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.

There have been significant revisions to Honours module provision for 2010 -2011. For clarity, the following reflect the new position. For previous versions, see previous catalogues.

Degree Programmes	Programme Requirements at:
(M.A. Honours or B.Sc. Honours): Geography	Single Honours Geography: Level 1: 40 credits comprising passes in GG1001 and GG1002
	Level 2: 60 credits comprising passes at 11 or better in GE2011 and GE2012
	Level 3: 60 credits from GG3201 - GG3220, and 80 credits from GG3221 - GG3289
	Level 4 : 50 credits from GG4201 - GG4230, and 50 credits from GG4298
	Of the 240 credits required for an Honours degree, 90 credits must be at 4000 level.

Degree Programmes	Programme Requirements at:
(M.A. Honours): Geography and Art History, Classical Studies, Economics, Film Studies, French^, Hebrew, International Relations, Italian^, Management~, Mediaeval History, Middle East Studies, Modern History, Philosophy, Psychology, Scottish History, Social Anthropology, Spanish^, Theological Studies. (B.Sc. Honours): Geography and Management~, Management Science, Mathematics, Statistics. ^ available also as 'With Integrated	Geography element of Joint Honours Degrees: Level 1: 40 credits comprising passes in GG1001 and GG1002 Level 2: 60 credits comprising passes at 11 or better in GE2011 and GE2012 Level 3: 30 credits from GG3202 - GG3220 Level 4: 30 credits from GG4297 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.
Year Abroad Degrees' ~Timetable clash exists, therefore this combination is subject to arrangement with both Departments.	
(B.Sc. Honours): Geography and Environmental Biology	Geography element of Joint Degree: Level 1: 40 credits comprising passes in GG1001 and GG1002 Level 2: 60 credits comprising passes at 11 or better in GE2011 and GE2012 Level 3: 30 credits from GG3202 - GG3220 Level 4: 30 credits from GG4297 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.
(M.A. Honours): Geography with Social Anthropology or Spanish^ ^available also as 'With Integrated Year Abroad Degree'	Geography element of Major Degrees: Level 1: 40 credits comprising passes in GG1001 and GG1002 Level 2: 60 credits comprising passes at 11 or better in GE2011 and GE2012 Level 3: 90 credits from GG3202 - GG3289 Level 4: 70 credits from GG4220 - GG4230 and GG4298 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.

Degree Programmes	Programme Requirements at:
(M.A. Honours): Psychology, Russian^, Social Anthropology or Spanish^ with Geography. ^ available also as 'With Integrated Year Abroad Degree'	Geography element of Minor M.A. Degrees: Level 1: 40 credits comprising passes in GG1001 and GG1002 Level 2: 60 credits comprising passes at 11 or better in GE2011 and GE2012 Level 3 & Level 4: 60 credits from GG3221 - GG3289 and/or GG4221 - GG4230
	Of the 240 credits required for an Honours degree, 90 credits from major and/or minor subjects must be at 4000 level.
(B.Sc. Honours): Mathematics with Geography	Geography element of Minor B.Sc. Degree: Level 1: 40 credits comprising passes in GG1001 and GG1002
	Level 2: 60 credits comprising passes at 11 or better in GE2011 and GE2012 Level 3 & Level 4: 60 credits from GG3221 - GG3289 and/or GG4221 - GG4230
	Of the 240 credits required for an Honours degree, 90 credits from major and minor subjects must be at 4000 level.
(B.Sc. Honours): Geology	Single Honours Geology: Level 1: 40 credits comprising passes in (ES1001 or GG1011) and (ES1002 or GG1012)
	Level 2: 60 credits comprising passes at 11 or better in (ES2001 or GS2011) and (ES2002 or GS2012)
	Level 3: 120 credits from ES3001, ES3002, ES3003, ES3004, ES3005, ES3006, ES3007, ES3009
	Level 4: 90 credits from ES4001, ES4002, ES4003, ES4004, plus 30 credits from ES4006, ES4007, ES4009, ES3008, ID4001 [I know that we ended up with the right numbers of credits]

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): Geoscience	Single Honours Geoscience: Level 1: 40 credits comprising passes in (GS1001 or GG1011) and (GS1002 or GG1012)
(Requirements for students entering Honours (Third) year prior to 2010- 11.)	Level 2: 60 credits comprising passes at 11 or better in GS2011 and GS2012
	Level 3: 90 credits comprising GS3002, GS3004, GS3012, GS3081, GG3082, and GS3090 and 30 credits from the group GG3021**, GG3023, GG3036, GG3041, GG4042, GG3052, GG3056**, GG3057**, GG3058, GG3090, GG3095, GG3096, GG4059, GG3067, GG3068, GG3069, GS4083, GS4084, GG3089*.
	Level 4: 60 credits comprising GS4005, GS4006, GS4007, GS4008, and 60 credits from the group ID4001, GS4085, GS4086, GG4082, GS4088, GG3021**, GG3023, GG3036, GG3041, GG4042, GG3052, GG3056**, GG3057**, GG3058, GG3090, GG3095, GG3096, GG4059, GG3067, GG3068, GG3069, GS4083, GS4084*, BL4020***.
	*NB in addition to GS4005, GS4006, GS4007, and GS4008, at least 30 credits of other 4000-level modules must be taken over the 2 years of Junior and Senior Honours.
	** these modules are available only to students who have taken GE2011, GE2012 *** this module is only available to students who have completed 2 nd year biology
(D.C. II.	
(B.Sc. Honours): Geoscience and Chemistry	Geoscience - Chemistry Joint Degree: Level 1: 40 credits comprising passes in (GS1001 or GG1011) and (GS1002 or GG1012) and 40 credits comprising Pass or bypass for CH1001, pass in CH1004
(Requirements for students entering Honours (Third) year prior to 2010- 11.)	Level 2: 60 credits comprising passes at 11 or better in GS2011 and GS2012 and 60 credits comprising passes at 11 or better in CH2101, either CH2102 or CH2103
	Level 3: 120 credits comprising CH4512, CH3711, CH3521, CH3511, CH3721, CH3431 and GS3004, normally GS3081* and 1 from (GS4083 or GS4084).
	Level 4: 120 credits comprising 3 from (CH4511, CH4611, CH4711, CH4712 and CH5711), CH4448§, CH5515, normally GS4083 or GS4084**, GS4005, GS4010, GS4009, 1 from (GS4088, GG3067, GG3068, GG3069 and GG3082)
	* With the approval of the Geoscience Adviser of Studies, a student may replace GS3081 and (GS4083 or GS4084) by 2 from GG3067, GG3068, GG3069, GG3082 in semester 2.
	** With the approval of the Geoscience Adviser of Studies, a student may replace GS4083 or GS4084 by a second module from the list GS4088, GG3067, GG3068, GG3069, GG3082 and GG3096
	§With the approval of the Directors of Teaching, under some circumstances, students might conduct an integrated 40-credit project, ID4441, combining CH4448 with GS4009 and presenting a single, extended report.

Degree Programmes	Programme Requirements at:
(B.Sc. Honours):	Geology - Chemistry Joint Degree:
Geology and Chemistry	Level 1: 40 credits comprising passes in (ES1001 or GG1011) and (ES1002 or GG1012) and 40 credits comprising Pass or bypass for CH1001, pass in CH1004
(Requirements for students entering Honours (Third) year in 2010-11 or later.)	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 CH2101, either CH2102 or CH2103
	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 ID4441 and 30 credits from ES3008, ES4009, ES4006 or ID4001.
(P.S., Hangura).	Geoscience element of Joint Degree:
(B.Sc. Honours): Geoscience and Economics	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 GG3089, or GS4082 – GS4088.
(B.Sc. Honours):	Geoscience element of Joint Degree:
Geoscience and Environmental Biology	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 and Honours entry in the other subject
	Level 3: 30 credits from GS3004, and 15-45 (but usually 30) credits from the group GG3023, GG3067, GG3068, GG3069, GG3082, GG3096.
	Level 4: 30 credits from GS4005, GS4009, GS4010, and 15-45 (but usually 30) credits from the group GG4082, GS4088, GG3023, GG3067, GG3068, GG3069, GG3096 at least 15 credits of which must be at 4000 level.
	Students on the Geoscience and Environmental Biology degree must take a minimum of 45 credits and a maximum of 75 credits in each subject in each year.
(B.Sc. Honours):	Geoscience element of Joint Degree:
Geoscience and Management, Management Science	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 (GG2003, GG2004, GS2001, and GS2002) or (GS2011 and GS2012)
	and Honours entry in the other subject
	Level 3: 30 credits from GS3004, and 30 credits from the group GG3023, GG3067, GG3068, GG3069, GG3082, GG3096.
	Level 4: 30 credits from GS4005, GS4009, GS4010, and 30 credits from the group GG4082, GS4088, GG3023, GG3067, GG3068, GG3069, GG3096 of which at least 15 credits must be at 4000 level.

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Degree Programmes	Programme Requirements at:
(B.Sc. Honours):	Geoscience element of Major Degree:
Geoscience with Spanish^	Level 1: 40 credits comprising passes in (GS1001 or GG1011) and (GS1002 or GG1012)
^ available also as 'With Integrated Year Abroad Degree'	Level 2: 60 credits comprising passes at 11 or better in (GG2003, GG2004, GS2001, and GS2002) or (GS2011 and GS2012)
Not available to entrants from 2008-	and Honours entry in Spanish
09	Level 3: 60 credits from GS3002, GS3004, GS3012, GS3090 and 30 credits from the group GG3021, GG3023, GG3036, GG3041, GG4042, GG3052, GG3056, GG3057, GG3058, GG4059, GG3067, GG3068, GG3069, GS3081, GG3082, GS4083, GS4084, GG3089, GG3090, GG3095, GG3096
	Level 4: 60 credits from GS4005, GS4006, GS4007, GS4008, and 30 credits from the group GS4085, GS4086, GG4082, GS4088, GG3021, GG3023, GG3036, GG3041, GG4042, GG3052, GG3056, GG3057, GG3058, GG4059, GG3067, GG3068, GG3069, GS3081, GS3082, GG3090, GG3095, GG3096, GS4083, GS4084
(B.Sc. Honours):	Single Honours Environmental Geoscience:
Environmental Geoscience	Level 1: 40 credits comprising passes in (GS1001 or GG1011) and (GS1002 or GG1012)
Requirements for students who entered Honours (Third) year	Level 2: 60 credits comprising passes at 11 or better in GS2011 and GS2012
before 2010-11.	Level 3: 75 credits comprising GG3002, GG3082, GG3089, GG3110, GS3012, GS3090 and 45 credits from GG3021**, GG3023, GG3036, GG3041, GG4042, GG3052, GG3056**, GG3090, GG3095, GG3096, GG4057**, GG3058, GG4059, GG3067, GG3068, GG3069, GS3081, GS4084.
	Level 4: 60 credits comprising GG4110, GG4120, GS4008 and 60 credits from the group ID4001, GG3021**, GG3023, GG3036, GG3041, GG4042, GG3052, GG3056**, GG4057**, GG3058, GG4059, GG3067, GG3068, GG3069, GG3090, GG3095, GG3096, GG4082, GS4085, GS4086, GS4088, BL4020***.
	** these modules are available only to students who have taken GE2011, GE2012
	*** this module is available to students who have completed 2 nd year biology

Degree Programmes	Programme Requirements at:
(B.Sc. Honours):	Single Honours Environmental Geoscience:
Environmental Geoscience	Level 1: 40 credits comprising passes in (ES1001 or GG1011) and (ES1002 or GG1012)
Requirements for students entering Honours (Third) year in 2010-11 or later.)	Level 2: 60 credits comprising passes at 11 or better in (ES2001 or GS2011) and (ES2002 or GS2012)
	Level 3: 105 credits from ES3001, ES3002, ES3003, ES3004, ES3005, ES3008, ES3010 and 15 credits from ES3009 or GG3260-3270 Level 4: 90 credits from ES4002, ES4003, ES4004, ES4008, plus –30-35 credits from ES4006, ES4007, ES4009, ID4001, ES3009 or GG3260-3270
(B.Sc. Honours):	Environmental Geoscience element of Joint Degree:
Environmental Geoscience and Environmental Biology	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 GG3002, GS3012, GS3089, GS3090, GG3096, GG3110
	Level 4: 45 credits comprising GG4110, GG4120, GS4009 and at least 15 credits from GG3082, GG30067, GG3052, GG3069, GS4088, BL4020.
	Students on the Environmental Geoscience and Environmental Biology degree must take a minimum of 45 credits and a maximum of 75 credits in each subject in each year.
(B.Sc. Honours):	Environmental Geoscience element of Joint Degree:
Environmental Geoscience and Economics or Management Science	Level 1: 40 credits comprising passes in (GS1001 or GG1011) and (GS1002 or GG1012)
(M.A. Honours) Environmental Geoscience and Management	Level 2: 60 credits comprising passes at 11 or better in GS2011 and GS2012
ě	Level 3: 50 credits comprising GG3089, GG3110, GS3012, GS3090
	Level 4: 45 credits from GS4009, GS4110, GS4120 and at least 15 credits from GG3052, GG3067, GG3069, GG3082 or GS4088.
(B.Sc. Honours):	Single Honours Physical Geography & Geoscience:
Physical Geography & Geoscience	
	Level 1: 80 credits comprising passes in GG1001, GG1002, (GS1001 or GG1011), (GS1002 or GG1012).
	Level 2: 120 credits comprising passes at 11 or better in GE2011, GE2012, GS2011 and GS2012.
Not available to entrants from 2009-	Level 3: 60 credits comprising GS3002, GS3012, GS3090 and GG3202.
10	Level 4: 60 credits comprising GG4130 and GG4110.
	A further 120 credits must normally be obtained from GG3060 – GG3099, GS3081, ID4001, GG4120, GG4090 or GS4080 – GS4089.
	In total 240 credits are required at Level 3 and Level 4 of which 90 credits must be achieved at Level 4.

Students still completing degree programmes as defined in previous Course Catalogues should discuss their module selections with their Honours Adviser(s).

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: Four lectures, one tutorial and one 2 hour practical.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

Re-Assessment: Coursework = 20%, 2 Hour Examination = 80%

ES1002 Earth Resources and 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: Four lectures, one tutorial and one 2 hour practical.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

Re-Assessment: Coursework = 20%, 2 Hour Examination = 80%

ES2001 Dynamic Earth: Evolution of Life and Lithosphere

Credits: 30 Semester: 1

Prerequisites: ES1001 & ES1002 or equivalent

Anti-requisite: GG2011

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: Four lectures and one 3 hour laboratory per week, and occasional tutorials.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

Re-Assessment: Coursework = 20%, 2 Hour Examination = 80%

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ES2002 Dynamic Earth: Magma, Minerals and 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. A residential field course in the Easter vacation provides an opportunity to visit *in situ* many of the features covered in this module and so helps to bring the course together.

Class Hour: 10.00 am

Teaching: Four lectures and one 3 hour laboratory, and occasional tutorials.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

Re-Assessment: Coursework = 20%, 2 Hour Examination = 80%

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: Four lectures, one tutorial and one 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: Four lectures, one tutorial and one group project each week during the semester.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

Re-Assessment: 2 Hour Examination = 100%

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Geography (GE) Modules

GE2011 Geographical Processes and Change

Credits: 30 Semester: 1

Prerequisite: GG1001 and GG1002

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: Four - five lectures per week plus two seminars, three tutorials, two 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.

GE2012 Processes, Perspectives and Ideas in Geography

Credits: 30 Semester: 2

Prerequisite: GE2011

Description: The first part of the module extends the understanding of the physical and human world developed in GE2011 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: Four lectures per week plus two seminars, three tutorials, one 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.