School of Geography & Sustainable Development

Geography (GG) modules

**GG3100 Quaternary Science: Principles and Practice**

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<td>Planned timetable:</td>
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Spanning the last 2.6 million years, the quaternary provides examples of dramatic climatic and environmental change. From when ice sheets covered much of northern Europe and North America, and times when conditions were much like today (but with lions and hippos in Trafalgar Square). It has much to teach us about how current ecosystems function, the importance of fire, hydrology or sea level change in controlling the direction of ecosystem and landscape change as well as the direction of human cultural and biological evolution. The module covers topics including post-glacial sea level change, Mediterranean fire ecology, Amazon vegetation dynamics, and the anthropogenic disturbance of ecosystems.

Pre-requisite(s): Before taking this module you must pass GG2011 and pass GG2012

Learning and teaching methods of delivery:

- **Weekly contact**: 1 lecture (x10 weeks), 1 seminar (x4 weeks), 1 practical class (x4 weeks), field class (approx 2 hours, x2 weeks).
- **Scheduled learning**: 32 hours
- **Guided independent study**: 168 hours

Assessment pattern:

- **As defined by QAA**: Written Examinations = 0%, Practical Examinations = 30%, Coursework = 70%
- **As used by St Andrews**: Coursework - 50%, Written examination 50%

Re-assessment pattern: 2-hour Written Examination = 100%

Module coordinator: Dr K H Roucoux

Module teaching staff: Various

**GG3201 Single Honours Research Design and Methodology Training (60)**

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<th>SCOTCAT Credits:</th>
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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:

- **Weekly contact**: Varies according to the combination of elements (module units) chosen by the student. Average of 10 hours of classroom time (x 11 weeks), and a 1-week (40 hour) field class
- **Scheduled learning**: 150 hours
- **Guided independent study**: 450 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: No Re-assessment available

Module coordinator: Dr R T Streeter

Module teaching staff: Team taught
### GG3202 Joint Honours Research Design and Methodology Training (30)

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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 methods of delivery:**

**Weekly contact:** Varies according to the combination of elements (module units) chosen by the student. Average of 10 hours (x 7.5 weeks).

| **Scheduled learning:** 75 hours | **Guided independent study:** 225 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:** 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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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 GG3202 or take SD3203

**Learning and teaching methods of delivery:**

**Weekly contact:** Varies according to the combination of elements (module units) chosen by the student. Average of 10 hours (x 8.5 weeks), and a 1-week (40 hour) field class.

| **Scheduled learning:** 125 hours | **Guided independent study:** 375 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:** No Re-assessment available

**Module coordinator:** Dr R T Streeter

**Module teaching staff:** Team taught
### GG3204 Research Design and Methodology Training (40)

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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 methods of delivery:**
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.

Scheduled learning: 104 hours
Guided independent study: 296 hours

**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

### GG3227 Colonial and Postcolonial Geographies

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<td>Planned timetable:</td>
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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 methods of delivery:**
Weekly contact: 1 x 1-hour lecture, 1 x 1-hour seminar (x 11 weeks) + 2 x 1-hour feedback/revision sessions

Scheduled learning: 24 hours
Guided independent study: 176 hours

**Assessment pattern:**
As defined by QAA:
- Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%

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 & 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 methods of delivery: 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.
Scheduled learning: 30 hours  Guided independent study: 170 hours
Assessment pattern: As defined by QAA:
Written Examinations = 60%, Practical Examinations = 20%, Coursework = 20%
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

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

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 methods of delivery: Weekly contact: 1 hour lecture and 1 hour seminar (x 10 weeks) + 2 x 1-hour essay feedback and exam revision sessions.
Scheduled learning: 22 hours  Guided independent study: 178 hours
Assessment pattern: As defined by QAA:
Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%
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

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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 take 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) |
| Scheduled learning: | 33 hours |
| Guided independent study: | 170 hours |

**Assessment pattern:**

| As defined by QAA: | Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50% |
| 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

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### GG3242 Geographies of the Life Course

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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 pass GG2011 and pass GG2012

**Learning and teaching methods of delivery:**

| Weekly contact: | 8 lectures ( x 1 hour), 8 seminars ( x 2 hours), 1 revision seminar ( x 2 hours), 1 student presentations ( x 3 hours) |
| Scheduled learning: | 29 hours |
| Guided independent study: | 180 hours |

**Assessment pattern:**

| As defined by QAA: | Written Examinations = 50%, Practical Examinations = 10%, Coursework = 40% |
| As used by St Andrews: | Coursework (10% presentation, 40% critical essay)= 50%, 3-hour Written Examination = 50% |

**Re-assessment pattern:**

| 3-hour Written Examination = 100% |

**Module coordinator:** Dr K L Keenan

**Module teaching staff:** Dr K Keenan
### GG3263 Glaciers and Glaciation

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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 glacier-fed river basins, the future of the Antarctic and Greenland Ice Sheets, and sea level change.

**Pre-requisite(s):** Before taking this module you must pass GG2011 and pass GG2012

**Learning and teaching methods of delivery:**

- **Weekly contact:** 1 x 1-hour lecture, 1 x 1-hour seminar (x 11 weeks) + 1 x 1-hour revision session + 1 residential (two-day μ 16 hours) field course during the semester.

- **Scheduled learning:** 37 hours

- **Guided independent study:** 163 hours

**Assessment pattern:**

- **As defined by QAA:**
  - Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%

- **As used by St Andrews:**
  - 2-hour Written Examination = 60%, Coursework = 40%

**Re-assessment pattern:**

- 2-hour Written Examination = 60%, Coursework = 40%

**Module coordinator:** Prof D I Benn

### GG3264 Oceans and Climate

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The oceans play a key role in the global climate system. The aim of this module is to foster an understanding of: (1) changes in ocean circulation and climate, the possible mechanisms for such changes and the wider implications in terms of past, present and future global and regional climates; and (2) to provide an introduction to some of the research methods employed to determine oceanographic changes.

**Pre-requisite(s):** Before taking this module you must pass GG2011 and pass GG2012

**Learning and teaching methods of delivery:**

- **Weekly contact:** 1 x 1-hour lecture, 1 x 1-hour seminar (x 11 weeks) + 1 x 1-hour revision session during the semester.

- **Scheduled learning:** 23 hours

- **Guided independent study:** 177 hours

**Assessment pattern:**

- **As defined by QAA:**
  - Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%

- **As used by St Andrews:**
  - Written Examination = 60%, Coursework = 40%

**Re-assessment pattern:**

- Written Examination = 60%, Coursework = 40%

**Module coordinator:** Prof W E N Austin
GG3272 Biogeography and the Earth System

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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 and 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 methods of delivery:**

- **Weekly contact:** 1-hour lecture, (X 11 weeks), 1-hour seminar (x 6 weeks) 2-hour workshops(x 4 weeks) 6-hour fieldwork (x 1 week)

**Scheduled learning:** 24 hours  
**Guided independent study:** 176 hours

**Assessment pattern:**

- **As defined by QAA:**
  - Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%
- **As used by St Andrews:**
  - Coursework = 40%, 2-hour Written Examination = 60%

**Re-assessment pattern:**

Students will have to resit the failed component(s) in order to obtain a capped mark of 7 for the module as a whole, completing one or more of the following: A 1500 word report, following the format of Assessment 1, using a different, secondary dataset (30%) - A 1500 word guide to the biogeography of a selected region (i.e. a different region to the first attempt; 30%) - A two-hour written exam (40%).

**Module coordinator:**  
Dr I T Lawson

**Module teaching staff:**

Dr I Lawson, Dr K Roucoux

GG3273 Scrutinising Segregation: Geographies of Diversity and Inequality

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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 11 weeks), 1 x 1-hour lecture (x 11 weeks)

**Scheduled learning:** 22 hours  
**Guided independent study:** 176 hours

**Assessment pattern:**

- **As defined by QAA:**
  - Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%
- **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 N Finney
GG3275 Geomorphology: Landscapes, Landforms and Earth Surface Processes

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**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

**Learning and teaching methods of delivery:**
- **Weekly contact:** 3 hours of lectures (x8 weeks), 3 hours of presentations (x1 week), 1.5 days fieldwork.
- **Scheduled learning:** 47 hours
- **Guided independent study:** 144 hours

**Assessment pattern:**
- **As defined by QAA:** Written Examinations = 20%, Practical Examinations = 10%, Coursework = 70%
- **As used by St Andrews:** Coursework = 80% coursework (including presentation worth 10%), 1-hour Written Class Test = 20%

**Re-assessment pattern:** 2-hour Written Examination = 100%

**Module coordinator:** Prof C K Ballantyne

**Module teaching staff:** Prof C Ballantyne

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GG3301 Special Topic for Joint or Major Honours in Geography (Junior Honours)

<table>
<thead>
<tr>
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<th>10</th>
<th>SCQF Level 9</th>
<th>Semester</th>
<th>1</th>
</tr>
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</table>

**Academic year:** 2018/9

**Availability restrictions:** Entry to a Joint or Major Honours programme in Geography.

**Planned timetable:** timetable to be confirmed.

This module is designed to allow Joint or Major Honours students in their Junior Honours year to engage with the subject matter of a selected 20-credit optional module in Geography (GG3221 - GG3289) yet balance the workload across the four semesters of their Honours programme. Students complete the contact hours of their chosen module but undertake a separate assessment.

**Pre-requisite(s):** Before taking this module you must pass GG2011 and pass GG2012

**Learning and teaching methods of delivery:**
- **Weekly contact:** Students undertake 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.
- **Scheduled learning:** 23 hours
- **Guided independent study:** 77 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 Essay = 100%

**Module coordinator:** Dr R T Streeter

**Module teaching staff:** Various
**GG3302 Special Topic for Honours in Geography (Senior Honours)**

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<th>SCOTCAT Credits:</th>
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<th>SCQF Level:</th>
<th>9</th>
<th>Semester:</th>
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</thead>
<tbody>
<tr>
<td><strong>Academic year:</strong></td>
<td>2018/9</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Availability restrictions:</strong></td>
<td>Entry to a Joint or Major Honours programme in Geography</td>
<td></td>
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<tr>
<td><strong>Planned timetable:</strong></td>
<td>timetable to be confirmed.</td>
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</tbody>
</table>

This module is designed to allow Honours students in their Senior Honours year to engage with the subject matter of a selected 20-credit optional module in Geography (GG3221 - GG3289) yet balance the workload across the four semesters of their Honours programme. Students complete the contact hours of their chosen module but undertake a separate assessment.

**Pre-requisite(s):** Before taking this module you must pass GG2011 and pass GG2012

**Learning and teaching methods of delivery:**
- **Weekly contact:** Students undertake 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.

**Scheduled learning:** 23 hours  
**Guided independent study:** 77 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 Essay = 100%

**Module coordinator:** Dr R T Streeter

**Module teaching staff:** Various

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**GG4201 Advanced Debates in Geography**

<table>
<thead>
<tr>
<th>SCOTCAT Credits:</th>
<th>10</th>
<th>SCQF Level:</th>
<th>10</th>
<th>Semester:</th>
<th>2</th>
</tr>
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<tbody>
<tr>
<td><strong>Academic year:</strong></td>
<td>2018/9</td>
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<tr>
<td><strong>Availability restrictions:</strong></td>
<td>Core - available every year.</td>
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<tr>
<td><strong>Planned timetable:</strong></td>
<td>To be arranged.</td>
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</tbody>
</table>

This module extends and provides a summation of work undertaken in the geography Honours programme, providing students with an opportunity to reflect on the scope and diversity of geography as a discipline and to think holistically about their own learning. The module is structured around a set of readings and seminars that encourage student to study and debate important contemporary issues and debates within geography (e.g. climate change, globalisation, the nature of social inequality, the interface between nature and culture). It is examined with a single three-hour examination comprised of a mixture of seen and unseen exam questions. These address the nature of geography as a discipline and the way in which geographical reasoning has or might be applied to significant contemporary issues.

**Pre-requisite(s):** Before taking this module you must pass SG3201 or pass SG3202 or pass SG3203 or pass SG3204

**Learning and teaching methods of delivery:**
- **Weekly contact:** 6 x 2-hour seminars during the semester.

**Scheduled learning:** 12 hours  
**Guided independent study:** 88 hours

**Assessment pattern:**
- As defined by QAA:  
  - Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%
- As used by St Andrews:  
  - 2-hour Written Examination = 100%

**Re-assessment pattern:** 2-hour Written Examination = 100%

**Module coordinator:** Dr D W Clayton

**Module teaching staff:** Team taught
GG4297 Joint Honours Research Dissertation in Geography

<table>
<thead>
<tr>
<th>SCOTCAT Credits:</th>
<th>30</th>
<th>SCQF Level 10</th>
<th>Semester</th>
<th>2</th>
</tr>
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<td>Academic year:</td>
<td>2018/9</td>
<td></td>
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</tr>
<tr>
<td>Availability restrictions:</td>
<td>Core - available every year.</td>
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<tr>
<td>Planned timetable:</td>
<td>To be arranged.</td>
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</tbody>
</table>

The research dissertation is the fundamental piece of independent work upon which the Geography degree is based. It provides students with the opportunity to design and undertake an independent, original piece of empirical research under the supervision of a member of staff. The dissertation is a substantial, independent piece of research that represents the culmination of both substantive and core training in Geography. (Guidelines for printing and binding dissertations can be found at: http://www.st-andrews.ac.uk/printanddesign/dissertation/).

Pre-requisite(s): Before taking this module you must pass GG3202 or pass SG3202

Anti-requisite(s): You cannot take this module if you take GG4298

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) |
| Scheduled learning: | 8 hours |
| Guided independent study: | 292 hours |

Assessment pattern:

As defined by QAA:
Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%

As used by St Andrews:
Dissertation = 100%

Re-assessment pattern:
Oral Examination = 100%

Module coordinator: Dr S Leahy
Module teaching staff: Team taught

GG4298 Research Dissertation in Geography

<table>
<thead>
<tr>
<th>SCOTCAT Credits:</th>
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<th>SCQF Level 10</th>
<th>Semester</th>
<th>2</th>
</tr>
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<td>2018/9</td>
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</tr>
<tr>
<td>Availability restrictions:</td>
<td>Core - available every year.</td>
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<td></td>
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<tr>
<td>Planned timetable:</td>
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</table>

The research dissertation is the fundamental piece of independent research work upon which the Geography degree is based. It provides students with the opportunity to design and undertake an independent, original piece of empirical research under the supervision of a member of staff. The dissertation is a substantial, independent piece of research that represents the culmination of substantive and core training in Geography. 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. (Guidelines for printing and binding dissertations can be found at: http://www.st-andrews.ac.uk/printanddesign/dissertation/)

Pre-requisite(s): Before taking this module you must pass GG3201 or pass GG3203

Anti-requisite(s): You cannot take this module if you take GG4297

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: | 490 hours |

Assessment pattern:

As defined by QAA:
Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%

As used by St Andrews:
Dissertation and Conference presentation = 100%

Re-assessment pattern:
Oral Examination = 100%

Module coordinator: Dr S Leahy
Module teaching staff: Team taught
### GG4301 Advanced Study for Joint or Major Honours in Geography

<table>
<thead>
<tr>
<th>SCOTCAT Credits:</th>
<th>10</th>
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<td><strong>Academic year:</strong></td>
<td>2018/9</td>
<td><strong>Availability restrictions:</strong></td>
<td>Entry to a Joint or Major Honours programme in Geography</td>
</tr>
<tr>
<td><strong>Planned timetable:</strong></td>
<td>Timetable to be arranged.</td>
<td><strong>This module is designed to allow Joint or Major Honours students in their Senior Honours year to engage with the subject matter of a selected 20-credit optional module in Geography (GG3221 - GG3289) yet balance the workload across the four semesters of their Honours programme. Students complete the contact hours of their chosen module but undertake a separate assessment, at 4000-level (an advanced essay).</strong></td>
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</table>

| **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) |

| **Learning and teaching methods of delivery:** | **Weekly contact:** Students undertake 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. |

| **Scheduled learning:** | 23 hours | **Guided independent study:** | 77 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 Essay = 100% |

| **Module coordinator:** | Dr R T Streeter |

| **Module teaching staff:** | Various |
**SD3100 Methodologies for Sustainable Development**

<table>
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<tr>
<th>SCOTCAT Credits:</th>
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<th>SCQF Level 9</th>
<th>Semester</th>
<th>2</th>
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<tr>
<td>Academic year:</td>
<td>2018/9</td>
<td></td>
<td></td>
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<tr>
<td>Planned timetable:</td>
<td>Lectures - 14:00 - 17:00 Tuesdays</td>
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</table>

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 methods of delivery:**
- **Weekly contact:** 1 x 3-hour seminar (x 7 weeks); 1 x 3-hour practical (x 3 weeks); residential field work (x 3 days)
- **Scheduled learning:** 57 hours **Guided independent study:** 252 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 = 100%

**Module coordinator:** Dr R M White

**Module teaching staff:** Team taught

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**SD3111 Home and Energy Geographies**

<table>
<thead>
<tr>
<th>SCOTCAT Credits:</th>
<th>30</th>
<th>SCQF Level 9</th>
<th>Semester</th>
<th>1</th>
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<tbody>
<tr>
<td>Academic year:</td>
<td>2018/9</td>
<td></td>
<td></td>
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<tr>
<td>Planned timetable:</td>
<td>10:00am - 1:00pm Thursdays (lectures)</td>
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</table>

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 take SD3221

**Learning and teaching methods of delivery:**
- **Weekly contact:** One 2-hour lecture (x11 weeks), One 1-hour seminar (x9 weeks)
- **Scheduled learning:** 31 hours **Guided independent study:** 269 hours

**Assessment pattern:**
- As defined by QAA:
  - Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%
- 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
### SD4111 Governance for Sustainability

<table>
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<tr>
<th>SCOTCAT Credits:</th>
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<th>SCQF Level: 10</th>
<th>Semester:</th>
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<td>10:00am - 1:00pm Friday</td>
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</table>

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 take SD3222

**Learning and teaching methods of delivery:**

- Weekly contact: One 2-hour lecture (x10 weeks), One 2-hour seminars (x2 weeks), One 2-hour practicals (x4 weeks)

**Scheduled learning:** 35 hours  
**Guided independent study:** 265 hours

**Assessment pattern:**

- As defined by QAA:  
  Written Examinations = 50%, Practical Examinations = 20%, Coursework = 30%

- 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 A Stojanovic

### SD4113 Environment and Development Economics

<table>
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<tr>
<th>SCOTCAT Credits:</th>
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<th>Semester:</th>
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The world has changed dramatically since the early 1700s, before the onset of modern economic growth and the industrial revolution. However, despite rapid advancements, the world today is divided between high-income, middle-income, and low-income countries. This module takes a broad perspective on economic development and how economic development interacts with the environment. The module introduces key concepts 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 methods of delivery:**

- Weekly contact: Two 1-hour lectures (x10 weeks), Two practicals (x4 weeks)

**Scheduled learning:** 28 hours  
**Guided independent study:** 270 hours

**Assessment pattern:**

- As defined by QAA:  
  Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%

- As used by St Andrews:  
  Coursework = 50%, 2-hour Written Examination = 50%

**Re-assessment pattern:** 2-hour Written Examination = 100%

**Module coordinator:** Dr E McLaughlin

**Module teaching staff:** Dr E McLaughlin, Prof N Hanley, Dr T Borger
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 methods of delivery:

<table>
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<tr>
<th>Weekly contact</th>
<th>Scheduled learning</th>
<th>Guided independent study</th>
</tr>
</thead>
<tbody>
<tr>
<td>One 1-hour lecture (x10 weeks), One 2-hour seminar (x9 weeks), One 2-hour group presentation session (x1 week)</td>
<td>30 hours</td>
<td>275 hours</td>
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</table>

Assessment pattern:

As defined by QAA: Written Examinations = 40%, Practical Examinations = 0%, Coursework = 60%

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

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 SD4299

Learning and teaching methods of delivery:

<table>
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<tr>
<th>Weekly contact</th>
<th>Scheduled learning</th>
<th>Guided independent study</th>
</tr>
</thead>
<tbody>
<tr>
<td>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)</td>
<td>30 hours</td>
<td>270 hours</td>
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Assessment pattern:

As defined by QAA: Written Examinations = 0%, Practical Examinations = 5%, Coursework = 95%

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
SD4299 Dissertation in Sustainable Development

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<th>SCOTCAT Credits:</th>
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<td>2018/9</td>
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<tr>
<td><strong>Availability restrictions:</strong></td>
<td>Core - Available only to students who intend an Honours Degree in Sustainable Development.</td>
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<td><strong>Planned timetable:</strong></td>
<td>To be arranged.</td>
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</table>

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.

<table>
<thead>
<tr>
<th>Pre-requisite(s):</th>
<th>Before taking this module you must take SG3201 or take SG3203 or take SG3204 or take SD3100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-requisite(s)</td>
<td>You cannot take this module if you take SD4002 or take SD4297</td>
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</tbody>
</table>

**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

**Assessment pattern:**

- As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%
- 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
### SG4221 Review Essay

<table>
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<tr>
<th>SCOTCAT Credits:</th>
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<tr>
<td>Availability restrictions:</td>
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This elective requires students, working independently, to identify and critically review a body of literature, giving an account of its substantive content, and critically assessing the evidence on which it is based. Students can either identify an intellectual field that lies outside those addressed in available 3000-level options modules, or build on a field covered in the programme, pursuing it at greater depth. In addition to supervisory sessions and module tutorials, students may also attend sessions in a relevant 3000-level option module running in the same semester.

| Pre-requisite(s): | Before taking this module you must pass SG3201 or pass SG3202 or pass SG3203 or pass SG3204 |
| Weekly contact: | Introductory lecture and seminar (2 hours) followed by guided independent study (one-to-one supervision) |
| Scheduled learning: | 2 hours |
| Guided independent study: | 198 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:**

- Review Essay = 100%

**Module coordinator:**

Dr S Leahy

**Module teaching staff:**

Team taught

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### SG4222 Advanced Qualitative Analysis

<table>
<thead>
<tr>
<th>SCOTCAT Credits:</th>
<th>20</th>
<th>SCQF Level</th>
<th>Semester</th>
<th>1</th>
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<tbody>
<tr>
<td>Academic year:</td>
<td>2018/9</td>
<td></td>
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<tr>
<td>Availability restrictions:</td>
<td>Not automatically available to General Degree students</td>
<td></td>
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<tr>
<td>Planned timetable:</td>
<td>2.00 pm - 4.00 pm Thu</td>
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This module offers advanced training in methods of qualitative analysis that facilitate dissertation work and develop transferable skills for future careers. Learning is project/problem-based, and students 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 are drawn from a range of areas within geography and sustainable development. Techniques, themes and materials will vary according to staff availability.

| Pre-requisite(s): | Before taking this module you must pass SG3201 or pass SG3202 or pass SG3203 or pass SG3204 |
| Weekly contact: | 2-hour lecture (x 4 weeks), 2-hour seminar (x2 weeks), 2-hour practical (x3 weeks) |
| Scheduled learning: | 18 hours |
| Guided independent study: | 182 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 D W Clayton

**Module teaching staff:**

Team taught
## SG4223 Advanced Quantitative Analysis

<table>
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<tr>
<th>SCOTCAT Credits:</th>
<th>20</th>
<th>SCQF Level 10</th>
<th>Semester</th>
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<tbody>
<tr>
<td>Academic year:</td>
<td>2018/9</td>
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<tr>
<td>Availability restrictions:</td>
<td>Not automatically available to General Degree students</td>
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<tr>
<td>Planned timetable:</td>
<td>Lectures - 1.00 pm - 3.00 pm Tue, Practicals - 3.00 pm - 5.00 pm Tue</td>
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</table>

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 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 methods of delivery:**
**Weekly contact:** 2-hour lectures, 2-hour seminars, 1-hour practical classes each week for 7 weeks, and occasional tutorials.

**Assessment pattern:**
- As defined by QAA:
  - Written Examinations = 0%, Practical Examinations = 13%, Coursework = 87%
- 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

## SG4224 Advanced Topics in Physical Sciences

<table>
<thead>
<tr>
<th>SCOTCAT Credits:</th>
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<th>SCQF Level 10</th>
<th>Semester</th>
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<td>Academic year:</td>
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<td>Availability restrictions:</td>
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<tr>
<td>Planned timetable:</td>
<td>Lectures - 2.00 pm - 3.00 pm Thurs, Practicals - 3.00 pm - 5.00 pm Thurs</td>
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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 methods of delivery:**
**Weekly contact:** 2-hour lectures (x 9 weeks) and 1 x 1-day (4 hour) field class.

**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)

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<tr>
<th>SCOTCAT Credits:</th>
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<th>SCQF Level 10</th>
<th>Semester</th>
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<td><strong>Availability restrictions:</strong></td>
<td>Available every year.</td>
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<td><strong>Planned timetable:</strong></td>
<td>Lectures - 1.00 pm - 3.00 pm Mon \ Practicals - 3.00 pm - 5.00 pm Mon</td>
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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.

<table>
<thead>
<tr>
<th>Pre-requisite(s):</th>
<th>Before taking this module you must pass GG3201</th>
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<tbody>
<tr>
<td><strong>Learning and teaching methods of delivery:</strong></td>
<td><strong>Weekly contact:</strong> 2 hours lectures (x 9 weeks), 2-hour practical classes (x 6 weeks), 2-hour IT Lab Help sessions (x 3 weeks)</td>
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<td><strong>Scheduled learning:</strong></td>
<td>36 hours</td>
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<td><strong>Guided independent study:</strong></td>
<td>164 hours</td>
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<tr>
<td><strong>As used by St Andrews:</strong></td>
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<td><strong>Re-assessment pattern:</strong></td>
<td>No Re-assessment available</td>
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<tr>
<td><strong>Module coordinator:</strong></td>
<td>Dr J A Long</td>
</tr>
<tr>
<td><strong>Module teaching staff:</strong></td>
<td>Dr J Long, Dr U Demsar</td>
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