Sustainable Development

Sustainable Development (SD) Modules

SD3201 Interdisciplinary Research Design and Methodology						
	SCOTCAT Credits:	60	SCQF Level 9	Semester:	2	
	Academic year:	2013/4				
Planned timetable: To be arranged.						

This module occupies a central place in the new field-based research-orientated SD degree. It prepares students to undertake their independent research dissertation and develops transferable professional skills useful beyond graduation. Students will learn about research design and the collection of original empirical data through engagement with a series of problem-based SD-related issues. Themes covered include, among others, what is "interdisciplinarity"; the relationship between ontology, epistemology, and methodology; ethics of research; basic statistics for sustainable development; and quantitative, qualitative, and physical science research methods. There is opportunity for streaming and choice amongst units covering these themes. Skills and techniques learned are applied during a week-long residential field class where students will design and execute an original empirical research project with a staff mentor. The module concludes with students producing an independent research proposal for their Senior Honours dissertation projects.

Programme module type:	One of SC3201 - SD3204 is compulsory for Sustainable Development				
Anti-requisite(s):	SD3202, SD3203, SD3204				
Learning and teaching methods and delivery:	Weekly contact: 6 hours of lectures, 3 hours of seminars, 3 hours of practicals, 3 hours of tutorials plus separate week of fieldwork				
	Scheduled learning: 193 hours Guided independent study: 407 hours				
Assessment pattern:	As defined by QAA:				
	Written Examinations = 0%, Practical	Examinations = 10%, Coursework = 90%			
	As used by St Andrews:				
	Coursework = 100%				
	Each unit in the module will have different forms of coursework assessments. In addition, students will have to produce a group presentation, based upon the work done during the fieldclass, which will be individually assessed.				
Module Co-ordinator:	Dr S Leahy				

SD3202 Research Methods in Sustainable Development

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SCOTCAT Credits:	30	SCQF Level 9	Semester:	2
Academic year: 2013/4				
Planned timetable:	To be arranged.			

This module is the core research design and methods training module preparing students for their Honours dissertation and providing some transferable skills for postgraduate study and professional career development. It is designed to prepare students for undertaking original empirical research by introducing them to the general principles, methodologies, and methods used in the collection and generation of data. It prepares students to undertake their independent research dissertation, and will provide transferable skills useful beyond graduation.

Programme module type:	One of SC3201 - SD3204 is compulsory for Sustainable Development				
Pre-requisite(s):	SD2001 and SD2002	O2 Anti-requisite(s): SD32 SD32			
Learning and teaching methods and delivery:	Weekly contact : 2-hour lecture, 1-hour seminar, 0.5-hour practical, 0.5-hour tutorial plus separate week of fieldwork				
	Scheduled learning: 79 hours Guided independent study: 221 hou				
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 20%, Coursework = 80%				
	As used by St Andrews: Coursework = 100%				
	Each unit in the module will have different forms of coursework assessments. In addition, students will have to produce a group presentation, based upon the work done during the fieldclass, which will be individually assessed.				
Module Co-ordinator:	Dr S Leahy				

SD3203 Interdisciplinary Research in Sustainable Development

SCOTCAT Credits:	50	SCQF Level 9	Semester:	2	
Academic year:	2013/4				
Planned timetable:	To be arranged.				

This is a practical-led training course in research design, data collection and analysis. Students will discuss the philosophy of SD research; the relationship between ontology, epistemology and methodology; and ethics. The module is organised around problem-based exercises; data collection through a variety of methods (interviews; questionnaires; surveys; and the likes). It includes a week-long research-based field class in which students, under the guidance of members of staff, will have the opportunity to design, implement and write up a research project. The module provides essential training for the independent Senior Honours dissertation project.

Programme module type:	One of SC3201 - SD3204 is compulsory for Sustainable Development				
Anti-requisite(s):	SD3201, SD3202, SD3204				
Learning and teaching methods and delivery:	Weekly contact: 4 hours of lectures, 2 hours of seminars, 2 hours of practicals, 1 hour of tutorials plus separate week of fieldwork				
	Scheduled learning: 142 hours Guided independent study: 358 hours				
Assessment pattern:	As defined by QAA:				
	Written Examinations = 0%, Practical	Examinations = 12%, Coursework = 88%			
	As used by St Andrews:				
	Coursework = 100%				
	Each unit in the module will have different forms of coursework assessments. In addition, students will have to produce a group presentation, based upon the work done during the fieldclass, which will be individually assessed.				
Module Co-ordinator:	Dr S Leahy	·			

SD3204 Method, Field, Data: Doing Research in Sustainable Development

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SCOTCAT Credits:	40	SCQF Level 9	Semester:	2	
Academic year:	2013/4				
Planned timetable:	nned timetable: To be arranged.				

This module is a core research design and methods training module. It is organised around a series of problem-based learning units where introductory lectures lead onto the practical implementation of particular methods. The focus is on the collection and generation of data which will lead onto the rigorous analysis of data in Senior Honours. It includes a week-long research-based fieldclass organised around the design and implementation of a specific research project. The module provides fundamental training for the independent Senior Honours dissertation project.

Programme module type:	One of SC3201 - SD3204 is compulsory for Sustainable Development				
Pre-requisite(s):	SD2001 and SD2002 A		nti-requisite(s):	SD3201, SD3202, SD3204	
Learning and teaching methods and delivery:	Weekly contact: 4 hours of lectures, 2 hours of seminars, 2 hours of practicals, 1 hour of tutorials plus separate week of fieldwork				
	Scheduled learning: 134 hours Guided independent study: 266 hour				
Assessment pattern:	As defined by QAA:				
	Written Examinations = 0%, Pract	ical	Examinations = 1	5%, Coursework = 85%	
	As used by St Andrews:				
	Coursework = 100%				
	Each unit in the module will have different forms of coursework assessments. In addition, students will have to produce a group presentation, based upon the work done during the fieldclass, which will be individually assessed.				
Module Co-ordinator:	Dr S Leahy				

SD3222 Governance for Sustainability: Responding to Energy Insecurity and Climate Change

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SCOTCAT Credits:	20	SCQF Level 9	Semester:	1
Academic year: 2013/4			_	
Planned timetable: 9.00 - 11.00 am Mon, ocassional 9.00 am - 11.00 am Wed.				Ved.

The Earth's environment has become a major focal point of international conflict and cooperation. Responding to the growing threats of climate change and energy insecurity, countries have signed over 700 international treaties designed to protect and manage the environment. Just as importantly, they have developed elaborate tools and systems for observing and modelling the behaviour of the global environment and translating this knowledge into policy advice. At the same time, global challenges demand action from local, national and transnational actors. This course provides a broad overview of developments and patterns in the practical, theoretical and political dimensions of multi-level governance as they have emerged over the past three decades. In so doing, a wide range of policy case studies are explored including energy security, climate change and oceans & coasts. Students will acquire practical knowledge of Governance arrangements for sustainabilty, as well as critical skills to assess notions of 'Good Governance.'

Programme module type:	Optional for Sustainable Development			
Pre-requisite(s):	SD2002			
Learning and teaching	earning and teaching Weekly contact: 2 hours lectures per week plus seminars and one guest			
methods and delivery:	lecture.			
	Scheduled learning: 23 hours Guided independent study: 177 hours			
Assessment pattern:	As defined by QAA:			
	Written Examinations = 60%, Pract	cical Examinations = 10%, Coursework =		
	30%			
	As used by St Andrews:			
	Coursework = 40%, 2-hour Written Examination = 60%			
Module Co-ordinator:	Dr T A Stonjanovic			
Lecturer(s)/Tutor(s):	Dr T A Stonjanovic, Dr D McCauley			

SD4121 Sustainability in Practice

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SCOTCAT Credits:	10	SCQF Level 10	Semester:	1
Academic year:	2013/4			
Planned timetable:	To be arranged			

This module presents students with an exciting opportunity to undertake a critical assessment of a topic that arises from your particular interests in SD. It is built around a field course that will allow you to witness and experience (to some extent) sustainability "in practice", and thus appreciate better the relationship between theories and practice of SD. The module requires you to identify and review a body of SD-related literature on scenario planning that extends beyond the topics covered in your Honours option modules. You will undertake two pieces of continual assessment: a field diary undertaken during the field course, and a group document which is a result of the scenario planning exercise, .

Programme module type:	Optional for Sustainable Development				
Pre-requisite(s):	SD 3201 or SD3202 or SD3203 or SD3204	Anti-requisite(s): SD4221		SD4221	
Learning and teaching	Weekly contact: 1 lecture per week, plus 2 days of field visits.				
methods and delivery:	Scheduled learning: 30 hours	Guided indeper		ndent study: 70 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 10				
	As used by St Andrews: Coursework = 100%				
Module Co-ordinator:	Dr L Reid				

SD4221 Current Issues in Sustainable Development - Independent Review Essay

SCOTCAT Credits:	20	SCQF Level 10	Semester:	1
Academic year:	2013/4			
Planned timetable:	To be arranged.			

This module presents students with an exciting opportunity to undertake in-depth critical assessment of a topic that arises from your particular interests in SD. It requires you to identify and review a body of SD-related literature that extends beyond the topics covered in your Honours option modules. The topic you identify must either (1) have evolved significantly over time or space, (2) involve contestation and debate or (3) constitute an emerging area of interest within the field of SD. Many topics will have two or more of these characteristics. Your essay should comprise a critical review and synthesis of the empirical content and methodological and theoretical debates associated with your chosen body of literature.

Programme module type:	Optional for Sustainable Development			
Pre-requisite(s):	Entry in SD honours; SD3201 or SD3202 or SD3203 or SD3204			
Anti-requisite(s):	SD4121			
Learning and teaching methods and delivery:	Weekly contact : 1 lecture and 1 seminar per week, 1 tutorial and 20 hours of fieldwork during semester.			
	Scheduled learning: 41 hours Guided independent study: 159 hours			
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews:			
	Coursework = 100%			
Module Co-ordinator:	Dr D McCollum			

SD4222 Advanced Qualitative Analysis

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SCOTCAT Credits:	20	SCQF Level 10	Semester:	1
Academic year:	2013/4			
Planned timetable:	To be arranged.			

This module offers advanced training in methods of qualitative analysis that facilitate dissertation work and develop transferable skills for future careers. Learning will be project/problem-based, and students will gain practical experience of working with a range of qualitative data (e.g. archives, visual and textual documents, and interview transcripts) using a range of analytical approaches (e.g. discourse analysis, deconstruction, grounded theory and computer assisted qualitative analysis). Research data will be drawn from a range of areas within SD (e.g. cultural, historical, political, social, environmental, health and international development literature and debates) and will address issues of social, cultural, gender, sexual, and or generational nature. Techniques, themes and materials will alternate in accordance with staff research specialism.

Programme module type:	Optional for Sustainable Development			
Pre-requisite(s):	Entry in SD honours; SD3201 or SD3202 or SD3203 or SD3204			
Anti-requisite(s):	SD4223, SD4224			
Learning and teaching methods and delivery:	Weekly contact : 2-hour lectures and seminars, 1-hour practical classes over 7 weeks and occasional tutorials.			
	Scheduled learning: 38 hours Guided independent study: 162 hours			
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Module Co-ordinator:	Dr M Sothern and Dr M Kesby			

SD4223 Advanced Quantitative Analysis

SCOTCAT Credits:	20	SCQF Level 10	Semester:	1
Academic year:	2013/4			
Planned timetable:	To be arranged.			

Students taking this module will learn some of the core research skills necessary to be a professional quantitative social science researcher and then to carry out a typical consulting project. It will allow them to explore at least one substantive policy issue, carry out their own quantitative research and then make recommendations based on these findings. They will be presented with a 'real world' scenario and be expected to take on the role of a researcher who is advising policy makers; in simulations of various policy forums, they will then learn how to defend their recommendations and advice. They will first be taught the relevant quantitative research skills and introduced to potentially useful research resources. They will then be expected to construct their own research strategy, carry out the necessary research and present this in various formats, working independently of the teaching staff.

Programme module type:	Optional for Sustainable Development			
Pre-requisite(s):	Entry in SD honours; SD3201 or SD32	202 or SD3203 or SD3204		
Anti-requisite(s):	SD4003, SD4222, SD4224			
Learning and teaching methods and delivery:	Weekly contact : 2-hour lectures, 2-hour seminars, 1-hour practical classes each week for 7 weeks, and occasional tutorials.			
	Scheduled learning: 38 hours Guided independent study: 162 hours			
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 10%, Coursework = 90%			
	As used by St Andrews: Coursework = 100%			
Module Co-ordinator:	Prof S Fotheringham			

SD4224 Advanced Topics in Physical Disciplines

					
SCOTCAT Credits:	20	SCQF Level 10	Semester:	1	
Academic year:	2013/4				
Planned timetable:	To be arrang	ed.			

This module allows students to explore advanced topics/methods in the Physical Sciences that will provide a progressive advancement on material explored in 3000-level honours and core modules, and will also expand and deepen the students' practical skill base. Each sub-unit will provide a mix of in-depth study of primary literature, combined with advanced training in analytical, technical or methodological approaches, thus integrating "hands-on" applied learning and critical reading of the primary literature. The module will complement and expand the learning acquired in one of the SD research methods training (SD3201 or SD3202 or SD3203) during term two of JH, and will provide additional resources for the development of students' individual dissertation project. Students choose among 4 units of 10 credits each.

Programme module type:	Optional for Sustainable Development			
Pre-requisite(s):	Entry in SD honours; SD3201 or SD3202 or SD3203 or SD3203			
Anti-requisite(s):	SD4222, SD4223			
Learning and teaching methods and delivery:	Weekly contact : 2-hour lectures, 2-hour seminars and 1-hour practicals each week for 7 weeks, and occasional tutorials.			
	Scheduled learning: 38 hours Guided independent study: 162 hours			
Assessment pattern:	As defined by QAA:			
	Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews:			
	Coursework = 100%			
Module Co-ordinator:	Dr R Streeter	•		

SD4299 Dissertation in Sustainable Development

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SCOTCAT Credits:	60	SCQF Level 10	Semester:	Whole Year
Academic year:	2013/4			
Availability restrictions:	Available only to students who intend an Honours Degree in Sustainable			
	Development.			
Planned timetable:	To be arranged.			_

This module is largely based upon independent study. Students select a research question in Sustainable Development, mount a research programme to investigate the topic, and write a dissertation on the work. The topic is selected during the second semester of the junior honours year; data can be collected during the following vacation with data analysis and the writing of the dissertation taking place over both semesters of Senior Honours. Each student is supervised by a member of the teaching staff from an appropriate disciplinary area who will ensure that the topic chosen is viable and advise students on data collection and analysis. Students attend 1 seminar every other week; further class sessions can be organised on request by the class; dissertation clinics are organised where students can discuss their dissertation progress with members of staff; individual tutorials are decided between the individual student and their supervisors. The dissertation will normally be based in the disciplinary area of the student's partner subject, but in recognition of the interdisciplinary nature of the field of study of sustainable development and of the SD Programme, the dissertation will itself be interdisciplinary to some extent. The dissertation is a maximum of 15,000 words in length. Students present their findings at a dissertation conference and write an abstract to convey their results to an academic audience.

Programme module type: Compulsory for Sustainable Development Anti-requisite(s): SD4002 Learning and teaching Weekly contact: 1 introductory lecture and tutorial and then meetings as methods and delivery: required with supervisor. **Scheduled learning:** 30 hours Guided independent study: 570 hours Assessment pattern: As defined by QAA: Written Examinations = 0%, Practical Examinations = 5%, Coursework = 95% As used by St Andrews: Coursework = 100% **Module Co-ordinator:** Dr D Reuschke