Sustainable Development

Programme Handbook

2016 - 2017

Department of Geography & Sustainable Development, University of St Andrews
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Welcome to the Sustainable Development Undergraduate Programme at the University of St. Andrews, a programme highly regarded in the UK and beyond!

This handbook contains information about the structure and delivery of the Sustainable Development (SD) degree. The Department of Geography & Sustainable Development (DGSD) delivers undergraduate programmes in Geography and SD, both administered within a common framework. Full details are set out in the DGSD Undergraduate Handbook; you would be wise to check out these rules & regulations.

This Programme Handbook is relevant to students registered for a degree in Sustainable Development, for those taking one or more modules from the Programme, and for staff connected with the Programme. You should also familiarize yourself with the University Course Catalogue [http://www.st-andrews.ac.uk/coursecatalogue/ug/](http://www.st-andrews.ac.uk/coursecatalogue/ug/), and the University Student Handbook [http://www.st-andrews.ac.uk/studenthandbook/](http://www.st-andrews.ac.uk/studenthandbook/).

**Communication:** email is the primary means of communication, so if you’re a 1st Year student you should activate your university email account NOW. All students are expected to check their University email account regularly (at least every 48 hours). Staff should only reply to emails originating from University accounts, so please DO NOT use external email accounts to contact staff.

Each module is coordinated by a lecturer. If you have a query relating to the teaching, learning and assessment of a particular module, contact the module coordinator in the first instance. More general queries about the SD Programme (e.g. leave of absence, appeals) should be addressed to the DGSD Director of Teaching (email: ggdot). For issues related to advising, contact your Advisor of Studies. However, many of your enquiries will be answered in the information that we provide for you (handbooks and websites), so before emailing, always check these carefully first.

**THE SUSTAINABLE DEVELOPMENT PROGRAMME**

Sustainable Development interrogates contemporary norms, and challenges us to find creative alternatives and solutions. The programme is part of a deep commitment to sustainability within the University ([http://www.st-andrews.ac.uk/environment/](http://www.st-andrews.ac.uk/environment/)), and is designed to be flexible and responsive to global trends, to staff experience and to student feedback.

But what is Sustainable Development? The concepts of ‘sustainability’ and of ‘development’ are widely debated and are understood differently within different disciplinary and philosophical perspectives. Sustainable Development has thus been defined in many ways. What all the different definitions have in common is a concern with the longevity and well-being of the planet and of humankind, and a desire to find ways of moving beyond unsustainable practices. SD really is about changing the world.

Over the past thirty years, debates on “sustainability” have shifted from an exclusive concern with the environment, defined narrowly as “the natural world”, to a wider awareness that the natural and human worlds are irrevocably interconnected. The severity of current environmental degradation, widening social inequalities, geopolitical instability and economic volatility face us with the challenge of thinking about life and its sustainability in radically
different terms. An essential part of this “new” thinking is the explicit acknowledgement of the need for a deep change of the kind Albert Einstein was referring to when he said that the same manner of thinking that created problems cannot solve them. This new thinking implies a fundamental shift in the way we look at the world, nature and humankind, as well as rigorous thinking about the interconnections and interdependencies between the physical, social and intellectual worlds.

Sustainable Development is thus an enormously broad field of study, requiring expertise from many spheres. This is why the degree is structured in an interdisciplinary way, with teaching contributions not only from within DGSD but also from Schools across the Arts and Science Faculties. It is a unique programme with a strong track record, and we hope that you find it stimulating, challenging and rewarding.

Dr Charles Warren, Sustainable Development Programme Director
Dr Matt Sothern, Director of Teaching, DGSD

September 2016
Programme Aims and Learning Outcomes

The overall goal of the SD Programme is to enable students to critically interrogate the principles, practices and plurality of sustainable development understandings, and to contribute to the evolution of innovative, interdisciplinary thinking and action.

Aims:

1. To offer a research-orientated degree in Sustainable Development that prepares graduates for both higher level academic study and employment in the dynamic information economy.
2. To prepare students who can evaluate both qualitative and quantitative information; formulate relevant questions; undertake independent projects; and present information clearly and convincingly in a variety of formats.
3. To produce graduates who:
   - can understand and critically evaluate different perspectives on, and approaches to SD;
   - bring an appreciation of the value of different ways of knowing;
   - approach problems and their solutions from an holistic, systems-thinking perspective,
   - have specialist expertise.
4. To foster and develop critical understanding of the root causes of problems facing today’s society and environment, and of options for change.

The SD programme provides an intellectually stimulating and productive academic experience, offering research-based teaching and learning designed to enable you to fulfil your potential as critical thinkers and enhance your employability by gaining the following skills:

Learning outcomes:

- A capacity for holistic and interdisciplinary thinking within and across ecological, social and economic realms
- A broad and well developed set of transferable skills and independent competences providing you with the ability to critically engage, understand, interrogate and report on research on current world problems
- Module specific skills, including the abilities to think critically, manage complex data sets, work unsupervised individually and as part of a team, and utilize a range of research approaches and methods
- Expertise in integrating, analysing and synthesising information from a range of sources, gained by working with complex environments and issues
- Ability to be flexible and adapt quickly to changing and different environments
- Confidence and initiative to be able to deal with the “unexpected”.

The SD programme is interdisciplinary in its nature, spanning the Social and Natural Sciences and the Arts and Humanities (see figure below). It is a research-orientated programme that encourages problem-based learning and cultivates intellectual rigour in the identification, investigation and resolution of questions and problems.
**Structure of the SD Programme**

The SD programme is unusual within the University in that:

(a) staff from several different Schools deliver the 1st and 2nd year modules.

(b) at Honours level, the DGSD delivers approximately half of the credits required for the degree in core SD and SG coded modules, with the remainder made up from a ‘partner discipline’ (and a range of ‘open’ SD-related modules provided by various schools). This enables you to explore SD issues in an interdisciplinary environment whilst also developing the academic skills and expertise in a specialist disciplinary area.

(c) while the SD programme offers opportunities for interdisciplinary study, it is offered as a single-Honours degree only, and there are no joint degree combinations.

**Pathways in the Sustainable Development Programme**

As with Joint Honours degrees, students taking a Single Honours Sustainable Development degree can choose to combine with a number of other programmes to chart a pathway through their degree. You should identify a partner discipline in first year and take all necessary 1-2000 modules so that you are qualified for Honours entry in that discipline once you reach third year. Students who fail to qualify in a partner discipline will have a more limited range of modules to choose from.

Schools ordinarily require passes at 1000 and 2000 level in their subject for a student to gain access to their 3000 and 4000 level Honours classes. However, ‘partner schools’ also offer some SD-related 3-4000 level modules for which 1-2000 level modules (and entry to SD Honours) are a sufficient prerequisite. Discuss this issue with your Advisor from first year onwards and see the Programme Requirements in the Course Catalogue [https://www.st-andrews.ac.uk/coursecatalogue/ug/](https://www.st-andrews.ac.uk/coursecatalogue/ug/)

**Financial management during your degree**

We appreciate that you may face financial difficulties at University. The Department does its best to ease that burden by providing many materials free of charge, and by subsidising field courses as far as resources allow. However, as stressed in the DGSD Undergraduate Handbook, there are unavoidable costs associated with the SD programme, and you should budget for these. Honours students concerned about the cost of the compulsory residential field class in Semester 2 of your JH year should consult the ‘hardship fund’ section of the DGSD Undergraduate Handbook.
GENERAL INFORMATION

The Sub-Honours SD programme is interdisciplinary in nature rather than being rooted in any specific discipline, providing a range of perspectives on SD from various disciplinary backgrounds. There are four inter-linked modules, GG1001 and SD1000 at 1st Year, and SD2001 and SD2002 at 2nd Year.

Each module has a dedicated coordinator & email address, as follows:

<table>
<thead>
<tr>
<th>Module</th>
<th>Coordinator</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>GG1001</td>
<td>Dr Matt Sothern</td>
<td>geog1000</td>
</tr>
<tr>
<td>SD 1000</td>
<td>Dr Antje Brown</td>
<td>sd1000</td>
</tr>
<tr>
<td>SD 2001</td>
<td>Dr Tim Stojanovic</td>
<td>sd2001</td>
</tr>
<tr>
<td>SD 2002</td>
<td>Dr Tim Stojanovic</td>
<td>sd2002</td>
</tr>
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</table>

If you have any questions or problems about your studies, please address them to the relevant module coordinator. Dr Matt Sothern is the DGSD Director of Teaching and has overall responsibility for the Geography and Sustainable Development programmes. His email is: ggdot@st-andrews.ac.uk. You can raise issues about the Sub-Honours programme with the module coordinator, or via your elected student representatives on the Staff Student Consultative Committee. Key contacts are listed at the beginning of the DGSD Undergraduate Handbook and also on the Departmental website. Staff are available during their designated ‘office hours’.

You will be given online access to the handbook for each Sub-Honours SD module that you take. These include all the information that you need - the module’s aims & intended learning outcomes, the timetable, the material to be covered, guidance on reading, and detailed information on assessment and deadlines. Modules involve lectures, project groups, practical classes, field work, seminars, personal study and examinations. Before attending your first tutorial, it would be well worth reading the section on Reading and Study Skills at the end of the DGSD Undergraduate Handbook.

If you have a problem with your studies, please contact your module coordinator (see above). If you would prefer to speak with someone outwith the Department, you should contact the Advice & Support Centre <theasc> who will provide confidential assistance.

First and Second Year structure and modules

<table>
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<tr>
<th></th>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td>GG1001 (20 credits) <strong>plus</strong> at least one partner subject</td>
<td>SD1000 (20 credits) <strong>plus</strong> at least one partner subject</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td>SD2001 (30 credits) <strong>plus</strong> partner subject</td>
<td>SD2002 (30 credits) <strong>plus</strong> partner subject</td>
</tr>
</tbody>
</table>
The SD 1st & 2nd year programme is structured around three key questions:

- Why do we need the concept of sustainable development (SD)?
- What is SD?
- How might we encourage/facilitate SD?

GG1001 ‘Welcome to the Anthropocene: Society, Population, Environment’ is shared with the geography programme, and introduces all first year students in the department to the issue that we are living in an era in which human activity has, for the first time, become a major driver of environmental processes, and is causing unprecedented global change. The module begs the question as to whether current modes of human development are sustainable.

SD1000 ‘What is sustainable development?’ introduces SD students to some of the key ideas underpinning SD’s attempts to make sense of the Anthropocene, examines different disciplinary perspectives on what issues sustainable development should be trying to address, and explores the value and challenges of an interdisciplinary approach to studying and facilitating sustainable development.

SD2001 ‘Sustainable Development: Frameworks for Implementation’ explores conceptual frameworks that might be utilised (individually or together) to encourage and facilitate Sustainable Development; including conservation science, governmental-regulation and self-regulation, market-based and technological solutions, and individual, educational and community based approaches.

SD2002 ‘Sustainable Development: Tools for Action’ examines various agents that can enact change and the methodologies they use to collect evidence, and explores workable interventions and solutions to the problems of sustainability.

Full details are provided in the module handbooks each semester.

Please note: the progressive nature of this curriculum means that each module is a prerequisite for the next.

READING MATERIAL AND THE UNIVERSITY LIBRARY

Books and other readings that students need in order to complete the 1st & 2nd year SD modules can be found in the University Library. The ‘short-loan’ collection contains books and other readings, which are heavily used. These can be borrowed, usually, for up to three hours at a time or over a weekend; there is an online reservation system.

Please note: it is important that you do not leave reading for essays or examinations until the last minute. To ensure access to reading material, spread your reading across the semester (i.e. do some each day or week), and be sure to take effective notes so that:

(i) so you don’t have to keep returning to things you’ve read, and
(ii) you can refer to your sources accurately and so abide by Good Academic Practice (especially by avoiding plagiarism).

You are automatically registered with the Library when you matriculate each academic year. A University ID card, which has an individual Library borrower number on the reverse, is given out upon matriculation. Once you have a valid ID card, you can start borrowing Library material.

Instructions on how to use the Library are provided by the Library, and the Librarians will help with enquiries. For more information, see: http://www.st-andrews.ac.uk/library/
The Library is stocked with a wide range of textbooks in SD. In addition, we recommend the following introductory readings and learning resources:

**Introductory Texts**


**Classic texts**


**Selected Suggestions**


**Selected Online Sources**


Convention on Biological Diversity - [www.cbd.int](http://www.cbd.int)


World Watch Institute - [www.worldwatch.org](http://www.worldwatch.org)


OECD Better Life Index (or similar wellbeing index) - [http://www.oecdbetterlifeindex.org/#/1111111111](http://www.oecdbetterlifeindex.org/#/1111111111)

ASSESSMENT AND THE SUBMISSION OF WORK

Modes of assessment
The modules contain a range of assessment tasks, and different forms of assessment emphasise different marking features. For example:

**Practicals and class tests:** comprehension of material and analytical ability.

**Essays and project reports:** selection, structuring and organisation of material from several sources; critical judgement; lucid presentation; use of pertinent examples.

**Exams:** understanding of topic based on lecture material and reading; ability to structure a coherent answer; critical judgement in selection of relevant material and use of reading.

Submission of Coursework
There is a standard procedure for submitting coursework across all modules and programmes in DGSD. Please refer to the DGSD Undergraduate Handbook and comply with the instructions given there. For information on deadlines and word length, refer to the relevant module handbook.

Problems meeting submission deadlines
Students facing genuine difficulties will be accommodated by the DGSD. Please refer to the DGSD Undergraduate Handbook for further information. Two entries are of relevance to students facing difficulties with submission of work: (1) “Extensions to submission deadlines”, (2) “Deferred Assessment”. Note also the section on “Penalties”.

Grade-related criteria (GRC) for 1st and 2nd year work
The DGSD employs a series of common GRC for all pieces of assessed work. The GRC used for Sub-Honours work are slightly different from those used for Honours work, reflecting the standards expected of students at different levels. The main GRC used for most written work are published in the DGSD Undergraduate Handbook, as are those used for work based on statistical tests. Where criteria differ (in order to better reflect the learning objectives of a given module), bespoke GRC are published in the relevant module handbook.

DGSD policy is that students should be given both a grade and a written explanation of that grade. Work is returned to students using a grade on the University 20-point scale. Please refer to the explanation of this scale under ‘Grade-Related Criteria’ (GRC) in the DGSD Undergraduate Handbook, and also see the University’s statements about marks, grades, degree classification, and the 20-point scale at:

http://www.st-andrews.ac.uk/staff/teaching/examinations/scale/

and

https://www.st-andrews.ac.uk/staff/teaching/examinations/honours/

Penalties
For information about penalties for lateness, presentation and over length work, see the DGSD Undergraduate Handbook.
Feedback on coursework and exam performance
You are entitled to receive feedback on any work that you have submitted. This will give you advice to help you improve your learning and future performance. For full details on the feedback policy see the DGSD Undergraduate Handbook.

ENTRY INTO DGSD HONOURS PROGRAMMES
For all information on Progression, please see the Programme Requirements in the University’s Course Catalogue: https://www.st-andrews.ac.uk/progspecs/
The DGSD’s policy on entry to Honours system follows the University’s general policy: http://www.st-andrews.ac.uk/media/teaching-and-learning/policies/HonsEntry.pdf
For details of the DGSD policy, see the DGSD Undergraduate Handbook. The policy on requests for review of entry to Honours can be found at: http://www.st-andrews.ac.uk/media/teaching-and-learning/policies/honsreviewprocess.pdf
The Honours level SD programme is designed around a core of outstanding research and analysis skills training. This training is provided by the DGSD in common to all its students on the SD and GG programmes (and so is coded SG) and covers core issues in Social and Physical Sciences research methods and analysis. SD and GG students sit in the same class room and explore the trans-disciplinary issues related to research design and implementation. The Programme is outlined diagrammatically below and the compulsory elements are shaded in grey. Your exact credit loading in the compulsory element of the programme will depend on the training you are doing in your partner discipline.

In addition to this research training you will chart your own pathway through your chosen partner subject (and any additional SD coded modules in DGSD, or SD-related ‘open’ modules you take in other partner schools)

### SD Honours programme in diagrammatic outline

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>JH</th>
<th>60 credits of modules from your partner discipline, and/or DGSD, and/or the ‘Open’ SD-related modules provided by partner schools</th>
<th>Elective (20 credits) (choose 1 from SG4221–SG4228)</th>
<th>SG4221 Review Essay (Allows access to an additional option module)</th>
<th>SG 4222 Advanced Qualitative Analysis</th>
<th>SG4223 Advanced Quantitative Analysis</th>
<th>SG4224 Advanced Topics in Physical Sciences</th>
<th>SG4228 Advanced Topics in Geographic Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH</td>
<td></td>
<td>(SD and GG coded options modules in DGSD are 20 credits each and you can take up to 3. Other schools have other credit weightings)</td>
<td>Plus 40 credits from partner discipline, or DGSD, or the ‘Open’ SD-related modules</td>
<td>Plus 40 credits from partner discipline, or DGSD, or the ‘Open’ SD-related modules</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semester 2</td>
<td>JH</td>
<td>Between 30 and 60 credits of research design and methodology training (choose 1 from SG3201-SG3204)</td>
<td>Dissertation in SD SD4299</td>
<td>60 credits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SH</td>
<td></td>
<td>Plus (if required) up to 30 credits from partner discipline, or the ‘Open’ SD-related modules</td>
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</tbody>
</table>
Junior Honours Programme

Full details of module choices accessible to SD students are set out in the Course Catalogue: https://www.st-andrews.ac.uk/coursecatalogue/undergraduate/
The programme requirements list the ‘partner Schools’ and specify the modules offered by other Schools which are accessible to SD Honours students, together with pre-requisites.

A wide range of modules is available to SD students within DGSD; check the course catalogue for pre-requisites. Those available in the coming academic year are listed below. You may take up to three of these in Semester 1 of your JH year; they are not available in Semester 2. Seek advice from your Adviser of Studies about how to combine modules between Schools over your four Honours semesters.

DGSD option modules available in Semester 1, 2016-17

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>GG3100</td>
<td>Reconstructing Past Environments</td>
<td>Katy Roucoux</td>
</tr>
<tr>
<td>GG3227</td>
<td>Colonial and Postcolonial Geographies</td>
<td>Dan Clayton</td>
</tr>
<tr>
<td>GG3234</td>
<td>Migration and Transnationalism</td>
<td>David McCollum</td>
</tr>
<tr>
<td>GG3262</td>
<td>Climate and Weather Systems</td>
<td>Doug Benn</td>
</tr>
<tr>
<td>GG3263</td>
<td>Glaciers and Glaciation</td>
<td>Doug Benn</td>
</tr>
<tr>
<td>GG3264</td>
<td>Oceans and Climate</td>
<td>Bill Austin</td>
</tr>
<tr>
<td>GG3273</td>
<td>Scrutinising Segregation: geographies of diversity and inequality</td>
<td>Nissa Finney</td>
</tr>
<tr>
<td>SG3229</td>
<td>Environmental Management in Scotland</td>
<td>Charles Warren</td>
</tr>
<tr>
<td>SG3272</td>
<td>Long-term Perspectives on Sustainability</td>
<td>Althea Davies &amp; Richard Streeter</td>
</tr>
<tr>
<td>SD3221</td>
<td>Frontiers in Sustainability Research: do good lives cost the earth?</td>
<td>Louise Reid</td>
</tr>
<tr>
<td>EG3020</td>
<td>Global Climate Change (15 credits)</td>
<td>Rob Wilson</td>
</tr>
<tr>
<td>ES5011</td>
<td>Water in the Environment (15 credits)</td>
<td>Mike Singer</td>
</tr>
<tr>
<td>EG3031</td>
<td>Special Topic for Physical Geography (5 Credits)</td>
<td>Take with EG3020</td>
</tr>
<tr>
<td>EG3032</td>
<td>Special Environmental Topic for Physical Geography (5 Credits)</td>
<td>Take with EG3021</td>
</tr>
<tr>
<td>EG4031</td>
<td>Analytical Methods for Physical Geography (5 Credits)</td>
<td>Take with EG4020</td>
</tr>
</tbody>
</table>

In addition, the DGSD offers a pan-programme ‘JH Training Track’ during Semester 1 comprising a number of varied sessions designed to equip you with the skills that you will need if you are to fulfil your potential. Although attendance to these sessions is not compulsory, we strongly recommend that you DO engage with these sessions, since they will help you make a smoother transition to Honours levels, whose demands are much higher than in the first two years. This group of sessions is scheduled as follows:

<table>
<thead>
<tr>
<th>JH Training Track - Semester 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td>8th September</td>
</tr>
<tr>
<td>27th October</td>
</tr>
<tr>
<td>3rd November</td>
</tr>
</tbody>
</table>
In Semester 2 of JH, the focus moves to research for Sustainable Development via one of 4 parallel modules that give you training in multiple aspects of the process of research (methodology, epistemology, and analytical techniques) through problem-based learning. You will combine this with further training or substantive topic learning in your partner subject. The core (30-60 credit) training in DGSD focuses on research design and data collection, with some emphasis on analysis and writing. Whichever version of the training you take, everyone undertakes an assessment requiring you to produce a detailed research proposal. Most students use this opportunity to design the project that they intend to research for their dissertation. Ideas for dissertation projects will emerge from your options modules, reading and interests. In addition, members of staff often advertise projects that they are interested in supervising. There is no requirement to use the summer vacation to work on your dissertation. However, if you want to do so, this structure ensures that you are well prepared.

Junior Honours core training modules, Semester 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG3201</td>
<td>Single Honours Research Design and Methodology Training</td>
<td>60</td>
</tr>
<tr>
<td>SG3202</td>
<td>Joint Honours Research Design And Methodology Training</td>
<td>30</td>
</tr>
<tr>
<td>SG3203</td>
<td>Research Design And Methodology Training</td>
<td>50</td>
</tr>
<tr>
<td>SG3204</td>
<td>Method, Field Data: Design and Methodology Research Training</td>
<td>40</td>
</tr>
</tbody>
</table>

The provision of research methods training occupies a pivotal position in the SD degree. The modules provide the transferable skills necessary for undertaking dissertation research; for work as research postgraduates and/or as professional employees beyond graduation. The modules introduce students to the principal epistemological and theoretical foundations of rigorous academic research, placing these in the context of the broad empirical questions that the field of SD addresses. The different permutations are designed to allow maximum flexibility to fit students’ choice of partner subjects and credit needs. Opportunity for choice and streaming is available in problem-based learning units that focus on the application of specific methods to empirical questions. These units include quantitative, qualitative and physical science research methods. You have the opportunity to choose and combine these units according to what is most suitable for your, especially in view of your dissertation project. A key shared feature of the modules — and the only compulsory units — are (a) the research design unit which culminates in the production of an independent proposal for original research, and (b) a residential field class during which you are mentored through the design and implementation of an empirical research project.

Senior Honours Programme

In Semester 1 of SH, you move to higher (4000) level study through (a) the independent Review Essay and/or (b) at least one Advanced Analysis module exploring analytical methods via substantive content. In this semester, you will also have a dedicated space to debate, discuss and share ideas about the dissertation process, which runs throughout the full year and allows flexibility to manage study in partner disciplines. This will include an away day in February.
4000-level Modules available in DGSD

Although students may still be taking some 3000-level modules at 4th year only 4th year students can take the 4000 level modules provided by DGSD. They represent a point of marked progression in the programme. The common features of progression in these modules are: an increased degree of independent study; the development of critical and analytical skills; the facilitation of students’ ability to work with and analyse empirical data; the facilitation of a considerable degree of choice/specialisation in research orientation.

SG4221 Review Essay (20 credits): this is a 20-credit module that presents students with an exciting opportunity to undertake critical assessment of a topic that particularly interests you. Built around an independent Review Essay, it facilitates students’ ability to critically analyze published scientific research, perceiving its provenance, evaluating its claims and utility, and understanding the science that lies behind its findings.

The module assessment comprises a critical review essay of no more than 5000 words; there is no exam. Your essay will explain and frame the chosen topic, and will describe and evaluate the scholarship and the claims within that field. The review essay is largely an independent piece of work, but in addition to introductory and support classes for the entire SG4221 class, you will also have a personal supervisor who will give you guidance on how to develop and structure your review essay.

To facilitate student choice there are three possible models for the review essay. You will receive the same level of supervision and support whichever model you choose, but you should carefully consider the implications of your choice of model:

(i) Model one: essay topic emerges from a 3000-level option module being taught in the same semester as SG4221. In addition to receiving the requisite level of supervision associated with SG4221, students taking this approach have the opportunity to sit in on classes and seminars associated with the related option (enabling additional stimulus and peer interaction, and ensuring that the requirement to obtain 4000-level credits does not prevent access to a module which interests you). In addition, the option module coordinator may become your supervisor, giving you the benefit of working with an expert in the field. In preparing your 5000-word essay, you will be expected to extend your research independently well beyond the scope and references provided by the optional module.

(ii) Model two: essay topic matches the interests of a staff member running a 3000-level module in the same semester as SG4221. This gives you the freedom to investigate a sub-disciplinary area that is not covered in-depth within the St Andrews curriculum, but does not offer the opportunity of attending a related supporting class. You will identify a topic that is of interest to a member of staff who is teaching in the same semester as SG4221. Supervisors will therefore have some interest and expertise in your chosen area and will offer advice on topic framing and initial literature; you then develop your research largely independently and prepare your 5000-word essay.

(iii) Model three: essay topic is unrelated to available options modules, or emerges from a module run in the previous year. This model gives you the opportunity to explore a topic that is not addressed in a simultaneous option module but which you have become particularly interested in, either as a result of a module taken in your Junior Honours year or from your own independent reading & experience. In this model, you trade free choice to tackle a sub-disciplinary area that is not covered in-depth within the St Andrews curriculum, against the opportunity to attend a related supporting class, and the opportunity to have a supervisor who is an expert in the field. You will be allocated a supervisor who will provide support and advice about constructing a review essay but who may not be familiar with the detail of the chosen topic.
**SG4222-SG4228 Advanced Analysis modules (each 20 credits):** the advanced analysis modules constitute a careful and mutually reinforcing mix of both substantive material and research training. They build upon knowledge and skills gained in both ‘Options’ and ‘Research Methods’ modules and help students better conceive and undertake the tasks that lie ahead in their own dissertations. They have the following benefits and features:

1. Enable progression in research training, allowing advanced laboratory work, advanced statistical training and advanced analysis that provide:
   - Tailored skills specific to the student’s choice of research design (qualitative or quantitative)
   - Thorough preparation for the dissertation
   - Transferable skills for future employment

2. Through their emphasis on the analytical stages of research, they provide progression from the focus in the methods training modules (SG3201-SG3204) on data collection.

**4th year teaching placement modules (ID4001, ID4002 – each 15 credits):** two teaching placement modules are available in Semester 1 of 4th year: ID4001 for students in the Science Faculty and ID4002 for students in the Arts Faculty. You don’t have to be considering teaching as a career for these modules to be valuable. They are university-wide modules which involve weekly visits to a secondary school in Fife and an assessed, classroom-based project developed in conjunction with a ‘teacher mentor’ in your placement school. In this School, Dr Ruth Robinson <rajr> is the subject rep. for ID4001, and Dr Charles Warren <crw2> is the subject rep. for ID4002. Further details can be obtained from them. Importantly, note that places on this module are offered on the basis of an application and interview, and that the application deadline is usually in early March.

**Semester 2 of SH** is primarily dedicated to the independent dissertation research project which is the epitome of a research orientated degree. Students who have not taken all their credits from partner subjects in Semester One have the option of doing so now. When you reach Semester Two of SH, you will have completed all courses related to substantive content and all courses related to research design, methods and analysis. You will have had opportunity (and credit) to design your project, and will be given a dedicated semester to complete it. You will thus be well placed and prepared to complete this module to the best of your ability through focused study, without having to balance numerous competing academic demands. This 60-credit module will have a significant impact on your final degree result, comprising 25% of your total Honours credits, and this is appropriate given the structure and aims of the degree.

The dissertation is the single most challenging - and often most rewarding - element of your degree. It provides you with the opportunity to undertake an original and independent piece of research on a topic of your choice, developed in consultation with staff. Full details are provided during the JH year, but, in outline, it is assessed via three components:

(i) A presentation - worth 5 credits. This is a short oral presentation of your research and can either be delivered via powerpoint slides or a poster to which you talk. You will give this presentation to staff & your peers during a ‘research conference’ which takes place a few weeks prior to the submission of the dissertation in May.

(ii) A written dissertation worth 45 credits (10,000 words max).

(iii) A reflexive appendix worth 10 credits (2,000 words) which will offer a critical reflection on your dissertation and on four years of SD learning.
The dissertation challenges you to put into practice all the skills and competences you have developed during your degree studies. Your topic must be selected, planned and approved before the end of the JH year. Fieldwork and/or data collection may be completed either during the summer vacation between the JH and SH years, and/or during the SH year itself. The dissertation becomes the property of the Department. You must submit two copies, one of which will be returned.

You are strongly advised to start giving thought to your dissertation topic during the first semester of your JH year. While the dissertation is a piece of independent research, all students have a supervisor with whom they must maintain regular contact until the work is completed. The role of the supervisor is threefold:

- to advise on the selection of the project
- to discuss the timetable and logistics of both data collection and analysis
- to comment on the outline and structure of the final written piece of work, but not to give detailed comments on the content of drafts or to provide textual correction.

Printing and Binding: the University’s Print & Design Unit is ideally set up to print and/or bind your dissertation and thesis. You can send your material in PDF format (with a note of pages to be printed in colour) to:

printanddesign@st-andrews.ac.uk

They will then be in touch when your job is ready. Price lists and further information:

www.st-andrews.ac.uk/printanddesign/

Please refer to individual module handbooks for more detailed information.

Ethics and Ethical Approval

Ethical behaviour is an important transferable skill. We expect, encourage and train students to act ethically in all their learning activities. Institutional ethical clearance for research is one element of this broader commitment to ethical behaviour, and it is a significant one. All research in the School of Geography and Geosciences requires ethical clearance before it can begin. Whether your dissertation is on a subject in Physical, Environmental or Human geography, ethical issues may arise. ALL students undertaking data collection for their dissertation must engage with the School Ethics Committee protocols (even if only to declare formally that their research has no ethical implications). For further details, please see the DGSD Undergraduate Handbook and the Virtual office Moodle site called: “GGADMIN Virtual Office - students”.

Health & Safety Risk Assessment

During your degree programme you are likely to take part in some kind of fieldwork in urban or rural locations and, potentially, participate in lab work. Field and lab work both involve hazards that are different from those you will encounter every day during the routine course of your studies. Therefore, for these activities, either the staff member in charge or you will be expected to complete a risk assessment. For class activities, you will be required to read and sign the risk assessment form. For activities that you do independently, as part of your dissertation for example, you will be required to complete the risk assessment form yourself (it can be found on the virtual office Moodle site called: “GGADMIN Virtual Office – Students” and includes instructions on how to carry out a field work risk assessment, which can be adapted to encompass lab work as well). This must be completed well in advance as it needs to be (1) checked by your supervisor, (2) approved by the Department Health and Safety Coordinator (currently Katy Roucoux, khr@st-andrews.ac.uk or geohealth@st-andrews.ac.uk) and (3) signed by your supervisor before you will be allowed to do the work.
ASSESSMENT AND THE SUBMISSION OF WORK

The DGSD employs a series of common GRC for all pieces of assessed work. The GRC used for Honours work are slightly different from those used for sub-Honours work, reflecting the standards expected of students at different levels. The main GRC used for most written work are published in the DGSD Undergraduate Handbook, as are those used for work based on statistical tests. Where criteria differ (in order to better reflect the learning objectives of a given module), bespoke GRC will be published in the relevant module handbook. DGSD policy is that students should be given both a grade and a written explanation of that grade.

Submission of Coursework
There is a standard procedure for submitting work across all modules and programmes in DGSD. Please refer to the DGSD Undergraduate Handbook – and comply with instructions there. For information on deadlines and word length, refer to the relevant module handbook.

Problems meeting submission deadlines
Students facing genuine difficulties will be accommodated by the DGSD. Please refer to the DGSD Undergraduate Handbook for further information. Three entries are relevant: (1) “Extensions to submission deadlines”, (2) “Deferred Assessment” and (3) “S-Coding”.

Feedback on coursework and exam performance
You are entitled to receive feedback on any work that you have submitted. This will give you advice to help you improve your learning and future performance. For full details on the feedback policy see the DGSD Undergraduate Handbook.

Penalties
For information about penalties for lateness, presentation and over length work, please see the DGSD Undergraduate Handbook.

Final degree classification criteria: for information about how your final degree classification will be calculated, please see the DGSD Undergraduate Handbook.

PRIZES FOR SD STUDENTS

DGSD Prizes
The Department has a range of prizes which recognize the achievements outstanding SD students. It will also nominate some students for external recognition. The value of these prizes lies not in the financial reward (which is limited) but in the public recognition of the exceptional quality of such students’ work. Of course, such achievements can also be cited in CVs and at job interviews.

The Stephen Sterling Student Prize
This prize will be awarded to the top SD graduating student, judged largely on the basis of grades but also on contribution to SD, progress made within the degree and other relevant criteria.

Sustainable Development Student Prize
Awarded to the runner up student, with particular attention to impact of work and extra-curricular activities.
**Sustainable Development Citizenship Prize**
Awarded to the student contributing most to their class, Programme, University and the wider community.

**Sustainable Development Dissertation Prize**
This prize will be awarded for the top SD dissertation. In addition, Highly Commended certificates may be provided to other dissertations demonstrating excellence.

**University Prizes**

**Deans’ List**
An annual award for academic excellence, promoted by the four Deans of the University. For details, see: [https://www.st-andrews.ac.uk/students/academic/awards/universityprizes/deanslist/](https://www.st-andrews.ac.uk/students/academic/awards/universityprizes/deanslist/)

Any student who meets all the criteria and who obtains a credit-weighted mean grade of 16.5 or above for the year will be recorded on the Deans’ List.

**The Miller Prize**
The School will also submit the name of any student obtaining an outstanding First Class Honours degree to the Faculty of Arts or Science, as appropriate, as a candidate for this award.

**External Awards**
The Programme will also submit really outstanding dissertations to any relevant national or international competition, with the agreement of the student concerned.
<table>
<thead>
<tr>
<th>Key Dates</th>
<th>Date/Period</th>
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<tbody>
<tr>
<td>Orientation Week</td>
<td>Week beginning Monday 5th September</td>
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<tr>
<td>Martimas Semester/Semester 1</td>
<td>Monday 12th September 2015 – Friday 16th December 2015</td>
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<tr>
<td>Junior Honours Induction Day</td>
<td>Thursday 8th September</td>
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<tr>
<td>Senior Honours Induction Session</td>
<td>Friday 9th September</td>
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<tr>
<td>Raisin Monday, and start of Independent Learning Week (ILW)</td>
<td>Monday 17th October</td>
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<tr>
<td>St Andrews Day Graduation</td>
<td>Wednesday 30th Nov &amp; Thursday 1st December</td>
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<tr>
<td>Final Deadline for Semester 1 coursework</td>
<td>Friday 25th November</td>
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<tr>
<td>Junior Honours oral presentation training</td>
<td>Thursday 27th October</td>
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<tr>
<td>Junior Honours essay &amp; exam training</td>
<td>Thursday 3rd November</td>
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<tr>
<td>Revision period begins</td>
<td>Monday 28th November</td>
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<tr>
<td>Semester 1 Examination Diet</td>
<td>Monday 5th – Thursday 15th December</td>
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<tr>
<td>Candlemas Semester/Semester 2</td>
<td>Monday 23rd January – Friday 26th May 2017</td>
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<tr>
<td>Option Module exam debrief sessions</td>
<td>Weeks 2 - 3 (by module coordinators)</td>
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<tr>
<td>Spring Vacation</td>
<td>Monday 13th – Friday 24th March</td>
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<tr>
<td>Geography &amp; SD Dissertation Conference</td>
<td>Thursday 6th April</td>
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<tr>
<td>Revision period begins</td>
<td>Monday 24th April</td>
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<tr>
<td>May Day Holiday (no classes)</td>
<td>Monday 1st May</td>
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<tr>
<td>Final Deadline for ALL Semester 2 coursework</td>
<td>Friday 28th April</td>
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<tr>
<td>Semester 2 Examination Diet</td>
<td>Monday 8th – Friday 19th May</td>
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<tr>
<td>Degree classification results available</td>
<td>Friday 9th June</td>
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<tr>
<td>Graduations</td>
<td>Week beginning Monday 19th June</td>
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<tr>
<td>Re-assessment Diet</td>
<td>Week beginning Monday 14th August</td>
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Remember that you are required to be available throughout both examination periods.