, children's toys and books, kitchen facilities, study spaces and lounge chairs.

Email: spro@ausa.org.nz

Advocacy

The Student Advocacy team have the skills and dedication to ensure that students are treated fairly and with respect while you study at The University of Auckland. The Student Advocates offer prompt, confidential and quality support to any student who has an academic grievance or any other concern about the University services. We also provide general legal advice on issues within the wider community, such as tenancy and employment.

Email: wave.manager@ausa.org.nz

Voice

Voice is another term for Student Representation. Student representation exists at all levels throughout the University and is coordinated through the W.A.V.E department. This ensures that students are represented at every level possible at the University. A Class Rep is a student who volunteers at the start of each semester to represent the interests of the students in their courses to the lecturers.

Email: classreps@ausa.org.nz

Education

The Education Vice Presidents role is to bring your concerns about education matters to the wider community.

Email: evp@ausa.org.nz

Other WAVE services

Tāmaki Student Association

The TSA office is based at the Tāmaki Campus and is open from Monday – Friday between 10am-2pm. The services offered include a dedicated Parents Space for students, sports equipment, free lockers, lost property, emergency food parcels, AUSA Hardship Grant applications, Class Party applications, photocopying and free phone for local calls.

Email: tsa.admin@ausa.org.nz

Epsom Tai Tokerau Student Association

The ETTSA office is located at the Epsom Campus to support students studying there. Students can organise the catering for a class party, loan sport equipment, buy a locker to store books, apply for a hardship grants, and be issued with an access card for the fitness centre and pool, and obtain stickers for MAXX bus discounts from the Office Administrator.

Email: ettsa.admin@ausa.org.nz

AUSA

Auckland University Students' Association
2nd floor Kate Edgar Building

Phone:021 272 7026 or 309 0789 ext. 202
Web: www.ausa.org.nz

Careers advice

A degree from The University of Auckland will give you a foundation of knowledge and skills that can lead to a wide range of career opportunities. Our graduates begin their careers in research organisations, local government, central government, universities, commerce and industry, international and community organisations.

University Careers Services can assist you with your career planning and job search throughout the course of your studies. Their website contains a wealth of invaluable career resources. University Careers Services provides assistance to science students through careers information and advice, job search and career research workshops in the Careers Service, plus seminars and a drop-in service at a variety of times and locations.

University Careers Services

The ClockTower
22 Princes Street
City Campus

Web: www.auckland.ac.nz/careers

For job vacancies, career events, information on internships and current graduate career opportunities, as well as information about employer presentations on campus, visit:

Auckland CareerHub

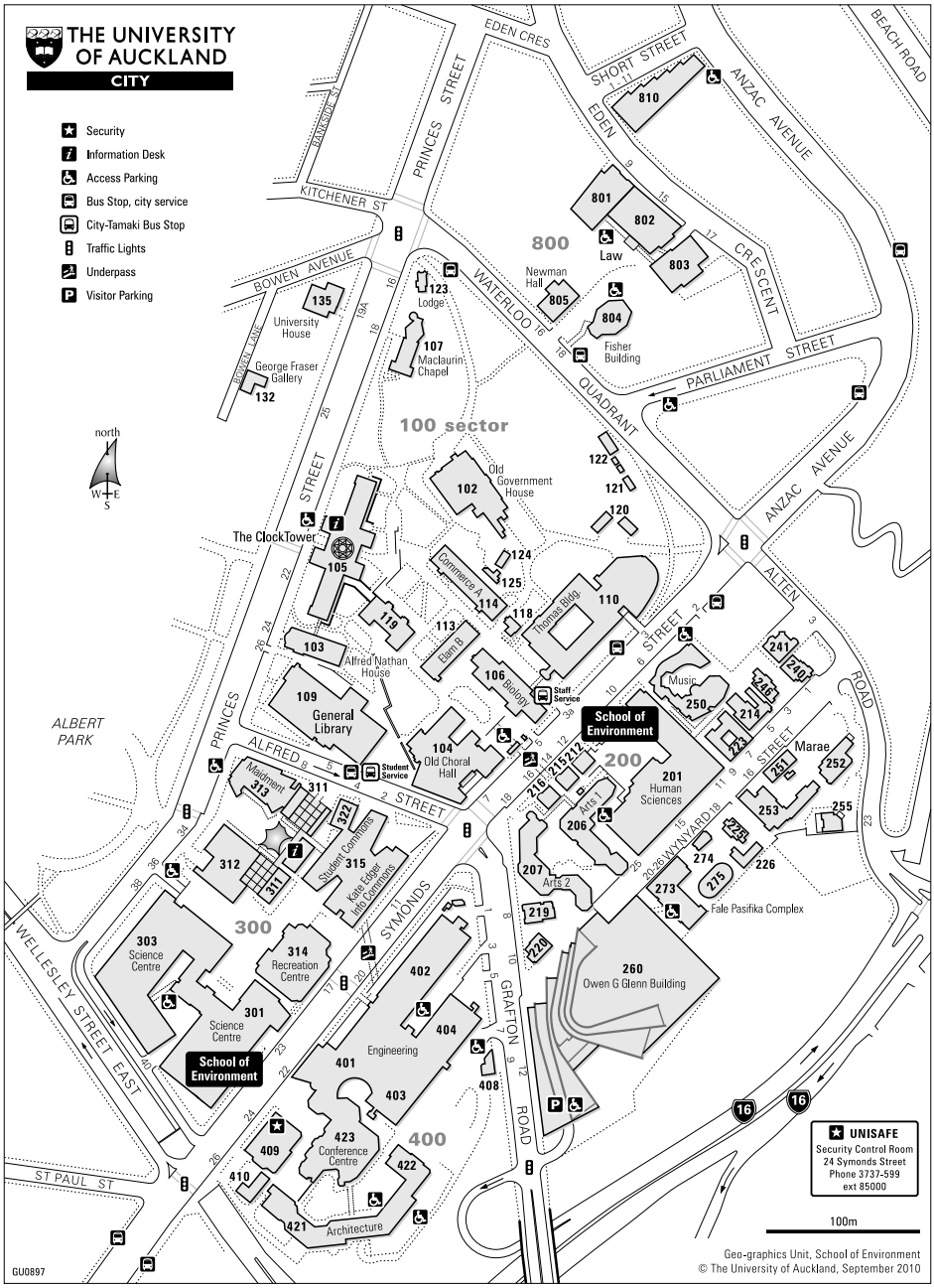
Web: www.auckland.ac.nz/careerhub

Photo: J Drecki

Student support services

Service	Location	Phone
Accommodation and Conference Services	O'Rorke Hall, 16 Mount Street	+64 9 373 7599 accom@auckland.ac.nz www.auckland.ac.nz/accommodation
Careers Centre	Room 001, The ClockTower	+64 9 373 7599 ext 88727 careers@auckland.ac.nz www.auckland.ac.nz/careers
Early Childcare Services	28 Park Avenue, Grafton	+64 9 373 7599 ext 85894
Chaplain's Office	18 Princes Street	+64 9 373 7599 ext 87732 chapelsec@auckland.ac.nz
Disability Services	Room 036, The ClockTower (south wing)	+64 9 373 7599 ext 82936 disabilities@auckland.ac.nz
Mediator's Office		+64 9 373 7599 ext 88905 mediation@auckland.ac.nz www.auckland.ac.nz/mediation
Equity Office	Level 1, The ClockTower (East Wing)	+64 9 373 7599 ext 84923 www.eo.auckland.ac.nz
Student Finance	Room 108, The ClockTower	+64 9 373 7599 ext 84422
Health Services (including counselling)	Level 3, Student Commons	+ 64 9 373 7599 ext 87681
Dental Services	Level 3, Student Commons	+64 9 373 7599 ext 83860
International Students' Information Centre	International Office Old Choral Hall	+64 9 373 7513 int-questions@auckland.ac.nz www.auckland.ac.nz/international
Recreation Centre	Building 314, 17 Symonds Street	+64 9 373 7599 ext 84788 www.auckland.ac.nz/recreation
Scholarships Office	Room 012, The ClockTower	+64 9 373 7599 ext 87494 scholarships@auckland.ac.nz www.auckland.ac.nz/scholarships
Student Advocacy Network	AUSA House 3 Alfred Street	+64 9 309 0789 ext 327 advocate@auckland.ac.nz www.auckland.ac.nz/wave
Student Information Centre	Room 112, The ClockTower	0800 61 62 65 +64 9 373 7599 ext 88199 studentinfo@auckland.ac.nz
Student Learning Centre	Level 3 Information Commons	+64 9 373 7599 ext 88850 slc@auckland.ac.nz www.slc.auckland.ac.nz
Student loans and allowances	StudyLink	0800 88 99 00 www.studylink.govt.nz
SciSpace	G16, Ground Floor, Building 303	+64 9 373 7599 ext 85510 www.science.auckland.ac.nz/scispace
Students' Association	AUSA, 4 Alfred Street	+64 9 309 0789 ausa@auckland.ac.nz www.ausa.auckland.ac.nz
University Book Shop (UBS)	Kate Edger Building	+64 9 306 2700 www.ubsbooks.co.nz

City campus


THE UNIVERSITY OF AUCKLAND
CITY
Security
Information Desk
Access Parking
Bus Stop, city service
City-Tamaki Bus Stop
Traffic Lights
Underpass
Visitor Parking
north
EDEN CRES
SHORT STREET
BEACH ROAD
ANZAC AVENUE
PRINCES STREET
KITCHENER ST
BOWEN AVENUE
WATERLOO QUADRANT
PARLIAMENT STREET
CRESCENT
800
Law
Newman Hall
Lodge
Fisher Building
University House
George Fraser Gallery
Maclaurin Chapel
100 sector
Old Government House
The ClockTower
Commerce A
Commerce B
Thomas Bldg
Alfred Nathan House
General Library
Old Choral Hall
Biology
Staff - Student Service
School of Environment
Human Sciences
Music
Marae
Fale Pasifika Complex
ALBERT PARK
ALFRED STREET
Student Service
Student Commons
Kate Edger Info Commons
Arts 1
Arts 2
SYMONDS STREET
WELLESLEY STREET EAST
ST PAUL ST
GRAFTON ROAD
300
Science Centre
Recreation Centre
Science Centre
School of Environment
Engineering
Conference Centre
Architecture
400
Owen G Glenn Building
UNISAFE
Security Control Room
24 Symonds Street
Phone 3737-599
ext 85000
100m
GU0897
Geo-graphics Unit, School of Environment
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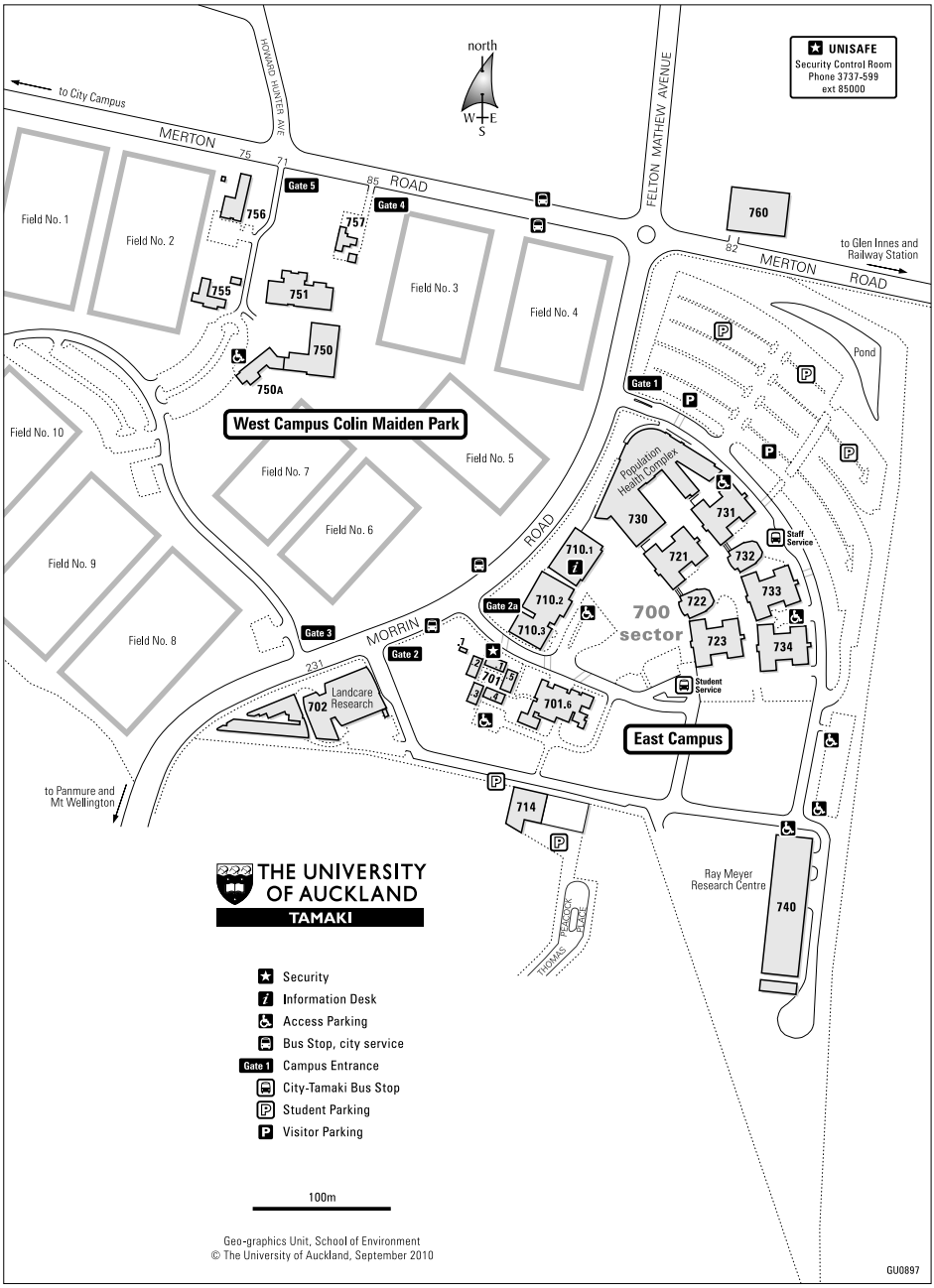
Tāmaki campus



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School of Environment
The University of Auckland
Private Bag 92019
Auckland 1142
New Zealand

Physical location
Reception
Room 680, Level 6
Human Sciences Building 201
10 Symonds Street
Auckland 1010

Contact information
Email: environment@auckland.ac.nz
Phone: 64 9 3737599 ext. 85923 or 88465
Fax: 64 9 373 7434
Web: www.environment.auckland.ac.nz

www.environment.auckland.ac.nz