

School of Geography & Geosciences

Head of School

Professor D Maclennan

Taught Programmes

M.Res.:	Human Geography
M.Litt.:	Environmental History (<i>see School of History</i>)
M.Phil.:	Environmental History (<i>see School of History</i>)
M.Sc.:	Managing Environmental Change (<i>not available 2012-13</i>) Sustainable Development (<i>see section 25</i>)

Programme Requirements

Human Geography

Taught Element:	105 credits: GG5000, GG5001, GG5002, GG5003, SS5101, SS5102, SS5103 15 credits: GG5020 or SS5104
M.Res.:	120 credits, as for the Taught Element, plus a dissertation (GE5008) of not more than 15,000 words (60 credits)

Managing Environmental Change (*not available 2012-13*)

Taught Element:	(120 credits): 40 credits from GG5101, ID5005, GG5109 and either GG5105 or GG5106 (depending on availability), 15 or 20 credits from ID5010, ID5011 or ID5012, 30 credits from GG5110, and the remaining 30 or 35 credits from GE5010, GG5103, GG5104, SS5103-4, and 4000 level modules (up to 30 credits with permission of the relevant Head of School). Modules GG5105, GG5106 and GG5109 are based in Dundee, all others are based in St Andrews.
M.Sc.:	120 credits, as for the Taught Element, plus a dissertation (60 credits, GG5111) of not more than 10,000 words

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Modules

ES5101 Environmental Change				
SCOTCAT Credits:	10	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
This module places special emphasis on the interactions between the major components of the Earth system, notably lithosphere, atmosphere, hydrosphere and biosphere, and their influence on the rates of change. Issues such as carbon sources and sinks in relation to “carbon taxation” will be highlighted. The Scottish context of global change will also be considered.				
Programme module type:	Compulsory for the Managing Environmental Change Taught Programme			
Learning and teaching methods and delivery:	24 hours of lectures and seminars plus field trip and site visits over the semester.			
Assessment pattern:	Coursework = 50%, 1 Hour, open book review essay Examination = 50%			
Module Co-ordinator:	Dr C R Bates			
Lecturer(s)/Tutor(s):	Team taught			

ES5103 Data Capture and Analysis 1: Geophysics and Remote Sensing				
SCOTCAT Credits:	10	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
The module begins with field methods of survey, notably geophysical site surveying using gravity, magnetic, electric, electromagnetic, and seismic techniques, as well as topographic surveying. Field sampling techniques are applied to water and sediments. Throughout emphasis is placed on methods for storing and manipulating spatial data using GIS.				
Programme module type:	Compulsory for the Managing Environmental Change Taught Programme			
Learning and teaching methods and delivery:	About 16 hours of lectures and tutorials, and about 30 hours of formal practical work over the semester.			
Assessment pattern:	Coursework (Field Report on Geophysical Methods = 40%, Spatial analysis of remote sensing data = 40%, poster presentation = 20%) = 100%			
Module Co-ordinator:	Dr C R Bates			
Lecturer(s)/Tutor(s):	Dr C R Bates			

ES5104 Data Capture and Analysis 2: Laboratory Methods				
SCOTCAT Credits:	10	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
This module provides students with practical experience in using modern analytical methods relevant to environmental geochemistry. As well as gaining hands-on experience with a range of analytical equipment the module will cover relevant methods by which data from various analytical methods may be processed and represented. The concepts of precision and errors in practical analysis will be developed, and students will gain an understanding of the requirements of health and safety at work legislation for working in laboratories as well as an appreciation of good laboratory practice.				
Programme module type:	Compulsory for the Managing Environmental Change Taught Programme			
Learning and teaching methods and delivery:	8 hours of lectures plus 30 hours of formal practical work over the semester.			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr A A Finch			
Lecturer(s)/Tutor(s):	Dr A A Finch			

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ES5110 Group Project				
SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			
The project will be based on an environmental management problem that will involve most or all of fieldwork and site visits, sampling of material (e.g. soils, waters), lab analysis of materials, collection and evaluation of secondary data from a range of sources and a socio-economic study. Students will work in mini-teams addressing physical and human dimensions of the issue in the field. Each member of the group will take responsibility for one aspect of the study as well as contributing to the overall investigation.				
Programme module type:	Compulsory for the Managing Environmental Change Taught Programme			
Learning and teaching methods and delivery:	Primarily based on meetings with project supervisor.			
Assessment pattern:	Coursework (Individual presentation = 25%, Group presentation = 25%, Individual written report = 25%, Group written report = 25%) = 100%			
Module Co-ordinator:	Dr C R Bates			
Lecturer(s)/Tutor(s):	Team taught			

GE5051 Environmental Management in Scotland				
SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
This module focuses on current environmental management issues in Scotland. It provides, firstly, a presentation of the fundamental elements of the various systems of land and resource management (e.g. forestry, agriculture and crofting, wildlife, freshwater resources, conservation), and secondly, examples of the ways in which these systems interact. Throughout, the module aims to engender a holistic understanding of environmental management, in contrast to the sectoral approach traditionally employed by central and local government. The ultimate aim is to leave students with an informed conceptual framework for evaluating the merits of management proposals, with their attendant implications for environmental change and economic development. A particular focus, employing topical case studies and a field visit, will be the conflicts that are increasingly arising as interest groups with contrasting philosophies and value systems compete for the finite resources of Scotland's wild places.				
Programme module type:	Optional for Environmental History Postgraduate Taught Programme.			
Learning and teaching methods and delivery:	2 x 1-hour lectures weekly, and a weekend field excursion.			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr C R Warren			

GG5000 Special Topic in Human Geography				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
Special Topic in Human Geography is a compulsory core module for the MRes in Human Geography. It is library-based and allows students to specialise in a research area that most interests them. After an introductory lecture, students discuss and agree an appropriate topic with a member of staff who will supervise their work. They then identify a question, theme or review framework to guide their research and, where appropriate, attend lectures for an honours option course. The module is assessed by two pieces of work: (a) a lecture presentation aimed at honours undergraduates; (b) a 3,500-word essay, which can either be a topical essay or a critical review of a body of literature.				
Programme module type:	Compulsory for Human Geography Postgraduate Taught Programme.			
Learning and teaching methods and delivery:	1 hour supervision weekly, and 1 introductory lecture and 1 seminar over the semester			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Prof E F Graham			

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GG5001 Being a Human Geographer 1 - Theory and Practice				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
The module is designed to help students recognise the distinctive nature of research design in human geography, paying attention to the relations between theory and method. Particular attention is paid to how different geographical contexts - space, environment and place - can be researched. Attention is also devoted to the relation between social theory and research design in human geography.				
Programme module type:	Compulsory for Human Geography Postgraduate Taught Programme.			
Co-requisite(s):	SS5101			
Learning and teaching methods and delivery:	1 seminar, occasional lectures and fieldwork.			
Assessment pattern:	Coursework = 75%, Practical Examination = 25%			
Module Co-ordinator:	Prof A M Findlay			

GG5002 Being a Human Geographer 2 - Research Design				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			
This is an independent study module linked to the research interests of the student. After an introductory lecture, students discuss possible topics with a member of staff, who will agree the topic and supervise the development of a research proposal.				
Programme module type:	Compulsory for Human Geography Postgraduate Taught Programme. Optional for Sustainable Development Postgraduate Taught Programme.			
Pre-requisite(s):	SS5101, GG5001			
Learning and teaching methods and delivery:	1 tutorial and occasional lectures and seminars.			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Prof A M Findlay			

GG5003 Advanced Geographical Research Methods				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			
Advanced Geographical Research Methods is a compulsory core module for the M.Res. in Human Geography. It is largely project-based and allows students to specialise in a research area using a research method or technique that most interests them. After an introductory lecture, students discuss possible research methods/techniques with a member of staff, who in discussion with the student will identify a small project designed to operationalise a piece of research using a particular method or technique. The project supervisor will provide the necessary training and guidance for the student to undertake the project. The module is assessed by two pieces of work: (a) a presentation to staff and other post-graduate students in the human geography internal seminar series; (b) a 3,500 word report, which presents preliminary research findings but mainly focusses on providing a reflective and critical account of the methods and techniques used.				
Programme module type:	Compulsory for Human Geography Postgraduate Taught Programme. Optional for Sustainable Development Postgraduate Taught Programme.			
Co-requisite(s):	GG5020 or SS5103 or SS5104			
Learning and teaching methods and delivery:	1 hour supervision weekly and 1 lecture and 1 seminar over the semester.			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr D S Houston			

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GG5020 Geoinformatics for Geographic Research				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
<p>Geoinformatics for Geographic Research is a compulsory core module for the MRes in Human Geography. It will either be lecture-based; seminar-based or consist of independent reading, depending on enrolment. The course content will include all the basic features of Geographical Information Systems and at the end of the module, students will present a research project of their own choice and will submit this (following revisions subsequent to the presentation) for evaluation. The course will be assessed solely on the submitted project (70%) and the presentation (30%). The project will be around 3,500 words (or equivalent using maps, diagrams etc).</p>				
Programme module type:	Either GG5020 or SS5104 is compulsory for Human Geography Postgraduate Taught Programme.			
Learning and teaching methods and delivery:	1 lecture and 1 hour individual supervision.			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr U Demsar			

ID5011 Geographic Information Systems for Environmental Management				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
<p>This module provides an introduction to Geographic Information systems and their use in environmental problem solving. The module will be taught through a series of lectures, tutorials, laboratory classes and individual projects. The module will be assessed through class exercises and the final, short individual project. Students will be introduced to methods of acquiring, storing, analysing and displaying (2D and 3D) spatial digital data using the ArcGIS data package. An introduction to data manipulation and statistical techniques on a variety of environmental examples will be given. The module is taught within the School of Geography & Geosciences but incorporates datasets and analysis techniques used in earth and environmental science, biology, archaeology, and mathematics.</p>				
Programme module type:	Optional for Ecosystem-Based Management of Marine Systems, Environmental Biology, Mathematics, Statistics, Management and Environmental History Taught Postgraduate Programmes.			
Pre-requisite(s):	A basic ability in computer skills (Basic word processing, spread sheet analysis)			
Anti-requisite(s):	GE5005, ID5010, ID5012			
Learning and teaching methods and delivery:	Lectures, practicals and occasional tutorials.			
Assessment pattern:	Coursework = 50%, Short Project = 50%			
Module Co-ordinator:	Dr D S Houston			

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ID5012 Advanced Geographic Information Systems				
SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
<p>This module provides an advanced training in Geographic Information Systems (GIS) and their use in environmental problem solving. The module will be taught through a series of lectures, tutorials, laboratory classes with emphasis on a final independent GIS project. The module will begin with an introduction to data storage and manipulation, basic analysis of 2D and 3D spatial digital data and methods of display and will conclude with database design and more advanced data analysis using ArcGIS. Assessment will be based on the class exercises and the final project. The module is taught within the School of Geography & Geosciences but incorporates datasets and analysis techniques used in earth science, biology, economics and management and mathematics.</p>				
Programme module type:	Optional for M.Res. in Environmental Biology and Managing Environmental Change Taught Postgraduate Programmes.			
Pre-requisite(s):	A basic ability in computer skills (Basic word processing, spread sheet analysis)			
Anti-requisite(s):	GE5005, ID5010, ID5011			
Learning and teaching methods and delivery:	Lectures, practicals and occasional tutorials.			
Assessment pattern:	Coursework = 40%, Individual Project = 60%			
Module Co-ordinator:	Dr C R Bates			

SD5001 Introduction to Sustainable Development Issues				
SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	2.00 pm - 5.00 pm Tue.			
<p>This module provides an introduction to sustainable development. First, it introduces the history and application of the concept of sustainable development. Second, there is a series of disciplinary-based lectures that describe the nature and functioning of the social, political, economic and physical , and systems that combine to create the world that we can observe around us. Specific material will also be presented that links these various aspects together and explores their interactions.</p> <p>In addition, this module will have a short induction component to it during the pre-sessional week of term which has a three-fold purpose: (i) to introduce students to the shape of the degree program and St Andrews, (ii) allow students to explore their existing skill base and identify what skills require further work and (iii) provide a context (in the form of a field trip) within which to start an investigation of what inter-disciplinary entails. This will entail two one-day seminars.</p>				
Programme module type:	Either SD5001 or SD5003 is compulsory for Sustainable Development Certificate Programme Compulsory for the Postgraduate Diploma, M.Sc. and M.Res. Sustainable Development Postgraduate Programmes.			
Learning and teaching methods and delivery:	1 x 3-hour seminar			
Assessment pattern:	Coursework = 50%, 2-hour Examination = 50%			
Module Co-ordinator:	Dr D McCauley			

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SD5003 Master Class in Sustainable Development				
SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	1.00 pm - 5.00 pm Tue.			
This module has four elements: (i) a series of presentations by academic experts in their chosen field of sustainable development along with structured reflection and further exploration of these various topic areas, (ii) the development and presentation (in groups) of case studies of sustainable development problems and/or exemplars of excellence in sustainable development, and (iii) two field trips to examine examples of sustainable development in practice, (iv) the completion of a master class review essay in a specialised area of sustainable development. This module is designed to provide you with an ability to critically reflect on the potential and limitations of sustainable development.				
Programme module type:	Either SD5001 or SD5003 is compulsory for Sustainable Development Certificate Programme Compulsory for the Postgraduate Diploma, M.Sc. and M.Res. Sustainable Development Postgraduate Programmes.			
Learning and teaching methods and delivery:	1 x 4-hour seminar weekly plus field trips			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr D McCauley			

SD5099 Dissertation in Sustainable Development				
SCOTCAT Credits:	60	SCQF Level 11	Semester:	Whole Year
Planned timetable:	9.00 am - 10.00 am Thu.			
This module creates the context within which students are able to investigate a substantive sustainable development topic in considerable depth. It is the capstone module of the Masters degree in sustainable development. The dissertation is an academic evaluation and exploration of a key debate in sustainable development. Its format is an empirically or theoretically driven essay with an upper limit of 15,000 words. The selection of the topic is negotiated between the student and relevant potential supervisors.				
Programme module type:	Compulsory for M.Res. or M.Sc. Sustainable Development Taught Programme			
Learning and teaching methods and delivery:	1 x 1-hour seminar			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module Co-ordinator:	Dr D Simatele			

SS5101 Being a Social Scientist: Skills, Processes and Outcomes				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	3.00 - 5.00 pm Friday (provisional)			
Through a series of interactive seminars this two-part module explores the fundamental skills required by all social scientists. In part one, the module will focus on how to design and produce a research dissertation. Assessment will be in the form of a critical essay that analyses the research design of papers from your disciplinary field. In part two, issues of professional development (e.g. ethics, careers, grant writing) will be addressed. Assessment will be in the form of a class test in which you will review and comment on two research proposals.				
Programme module type:	Compulsory for the M.Res. in Human Geography.			
Learning and teaching methods and delivery:	2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr M Kesby			
Lecturer(s)/Tutor(s):	Dr M Kesby (prog co) and Prof H Davies			

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SS5102 Philosophy and Methodology of the Social Sciences				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	1.00 - 3.00 pm Thursday (provisional)			
This seminar based module will introduce you to the basic theoretical approaches in the social sciences, encourage you to make connections between the methodological and epistemological issues involved in conducting social scientific research, and inspire you to reflect critically your own experience. The module will cover modern philosophy's historical evolution, positivism, feminism, critical theory and post-structuralism among other topics. Assessment will involve a one short and one longer essay.				
Programme module type:	Compulsory for M.Res. in Human Geography			
Learning and teaching methods and delivery:	2-hour seminar			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr M Kesby			
Lecturer(s)/Tutor(s):	Prof N Rengger			

SS5103 Qualitative Methods in Social Research				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	9.00 am - 11.00 am Fri (provisional)			
This seminar-based module offers both a theoretical and practical introduction to the collection, analysis and writing of qualitative social science research. Among other things, the module will cover positionality/ethics, archives, participant observation, participatory approaches, semi-structured interviewing and the use of NVIVO/computer aided qualitative data analysis. Assessment will involve a short reflection on field experience and a longer critical essay on a chosen aspect of qualitative research.				
Programme module type:	Compulsory for M.Res. in Human Geography			
Learning and teaching methods and delivery:	2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr M Kesby			
Lecturer(s)/Tutor(s):	(Dr M Kesby prog co) and Dr M Harris			

SS5104 Quantitative Research in Social Science				
SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	1.00 - 4.00 pm Mon (provisional)			
This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and analysis and univariate and multivariate approaches to data analysis. The assessment will be in the form of weekly practical tasks completed in class and/or independently.				
Programme module type:	Compulsory for M.Res. in Human Geography.			
Learning and teaching methods and delivery:	3-hour combined lecture and practical session.			
Assessment pattern:	Coursework = 100%			
Module Co-ordinator:	Dr M Kesby			
Lecturer(s)/Tutor(s):	Dr A Seed			