School of Geography & Geosciences

Important Degree Information:

B.Sc./M.A. Honours
The general requirements are 480 credits over a period of normally 4 years (and not more than 5 years) or part-time equivalent; the final two years being an approved Honours programme of 240 credits, of which 90 credits are at 4000 level and at least a further 120 credits at 3000 and/or 4000 levels. Refer to the appropriate Faculty regulations for lists of subjects recognised as qualifying towards either a B.Sc. or M.A. degree.

B.Sc./M.A. Honours with Integrated Year Abroad
The general requirements are 540 credits over a period of normally 5 years (and not more than 6 years) or part-time equivalent; the final three years being an approved Honours programme of 300 credits, of which 60 credits are gained during the integrated year abroad, 90 credits are at 4000 level and at least a further 120 credits at 3000 and/or 4000 levels. Refer to the appropriate Faculty regulations for lists of subjects recognised as qualifying towards either a B.Sc. or M.A. degree.

Other Information: In the case of students who spend part of the Honours programme abroad on a recognised Exchange Scheme, the Programme Requirements will be amended to take into account courses taken while abroad.

<table>
<thead>
<tr>
<th>Degree Programmes</th>
<th>Programme Requirements at:</th>
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<tbody>
<tr>
<td>(M.A. Honours or B.Sc. Honours): Geography</td>
<td><strong>Single Honours Geography:</strong></td>
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<td></td>
<td><strong>Level 1:</strong> 40 credits comprising passes in GG1001 and GG1002</td>
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<td><strong>Level 2:</strong> 60 credits comprising passes at 12 or better in (GE2011 and GE2012) or (GG2011 and GG2012)</td>
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<td></td>
<td><strong>Level 3:</strong> 60 credits from GG3201 and 80 credits from GG3221 - GG3289</td>
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<td></td>
<td><strong>Level 4:</strong> 50 credits from GG4201 - GG4230, and 50 credits from GG4298</td>
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<tr>
<td>(amended for 2011-12)</td>
<td>Of the 240 credits required for an Honours degree, 90 credits must be at 4000 level.</td>
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<td>Degree Programmes</td>
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| **(M.A. Honours):**
Geography and one of
Art History, Classical Studies,
Comparative Literature, Economics,
Film Studies, French\(^w\), Hebrew,
International Relations, Italian\(^w\),
Management\(^t\), Mediaeval History,
Middle East Studies, Modern
History, Philosophy, Psychology,
Scottish History, Social
Anthropology, Spanish\(^w\),
Theological Studies. | **Geography element of Joint Honours Degrees:**
**Level 1:** 40 credits comprising passes in GG1001 and GG1002

**Level 2:** 60 credits comprising passes at 12 or better in (GE2011 and GE2012) or (GG2011 and GG2012)

**Level 3:** 30 credits from GG3202

**Level 4:** 30 credits from GG4297

Available also as ‘With Integrated Year Abroad Degrees’

A further 60 credits must normally be obtained from GG3301, GG3302, GG3221 - GG3289, GG4301 and GG4221 - GG4230.

In total, 240 credits are required at Level 3 and Level 4, of which 90 credits must be achieved at Level 4. |
| **(B.Sc. Honours):**
Geography and one of
Environmental Biology,
Management\(^t\), Management
Science, Mathematics, Statistics. | **Geography element of Major Degrees:**
**Level 1:** 40 credits comprising passes in GG1001 and GG1002

**Level 2:** 60 credits comprising passes at 12 or better in (GE2011 and GE2012) or (GG2011 and GG2012)

**Level 3:** 90 credits including GG3201 or GG3203, plus credits from GG3221 - GG3289

**Level 4:** 20 credits from GG4220 - GG4230 and 50 credits from GG4298

Available also as ‘With Integrated Year Abroad Degrees’

A further 20 credits must normally be obtained from GG3301, GG3302, GG3221 - GG3289, GG4301 and GG4221 - GG4230.

Of the 240 credits required for an Honours degree, 90 credits from major and/or minor subjects must be at 4000 level. |

\(^w\) Available also as ‘With Integrated Year Abroad Degrees’

\(^t\) Timetable clash exists, therefore this combination is subject to arrangement with both Departments.

(***amended for 2011-12***)
### Degree Programmes

<table>
<thead>
<tr>
<th>M.A. Honours: Psychology, Russian*, Social Anthropology or Spanish* with Geography.</th>
<th>Geography element of Minor M.A. Degrees:</th>
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</thead>
<tbody>
<tr>
<td><strong>Level 1:</strong> 40 credits comprising passes in GG1001 and GG1002</td>
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<tr>
<td><strong>Level 2:</strong> 60 credits comprising passes at 12 or better in (GE2011 and GE2012) or (GG2011 and GG2012)</td>
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</tr>
<tr>
<td><strong>Level 3 &amp; Level 4:</strong> 60 credits from GG3221 - GG3289 <em>or</em> GG4221 – GG4230</td>
<td><strong>Level 3 &amp; Level 4:</strong> 60 credits from GG3221 - GG3289 <em>or</em> GG4221 – GG4230</td>
</tr>
<tr>
<td>Of the 240 credits required for an Honours degree, 90 credits from major and/or minor subjects must be at 4000 level.</td>
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<tr>
<th>B.Sc. Honours: Mathematics with Geography</th>
<th>Geography element of Minor B.Sc. Degree:</th>
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<td><strong>Level 1:</strong> 40 credits comprising passes in GG1001 and GG1002</td>
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<tr>
<td><strong>Level 2:</strong> 60 credits comprising passes at 12 or better in (GE2011 and GE2012) or (GG2011 and GG2012)</td>
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<tr>
<td><strong>Level 3 &amp; Level 4:</strong> 60 credits from GG3221 - GG3289 <em>or</em> GG4221 – GG4230</td>
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<th>B.Sc. Honours: Geology</th>
<th>Single Honours Geology:</th>
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<tr>
<td><strong>Level 1:</strong> 40 credits comprising passes in (ES1001 or GG1011) and (ES1002 or GG1012) or 30 credits from ES2004 for direct second year entrants.</td>
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</tr>
<tr>
<td><strong>Level 2:</strong> normally 90 credits comprising passes at 11 or better in (ES2001 or GS2011) and (ES2002 or GS2012) and ES2003. Students with (ES2001 and ES2002) but without ES2003 may also be considered on a case-by-case basis.</td>
<td><strong>Level 2:</strong> normally 90 credits comprising passes at 11 or better in (ES2001 or GS2011) and (ES2002 or GS2012) and ES2003. Students with (ES2001 and ES2002) but without ES2003 may also be considered on a case-by-case basis.</td>
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<tr>
<td><strong>Level 3:</strong> 120 credits from ES3001, ES3002, ES3003, ES3004, ES3005, ES3006, ES3007, ES3009</td>
<td><strong>Level 3:</strong> 120 credits from ES3001, ES3002, ES3003, ES3004, ES3005, ES3006, ES3007, ES3009</td>
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<tr>
<td><strong>Level 4:</strong> 90 credits from ES4001, ES4002, ES4003, ES4004, plus 30 credits from ES4006, ES4007, ES4009, ES3008, ID4001</td>
<td><strong>Level 4:</strong> 90 credits from ES4001, ES4002, ES4003, ES4004, plus 30 credits from ES4006, ES4007, ES4009, ES3008, ID4001</td>
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<tr>
<th>B.Sc. Honours: Geology and Biology</th>
<th>Geology element of Joint Degree:</th>
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<tr>
<td><strong>Level 1:</strong> 40 credits comprising passes in (GS1001 or GG1011) and (GS1002 or GG1012)</td>
<td><strong>Level 1:</strong> 40 credits comprising passes in (GS1001 or GG1011) and (GS1002 or GG1012)</td>
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<tr>
<td><strong>Level 2:</strong> 60 credits comprising passes at 11 or better in GS2011 and GS2012 and Honours entry in the other subject</td>
<td><strong>Level 2:</strong> 60 credits comprising passes at 11 or better in GS2011 and GS2012 and Honours entry in the other subject</td>
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<tr>
<td><strong>Level 3:</strong> 30 credits from GS3004, and 15-45 (but usually 30) credits from the group GG3023, GG3067, GG3068, GG3069, GG3082, GG3096.</td>
<td><strong>Level 3:</strong> 30 credits from GS3004, and 15-45 (but usually 30) credits from the group GG3023, GG3067, GG3068, GG3069, GG3096 at least 15 credits of which must be at 4000 level.</td>
</tr>
<tr>
<td><strong>Level 4:</strong> 30 credits from GS4005, GS4009, GS4010, and 15-45 (but usually 30) credits from the group GS4022, GS4082, GS3023, GG3067, GG3068, GG3069, GG3096 at least 15 credits of which must be at 4000 level.</td>
<td><strong>Level 4:</strong> 30 credits from GS4005, GS4009, GS4010, and 15-45 (but usually 30) credits from the group GS4022, GS4082, GS3023, GG3067, GG3068, GG3069, GG3096 at least 15 credits of which must be at 4000 level.</td>
</tr>
<tr>
<td>Students on the Geology and Biology degree must take a minimum of 45 credits and a maximum of 75 credits in each subject in each year.</td>
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<td>Degree Programmes</td>
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</table>
| **(B.Sc. Honours):** Geology and Chemistry | Geology - Chemistry Joint Degree:  
**Level 1:** 40 credits comprising passes in (ES1001 or GG1011) and (ES1002 or GG1012) and 60 credits comprising passes in CH1401, CH1402 and CH1601  
**Level 2:** 60 credits comprising passes at 11 or better in (ES2001 or GS2011) and (ES2002 or GS2012) and 60 credits comprising passes at 11 or better in CH2501 and either CH2601 or CH701  
**Level 3:** 120 credits comprising CH3431, CH3511, CH3521, CH3717, CH3721, CH4512, and ES3001, ES3004, ES3006, ES3009  
**Level 4:** 40 credits from CH4511, CH4611, CH4711, CH4712, CH5711, CH5717, CH5515 and Either 50 credits from (ES4010 and CH4448) or ES4441, 10 credits from CH5515, and up to 30 credits from ES3008, ES4007, ES4009, ES4006 or ID4001.  
**Other Information:** This course is recognised by the Royal Society of Chemistry (RSC) for professional membership. In total (between the two Schools) 240 credits are required at Level 3 and Level 4 of which at least 90 credits must be achieved at Level 4. |
| **(B.Sc. Honours):** Geoscience and Economics N | Geoscience element of Joint Degree:  
**Level 1:** 40 credits comprising passes in (GS1001 or GG1011) and (GS1002 or GG1012)  
**Level 2:** 60 credits comprising passes at 11 or better in GS2011 and GS2012  
**Level 3:** 60 credits comprising GG3082, GS3012, GS3081, GS3090  
**Level 4:** 45 credits from GS4005, GS4006, GS4007, GS4009 and at least 15 credits from GS3089, or GS4082 – GS4088. |
| **(B.Sc. Honours):** Environmental Geoscience | Single Honours Environmental Geoscience:  
**Level 1:** 40 credits comprising passes in (ES1001 or GG1011) and (ES1002 or GG1012) or 30 credits from ES2004 for direct second year entrants  
**Level 2:** normally 90 credits comprising passes at 11 or better in (ES2001 or GS2011) and (ES2002 or GS2012) and ES2003. Students with (ES2001 and ES2002) but without ES2003 may also be considered on a case-by-case basis.  
**Level 3:** 105 credits from ES3001, ES3002, ES3003, ES3004, ES3005, ES3008, ES3010 and 15 credits from ES3009 or one physical geography module by arrangement (GG3260-3270)  
**Level 4:** 90 credits from ES4002, ES4003, ES4004, ES4008, plus 30-35 credits from ES4006, ES4007, ES4009, ID4001, ES3009 or one physical geography module by arrangement (GG3260-3270) |

**Students still completing degree programmes as defined in previous Course Catalogues should discuss their module selections with their Honours Adviser(s).**
Geography & Geosciences – 1000 & 2000 Level 2011/12 – August 2011

InterDisciplinary Modules (ID)
This School co-ordinates and contributes to the following InterDisciplinary module – ID2003 Science Methods (Section 23).

Earth Sciences (ES) Modules
ES1001 Introduction to Planet Earth
Credits: 20 Semester: 1
Anti-requisite: GG1011
Description: The module provides an introduction to the fundamentals of geoscience. The discoveries of the last 25 years provide a framework for the module which covers an introduction to planet Earth, plate tectonic and volcanic systems, long-term landscape evolution, metamorphic and sedimentary rock formation, geodynamics, climate change over geological timescales and planetary geology. Key skills for geoscientists are introduced and the module includes two one-day fieldtrips.
Class Hour: 12.00 noon
Teaching: 4 lectures, 1 tutorial and 1 x 2-hour practical per week.
Assessment: Continuous Assessment = 50%, 2-hour Examination = 50%
Re-Assessment: Coursework = 20%, 2-hour Examination = 80%

ES1002 Earth Resources & Fundamentals of Geology
Credits: 20 Semester: 2
Prerequisites: Normally ES1001
Anti-requisite: GG1012
Description: The module considers the applied nature of geoscience and how the subject contributes to solutions for resource and environmental problems. The key concept of the Earth as a finite resource, in supplying materials for human activities and as an environment to sustain life, is introduced. The scientific dimensions of such issues as earth resources, natural hazards, the Gaia Hypothesis and past and present extinctions will be considered and placed within the wider context of geoscience and society. Key skills for geoscientists are developed and the module includes a field class.
Class Hour: 12.00 noon
Teaching: 4 lectures, 1 tutorial and 1 x 2-hour practical per week.
Assessment: Continuous Assessment = 50%, 2-hour Examination = 50%
Re-Assessment: Coursework = 20%, 2-hour Examination = 80%

ES2001 Dynamic Earth: Evolution of Life & Lithosphere
Credits: 30 Semester: 1
Prerequisites: ES1001 & ES1002 or equivalent
Anti-requisite: GS2011
Description: This module aims to provide a broad understanding of some of the natural processes that have interacted through time to shape and modify our planet and its life forms. Methods and insights from the exciting new field of Earth Systems Science will be used to comprehend the hallmark features of Earth history, biospheric and lithospheric evolution and humankind’s role in influencing environmental change. Lectures and laboratory classes are integrated with emphasis on recording and analysing geoscience information, fieldwork and presentational skills.
Class Hour: 10.00 am
Teaching: 4 lectures and 1 x 3-hour laboratory per week, and occasional tutorials.
Assessment: Continuous Assessment = 50%, 2-hour Examination = 50%
Re-Assessment: Coursework = 20%, 2-hour Examination = 80%
ES2002 Dynamic Earth: Magma, Minerals & Metamorphism
Credits: 30 Semester: 2
Prerequisites: Normally ES2001 or GS2011
Anti-requisite: GS2012
Description: This module aims to give a broad understanding of the genesis of materials that comprise Earth and the processes that are involved in creating and modifying Earth’s surface and lithosphere. Practical tools for the systematic recognition and accurate identification of solid Earth materials are emphasised. These provide the basis to interpret the physical conditions of formation and geodynamical evolution of the Earth System through time.
Class Hour: 10.00 am
Teaching: 4 lectures and 1 x 3-hour laboratory per week, and occasional tutorials.
Assessment: Continuous Assessment = 50%, 2-hour Examination = 50%
Re-Assessment: Coursework = 20%, 2-hour Examination = 80%

ES2003 Dynamic Earth: Geodynamics in the Field
Credits: 30 Semester: 2
Prerequisites: ES2001
Co-requisite: ES2002
Description: This module promotes the study of Earth Sciences as an integrated subject, looking at the interrelationships of igneous, metamorphic and sedimentary rocks and rock deformation. The central part of this module will be an 8-day residential field course to an area in which many aspects of geology are exceptionally well developed in a small area (currently Spain). The module comprises a holistic examination in which the integration of disparate Earth Science topics is explored. The learning in this module supplements and complements other Level 2 teaching.
Class Hour: 10.00 am, practical 2.00 - 4.00 pm Tuesday
Teaching: Skills practical classes, tutorials and fieldwork.
Assessment: Continuous Assessment = 50%, 2-hour Examination = 50%
Re-Assessment: Coursework = 50%, 2-hour Examination = 50%

ES2004 Practical & Field Skills for Earth Sciences (Direct Entrants)
Credits: 30 Semester: Whole Year
Prerequisites: Direct Second Year acceptance to an Earth Science Degree
Description: This module is only available to students who have been accepted for direct 2nd year entry to an Earth Science degree programme. It provides basic practical and fieldwork skills that are not taught at School and which characterise University-taught, accredited Earth Science programmes. Students will take part in level 1 practical and field-based exercises, and then apply these skills to the core level 2 teaching programme. The students will also attend those aspects of the lecture programme that are not covered in A-level or Higher curricula. The learning in this module will supplement and complement other core level 2 teaching.
Class Hour: 12.00 noon, practical 2.00 - 4.00 pm Thursday or Friday
Teaching: Lectures, practical classes, and fieldwork.
Assessment: Continuous Assessment = 100%
Re-Assessment: Continuous Assessment = 100%
Geography (GG) Modules

GG1001 The Foundations of Geography
Credits: 20  Semester: 1
Description: This module provides a general introduction to Human and Physical Geography. Some basic concepts of Human Geography - space and place, location and scale, distance and difference - are introduced and used to examine the nature of the human environment. Both contemporary and historical examples allow an exploration of these issues in a British setting, in an urban setting and in relation to world geographies. The Physical Geography component introduces the characteristics of global environmental systems: the lithosphere, atmosphere, hydrosphere and biosphere. Key skills for geographers are introduced and the module includes two one-day field trips.
Class Hour: 11.00 am
Teaching: 4 lectures, 1 tutorial and 1 practical class each week and 2 field days during the semester.
Assessment: Continuous Assessment = 50%, 2-hour Examination = 50%
Re-Assessment: 2-hour Examination = 100%

GG1002 Global Environmental Problems
Credits: 20  Semester: 2
Description: This module explores the interrelationships between human activity and the physical environment in the context of the examination of some pressing global problems. The scientific, political, social and economic dimensions of such issues as population growth, global warming, desertification, food supply and the exploitation of natural resources are examined, and the potential for sustainable development is considered. The module illustrates the close interrelationship between human and physical geography and the need for a broad knowledge of both if we are to understand the nature of the global environmental problems that currently confront society. Key skills for geographers are developed through this module.
Class Hour: 11.00 am
Teaching: 4 lectures, 1 tutorial and 1 group project each week during the semester.
Assessment: Continuous Assessment = 50%, 2-hour Examination = 50%
Re-Assessment: 2-hour Examination = 100%

GG2011 Geographical Processes & Change
Credits: 30  Semester: 1
Prerequisite: GG1001 and GG1002
Anti-requisite: GE2011
Description: This module examines some fundamental processes in human and physical geography. The physical geography component of the module considers the operation of a range of atmospheric, hydrological and geomorphological processes. Topics include hydrometeorological processes, weathering, slope processes, fluvial processes, glacial processes and periglacial processes. The human geography component of the module explores the extraordinary character of the modern world from a range of geographical perspectives. Topics include the economic, historical, political and social geography of capitalism, imperialism, urbanisation and globalisation.
Class Hour: 9.00 am Monday - Friday, 2.00 - 6.00 pm Monday
Teaching: 4 - 5 lectures per week plus 2 seminars, 3 tutorials, 2 practical classes and a Field Excursion during the semester.
Assessment: Continuous Assessment = 60%, 2-hour Examination = 40%
Re-Assessment: 2-hour Examination = 40%, Oral Examination if continuous assessment is seriously deficient.
GG2012 Processes, Perspectives & Ideas in Geography

Credits: 30  
Semester: 2

Prerequisite: GG2011

Anti-requisite: GE2012

Description: The first part of the module extends the understanding of the physical and human world developed in G22011 and explores the contemporary relevance of geography, using case studies of environmental problems and social inequalities in the developed world. The second part of the module then takes a holistic view of geography by examining some enduring themes which have fascinated geographers for centuries, before illustrating the potential for an integrated understanding of the world through a detailed case study of one world region (e.g. the Himalayas).

Class Hour: 9.00 am Monday - Friday, 2.00 - 6.00 pm Monday

Teaching: 4 lectures per week plus 2 seminars, 3 tutorials, 1 practical class.

Assessment: Continuous Assessment = 60%, 2-hour Examination = 40%

Re-Assessment: 2-hour Examination = 40%, Oral Examination if continuous assessment is seriously deficient.

The details of the Honours modules – that is 3000-level and 4000-level modules – which relate to the programmes listed in this section, are available in the Honours Course Catalogue.