**Geography (GG) Modules**

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

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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

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**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 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 (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

**Module teaching staff:** Team taught
### GG3221 Geographies of Identity and Power

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Drawing on theories of gender and sexuality, this module charts how political questions about identity and power have become central to a broad range of contemporary issues. This module introduces key concepts in the theorisation of gender and sexuality, contextualises their development in the social sciences more generally, and applies them to a range of contemporary geographic issues including: power, segregation, inequality, representation and the political.

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

**Learning and teaching methods of delivery:**
- Weekly contact: 1 x 2-hour lecture (x 10 weeks) and 1 x 2-hour revision session.
- 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 = 50%, Coursework = 50%

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

**Module coordinator:** Dr M B Sothern

### GG3224 HIV/AIDS in sub-Saharan Africa

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This module makes the case for a social-scientific, not merely biomedical understanding of HIV/AIDS in sub-Saharan Africa. It addresses the geographies of this phenomenon, exploring the politics of scaling, uneven global distributions, social contexts that facilitate its spread and the situatedness of sexual decision-making. The module investigates the role of gender relations, poverty, migration and youth. It also explores the everyday geographies of those living with AIDS, and evaluates proposed local and global solutions. The module is reading- and seminar-based. It utilises action-based assessment that challenges students to take their learning out of the classroom and transmit it to other contexts.

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

**Learning and teaching methods of delivery:**
- Weekly contact: 1-hour lecture (x 8 weeks), 1-hour seminar (x 8 weeks), 2-hour practical classes (x 2 weeks) and 1 x 2-hour feedback/revision session.
- 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 = 50%, Coursework = 50%

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

**Module coordinator:** Dr M G Kesby
### GG3237 Political and Cultural Geographies of the Border

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This module focuses on a critical analysis and empirical reflection on the border and its functions, to better appreciate borders' paradoxical cultural and political roles. It will provide a framework for understanding contemporary bordering practices, their role in processes of identity-building and the constitution of belonging and difference within the fields of political and cultural geography. It will provide an introduction to the multi-disciplinary arenas of border studies, critical geopolitics, and biopolitics. An understanding of the over-arching power of discourse will be central to this course; the examples used will provide students with a deeper appreciation of how discourses work in the transmission of knowledge and the legitimisation of action. This module will challenge students to think about the complex functions of the border and their deeply political nature.

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

**Learning and teaching methods of delivery:**

- **Weekly contact:** 1 x 1-hour lecture (x 10 weeks) 1 x 1-hour seminar (x 10 weeks) 2 hours feedback and additional exam prep 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:**  
  1-hour Written Examination = 40%, Coursework = 60%

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

**Module coordinator:** Dr S Leahy

### GG3239 European Population Trends

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This module focuses on long-term European population trends. The fertility, mortality and migration dynamics of a representative cross-section of European countries are examined and competing explanations for demographic changes are discussed. The specific challenges that current population changes pose to public policy are also discussed.

**Pre-requisite(s):** Before taking this module you must take GG2012 or take SD2002

**Learning and teaching methods of delivery:**

- **Weekly contact:** 2 hour lecture (x 11 weeks). 4 tutorials (x 4 weeks)
- **Scheduled learning:** 26 hours  
  **Guided independent study:** 176 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 = 100%

**Module coordinator:** Dr A D Marshall

**Module teaching staff:** Prof H Kulu
The growth and decay of the Earth's glaciers and ice sheets is one of the most dramatic consequences of climatic variability. Over the course of the Quaternary period (2.6 Ma ago to the present), vast ice sheets have regularly expanded to cover much of Europe and North America before rapidly wasting away in just a few thousand years. Understanding the causes and effects of these past changes is of great importance at present as anthropogenic climate change pushes the Earth into a new phase of major deglaciation. This module will begin by looking at the evidence for past glaciation and its influence on landscape development and modern land use. It will then look at what these past glacial periods can tell us about the threat to present day glaciers and ice sheets, including the likely rate and magnitude of deglaciation, the key mechanisms and feedbacks controlling these changes, and the critical interactions between the Earth's ice, oceans and climate.

Pre-requisite(s): Entry to honours programme in geography or sustainable development

Learning and teaching methods of delivery: Weekly contact: 1 x 1-hour lecture and 1 x 1-hour seminar (x 9 weeks), 1 x 2-hour practical (x 2 weeks), 1 x 1-day field trip

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

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

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

Module coordinator: Dr T R Cowton

Module teaching staff: Dr T R Cowton

This module examines the behaviour of organisms in response to climate changes on timescales of millenia and longer. Possible responses can be categorised as (i) evolution (by lineage splitting, or speciation, the source of biological diversity), (ii) extinction, or (iii) changes in distribution and abundance. The relative importance of these responses, and their relative frequency, are crucial for understanding the origin of biological diversity, its regionalisation (biogeography), and as a foundation for how organisms will respond with climate change in the future. The module will show the development of ideas in these areas, from the early nineteenth century onwards, through to current understanding, including recent developments in geography, Earth sciences and biology.

Pre-requisite(s): Before taking this module you must take GG2012 or take SD2002. Entry with SD2002 requires the permission of the module coordinator

Learning and teaching methods of delivery: Weekly contact: 1 x 1-hour lecture and 1 x 2-hour seminar.

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

As used by St Andrews: Coursework = 100%

Re-assessment pattern: 4,000-word essay on a subject to be decided between the student and the module co-ordinator = 100%

Module coordinator: Prof K D Bennett

Module teaching staff: Prof K Bennett
GG3262 Climate and Weather Systems

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Weather affects every aspect of life, and is a fundamental control on many environmental systems. This module explores the workings of the atmosphere at a wide range of scales, from the formation of clouds and raindrops, through thunderstorms and cyclones, up to large-scale circulation of the atmosphere. Beginning from first principles, key physical processes are introduced and used to develop a deep understanding of the earth’s weather and climate. The module concludes with a critical examination of the climate change debate.

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

Learning and teaching methods of delivery: Weekly contact: 2 hours lectures and 2 hours seminars (x 5 weeks) + 2 x 1-hour essay feedback and exam revision sessions

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

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

Re-assessment pattern: Written Examination = 60%, Coursework = 40%

Module coordinator: Prof D I Benn

GG3271 Coastal Processes

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The majority of the world’s population live in close proximity to the coastal zone. Coastal processes are highly dynamic and sensitive to external drivers, including long-term climate change and anthropogenic activities. Understanding these systems is important for developing appropriate coastal management strategies. Coasts (and coastal processes) therefore represent an excellent opportunity to study the interactions between humans and their physical environment. The module aims to enhance students’ understanding of environment-shaping processes and to offer advanced field-based training in the coastal environment. Including practical classes and an obligatory, reasonably priced, weekend field excursion, it encourages students to think about the ways in which process knowledge can inform coastal management.

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

Anti-requisite(s) You cannot take this module if you take GG3067

Learning and teaching methods of delivery: Weekly contact: Weekly lectures.

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%, Coursework = 40%

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

Module coordinator: Prof W E N Austin
GG3274 Socio-ecological Systems

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This module examines how we can use records of the past to understand human-environment interactions over the timescales on which climate change plays out. It will present key concepts and theories for understanding the complex dynamics of socio-ecological systems, and illustrate how careful consideration of palaeoenvironmental, archaeological and historical data can be used to understand how past societies coped with climatic stresses and managed finite resources. We also consider how knowledge of the past can inform current and future thinking about social resilience and conservation management. The module uses case studies from the Old and New Worlds, including North Atlantic, Pacific Islands, and the African savanna.

Learning and teaching methods of delivery:
- Weekly contact: 1-hour lecture (x 10 weeks), 1-hour seminar (x 10 weeks).
- Scheduled learning: 20 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: 2-hour Written Examination = 60%, Coursework = 40%

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

Module coordinator: Dr A L Davies

Module teaching staff: Dr A Davies and Dr R Streeter

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

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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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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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<td>Core – available every year. Not automatically available to General Degree students</td>
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<td><strong>Planned timetable:</strong></td>
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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 S Leahy

**Module teaching staff:** Team taught
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

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 S Leahy

Module teaching staff: Team taught

GG4222 Advanced Qualitative Analysis

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<th>SCOTCAT Credits:</th>
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<th>Semester</th>
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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, 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 GG3201 or pass GG3202 or pass GG3203

Learning and teaching methods of delivery:

| 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 M G Kesby

Module teaching staff: Team taught (Dr Mike Kesby, Dr Matthew Sothern)
**GG4223 Advanced Quantitative Analysis**

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<td>Lectures - 1.00 pm - 2.00 pm Fri. Practicals - 2.00 pm - 4.00 pm Tue</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: 1 Hour Lecture x 11 weeks, 2 Hour Practical Lab x 11 weeks
Scheduled learning: 33 hours
Guided independent study: 176 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

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**GG4224 Advanced Topics in Physical Sciences**

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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 GG3201 or pass GG3202 or pass GG3203

**Learning and teaching methods of delivery:**
Weekly contact: 2 hour lectures (x 9 weeks) and 1 x 1-day (4 hour) field class.
Scheduled learning: 22 hours
Guided independent study: 178 hours

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

As used by St Andrews:
Coursework = 100%

**Re-assessment pattern:**
Coursework project = 100%

**Module coordinator:**
Dr R T Streeter

**Module teaching staff:**
Team taught
GG4228 Advanced Topics in Geographic Information Science (GISci)

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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

Learning and teaching methods of delivery: Weekly contact:
- 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 U Demsar

Module teaching staff: Dr Urska Demsar

GG4297 Joint Honours Research Dissertation in Geography

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<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 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
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
# Sustainable Development (SD) Modules

## SD3100 Methodologies for Sustainable Development

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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

## SD4110 Transitioning to sustainability: community, nature and governance

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A transition towards sustainability will be multifaceted, requiring novel forms of governance and acknowledging the roles and perspectives of different actors. State intervention alone will not suffice; local and grassroots initiatives and movements are critical. In this module we will explore how communities of place, interest, practice and value can contribute to multi-level governance for sustainability, but can also question dominant assumptions manifested at national or international levels. We will examine how community interacts with other sectors, explore learning, adaptation and resilience in communities and pursue the trend for alternative economies. We will draw on examples from the global north and south. In addition, we will critique the contested concept of community itself, acknowledging issues relating to heterogeneity, representation and relationality.

**Pre-requisite(s):** Before taking this module you must pass SD2002

**Anti-requisite(s):** You cannot take this module if you take SD3225

**Learning and teaching methods of delivery:**
- **Weekly contact:** 1 hour lecture (x11 weeks), 1 hour seminar (x11 weeks), 3 hour practical class (x2 weeks), 4hr field-trip (x6 weeks)
- **Scheduled learning:** 57 hours
- **Guided independent study:** 244 hours

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

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

**Module coordinator:** Dr R M White

**Module teaching staff:** Dr R White
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: TBC
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: Weekly contact: 1 away day (8 hours), 2-hour skills workshops (x4), up to 10 hours individual supervision, by arrangement with supervisor, student research conference (4 hours)

Scheduled learning: 30 hours Guided independent study: 270 hours

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