Geography & Sustainable Development - Honours Level - 2018/9 - August - 2018 School of Geography & Sustainable Development

Geography (GG) modules

00 Quaternary Science: Principles and Practice					
SCOTCAT Credits:	20	SCQF Level 9	Semester	1	
Academic year:	2018/9				
Availability restrictions:	Available eve	ery year.			
Planned timetable:	11:00am -1:0	00pm Wed			
teach us about how curre controlling the direction of	om when ice sheets covered much of northern Europe and North America, and the much like today (but with lions and hippos in Trafalgar Square). It has much to not ecosystems function, the importance of fire, hydrology or sea level change in f ecosystem and landscape change as well as the direction of human cultural and module covers topics including post-glacial sea level change, Mediterranean fire on dynamics, and the anthropogenic disturbance of ecosystems.				
ecology, Amazon vegetati	ion dynamics,	and the anthropogenic		systems.	
		and the anthropogenic this module you must	disturbance of ecos	•	
Pre-requisite(s): Learning and teaching	Before taking Weekly conta		disturbance of ecos pass GG2011 and p ks), 1 seminar (x4 w	ass GG2012	
Pre-requisite(s): Learning and teaching	Before taking Weekly conta (x4 weeks), fi	g this module you must act: 1 lecture (x10 wee	disturbance of ecospass GG2011 and poks), 1 seminar (x4 wes, x2 weeks).	ass GG2012	
Pre-requisite(s): Learning and teaching methods of delivery:	Weekly conta (x4 weeks), fi Scheduled leads as defined by	this module you must act: 1 lecture (x10 wee ield class (approx 2 hou arning: 32 hours	disturbance of ecos pass GG2011 and p ks), 1 seminar (x4 w rs, x2 weeks). Guided indepen	ass GG2012 reeks), 1 practical class	
Pre-requisite(s): Learning and teaching methods of delivery:	Before taking Weekly conta (x4 weeks), fi Scheduled le As defined by Written Exar As used by St	g this module you must act: 1 lecture (x10 wee ield class (approx 2 hou arning: 32 hours y QAA: minations = 0%, Practica	disturbance of ecos pass GG2011 and p ks), 1 seminar (x4 w rs, x2 weeks). Guided indepen	ass GG2012 reeks), 1 practical class	
Pre-requisite(s): Learning and teaching methods of delivery: Assessment pattern:	Weekly conta (x4 weeks), fi Scheduled le As defined by Written Exar As used by St Coursework	g this module you must act: 1 lecture (x10 wee ield class (approx 2 hou arning: 32 hours y QAA: minations = 0%, Practica t Andrews:	disturbance of ecos pass GG2011 and p ks), 1 seminar (x4 w rs, x2 weeks). Guided indepen	ass GG2012 reeks), 1 practical class	
Pre-requisite(s):	Weekly conta (x4 weeks), fi Scheduled le As defined by Written Exar As used by St Coursework	g this module you must act: 1 lecture (x10 wee ield class (approx 2 hou arning: 32 hours y QAA: minations = 0%, Practica t Andrews: - 50%, Written examina en Examination = 100%	disturbance of ecos pass GG2011 and p ks), 1 seminar (x4 w rs, x2 weeks). Guided indepen	ass GG2012 reeks), 1 practical class	

GG32	GG3201 Single Honours Research Design and Methodology Training (60)				
	SCOTCAT Credits:	60 SCQF Level 9 Semester 2			
	Academic year:	2018/9			
	Planned timetable:	To be arranged.			

This module occupies a central place in our field-based research-orientated degree. It prepares students to undertake their independent research dissertation and develops transferable professional skills useful beyond graduation. Students learn about research design and the collection of original empirical data through engagement with a series of problem-based issues in geography and sustainable development. Themes covered include: training in quantitative, qualitative, and physical research methods; ethics of research; statistical techniques; cartography; and GIS (Geographical Information Systems). There is opportunity for streaming and choice amongst units covering these themes. Skills and techniques learned are applied during a residential field course 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.

Pre-requisite(s):	Before taking this module you must pass GG2012		
Anti-requisite(s)	You cannot take this module if you take GG3202 or take GG3203		
Learning and teaching methods of delivery:	, , , , , , , , , , , , , , , , , , , ,		
	Scheduled learning: 150 hours	Guided independent study: 450 hours	
Assessment nettern.	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%		
Assessment pattern:			
Re-assessment pattern:	No Re-assessment available		
Module coordinator:	Dr R T Streeter		
Module teaching staff:	Team taught		

GG3202 Joint Honours Research Design and Methodology Training (30) SCOTCAT Credits: 30 SCQF Level 9 Semester 2 Academic year: 2018/9 Planned timetable: To be arranged.

This module occupies a central place in our field-based research-orientated degrees. It prepares students to undertake their independent research dissertation and develops transferable professional skills useful beyond graduation. 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. Students need to make an informed choice, with the help of their Advisor, to select from the units shared with the larger 60-credit SG3201. The module concludes with students producing an independent research proposal for their Senior Honours dissertation research.

Pre-requisite(s):	Before taking this module you must pass GG2012		
Anti-requisite(s)	You cannot take this module if you take GG3201 or take GG3203		
Learning and teaching	Tunits) chosen by the student. Average of 10 hours (x 7.5 weeks).		
methods of delivery:	Scheduled learning: 75 hours	Guided independent study: 225 hours	
	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%		
Assessment pattern:	As used by St Andrews: Coursework = 100%		
Re-assessment pattern:	No Re-assessment available		
Module coordinator:	Dr R T Streeter		
Module teaching staff:	Team taught		

GG3203 Research Design and Methodology Training (50)

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	SCOTCAT Credits:	50	SCQF Level 9	Semester	2
	Academic year:	2018/9			
	Availability restrictions:	Not available to General Degree Students.			
	Planned timetable:	To be arranged.	To be arranged.		

This module occupies a central place in our field-based research-orientated degrees. It prepares students to undertake their independent research dissertation and develops transferable professional skills useful beyond graduation. 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. Students need to make an informed choice, with the help of their Advisor, to select from the units shared with the larger 60-credit SG3201. The module concludes with students producing an independent research proposal for their Senior Honours dissertation research.

Pre-requisite(s):	Before taking this module you must pass GG2012			
Anti-requisite(s)	You cannot take this module if you take	You cannot take this module if you take GG3201 or take GG3202 or take SD3203		
Learning and teaching methods of delivery:	_	es according to the combination of elements (module tudent. Average of 10 hours (x 8.5 weeks), and a 1-week		
	Scheduled learning: 125 hours	Guided independent study: 375 hours		
Access and matterns.	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
Assessment pattern:	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	No Re-assessment available			
Module coordinator:	Dr R T Streeter			
Module teaching staff:	Team taught			

GG3204 Research Design and Methodology Training (40) SCOTCAT Credits: 40 SCQF Level 9 Semester 2 Academic year: 2018/9 Availability restrictions: Not available to General Degree Students. Planned 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 then leads onto the rigorous analysis of data in Senior Honours. It includes a research-based residential fieldclass organised around the design and implementation of a specific research project. The module provides fundamental training for the independent Senior Honours dissertation project.

Learning and teaching	Weekly contact : Varies according to the combination of elements (module units) chosen by the student. Average of 10 hours (x 8 weeks) plus a fieldclass.			
methods of delivery:	Scheduled learning: 104 hours Guided independent study: 2			
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 15%, Coursework = 85%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	No Re-assessment available			
Module coordinator:	Dr R T Streeter			
Module teaching staff:	Team taught	Feam taught		

GG3227 Colonial and Postcolonial Geographies

SCOTCAT Credits:	20	SCQF Level 9	Semester	1
Academic year:	2018/9			
Availability restrictions:	Offered on a two-year cycle			
Planned timetable:	9:00am - 11:00am Mondays			

This module traces the historical geography of modern colonialism from its sixteenth-century beginnings in Spain's discovery and conquest of the New World, through to the break-up of European colonial empires after World War II, and up to what has been called 'the colonial present' and the 'new imperialism' (revolving around the USA and the 'war on terror'). Emphasis will be placed on how colonialism, past and present, operates as a logic of displacement and dispossession, and as both a conceptual space (imaginative geography) and physical space (material geography) of encounter and conflict and resistance involving a wide array of projects of colonisation and resistance.

Pre-requisite(s):	Before taking this module you must (pass GG2011 and pass GG2012) or (pass SD2001 and pass SD2002)			
Learning and teaching	Weekly contact : 1 x 1-hour lecture, 1 x 1-hour seminar (x 11 weeks) + 2 x 1-hour feedback/revision sessions			
methods of delivery:	Scheduled learning: 24 hours	Guided independent study: 176 hours		
A	As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%			
Assessment pattern:	As used by St Andrews: 2-hour Written Examination = 60%, Coursework = 40%			
Re-assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr D W Clayton			

GG3229 Environmental Management in Scotland SCOTCAT Credits: 20 SCQF Level 9 Semester 1 Academic year: 2018/9 Availability restrictions: Offered on a two-year cycle. Planned timetable: 09:00 - 11:00 Tuesday

This module explores current environmental management issues in Scotland. It discusses the primary sectors of land and resource management (e.g. forestry, agriculture, wildlife management, freshwater resource management, conservation, renewable energy), and explores how these systems interact. The aim is to leave students with an informed conceptual and empirical framework for evaluating management proposals and their implications for environmental, economic and social change. A particular focus, employing topical case studies and a field visit, is the conflicts that arise as interest groups with contrasting philosophies & Damp; value systems compete to shape the future of Scotland's natural heritage within a devolved political framework and in the context of climate change.

Pre-requisite(s):	Before taking this module you must (pass GG2011 and pass GG2012) or (pass SD2001 and pass SD2002)		
Learning and teaching	Weekly contact: 1 x 2-hour lecture (x 10 weeks) + 2 x 1-hour feedback/revision sessions and a 1-day (8 hour) field excursion.		
methods of delivery:	Scheduled learning: 30 hours	Guided independent study: 170 hours	
Accessment nottorn.	As defined by QAA: Written Examinations = 60%, Practical Examinations = 20%, Coursework = 20%		
Assessment pattern:	As used by St Andrews: 2-hour Written Examination = 60%, Practical Examination = 20%, Coursework = 20%		
Re-assessment pattern:	2-hour Written Examination = 60%, Practical Examination = 20%, Coursework = 20%		
Module coordinator:	Dr C R Warren		
Module teaching staff:	Dr C R Warren		

GG32	GG3234 Migration and Transnationalism					
	SCOTCAT Credits:	20	SCQF Level 9	Semester	1	
	Academic year:	2018/9				
	Availability restrictions:	Offered on a two-year cycle				
	Planned timetable:	14:00 - 16:00 Friday				
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This module is designed to advance students' appreciation of the chief academic arguments associated with migration and transnationalism. Geographical analysis of the changing role of labour migration in the world economy offers a distinctive perspective on this spatially, socially and economically selective process. Other new mobilities, such as the very significant increase in international student mobility, illustrate the complex ways in which globalisation interfaces with the efforts of individuals, families and communities to add to their social and cultural capital. Although dominantly concerned with international mobility, other scales of analysis will also be considered (e.g. the body). Finally, the course briefly covers issues associated with immigration, refugee and asylum policies.

Pre-requisite(s):	Before taking this module you must (pass GG2011 and pass GG2012) or (pass SD2001 and pass SD2002)		
Learning and teaching	Weekly contact : 1 hour lecture and 1 hour seminar (x 10 weeks) + 2 x 1-hour essay feedback and exam revision sessions.		
methods of delivery:	Scheduled learning: 22 hours	Guided independent study: 178 hours	
A	As defined by QAA: Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%		
Assessment pattern:	As used by St Andrews: 2-hour Written Examination = 50%, Coursework = 50%		
Re-assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%		
Module teaching staff:	Dr D McCollum		

GG3238 Development: voice, power and identity in global times SCOTCAT Credits: 20 SCQF Level 9 Semester 1 Academic year: 2018/9 Planned timetable: 11:00am - 1:00pm Mondays

This module focuses on how contemporary international development is changing. It examines how different development actors gain a voice and political prominence in contemporary development debates and policy making. While national governments, international donors and Non Government Organisations (NGOs) continue to influence development agendas, the global context for development is altering. The current moment is marked by shifting geopolitics and hyper mobility giving rise to new development agendas such as securitisation, religion and identity as well as a greater focus in global popular culture on individuals ¿making a difference¿. These changes create new opportunities for different actors to influence development. We will examine whether these groups and individuals ¿do development differently¿ and ask who is excluded. Students will understand how they shape spaces locally, nationally and transnationally and will assess if this represents an alternative form of development.

Pre-requisite(s):	Before taking this module you must tal	ke GG2012 or take SD2002
Learning and teaching methods of delivery:	Weekly contact : Two 1-hour lectures (x11 weeks), One 1-hour seminar/workshop (x11 weeks)	
methods of delivery:	Scheduled learning: 33 hours	Guided independent study: 170 hours
Assessment pattern:	As defined by QAA: Written Examinations = 50%, Practical B	Examinations = 0%, Coursework = 50%
Assessment pattern:	As used by St Andrews: Coursework = 50%, 2-hour Written Examination = 50%	
Re-assessment pattern:	2-hour Written Examination = 100%	
Module coordinator:	Prof N D Laurie	
Module teaching staff:	Prof N Laurie	

GG3242 Geographies of the Life Course

SCOTCAT Credits:	20	SCQF Level 9	Semester	1
Academic year:	2018/9			
Planned timetable:	11:00am - 1:00pm	Thursday		

Since the 1960s life course theory has become one of the most influential paradigms in human geography. The approach emphasises how human development is a life-long process and promotes understanding human activity through a greater awareness of the geographical, historical and cultural context in which people are situated. This module will provide an introduction to the life course approach and how it applies to key areas of human geography, covering the population processes such as family building (childbearing and partnership), migration, ageing and health studies. This will incorporate the study of various life course stages and transitions between them (childhood, adolescence, adulthood and older age), and the production of health inequalities throughout the lifespan. The module is taught through lectures, seminars and practical classes, and assessment is a mix of coursework and written exam.

Pre-requisite(s):	Before taking this module you must pa	ss GG2011 and pass GG2012	
Learning and teaching	Weekly contact : 8 lectures (x 1 hour), 8 seminars (x 2 hours), 1 revision seminar (x 2 hours), 1 student presentations (x 3 hours)		
methods of delivery:	Scheduled learning: 29 hours	Guided independent study: 180 hours	
	As defined by QAA: Written Examinations = 50%, Practical	Examinations = 10%, Coursework = 40%	
Assessment pattern:	As used by St Andrews: Coursework (10% presentation, 40% cr Examination = 50%	ritical essay)= 50%, 3-hour Written	
Re-assessment pattern:	3-hour Written Examination = 100%		
Module coordinator:	Dr K L Keenan		
Module teaching staff:	Dr K Keenan		

GG3263 Glaciers and Glaciation SCOTCAT Credits: SCQF Level 9 Semester 1 Academic year: 2018/9 **Availability restrictions:** Availability TBC - Offered on a two-year cycle Planned timetable: 09:00 - 11:00 Wednesday In recent years, concern has risen about the impact of climate change on glaciers and ice sheets, and the implications for sea level rise, natural hazards and water resources. This course critically evaluates these issues, and explores the fundamental glaciological processes required to understand them. The first part of the course focuses on how glaciers function and interact with climate, and covers glacier mass balance (snowfall and ice melt), hydrology, processes of glacier motion and ice dynamics. The second part then applies these principles to important issues, such as glacier lake outburst floods, water resources in glacierfed river basins, the future of the Antarctic and Greenland Ice Sheets, and sea level change.

Pre-requisite(s):	Before taking this module you must pa	ss GG2011 and pass GG2012
Learning and teaching methods of delivery:	Weekly contact : 1 x 1-hour lecture, 1 x hour revision session + 1 residential (tw semester.	x 1-hour seminar (x 11 weeks) + 1 x 1- vo-day û 16 hours) field course during the
	Scheduled learning: 37 hours	Guided independent study: 163 hours
Accession and matteria.	As defined by QAA: Written Examinations = 60%, Practical	Examinations = 0%, Coursework = 40%
Assessment pattern:	As used by St Andrews:	
	2-hour Written Examination = 60%, Co	ursework = 40%
Re-assessment pattern:	2-hour Written Examination = 60%, Co	ursework = 40%
Module coordinator:	Prof D I Benn	

64 Oceans and Clima	te			
SCOTCAT Credits:	20	SCQF Level 9	Semester	1
Academic year:	2018/9			
Availability restrictions:	Availability - TBC -	Offered on a two-ye	ar cycle	
Planned timetable:	11:00 - 13:00 Tues	sdays		
of: (1) changes in ocean of implications in terms of introduction to some of the intro	past, present and ne research method	future global and r ds employed to deter	egional climates; and (2) to provide an anges.
Learning and teaching	-	1 x 1-hour lecture, 1 x ion during the semes	x 1-hour seminar (x 11 w ter.	veeks) + 1 x 1-
methods of delivery:	Scheduled learnin	g: 23 hours	Guided independent study: 177 hours	
Assessment pattern:	As defined by QAA Written Examinat		Examinations = 0%, Cou	ursework = 40%
Assessment pattern.	As used by St And Written Examinati	rews: on = 60%, Coursewo	rk = 40%	
Re-assessment pattern:	Written Examinati	on = 60%, Coursewo	rk = 40%	
Module coordinator:	Prof W E N Austin			

GG3272 Biogeography and the Earth System SCOTCAT Credits: 20 SCQF Level 9 Semester 1 Academic year: 2018/9 Availability restrictions: Offered on a two-year cycle Planned timetable: 11.00 am - 1:00 pm Monday

Planet Earth appears to be unique as the home of life. Biological processes are deeply woven into the fabric of the physical world and human societies. The resulting interactions, at every scale from microscopic to global, are fundamental to the geography of our planet. This module explores the discipline of biogeography, which describes and explains the distribution of different life forms (species, communities) across the Earth. In lectures, seminars and in the field, we will investigate the fundamental controls on the distribution of life, and engage with ongoing debates. The module goes on to consider the role of biology in the Earth system as a whole, focusing on the cycling of key elements including carbon, nitrogen and phosphorus ¿ the behaviour of which has huge ramifications for society today. Finally, using examples from around the globe, we will look at biogeographical changes in the Anthropocene, and consider the challenges for conservation and development.

Learning and teaching	Weekly contact : 1-hour lecture, (X 11 wworkshops(x 4 weeks) 6-hour fieldwork	veeks), 1-hour seminar (x 6 weeks) 2-hour (x 1 week)
methods of delivery:	Scheduled learning: 24 hours	Guided independent study: 176 hours
Assessment pattern:	As defined by QAA: Written Examinations = 60%, Practical E	Examinations = 0%, Coursework = 40%
Assessment pattern.	As used by St Andrews: Coursework = 40%, 2-hour Written Exar	mination = 60%
Re-assessment pattern:	1500 word report, following the format secondary dataset (30%) - A 1500 word	mpleting one or more of the following: A of Assessment 1, using a different,
Module coordinator:	Dr I T Lawson	
Module teaching staff:	Dr I Lawson, Dr K Roucoux	

GG32	73 Scrutinising Segre	gation: Geograp	hies of Diversi	ty and Inequality	
	SCOTCAT Credits:	20	SCQF Level 9	Semester	1
	Academic year:	2018/9			
	Planned timetable:	11:00am - 1:00pm	Wednesday		

Is Britain residentially segregated? How do we know this? What social and population processes shape segregation? Along what lines (race, religion, class) is segregation considered? Why does segregation matter? How has the question of the patterning of where people live become connected to international relations and national security? Through consideration of these questions we will think critically about diversity and inequality, and how these salient social themes have been thought about academically and politically. We will examine the evidence on segregation and how this has been appropriated and misappropriated, and we will discover what Geographers can contribute, conceptually and methodologically, to these debates.

Learning and teaching methods of delivery:	Weekly contact : 1 x 1-hour seminar (x weeks)	11 weeks), 1 x 1-hour lecture (x 11
methods of delivery:	Scheduled learning: 22 hours	Guided independent study: 176 hours
	As defined by QAA: Written Examinations = 60%, Practic	Examinations = 0%, Coursework = 40%
Assessment pattern:	As used by St Andrews: 2-hour Written Examination = 60%, Co.	ursework = 40%
Re-assessment pattern:	2-hour Written Examination = 60%, Co	ursework = 40%
Module coordinator:	Dr N Finney	

GG3275 Geomorphology: Landscapes, Landforms and Earth Surface Processes **SCOTCAT Credits:** 20 SCQF Level 9 Semester 1 Academic year: 2018/9 Planned timetable: 09:00 - 12:00 Thursday This module considers some of the fundamental processes operating at the surface and near-surface of the Earth, and the outcome of these processes in terms of present-day landscapes and landforms. It is structured in terms of three components: (1) continents, oceans, mountains, rocks and relief (plate tectonics, volcanicity, orogenesis and the role of lithology in landscape evolution; (2) geomorphological processes (weathering, slope, fluvial and periglacial processes, and processes characteristic of arid landscapes); and (3) landscape evolution during the Quaternary Period (the past ~2.6 million years). Where appropriate, processes and landforms are exemplified and illustrated with case studies drawn from the landscape of Scotland. Pre-requisite(s): Before taking this module you must pass GG2011 and pass GG2012 Weekly contact: 3 hours of lectures (x8 weeks) 3 hours of presentations (x1

Learning and teaching	week), 1.5 days fieldwork.	x8 weeks), 3 nours of presentations (x1
methods of delivery:	Scheduled learning: 47 hours	Guided independent study: 144 hours
	As defined by QAA: Written Examinations = 20%, Practical	Examinations = 10%, Coursework = 70%
Assessment pattern:	As used by St Andrews: Coursework = 80% coursework (includi Written Class Test = 20%	ing presentation worth 10%), 1-hour
Re-assessment pattern:	2-hour Written Examination = 100%	
Module coordinator:	Prof C K Ballantyne	
Module teaching staff:	Prof C Ballantyne	

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COTCAT Credits:	10	SCQF Level 9	Semester	1
Academic year:	2018/9			
Availability restrictions:	Entry to a Joi	nt or Major Honours pr	ogramme in Geogra	phy.
Planned timetable:	timetable to	be confirmed.		
with the subject matter balance the workload a contact hours of their ch	cross the fou	r semesters of their H	onours programme.	•
Pre-requisite(s):	Before taking	g this module you must	pass GG2011 and pa	ss GG2012
Learning and teaching methods of delivery:	associated w separate asso option modu	act: Students undertak ith any 3000-level GG, S essment (4000-word es le taken), but the avera	SG or SD coded optionsay). Weekly contac	on module, but do a t hours vary (with the
i		ilable is 23 hours.		
	Scheduled le	lable is 23 hours. arning: 23 hours	Guided indepen	dent study: 77 hours
Assassment nattorn	As defined b	arning: 23 hours	•	•
Assessment pattern:	As defined b	arning: 23 hours y QAA: minations = 0%, Practica t Andrews:	•	•
•	As defined b Written Exar As used by S Coursework	arning: 23 hours y QAA: minations = 0%, Practica t Andrews: = 100%	•	•
Assessment pattern: Re-assessment pattern: Module coordinator:	As defined b Written Exar As used by S Coursework	arning: 23 hours y QAA: minations = 0%, Practica t Andrews: = 100% Essay = 100%	•	•

SCOTCAT Credits:	10	SCQF Level 9	Semester	Both
Academic year:	2018/9	ocqi Level 9	Semester	ВОСП
Availability restrictions:		or Major Honours nr	ogramme in Geography	
Planned timetable:	timetable to be		ogramme in deography	
matter of a selected 20-ci	redit optional mo rs of their Honou	dule in Geography (G urs programme. Stud	ior Honours year to engag GG3221 - GG3289) yet bal dents complete the cont	ance the workload
Pre-requisite(s):	•		pass GG2011 and pass GG	G2012
earning and teaching methods of delivery:	associated with separate assessi option module t	any 3000-level GG, S ment (4000-word ess aken), but the avera	the lecture/seminar cont G or SD coded option mo say). Weekly contact hou ge scheduled learning acr	dule, but do a rs vary (with the
	modules availab	ne is 23 nours.		
	Scheduled learn		Guided independent stu	ıdy: 77 hours
Assassment nattorns	Scheduled learn	ning: 23 hours	Guided independent stu al Examinations = 0%, Cou	-
Assessment pattern:	Scheduled learn	ning: 23 hours AA: lations = 0%, Practical	-	-
·	Scheduled learn As defined by Q Written Examin As used by St Ai	ning: 23 hours AA: ations = 0%, Practica ndrews: 00%	-	
Assessment pattern: Re-assessment pattern: Module coordinator:	As defined by Q Written Examin As used by St Ai Coursework = 10	ning: 23 hours AA: ations = 0%, Practica ndrews: 00%	-	-

O1 Advanced Debate SCOTCAT Credits:	10	SCQF Level 10	Semester	2
	1	SCQF Level 10	Semester	2
Academic year:	2018/9			
Availability restrictions:	Core - available e	very year.		
Planned timetable:	To be arranged.			
and to think holistically a seminars that encourage geography (e.g. climate c	student to study a hange, globalisation	and debate importan	t contemporary issues an	id debates withi
and culture). It is exami unseen exam questions. geographical reasoning h Pre-requisite(s):	These address thas or might be app Before taking this	e nature of geographic of the significant colors module you must p		ture of seen an he way in whic
unseen exam questions. geographical reasoning h Pre-requisite(s):	These address that as or might be appeared Before taking this SG3203 or pass S	e nature of geograp blied to significant co s module you must p G3204	ohy as a discipline and t ntemporary issues.	ture of seen and he way in which
unseen exam questions. geographical reasoning h	These address that as or might be appeared Before taking this SG3203 or pass S	ne nature of geographical to significant colors module you must p G3204 6 x 2-hour seminars	ohy as a discipline and t ntemporary issues. ass SG3201 or pass SG320	ture of seen an he way in whic 02 or pass
unseen exam questions. geographical reasoning h Pre-requisite(s): Learning and teaching methods of delivery:	These address thas or might be app Before taking this SG3203 or pass S Weekly contact: Scheduled learni As defined by QA	ne nature of geographic blied to significant constant of the second of t	thy as a discipline and themporary issues. ass SG3201 or pass SG320 during the semester.	ture of seen an he way in whic O2 or pass
unseen exam questions. geographical reasoning h Pre-requisite(s): Learning and teaching	These address thas or might be app Before taking this SG3203 or pass S Weekly contact: Scheduled learni As defined by QA Written Examina As used by St An	ne nature of geographic policies to significant consists module you must policies of a 2-hour seminars on the consists of a 2-hour seminars of a	ohy as a discipline and to intemporary issues. ass SG3201 or pass SG320 during the semester. Guided independent st	ture of seen an he way in whic 02 or pass tudy: 88 hours
unseen exam questions. geographical reasoning h Pre-requisite(s): Learning and teaching methods of delivery:	These address the as or might be appeared by SG3203 or pass SWeekly contact: Scheduled learni As defined by QAWritten Examinates As used by St An 2-hour Written E	ne nature of geographic policies to significant consists module you must p G3204 6 x 2-hour seminars ng: 12 hours AA: htions = 100%, Practic drews:	ohy as a discipline and to intemporary issues. ass SG3201 or pass SG320 during the semester. Guided independent st	ture of seen an he way in whic 02 or pass tudy: 88 hours
unseen exam questions. geographical reasoning h Pre-requisite(s): Learning and teaching methods of delivery: Assessment pattern:	These address the as or might be appeared by SG3203 or pass SWeekly contact: Scheduled learni As defined by QAWritten Examinates As used by St An 2-hour Written E	ne nature of geographic policies to significant consists module you must policies of a 2-hour seminars ng: 12 hours ng: 12 hours ng: 12 hours ng: 100%, Practicular policies nations = 100%, Practicular policies nations = 100%	ohy as a discipline and to intemporary issues. ass SG3201 or pass SG320 during the semester. Guided independent st	ture of seen an he way in whic 02 or pass tudy: 88 hours

Module teaching staff:

Team taught

97 Joint Honours Research Dissertation in Geography							
SCOTCAT Credits:	30	SCQF Level 10 Semester 2					
Academic year:	2018/9	2018/9					
Availability restrictions:	Core - available e	Core - available every year.					
Planned timetable:	To be arranged.						
of empirical research und independent piece of rese	der the supervisio earch that represe s for printing and	lets with the opportunity to design and undertake an independent, original piece let the supervision of a member of staff. The dissertation is a substantial, arch that represents the culmination of both substantive and core training in for printing and binding dissertations can be found at: http://www.st-sign/dissertation/).					
Pre-requisite(s):	Before taking this	Before taking this module you must pass GG3202 or pass SG3202					
Anti-requisite(s)	You cannot take	You cannot take this module if you take GG4298					
Learning and teaching methods of delivery:		Up to 8 hours of guidervision, by arrangem	ded study per student ov ent with supervisor)	ver the semester			
methous of delivery.	Scheduled learni	ng: 8 hours	Guided independent s	tudy: 292 hours			
A	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%						
Assessment pattern:	As used by St Andrews: Dissertation = 100%						
Re-assessment pattern:	Oral Examination	Oral Examination = 100%					
Module coordinator:	Dr S Leahy						
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SCOTCAT Credits:	50	SCQF Level 10	Semester	2		
Academic year:	2018/9	•		•		
Availability restrictions:	Core - available e	very year.				
Planned timetable:	To be arranged.					
Geography degree is bas independent, original pie dissertation is a substantia and core training in Geogr Research Conference at v	in is the fundamental piece of independent research work upon which the ised. It provides students with the opportunity to design and undertake an ece of empirical research under the supervision of a member of staff. The ial, independent piece of research that represents the culmination of substantive graphy. An important component of the dissertation is the annual Senior Honours which all students present their work to members of the school and to Junior oral presentation. (Guidelines for printing and binding dissertations can be found					
Pre-requisite(s):	Before taking this module you must pass GG3201 or pass GG3203					
rie-iequisite(s).	Before taking this	s module you must į	oass GG3201 or	pass GG3203		
		s module you must p this module if you to		pass GG3203		
Anti-requisite(s) Learning and teaching	You cannot take to Weekly contact:	this module if you to Up to 8 hours of gu rvision, by arranger	ike GG4297 ided study per	student over the seme rvisor), plus a 1 day (8-		
Anti-requisite(s) Learning and teaching	You cannot take to Weekly contact: (one-to-one supe	this module if you to Up to 8 hours of gu rvision, by arranger	ike GG4297 ided study per nent with supe	student over the seme		
Anti-requisite(s) Learning and teaching methods of delivery:	You cannot take to Weekly contact: (one-to-one super hour) conference Scheduled learning As defined by QA	this module if you to Up to 8 hours of gu ervision, by arranger ng: 16 hours	ike GG4297 ided study per nent with super	student over the seme rvisor), plus a 1 day (8-		
Anti-requisite(s) Learning and teaching methods of delivery:	You cannot take to Weekly contact: (one-to-one super hour) conference Scheduled learni As defined by QA Written Examina As used by St Andrews	this module if you to Up to 8 hours of guervision, by arranger ng: 16 hours AA: tions = 0%, Practica	ike GG4297 ided study per nent with super Guided inde	student over the seme rvisor), plus a 1 day (8-		
Anti-requisite(s) Learning and teaching	You cannot take to Weekly contact: (one-to-one super hour) conference Scheduled learni As defined by QA Written Examina As used by St Andrews	this module if you to Up to 8 hours of guervision, by arranger Ing: 16 hours IAA: Itions = 0%, Practical Idrews: Conference present	ike GG4297 ided study per nent with super Guided inde	student over the seme rvisor), plus a 1 day (8-		
Anti-requisite(s) Learning and teaching methods of delivery: Assessment pattern:	You cannot take to Weekly contact: (one-to-one super hour) conference Scheduled learni As defined by QA Written Examina As used by St And Dissertation and	this module if you to Up to 8 hours of guervision, by arranger Ing: 16 hours IAA: Itions = 0%, Practical Idrews: Conference present	ike GG4297 ided study per nent with super Guided inde	student over the seme rvisor), plus a 1 day (8-		

Module teaching staff:

Team taught

SCOTCAT Credits:	10	SCQF Level 10	Semester	1
Academic year:	2018/9			
Availability restrictions:	Entry to a Joint o	r Major Honours pro	gramme in Geograph	У
Planned timetable:	timetable to be a	rranged.		
This module is designed with the subject matter balance the workload a contact hours of their chessay).	of a selected 20- cross the four se	-credit optional mod mesters of their Ho	dule in Geography (G nours programme. S	G3221 - GG3289) y tudents complete t
Pre-requisite(s):	Entry to a joint or major honours programme in geography. Before taking this module you must (pass GG3202 and pass GG3203) or (pass SG3202 and pass SG3203) Weekly contact: Students undetake the lecture/seminar contact hours associated with any 3000-level GG, SG or SD coded option module, but do a separate assessment (4000-word essay). Weekly contact hours vary (with the option module taken), but the average scheduled learning across the range of modules available is 23 hours.			
Learning and teaching methods of delivery:				
	Scheduled learni	ng: 23 hours	Guided independe	ent study: 77 hours
Assessment notto	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100% As used by St Andrews: Coursework = 100%			
Assessment pattern:				
Re-assessment pattern:	Coursework Essa	y = 100%		
Module coordinator:	Dr R T Streeter			
Module teaching staff:	Various			

Geography & Sustainable Development - Honours Level - 2018/9 - August - 2018 Sustainable Development (SD) modules

| SCOTCAT Credits: 30 | SCQF Level 9 | Semester | 2 | | Academic year: 2018/9 | Planned timetable: Lectures - 14:.00 - 17:00 Tuesdays

This module prepares students to undertake final year dissertation research. This module builds on the research methods explored in other SD honours modules. Students will learn about how to design and execute a research project, how to situate research questions in the broader agenda of Sustainable Development and within appropriate interdisciplinary literatures. A group research project provides the opportunity to apply this learning in a fieldwork setting. Students taking this module will understand the wider epistemological debates surrounding interdisciplinary, know how to define problems and form tractable research questions as well as how to design rigorous methodologies to answer these questions. By the end of the module each student will have developed a research proposal suitable for a final year dissertation project.

Pre-requisite(s):	Students require 30 credits in sd modules at 3000- or 4000-level. Before taking this module you must take SD2002			
Anti-requisite(s)	You cannot take this module if you take SG3201 or take SG3202 or take SG3203 or take SG3204 or take GG3201			
Learning and teaching	Weekly contact : 1 x 3-hour seminar (x 7 weeks); 1 x 3-hour practical (x 3 weeks); residential field work (x 3 days)			
methods of delivery:	Scheduled learning: 57 hours	Guided independent study: 252 hours		
A	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
Assessment pattern:	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr R M White			
Module teaching staff:	Team taught			

SD31:	SD3111 Home and Energy Geographies						
	SCOTCAT Credits:	30	SCQF Level 9	Semester	1		
	Academic year:	2018/9					

Planned timetable: 10:00am - 1:00pm Thursdays (lectures)

An abundant and uninterrupted supply of energy underpins all of our everyday activities; it is fundamental to the quality of our lives. This module will explore the history of our energy use and how it is implicated in modern life. It will do this by exploring why we need energy, the nature of energy demand (e.g. we use more energy than ever before, and our energy demand is predicted to double by the year 2050), and the interconnectedness of energy and sustainability. This module will predominantly focus on domestic energy use (and therefore discuss notions of home, dwelling and domesticity), but will also link to international debates about energy and sustainability. Throughout the module, theories of social and technological change will be explored as a means to understanding transitions in energy demand.

Pre-requisite(s):	Before taking this module you must take SD2002 or take GG2012					
Anti-requisite(s)	You cannot take this module if you tal	You cannot take this module if you take SD3221				
Learning and teaching	Weekly contact: One 2-hour lecture (weeks)	Weekly contact: One 2-hour lecture (x11 weeks), One 1-hour seminar (x9 weeks)				
methods of delivery:	Scheduled learning: 31 hours	Guided independent study: 269 hours				
	As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%					
Assessment pattern:	As used by St Andrews: Coursework = 40%, 2-hour Written Examination = 60%					
Re-assessment pattern:	2-hour Written Examination = 100%					
Module coordinator:	Dr L A Reid					
Module teaching staff:	Dr L Reid					

4111 Governance for Sustainability							
SCOTCAT Credits:	30 SCQF Level 10 Semester 1						
Academic year:	2018/9						
Availability restrictions:	Not automatically available to General Degree students						
Planned timetable:	10:00am - 1:00pm Friday						
	istainability issues we face as a society are complex and multi-faceted. Building s is likely to require collaboration between different actors at multiple scales. The						

Many of the important sustainability issues we face as a society are complex and multi-faceted. Building more sustainable solutions is likely to require collaboration between different actors at multiple scales. The effectiveness of institutional arrangements has become a key question within the sustainability paradigm. What principles of governance can we bring to bear in the design and reform of governance systems which will lead to more sustainable outcomes? This module will explore insights from planning, environmental geography, political science and other social science disciplines. Students will acquire practical knowledge of governance arrangements for sustainability, as well as critical skills to assess notions of 'Good' Governance. Students will also develop transferrable research skills for policy and institutional analysis.

Pre-requisite(s):	Before taking this module you must take SD2002			
Anti-requisite(s)	You cannot take this module if you ta	ake SD3222		
Learning and teaching		Weekly contact : One 2-hour lecture (x10 weeks), One 2-hour seminars (x2 weeks), One 2-hour practicals (x4 weeks)		
methods of delivery:	Scheduled learning: 35 hours	Guided independent study: 265 hours		
A	As defined by QAA: Written Examinations = 50%, Practical Examinations = 20%, Coursework = 30%			
Assessment pattern:	As used by St Andrews: Coursework = 50%, 2-hour Written Examination = 50%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr T A Stojanovic			
Module teaching staff:	Dr T Stojanovic	Dr T Stojanovic		

13 Environment and Development Economics						
SCOTCAT Credits:	30	SCQF Level 10	Semester	1		
Academic year:	2018/9					
Availability restrictions:	Not automatically	available to Gener	al Degree students			
Planned timetable:	10:00 - 12:00 Tue	sday				
high-income, middle-inco economic development a	ion. However, despite rapid advancements, the world today is divided between ome, and low-income countries. This module takes a broad perspective on and how economic development interacts with the environment. The module in economic development and natural resource management.					
Pre-requisite(s):	Before taking this module you must take SD2002					
Anti-requisite(s)	You cannot take this module if you take SD3224 or take SD5101					
Learning and teaching	Weekly contact:	Two 1-hour lecture	s (x10 weeks), Two p	oracticals (x4 weeks)		
methods of delivery:	Scheduled learni	ng: 28 hours	Guided independ	ent study: 270 hours		
Accordment nattorn	As defined by QAA: Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50% As used by St Andrews: Coursework = 50%, 2-hour Written Examination = 50%					
Assessment pattern:						
Do accessment nottons.	2-hour Written Examination = 100%					
Re-assessment pattern:						
Module coordinator:	Dr E McLaughlin					

| SD4114 Society, Sustainable Consumption and Implementing Change | SCOTCAT Credits: | 30 | SCQF Level 10 | Semester | 2 | | Academic year: | 2018/9 | | Planned timetable: | Lectures - Thursday 10:00 - 11:00 Practicals - Thursday 11:00 - 13:00 |

This module focuses on the social theories and accounts of choice, change, and stability that are gaining increasing attention in sustainable consumption debates. Research and policy in sustainable consumption is largely dominated by techno-economic thinking which overlooks social organisation of some of the more ordinary aspects of everyday life that are fundamental determinants of an individual's environmental impact. As well as considering how societies manage essential but ordinary forms of consumption, the module also expects students to design, implement and reflect on an intervention to make their local community more sustainable. This module will challenge students to think about the complexity of steering everyday life to be more sustainable.

Pre-requisite(s):	Before taking this module you must pass SD2002 and pass SD2001			
Learning and teaching	Weekly contact: One 1-hour lecture (x10 weeks), One 2-hour seminar (x9 weeks), One 2-hour group presentation session (x1 week)			
methods of delivery:	Scheduled learning: 30 hours	Guided independent study: 275 hours		
	As defined by QAA: Written Examinations = 40%, Practical Examinations = 0%, Coursework = 60%			
Assessment pattern:	As used by St Andrews: Coursework = 60%, 2-hour Written Examination = 40%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr K S Ellsworth-Krebs			
Module teaching staff:	Dr K Ellsworth-Krebs			

SD42	SD4297 Dissertation in Sustainable Development					
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SCOTCAT Credits:	30	SCQF Level 10	Semester	2		
Academic year:	2018/9					
Availability restrictions:	Available only to Sustainable Development Honours students.					
Planned timetable:	To be arranged.					

This dissertation builds 3000-level research methods training and will demonstrate the importance of an interdisciplinary approach to key questions of sustainable development. This independent research will involve the review of relevant literatures, the application of rigorous methodologies, the collection of data as well as the appropriate analysis and interpretation of data. A final dissertation of not more than 10,000 words will comprise the primary mode of assessment but students will also participate in the Senior Honours Research Conference at which all students will present their work to members of the school. To support this learning students will be supervised by a member of staff and collective workshops on relevant skills such as oral presentation skills, approaches to scientific writing, and presenting data will also be offered. Students will also be invited to attend a dissertation away day at the beginning of the semester.

Pre-requisite(s):	Before taking this module you must take SD3100 or take SG3201 or take SG3203 or take SG3204		
Anti-requisite(s)	You cannot take this module if you take	e SD4299	
Learning and teaching methods of delivery:	Weekly contact : 1 away day (8 hours), 2-hour skills workshops (x4), up to 10 hours individual supervision, by arrangement with supervisor, student research conference (4 hours)		
	Scheduled learning: 30 hours	Guided independent study: 270 hours	
	As defined by QAA: Written Examinations = 0%, Practical Examinations = 5%, Coursework = 95%		
Assessment pattern:	As used by St Andrews: Coursework (10,000-word dissertation = 95%, oral or poster presentation a student research conference = 5%) = 100%		
Re-assessment pattern:	10,000-word Dissertation = 100%		
Module coordinator:	Dr R M White		
Module teaching staff:	Team taught		

SD42	SD4299 Dissertation in Sustainable Development					
	SCOTCAT Credits:	60	SCQF Level 10	Semester	Full Year	
	Academic year:	2018/9 Core - Available only to students who intend an Honours Degree in Sustainable Development. To be arranged.				
	Availability restrictions:					
	Planned timetable:					

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 an introductory session at the start of semester 2, followed by a series of 'workshop' sessions covering aspects of research design and process during the semester 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. An important component of the dissertation is the annual Senior Honours Research Conference at which all students present their work to members of the school and to Junior Honours students as an oral presentation.

Pre-requisite(s):	Before taking this module you must take SG3201 or take SG3203 or take SG3204 or take SD3100		
Anti-requisite(s)	You cannot take this module if you tak	ce SD4002 or take SD4297	
Learning and teaching methods of delivery:	Weekly contact : Up to 8 hours of guided study per student over the semester (one-to-one supervision, by arrangement with supervisor), plus a 1 day (8-hour) conference		
	Scheduled learning: 16 hours	Guided independent study: 584 hours	
A	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%		
Assessment pattern:	As used by St Andrews: Dissertation and Conference Paper = 100%		
Re-assessment pattern:	Oral Examination = 100%		
Module coordinator:	Dr R M White		
Module teaching staff:	Team taught		

Geography & Sustainable Development - Honours Level - 2018/9 - August - 2018 Sustainable Geography (SG) modules

21 Review Essay				
SCOTCAT Credits:	20	SCQF Level 10	Semester	1
Academic year:	2018/9			
Availability restrictions:	Core - available ev	very year		
Planned timetable:	4.00 pm - 6.00 pm	n Thu		
Students can either ident options modules, or build	ring an account of its substantive content, and critically assessing the evidence on which it is based. Underts can either identify an intellectual field that lies outside those addressed in available 3000-level tions modules, or build on a field covered in the programme, pursuing it at greater depth. In addition to pervisory sessions and module tutorials, students may also attend sessions in a relevant 3000-level option and the same same tage.			
Pre-requisite(s):	Before taking this module you must pass SG3201 or pass SG3202 or pass SG3203 or pass SG3204			
Learning and teaching	Weekly contact: Introductory lecture and seminar (2 hours) followed by guided independent study (one-to-one supervision)			
methods of delivery:	Scheduled learning	ng: 2 hours	Guided independent st	udy: 198 hours
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
Assessment pattern.	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Review Essay = 100%			
Module coordinator:	Dr S Leahy	Dr S Leahy		

22 Advanced Qualitative Analysis				
SCOTCAT Credits:	20	SCQF Level 10	Semester	1
Academic year:	2018/9			
Availability restrictions:	Not automatically	available to Genera	l Degree students	
Planned timetable:	2.00 pm - 4.00 pm	n Thu		
develop transferable ski practical experience of wo and interview transcripts grounded theory and co	ers advanced training in methods of qualitative analysis that facilitate dissertation work and rable skills for future careers. Learning is project/problem-based, and students gain not not not not not not not not not no			
Pre-requisite(s):	Before taking this module you must pass SG3201 or pass SG3202 or pass SG3203 or pass SG3204			
Learning and teaching	Weekly contact : 2-hour lecture (x 4 weeks), 2-hour seminar (x2 weeks), 2-hour practical (x3 weeks)			
methods of delivery:	Scheduled learning	ng: 18 hours	Guided independent	study: 182 hours
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
Assessment pattern:	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework project = 100%			
	Dr D W Clayton			
Module coordinator:	DI D W Claytoll			

Module teaching staff:

Team taught

SCOTCAT Credits: 20 SCQF Level 10 Semester 1 Academic year: 2018/9 Availability restrictions: Not automatically available to General Degree students Planned timetable: Lectures - 1.00 pm - 3.00 pm Tue Practicals - 3.00 pm - 5.00 pm Tue

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 a 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.

Pre-requisite(s):	Before taking this module you must pass SG3201 or pass SG3202 or pass SG3203 or pass SG3204		
Learning and teaching	Weekly contact : 2-hour lectures, 2-hour seminars, 1-hour practical classes each week for 7 weeks, and occasional tutorials.		
methods of delivery:	Scheduled learning: 38 hours	Guided independent study: 162 hours	
	As defined by QAA: Written Examinations = 0%, Practical Examinations = 13%, Coursework = 87%		
Assessment pattern:	As used by St Andrews: Practical Examination = 13%, Coursework = 87%		
Re-assessment pattern:	Coursework project = 100%		
Module coordinator:	Dr K L Keenan		
Module teaching staff:	Team taught		

SG42	SG4224 Advanced Topics in Physical Sciences					
	SCOTCAT Credits:	20	SCQF Level 10	Semester	1	
	Academic year:	2018/9 Not automatically available to General Degree students Lectures - 2.00 pm - 3.00 pm Thurs Practicals - 3.00 pm - 5.00 pm Thurs				
	Availability restrictions:					
	Planned timetable:					

This module introduces students to a range of advanced and cutting edge topics in Physical Geography and other physical sciences relevant to geography and sustainable development. Three topics are offered each year that build on material explored in 3000-level Honours modules, and which expand and deepen students' practical skill set. Students choose two of the three topics. Each topic includes in-depth study of the primary literature, combined with advanced training in analytical, technical or methodological approaches, thus integrating hands-on applied learning with critical reading of the primary literature. The module complements and expands the learning acquired in SG3201-SG3204, and provides additional resources for the development of students' individual dissertation projects.

Pre-requisite(s):	Before taking this module you must pass SG3201 or pass SG3202 or pass SG3203 or pass SG3204		
Learning and teaching	Weekly contact: 2 hour lectures (x 9 weeks) and 1 x 1-day (4 hour) field class.		
methods of delivery:	Scheduled learning: 22 hours	Guided independent study: 178 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%		
	As used by St Andrews: Coursework = 100%		
Re-assessment pattern:	Coursework project = 100%		
Module coordinator:	Dr R T Streeter		
Module teaching staff:	Team taught		

SG4228 Advanced Topics in Geographic Information Science (GISci) SCOTCAT Credits: 20 SCQF Level 10 Semester 1 Academic year: 2018/9 Availability restrictions: Available every year. Planned timetable: Lectures - 1.00 pm - 3.00 pm Mon Practicals - 3.00 pm - 5.00 pm Mon

The first part of the module explores advanced GIS and spatial analysis techniques for use with geographic datasets. Students will gain theoretical and applied knowledge in order to study and describe spatial patterns in geographic data. Theoretical understanding will be emphasised through lectures and readings. Labs/practicals will be designed to provide students with hands-on experience applying theory and techniques to datasets spanning human and environmental geography using applications including crime, forestry, health, environmental change, and housing. Focus will be placed on methods for analysing spatial point patterns, spatial autocorrelation, and spatial modelling. In the second part, students will engage in a small research project of their choosing to showcase their new advanced GIS skills. The project will allow students to use GIS and spatial analysis techniques to address a chosen problem in either of the social, physical, or environmental sciences. Students with domain knowledge in human geography, physical geography, or sustainable development will be able to tailor GIS projects to their own applications.

Pre-requisite(s):	Before taking this module you must pass GG3201		
Learning and teaching methods of delivery:	Weekly contact : 2 hours lectures (x 9 weeks), 2-hour practical classes (x 6 weeks), 2-hour IT Lab Help sessions (x 3 weeks)		
methods of delivery:	Scheduled learning: 36 hours	Guided independent study: 164 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%		
Assessment pattern.	As used by St Andrews: Coursework project = 100%		
Re-assessment pattern:	No Re-assessment available		
Module coordinator:	Dr J A Long		
Module teaching staff:	Dr J Long, Dr U Demsar		