### **School of Geography & Geosciences**

#### **Head of School**

Professors C Hunter and P Cawood

#### **Taught Programmes**

#### MSc:

Managing Environmental Change (not available 2014-2015) Sustainable Development Sustainable Energy

#### MRes:

**Human Geography** (not available 2014-2015) **Sustainable Development** 

#### **MLitt:**

**Environmental History (see School of History)** 

#### **MPhil**

**Environmental History (see School of History)** 

#### **Programme Requirements**

**Human Geography** (not available 2014-2015)

#### Taught Element:

105 credits: GG5000, GG5001, GG5002, GG5003, SS5101, SS5102, SS5103

15 credits: GG5020 or SS5104

#### MRes:

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 2014-15)

#### Sustainable Development

#### **Postgraduate Certificate:**

30 credits: SD5001 or SD5003

30 credits: 5000-level modules chosen in consultation with the Programme Director and any other School involved. Permission may occasionally also be given to take some or all of these credits at 3000 or 4000 level.

**Postgraduate Diploma:** (this is also the Taught element of the MSc programme):

75 credits: SD5001, SD5003, SS5101

45 credits: 5000-level modules chosen in consultation with the Programme Director and any other School involved. Permission may occasionally also be given to take some or all of these credits at 3000 or 4000 level. **MSc:** 

120 credits, as for the Postgraduate Diploma (taught element), plus SD5099

#### MRes:

#### **Taught Element:**

60 credits: SD5001 and SD5003

60 credits: GG5002, GG5003, SS5101 - SS5104

120 credits from the MRes Taught Element plus SD5099 (60-credit Dissertation module)

#### **Sustainable Energy**

**Postgraduate Diploma:** (this is also the Taught element of the MSc programmes):

75 credits: SD5001, SD5003, SS5101

45 credits: 5000-level modules chosen in consultation with the Programme Director and any other School involved. These may be substituted by credits from Russian language modules at a level appropriate to the student's skills/knowledge (non-native speakers of Russian Only. Students may also dip down for 30 credits into honours level if necessary.

#### MSc:

120 credits, as for the Postgraduate Diploma (taught element), plus SD5201 and SD5299

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

#### Interdisciplinary (ID) modules

ID5011 Geographic Information Systems for Environmental Management					
	SCOTCAT Credits: 15 SCQF Level 11 Semester: 1				
	Planned timetable:	To be arranged.			

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.

Programme module type:	Optional for Ecosystem-Based Management of Marine Systems, Environmental Biology, Mathematics, Statistics, Managing Environmental Change, 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:	Weekly contact: Lectures, practicals and occasional tutorials.
Assessment pattern:	Coursework = 50%, Short Project = 50%
Module Co-ordinator:	Dr C R Bates

## Geography & Geosciences - Postgraduate Course Catalogue 2014/15 - August 2014 Sustainable Development (SD) modules

# SD5001 Introduction to Sustainable Development Issues SCOTCAT Credits: 30 SCQF Level 11 Semester: 1 Planned timetable: 2.00 pm - 5.00 pm Tue

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.

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 interdisciplinarity entails. This will entail two one-day seminars.

Programme module type:	Compulsory for the Postgraduate Diploma, MSc and MRes Sustainable Development and MSc Sustainable Energy Postgraduate Programmes.
Required for:	SD5023
Learning and teaching methods and delivery:	Weekly contact: 1 x 3-hour seminar
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module Co-ordinator:	Dr D McCauley

### SD5003 Master Class in Sustainable Development

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	1.00 pm - 5.00 p	om 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:	Compulsory for the Postgraduate Diploma, MSc and MRes Sustainable Development and MSc Sustainable Energy Postgraduate Programmes.
Learning and teaching methods and delivery:	Weekly contact: 1 x 4-hour seminar weekly plus field trips
Assessment pattern:	Coursework = 100%
Module Co-ordinator:	Dr R Streeter

SD5023 Economi	05023 Economics for the Environment				
SCOTCA	T Credits:	20	SCQF Level 11	Semester:	2
Planned	timetable:	10.00 am - 12.00	10.00 am - 12.00 noon Tue		
us unde econom measure	This module introduces students to the contributions that environmental economics can make to helping us understand and manage a wide range of environmental problems. We also study the insights which economics provides on the relationship between economic growth and environmental quality, and the measurement of sustainability. No prior knowledge of economics is presumed, and a course textbook is available which is co-written by one of the course lecturers.				
Program	nme module type:	Optional for the Postgraduate Diploma, MSc and MRes Sustainable Development and MSc Sustainable Energy Postgraduate Programmes.			
Pre-requ	uisite(s):	SD5001			
	Learning and teaching methods and delivery:       Weekly contact: 1 x 4-hour seminar weekly plus field trips         Assessment pattern:       2-hour Written Examination = 50%, Coursework = 50%         Module Co-ordinator:       Prof N Hanley				
Assessm					
Module					

	module do oramator.				
SD5099	Dissertation in Sustainab	le Developmei	nt		
	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 MRes or MSc in Sustainable Development Postgraduate Programme  Learning and teaching methods and delivery:  Assessment pattern:  Coursework (Dissertation) = 100%  Module Co-ordinator:  Dr A Davies				
				ent Postgraduate	

SD5201 Review Essay in Su	201 Review Essay in Sustainable Energy				
SCOTCAT Credits:	10	SCQF Level 11	Semester:	Either or Whole Year	
Planned timetable:	To be arra	i			
	This is a compulsory module of the Double Masters programme in Sustainable Energy. The Reflective Estis an integral component of reflecting on how the second year relates to the first.  Programme module type: Compulsory for the MSc in Sustainable Energy Postgraduate Programme.  Learning and teaching methods and delivery:  Meekly contact: 1 x 1-hour seminar.  Coursework = 100%			· ·	
Programme module				graduate Programme.	
Assessment pattern:					
Module Co-ordinato	r: Dr D McCa	uley			

## SD5299 Dissertation in Sustainable Energy SCOTCAT Credits: 50 SCQF Level 11 Semester: Whole Year Planned timetable: To be arranged

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 12,000 words. The selection of the topic is negotiated between the student and relevant potential supervisors.

Programme module type:	Compulsory for the MSc in Sustainable Energy Postgraduate Programme.
Learning and teaching methods and delivery:	Weekly contact: 1 x 1-hour seminar.
Assessment pattern:	Coursework (Dissertation) = 100%
Module Co-ordinator:	Dr D McCauley

#### Social Science (SS) modules

SS5101 Being a Social Scientist					
	SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
	Planned timetable: 3.00 - 5.00 pm Fri				

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 Sustainable Development and Sustainable Energy Postgraduate Programmes.  Compulsory for MRes in Human Geography
Learning and teaching methods and delivery:	2-hour seminar.
Assessment pattern:	Coursework = 100%
Module Co-ordinator:	Dr S Leahy
Lecturer(s)/Tutor(s):	Dr M Kesby and Prof R Gray

# SS5102 Philosophy and Methodology of the Social Sciences SCOTCAT Credits: 15 SCQF Level 11 Semester: 2 Planned timetable: 2.00 - 4.00 pm Wed

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 review and one longer essay.

Programme module type:	Compulsory for MRes in Human Geography
Learning and teaching methods and delivery:	2-hour seminar
Assessment pattern:	Coursework = 100%
Module Co-ordinator:	Dr S Leahy
Lecturer(s)/Tutor(s):	Dr V Paipais and various others

# SS5103 Qualitative Methods in Social Research SCOTCAT Credits: 15 SCQF Level 11 Semester: 2 Planned timetable: 9.00 am - 11.00 am Fri

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 refection on field experience and a longer critical essay on a chosen aspect of qualitative research.

Programme module type:	Compulsory for MRes in Human Geography
Learning and teaching methods and delivery:	2-hour seminar.
Assessment pattern:	Coursework = 100%
Module Co-ordinator:	Dr S Leahy
Lecturer(s)/Tutor(s):	Dr M Kesby and various others

### SCOTCAT Credits: 15 SCQF Level 11 Semester: 1

Planned timetable: 1.00 - 4.00 pm Mon

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:	Either GG5020 or SS5104 is compulsory for Human Geography Postgraduate Programme.
Learning and teaching methods and delivery:	3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module Co-ordinator:	Dr S Leahy
Lecturer(s)/Tutor(s):	Dr P Gardner