GG3201 Single Honours Research Design and Methodology Training (60)

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This module occupies a central place in our 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: • Research project design • Qualitative and quantitative data collection and analysis • Use of secondary data • Research ethics and risk assessment • Geographical Information Systems (GIS) and remote sensing. There is opportunity for streaming and choice amongst units covering these themes. 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 12 hours of contact time (x 10 weeks).

Scheduled learning: 120 hours Guided independent study: 480 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 I T Lawson

Module teaching staff: Team taught

GG3202 Joint Honours Research Design and Methodology Training (30)

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<th>Semester</th>
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This module occupies a central place in our 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: • Research project design • Qualitative and quantitative data collection and analysis • Use of secondary data • Research ethics and risk assessment • Geographical Information Systems (GIS) and remote sensing. There is opportunity for streaming and choice amongst units covering these themes. 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 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 I T Lawson

Module teaching staff: Team taught
This module occupies a central place in our 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: • Research project design • Qualitative and quantitative data collection and analysis • Use of secondary data • Research ethics and risk assessment • Geographical Information Systems (GIS) and remote sensing. There is opportunity for streaming and choice amongst units covering these themes. 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 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. |
| Assessment pattern: | As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100% |
| Re-assessment pattern: | No Re-assessment available |
| Module coordinator: | Dr I T Lawson |
| Module teaching staff: | Team taught |
### GG3204 Research Design and Methodology Training (40)

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“This module occupies a central place in our 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: • Research project design • Qualitative and quantitative data collection and analysis • Use of secondary data • Research ethics and risk assessment • Geographical Information Systems (GIS) and remote sensing. There is opportunity for streaming and choice amongst units covering these themes. The module concludes with students producing an independent research proposal for their Senior Honours dissertation projects.

**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 I T Lawson

**Module teaching staff:**

Team taught

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### GG3227 Colonial and Postcolonial Geographies

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<th>Semester</th>
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<td>2:00 - 4:00 pm Friday</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: 1hr x 11 weeks online lectures - interactive (Teams, recorded) - in the designated class hour. Content pre-recorded in 15 minute segments, 3 x 15 min segments per session (30 in total). 1 x 11 week tutorials - interactive (Teams, recorded) with group work - in designated class hour

Scheduled learning: 24 hours

Guided independent study: 176 hours

**Assessment pattern:**

As defined by QAA:

- Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%

As used by St Andrews:

100% continual assessment.

Re-assessment pattern:

100% continual assessment.

**Module coordinator:**

Dr D W Clayton
GG3229 Environmental Management in Scotland

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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: 2hr x 10 weeks online lectures, 2hr x 10 weeks of drop-in sessions
- Scheduled learning: 0 hours
- Guided independent study: 0 hours

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

GG3234 Migration and Transnationalism

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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 methods of delivery:
- Weekly contact: 1hr x 9 weeks online lectures, 1hr x 9 weeks seminars, 2hr x 1 week mini-conference
- 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: 100% continual assessment.

Re-assessment pattern: 100% continual assessment.

Module coordinator: Dr D McCollum
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: 1 hour lecture x 11 (online), 2 x 1 hour seminar/workshop x 11 weeks, 2 x 1 hour office hours x 11 weeks
Scheduled learning: 0 hours Guided independent study: 0 hours

Assessment pattern:
As defined by QAA:
Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%
As used by St Andrews:
100% continual assessment.

Re-assessment pattern: 100% continual assessment.
Module coordinator: Professor N D Laurie
Module teaching staff: Prof N Laurie
Since the 1960s the life course approach has become one of the most influential paradigms in the social sciences. It 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. It provides a way of understanding inequalities as cumulative or long-term processes. This module will provide an introduction to the life course approach and how it applies to key areas of human geography, covering the demographic processes such as family building (childbearing and partnership), migration and mobilities, ageing and health disparities. This will incorporate the study of various life course stages and transitions between them (childhood, adolescence, adulthood and older age), and the production of social and health inequalities throughout the lifespan. The module will teach students how to read and appraise both qualitative and quantitative research papers. The module is taught through lectures, in person or online discussion seminars, and assessment is all coursework: a class presentation, a critical summary task and a choice of 3,000 word essay.
### 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:** 2 x 1 hr per week for 9 weeks online lectures and seminars
- **Scheduled learning:** 0 hours
- **Guided independent study:** 0 hours

**Assessment pattern:**
- As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%
- As used by St Andrews: 100% continual assessment.

**Re-assessment pattern:** 100% continual assessment.

**Module coordinator:** Professor D I Benn

**Module teaching staff:** Prof D I Benn

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### 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 ¿ 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:** 3 hour seminar/lecture/workshop x 10 weeks
- **Scheduled learning:** 0 hours
- **Guided independent study:** 0 hours

**Assessment pattern:**
- As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%
- As used by St Andrews: 100% continual assessment.

**Re-assessment pattern:** 100% continual assessment.

**Module coordinator:** Dr I T Lawson

**Module teaching staff:** Dr I Lawson, Dr K Roucoux
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: 0 hours | Guided independent study: 0 hours |

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

**Re-assessment pattern:**
- Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%

**Module coordinator:** Dr N Finney

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

| SCOTCAT Credits: | 10 | SCQF level 9 | Semester | 1 |
| Academic year: | 2020-2021 |
| 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 I T Lawson

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

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**Academic year:** 2020-2021  
**Availability restrictions:** Entry to a Joint or Major Honours programme in Geography  
**Planned timetable:** timetable to be confirmed.

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 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

## GG4201 Advanced Debates in Geography

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<th>SCQF level 10</th>
<th>Semester</th>
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**Academic year:** 2020-2021  
**Availability restrictions:** Core – available every year. Not automatically available to General Degree students  
**Planned timetable:** To be arranged.

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 GG3201 or pass GG3202 or pass GG3203 or pass GG3204

**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%
**GG4221 Review Essay**

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<th>Semester</th>
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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 GG3201 or pass GG3202 or pass GG3203

Anti-requisite(s): You cannot take this module if you take GE4019

Learning and teaching methods of delivery: 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 R T Streeter

Module teaching staff: Team taught

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**GG4222 Advanced Qualitative Analysis**

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<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, students gain practical experience of working with a range of qualitative data (e.g. archives, media, visual and textual documents and/or interview transcripts) using a range of analytical and coding approaches (e.g. discourse analysis, deconstruction, grounded theory). Research data are drawn from a range of areas within geography.

Pre-requisite(s): Before taking this module you must pass GG3201 or pass GG3202 or pass GG3203

Learning and teaching methods of delivery: Weekly contact: 3 hour seminar/lecture/workshop x 10 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:
- 100% continual assessment.

Re-assessment pattern: 100% continual assessment.

Module coordinator: Dr M B Sothern

Module teaching staff: Team taught module
GG4223 Advanced Quantitative Analysis

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<th>SCQF level 10</th>
<th>Semester</th>
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<td>Academic year:</td>
<td>2020-2021</td>
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<td>Availability restrictions:</td>
<td>Not automatically available to General Degree students</td>
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<tr>
<td>Planned timetable:</td>
<td>Lecture Tue 1-3; Practical Tue 3-5</td>
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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 GG3201 or pass GG3202 or pass GG3203

Learning and teaching methods of delivery: Weekly contact: 2 hour lecture x 7 weeks, 2 hour lab x 7 weeks, 4 hour drop in session x 2 weeks, 4 hour class presentation session x 1 week.

Scheduled learning: 40 hours
Guided independent study: 160 hours

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: Dr Katherine Keenan, Dr Jo Hale, Prof. Hill Kulu

GG4224 Advanced Topics in Physical Sciences

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<th>SCOTCAT Credits:</th>
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<th>Semester</th>
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<td>Availability restrictions:</td>
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<tr>
<td>Planned timetable:</td>
<td>Lectures – 12 noon - 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. Various topics are offered each year that build on material explored in 3000-level Honours modules, and which expand and deepen students' practical skill set. 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. Assessment is entirely by coursework (structured data analysis reports). The module complements and expands the learning acquired in GG3201-4, and provides additional resources for the development of students' individual dissertation projects.

Pre-requisite(s): Before taking this module you must pass GG3201 or pass GG3202 or pass GG3203

Learning and teaching methods of delivery: Weekly contact: 3-hour lecture/seminar/practical sessions (x 10 weeks)

Scheduled learning: 30 hours
Guided independent study: 170 hours

Assessment pattern:

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

As used by St Andrews: Coursework = 100%
The first part of the course explores advanced spatial analysis techniques for use with geographic datasets. Students will gain theoretical and applied knowledge to study and describe spatial patterns in geographic data. Theoretical understanding will be emphasized through lectures and readings. Labs will be designed to provide students with hands-on experience applying theory and techniques to datasets spanning human and environmental geography in applications such as crime, forestry, health and environmental change. In the second part of the course 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 or physical geography will be able to tailor GIS projects to their own interests.

### Pre-requisite(s): Before taking this module you must pass GG3201 or GG3202 or GG3203 and have taken and passed Unit 6 (GIS) in one of these modules.

### Learning and teaching methods of delivery:

**Weekly contact:** 2hr x 6 weeks online lectures, 2hr x 1 week online career event (GIS Day), 2hr x 6 weeks labs (online via remote access to university labs), 2hr x 4 weeks help sessions for projects (online via remote access to university labs and/or in person)

**Scheduled learning:** 36 hours

**Guided independent study:** 164 hours

### Assessment pattern:

**As defined by QAA:**

- Written Examinations = 0%
- Practical Examinations = 0%
- Coursework = 100%

**As used by St Andrews:**

1. IT Practicals (50%) - 2 x 25% IT lab assignments based on Analysing Spatial Point data, Spatial Autocorrelation Analysis, and/or Geographically Weighted Regression.
2. GIS project (50%) - Students will work on a topic/dataset of their own choosing. Perform an analysis using the skills learned in this course. Students will submit a written report in the form of a scientific article.

### Re-assessment pattern:

- 100% GIS Project

### Module coordinator:

Dr T Bolch

### Module teaching staff:

Dr Urska Demsar, Dr Tobias Bolch
GG4297 Joint Honours Research Dissertation in Geography

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<tr>
<th>SCOTCAT Credits:</th>
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<th>SCQF level 10</th>
<th>Semester</th>
<th>2</th>
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<td>Academic year:</td>
<td>2020-2021</td>
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<tr>
<td>Availability restrictions:</td>
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<td>Planned timetable:</td>
<td>To be arranged.</td>
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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

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)

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<tr>
<th>Scheduled learning:</th>
<th>8 hours</th>
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<tr>
<td>Guided independent study:</td>
<td>292 hours</td>
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</table>

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 R T Streeter

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>
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<td>Availability restrictions:</td>
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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

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<tr>
<th>Scheduled learning:</th>
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<tr>
<td>Guided independent study:</td>
<td>490 hours</td>
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</table>

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

As used by St Andrews: Dissertation and Conference presentation = 100%
This module prepares students to plan and carry out research in relation to Sustainable Development. This module builds on the research methods explored in other SD honours modules. Students will learn 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 real world setting. Students taking this module will understand the wider epistemological debates surrounding interdisciplinarity, 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, which would be 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); real world investigation (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: 100% continual assessment.

Re-assessment pattern: 100% continual assessment.

Module coordinator: Dr R M White

Module teaching staff: Team taught
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: 0 hours
- Guided independent study: 0 hours

Assessment pattern:
- As defined by QAA:
  - Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%
- As used by St Andrews:
  - 100% continual assessment.

Re-assessment pattern: 100% continual assessment.

Module coordinator: Dr L A Reid

Module teaching staff: Dr L Reid
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. This course will draw on examines predominantly from the marine and coastal environment. 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: 1-hour x 10 weeks online lectures (i.e. excluding reading week 6), 2-hour seminars (x2 weeks) in person AND online realtime (dual delivery), 2-hour practicals (x4 weeks) in person AND online realtime (dual delivery), 1x 3 hour online game.

Scheduled learning: 0 hours  Guided independent study: 0 hours

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

As used by St Andrews:
50% Exam & 50% continual assessment

Re-assessment pattern: 50% Exam & 50% continual assessment

Module coordinator: Dr T A Stojanovic

Module teaching staff: Dr T Stojanovic
# SD4115 The Nature of Political Ecology

<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>2020-2021</td>
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<td>This module will be offered on a bi-annual basis.</td>
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<td>Planned timetable:</td>
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We live in a time when human activities have profoundly altered the composition of the air we breathe, the water we drink, and the geology upon which we live. Yet, at the very moment that humanity has arguably become the most powerful geological force on Earth, anthropogenic changes threaten the very conditions that sustain us. This course offers an introduction to political ecology - the study of the relationships and interactions between political-economic structures and ecological systems - and asks what it might teach us about the current climatic and ecological crises. We begin by considering how ontological and epistemological conceptions of nature are entangled in these crises. Next, we examine how logics of capitalism, the state, race, gender, and colonialism structure the environments we inhabit. We then explore how these environments are also co-produced by the non-human world. Finally, we ask what actions must be taken to ensure just and abundant planetary futures.

**Pre-requisite(s):** Before taking this module you must pass SD2001 and pass SD2002 or pass GG2011 and pass GG2012

**Learning and teaching methods of delivery:**
- **Weekly contact:** 1 hour online lecture, 2 hours online seminar (x11 weeks).
- **Scheduled learning:** 55 hours
- **Guided independent study:** 176 hours

**Assessment pattern:**
- **As defined by QAA:**
  - Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%

**As used by St Andrews:**
- 100% continual assessment.

**Re-assessment pattern:**
- 100% continual assessment.

**Module coordinator:** Dr M P Simpson

**Module teaching staff:** Dr Michael Simpson
SD4297 Dissertation in Sustainable Development

**SCOTCAT Credits:** 30  **SCQF level 10**  **Semester** 2

**Academic year:** 2020-2021

**Availability restrictions:** Available only to Sustainable Development Honours students.

**Planned timetable:** To be arranged.

This dissertation builds on 3000-level research methods training and will demonstrate the importance of an interdisciplinary approach to researching key questions of sustainable development. This independent research will involve the review of relevant literature, 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 approaches to scientific writing, and analysing 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:**

**Weekly contact:** 1 away day (4 hours in St Andrews OR 8 Hours residential if possible), 4 x 2-hour skills workshops face to face online. (Those in S1 are not tallied here) up to 10 hours individual supervision, by arrangement with supervisor, face to face online or in person. 1 x 4 hours student research conference (4 hours) face to face online

**Scheduled learning:** 30 hours  **Guided independent study:** 270 hours

**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 T A Stojanovic

**Module teaching staff:** Team taught