

## BSc NATURAL SCIENCES (CFG0)

Programme offered at: Durham.

Mode of study: this programme is available full-time.

1. All module selections must be approved by the Deputy Dean (Natural Sciences).
2. At Level 1 students take modules from at least two and no more than four subjects, to a maximum of 80 credits per subject. The selection may include up to 40 credits from outside the list of modules that make up the Natural Sciences programme.
3. At Level 2 students take modules from at least two and no more than four subjects, to a maximum of 80 credits per subject. A student can take up to 120 credits from outside the list of modules that make up the Natural Sciences programme over Levels 1, 2 and 3.
4. At Level 3 students take modules from at least two and no more than three subjects to a maximum of 100 credits per subject. A student can take up to 120 credits from outside the list of modules that make up the Natural Sciences programme over Levels 1, 2 and 3.
5. Within the Natural Sciences programme certain combinations of modules are known as Named Routes. Students who follow these combinations of modules will be awarded a specific title for their degree. If a chosen combination can be studied as part of the Combined Honours in Social Sciences programme, a student would normally be expected to transfer to that programme.
6. Students who follow an approved two subject Named Route combination, known as a Joint Honours degree, will be awarded either a BSc in A and B or a BSc in A with B, where A and B are replaced by the approved subject titles. Normally each subject will have a single subject title.
7. In order to qualify for the degree BSc in A and B, students in Levels 2 and 3 must select modules from the same two subjects and the number of credits in each subject must be equal over the last two Levels. The availability of subject combinations will be determined by the timetable. In the following tables the following abbreviations apply:

An	Anthropology	Ec	Economics
Ar	Archaeology	Gg	Geography
As	Astronomy	Ma	Mathematics
Bi	Biology	Ph	Philosophy
Ch	Chemistry	Py	Physics
CS	Computer Science	Ps	Psychology
ES	Earth Sciences		

The following combinations are currently available:

	An	Ar	Bi	Ch	CS	ES	Ec	Gg	Ma	Ph	Py	Ps
An		*	*	*				*		*	*	*
Ar	*		*	*	*			*		*		
Bi	*	*		*		*		*	*	*		*
Ch	*	*	*		*	*	*	*	*	*	*	
CS		*		*				*	*	*	*	*
ES			*	*				*	*	*	*	
Ec				*				*	*	*	*	*
Gg	*	*	*	*	*	*	*		*	*		*
Ma			*	*	*	*	*	*		*	*	*
Ph	*	*	*	*	*	*	*	*	*		*	*
Py	*			*	*	*	*		*	*		
Ps	*		*		*		*	*	*	*		

**Table 1: Joint Honours Combinations available in the A AND B degree**

The table above shows the combinations that are currently available (an \* indicates that combining these two subjects is possible and the abbreviations represent the subjects in the above list).

8. In order to qualify for the degree BSc in A with B, students in Levels 2 and 3 must select modules from the same two subjects and the number of credits in subject A must be greater than the number of credits in subject B over the last two Levels. The availability of subject combinations will be determined by the timetable. The following are currently available:

	An	Ar	As	Bi	Ch	CS	ES	Ec	Gg	Ma	Ph	Py	Ps
An		*	*	*	*				*		*	*	*
Ar	*			*	*	*			*		*		
As													
Bi	*	*			*		*		*	*	*		*
Ch	*	*	*	*		*	*	*	*	*	*	*	
CS		*	*		*				*	*	*	*	*
ES			*	*	*				*	*	*	*	
Ec			*		*				*	*	*	*	*
Gg	*	*		*	*	*	*	*		*	*		*
Ma			*	*	*	*	*	*	*		*	*	*
Ph	*	*	*	*	*	*	*	*	*	*		*	*
Py	*				*	*	*	*		*	*		
Ps	*			*		*		*	*	*	*		

**Table 2: Joint Honours Combinations available in the A WITH B degree**

The table above indicates which subjects can be combined to form a Joint Honours 'with' degree (an \* in row A and column B indicates that it is possible to obtain an 'A with B' degree in those two subjects).

9. The degree certificate issued to successful students who have not taken a BSc Natural Sciences degree shall list all subjects in which they have taken at least 40 credits during Levels 2 and 3 of the degree programme.

**MODULES AVAILABLE WITHIN THE BSc NATURAL SCIENCES PROGRAMME AND REQUIREMENTS FOR THE B.Sc. JOINT HONOURS DEGREES WITHIN NATURAL SCIENCES**

The modules that form the Natural Sciences programme are listed below. Students can choose modules not contained within the programme, provided that no more than 120 credits over the three Levels of the degree are from outside the Natural Sciences programme. All choices of modules require the approval of the Deputy Dean (Natural Sciences). All selected modules must be timetable compatible.

**ANTHROPOLOGY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS**

<b>Level 1</b>	Human Origins and Diversity	ANTH1071	20
<b>Modules</b>	People and Cultures	ANTH1061	20
<b>Level 2</b>	Biological Anthropology I	ANTH2061	20
<b>Modules</b>	Biological Anthropology II	ANTH2011	20
	Biology, Culture and Society	ANTH2021	20
	Field Methods	ANTH2031	20
	Sociocultural Anthropology I	ANTH2051	20
	Sociocultural Anthropology II	ANTH2041	20
<b>Level 3</b>	Business Anthropology	ANTH3041	20
<b>Modules</b>	Change and Development	ANTH3111	20
	Current Issues in Sociocultural Anthropology	ANTH3011	20
	Dissertation in Anthropology	ANTH3141	20
	Human Evolution	ANTH3061	20
	Hunters and Gatherers Past and Present (AN)	ANTH3071	20
	Medical and Nutritional Anthropology	ANTH3151	20

Primate Evolution and Adaptation	ANTH3091	20
Regional Studies *	ANTH3181	20
Social Evolution	ANTH3121	20
Anthropology of Community in Britain *	HUSS3351	20
Applying Anthropology: From Knowledge and Practice *	HUSS3251	20
Cyber Anthropology	HUSS3471	20
Environmental Anthropology	HUSS3231	20
Evolutionary Medicine	HUSS3361	20
Mental Health, Illness and Drug Use	HUSS3241	20
Nations and Ethnic Groups	HUSS3331	20
New Perspectives on Family and Kinship *	HUSS3321	20
Populations and Development	HUSS3311	20
Reconstructing Ancient Populations	HUSS3201	20

\* Not available in 2006-2007.

### REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING ANTHROPOLOGY

<b>Level 1</b>	<a href="#">ANTH1071</a> Human Origins and Diversity <a href="#">ANTH1061</a> People and Cultures
<b>Level 2</b>	<a href="#">ANTH2061</a> Biological Anthropology I and/or <a href="#">ANTH2011</a> Biological Anthropology II. Any further modules in Anthropology must be selected from the Level 2 Anthropology modules listed above.
<b>Level 3</b>	Modules selected from the Level 3 Anthropology modules listed above. If Anthropology modules to the value of 60 credits or more are taken, one 20 credit module can be at Level 2.

### ARCHAEOLOGY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1 Modules</b>	Ancient Civilisations of the East	<a href="#">ARCH1111</a>	20
	Discovering World Prehistory	<a href="#">ARCH1121</a>	20
	From Roman Empire to Nation State	<a href="#">ARCH1101</a>	20
	Introduction to Archaeology	<a href="#">ARCH1071</a>	20
	Scientific Methods in Archaeology 1	<a href="#">ARCH1041</a>	20
<b>Level 2 Modules</b>	Ancient Complex Societies in Action	<a href="#">ARCH2141</a>	20
	Scientific Methods in Archaeology 2	<a href="#">ARCH2041</a>	20
	Archaeology of Medieval and post-Medieval Britain	<a href="#">ARCH2131</a>	20
	Experimental Methods in Archaeological Science (EMAS)	<a href="#">ARCH2111</a>	20
	Field Archaeology of Britain and Ireland	<a href="#">ARCH2101</a>	20
	Mediterranean Expansion: Rome and Native Societies	<a href="#">ARCH2091</a>	20
<b>Level 3 Modules</b>	Prehistoric Europe: from Foragers to State Formation	<a href="#">ARCH2081</a>	20
	Archaeological Artefacts and Materials *	<a href="#">ARCH3471</a>	20
	Archaeological Surveying *	<a href="#">ARCH3491</a>	20
	Archaeology Dissertation (20 Credits)	<a href="#">ARCH3371</a>	20
	Computer Techniques in Archaeology *	<a href="#">ARCH3071</a>	20
	Scientific Methods in Archaeology 3	<a href="#">ARCH3051</a>	20
	Hunters and Gatherers Past and Present (AR)	<a href="#">ARCH3521</a>	20
Specialised Aspects of Archaeology (20 Credits)	<a href="#">ARCH3451</a>	20	
Specialised Aspects of Archaeology (40 Credits)	<a href="#">ARCH3472</a>	40	

Only one of the modules marked with a \* can be chosen. These modules are capped and students wishing to take one should contact the Department of Archaeology before the start of the examination period in Level 2 for details of application procedures.

### REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING ARCHAEOLOGY

<b>Level 1</b>	<a href="#">ARCH1041</a> Scientific Methods in Archaeology 1 plus at least one of <a href="#">ARCH1121</a> Discovering World Prehistory, <a href="#">ARCH1101</a> From Roman Empire to Nation State and <a href="#">ARCH1111</a> Ancient Civilisations of the East. If modules to the value of 60 credits or more in Archaeology are taken, the third 20 credit module must be <a href="#">ARCH1071</a> Introduction to Archaeology.
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- Level 2**      [ARCH2041](#)Scientific Methods in Archaeology 2 plus modules to the value of 20, 40 or 60 credits from the list of Level 2 Archaeology modules listed above. One 20 credit Level 1 Archaeology module may be taken if Archaeology modules to the value of 60 or 80 credits are taken, unless Level 1 Archaeology modules to the value of 80 credits have been taken.
- Level 3**      [ARCH3051](#)Scientific Methods in Archaeology 3 and modules up to the value of 60 credits from the Level 3 Archaeology modules listed above. If modules to the value of 60 credits or more in Archaeology are taken, then [ARCH3371](#)Archaeology Dissertation (20 Credits) must be taken, unless a Dissertation module is being taken in the other subject.

#### **BIOLOGY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS**

<b>Level 1</b>	Core Skills for Biology	<a href="#">BIOL1091</a>	20	
<b>Modules</b>	Introduction to Molecular and Cell Biology	<a href="#">BIOL1072</a>	40	
	Introduction to Whole Organisms and the Environment	<a href="#">BIOL1082</a>	40	
	<b>Level 2</b>	Animal Biology	<a href="#">BIOL2231</a>	20
<b>Modules</b>	Biochemistry	<a href="#">BIOL2191</a>	20	
	Biotechnology	<a href="#">BIOL2171</a>	20	
	Cell Structure and Function	<a href="#">BIOL2211</a>	20	
	Development 1	<a href="#">BIOL2221</a>	20	
	Evolutionary Biology	<a href="#">BIOL2241</a>	20	
	Experimental and Molecular Biology	<a href="#">BIOL2181</a>	20	
	Field and Experimental Biology	<a href="#">BIOL2251</a>	20	
	Molecular Biology	<a href="#">BIOL2201</a>	20	
	Patterns and Processes	<a href="#">BIOL2261</a>	20	
	Plant Biology	<a href="#">BIOL2271</a>	20	
	Pure and Applied Population Ecology	<a href="#">BIOL2281</a>	20	
	<b>Level 3</b>	Advanced Biochemistry (Lit)	<a href="#">BIOL3371</a>	20
	<b>Modules</b>	Behavioural and Evolutionary Ecology (Lit)	<a href="#">BIOL3351</a>	20
		Cell Signals and Protein Targeting (Lit)	<a href="#">BIOL3341</a>	20
		Conservation Biology (Lit)	<a href="#">BIOL3331</a>	20
		Contemporary Issues in Ecology (P)	<a href="#">BIOL3391</a>	20
		Crop Protection (L)	<a href="#">BIOL3321</a>	20
Development 2 (P)		<a href="#">BIOL3281</a>	20	
Health and Environment (P)		<a href="#">BIOL3411</a>	20	
Molecular and Cellular Physiology (Lit)		<a href="#">BIOL3231</a>	20	
Molecular Basis of Disease (P)		<a href="#">BIOL3221</a>	20	
Palaeoecology (Lit)		<a href="#">BIOL3171</a>	20	
Palaeoecology (P)	<a href="#">BIOL3381</a>	20		

#### **REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING BIOLOGY**

There are two routes through Biological Sciences: the Whole Organisms route and the Cell Biology route.

##### **WHOLE ORGANISMS ROUTE:**

- Level 1**      [BIOL1082](#)Introduction to Whole Organisms and the Environment
- Level 2**      Modules selected from the Level 2 Biology modules listed above.
- Level 3**      Modules selected from the Level 3 Biology modules listed above.

##### **CELL BIOLOGY ROUTE:**

- Level 1**      [BIOL1072](#)Introduction to Molecular and Cell Biology
- Level 2**      Modules selected from the Level 2 Biology modules listed above.
- Level 3**      Modules selected from the Level 3 Biology modules listed above.

#### **BUSINESS MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS**

<b>Level 1</b>	Introduction to Management	<a href="#">BUSI1101</a>	20
<b>Modules</b>	Business Accounting and Finance	<a href="#">ECON1041</a>	20
	Economic Methods	<a href="#">ECON1021</a>	20
	Elements of Economics	<a href="#">ECON1011</a>	20

<b>Level 2</b>	Marketing Management	BUSI2111	20
<b>Modules</b>	The Small Business and its Development	BUSI2031	20
	Organisational Behaviour	BUSI2121	20
<b>Level 3</b>	Asia and the Pacific Rim	BUSI3041	20
<b>Modules</b>	Dissertation in Business (20 Credits)	BUSI3091	20
	Public Administration and Management	BUSI3031	20

#### CHEMISTRY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1</b>	Core Chemistry 1A	CHEM1012	40
<b>Modules</b>	Core Chemistry 1B	CHEM1022	40
	Molecules in Action	CHEM1061	20
<b>Level 2</b>	Biological Chemistry	CHEM2051	20
<b>Modules</b>	Chemistry of the Elements	CHEM2021	20
	Computational Chemistry	CHEM2061	20
	Core Chemistry 2	CHEM2012	40
	Properties of Molecules	CHEM2041	20
	Ring Chemistry	CHEM2031	20
<b>Level 3</b>	Advanced Organic Chemistry	CHEM3031	20
<b>Modules</b>	Chemistry and Society	CHEM3061	20
	Core Chemistry 3	CHEM3012	40
	Inorganic Concepts and Applications	CHEM3021	20
	Materials Chemistry	CHEM3051	20
	Molecules and their Interactions	CHEM3041	20

#### REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING CHEMISTRY

<b>Level 1</b>	<a href="#">CHEM1012</a> Core Chemistry 1A
<b>Level 2</b>	<a href="#">CHEM2012</a> Core Chemistry 2
	Students taking at least 60 credits of Chemistry must take at least one of <a href="#">CHEM2021</a> Chemistry of the Elements, <a href="#">CHEM2031</a> Ring Chemistry or <a href="#">CHEM2041</a> Properties of Molecules.
<b>Level 3</b>	<a href="#">CHEM3012</a> Core Chemistry 3. Any other modules can be selected from the Level 2 or Level 3 Chemistry modules listed above.

#### COMPUTER SCIENCE MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1</b>	Computer Systems	COMP1071	20
<b>Modules</b>	Formal Aspects of Computer Science	COMP1021	20
	Foundations of Computer Science	COMP1041	20
	Introduction to Programming	COMP1011	20
	Programming and Data Structures	COMP1082	40
<b>Level 2</b>	Computer Systems II	COMP2161	20
<b>Modules</b>	Programming and Reasoning	COMP2171	20
	Software Applications	COMP2071	20
	Software Engineering	COMP2092	40
	Theory of Computation	COMP2181	20
<b>Level 3</b>	Advanced Artificial Intelligence (20 Credits)	COMP3311	20
<b>Modules</b>	Advanced Artificial Intelligence (40 Credits)	COMP3352	40
	Advanced Software Applications and Methodologies (20 Credits)	COMP3331	20
	Advanced Software Applications and Methodologies (40 Credits)	COMP3332	40
	Advanced Software Engineering (20 Credits)	COMP3221	20
	Advanced Software Engineering (40 Credits)	COMP3152	40
	Advanced Theory of Computation (20 Credits)	COMP3341	20
	Advanced Theory of Computation (40 Credits)	COMP3342	40
	Artificial Intelligence Project	COMP3292	40
	Computer Science Project	COMP3012	40
	Software Engineering Project	COMP3282	40

## REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING COMPUTER SCIENCE

<b>Level 1</b>	( <a href="#">COMP1011</a> Introduction to Programming or <a href="#">COMP1082</a> Programming and Data Structures) <a href="#">COMP1021</a> Formal Aspects of Computer Science
<b>Level 2</b>	Modules selected from the Level 2 Computer Science modules listed above.
<b>Level 3</b>	Modules selected from the Level 2 and Level 3 Computer Science modules listed above.

## EARTH SCIENCES MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1 Modules</b>	Earth and Environment	<a href="#">GEOL1041</a>	20
	Earth History and Life	<a href="#">GEOL1031</a>	20
	Earth Materials	<a href="#">GEOL1021</a>	20
	Field Studies	<a href="#">GEOL1051</a>	20
	How the Earth Works	<a href="#">GEOL1011</a>	20
	Mathematical Methods in Geosciences	<a href="#">GEOL1061</a>	20
	The Oceans	<a href="#">GEOL1071</a>	20
<b>Level 2 Modules</b>	Chemical Tracing of Earth Processes	<a href="#">GEOL2171</a>	20
	Earth Visualisation L2	<a href="#">GEOL2221</a>	20
	Fieldwork I	<a href="#">GEOL2191</a>	20
	Fieldwork II	<a href="#">GEOL2201</a>	20
	Fossils and Dynamic Stratigraphy of the British Isles	<a href="#">GEOL2051</a>	20
	Geophysics Methods in Geology	<a href="#">GEOL2081</a>	20
	Petrology of Earth Materials	<a href="#">GEOL2031</a>	20
<b>Level 3 Modules</b>	Structural Geology and Tectonics	<a href="#">GEOL2011</a>	20
	Dissertation	<a href="#">GEOL3022</a>	40
	Dynamic Earth I	<a href="#">GEOL3011</a>	20
	Dynamic Earth II	<a href="#">GEOL3181</a>	20
	Earth Science into Schools	<a href="#">GEOL3251</a>	20
	Earth Structure and Dynamics	<a href="#">GEOL3151</a>	20
	Earth System and Climate	<a href="#">GEOL3231</a>	20
	Environmental Geochemistry	<a href="#">GEOL3041</a>	20
	Evolutionary Palaeobiology	<a href="#">GEOL3071</a>	20
	Geology and Geophysics Dissertation	<a href="#">GEOL3131</a>	20
	Magmatism	<a href="#">GEOL3051</a>	20
	Petroleum Geophysics	<a href="#">GEOL3221</a>	20
	Rheology and Deformation Processes	<a href="#">GEOL3091</a>	20
Sedimentary and Petroleum Systems	<a href="#">GEOL3031</a>	20	

## REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING EARTH SCIENCES

There are two routes through Earth Sciences: the Geological Sciences route and the Geophysics route.

### GEOLOGICAL SCIENCES ROUTE:

<b>Level 1</b>	<a href="#">GEOL1011</a> How the Earth Works <a href="#">GEOL1021</a> Earth Materials
	To obtain accreditation the above two modules must be taken. In addition <a href="#">GEOL1051</a> Field Studies and <a href="#">GEOL1041</a> Earth and the Environment must be taken at either Level 1 or Level 2.
<b>Level 2</b>	Modules selected from the Level 1 and Level 2 Earth Sciences modules listed above.
	To obtain accreditation modules to the value of 60 credits or more must be taken and these must include <a href="#">GEOL2191</a> Fieldwork 1, <a href="#">GEOL1041</a> Earth and the Environment and <a href="#">GEOL1051</a> Field Studies if these modules have not already been studied.

**Level 3** Modules selected from the Level 3 Earth Sciences modules listed above. If modules to the value of 60 credits or more are taken, one 20 credit module can be at Level 2.

To obtain accreditation [GEOL3022](#)Dissertation must be taken and modules to the value of at least 40 credits must be taken from the Level 3 Earth Sciences list above.

Accreditation note: the above specified pathway within Natural Sciences has been accredited by the Geological Society for a period of six years with effect from June 2004, subject to students choosing modules that constitute an approved pathway as indicated above.

#### GEOPHYSICS ROUTE:

**Level 1** [GEOL1011](#)How the Earth Works  
[GEOL1021](#)Earth Materials  
(MATH1561Single Mathematics A and [MATH1571](#)Single Mathematics B) or  
[MATH1551](#)Mathematics for Scientists and Engineers or [MATH1012](#)Core Maths A or  
[GEOL1061](#)Mathematical Methods in Geosciences

**Level 2** Modules selected from the Level 2 Earth Sciences modules listed above.

**Level 3** Modules selected from:  
[GEOL3022](#)Dissertation  
[GEOL3221](#)Petroleum Geophysics  
[GEOL3151](#)Earth Structure and Dynamics  
[GEOL3131](#)Geology and Geophysics Dissertation

#### ECONOMICS MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1 Modules</b>	Business Accounting and Finance	<a href="#">ECON1041</a>	20
	Economic Methods	<a href="#">ECON1021</a>	20
	Elements of Economics	<a href="#">ECON1011</a>	20
	Introduction to Environmental Economics	<a href="#">ECON1051</a>	20
<b>Level 2 Modules</b>	The British Economy	<a href="#">ECON1031</a>	20
	Business Competition	<a href="#">ECON2081</a>	20
	Corporate Finance	<a href="#">ECON2101</a>	20
	Economic Data Analysis	<a href="#">ECON2061</a>	20
	Economic Principles I: Macroeconomics	<a href="#">ECON2011</a>	20
	Economic Principles II: Microeconomics	<a href="#">ECON2021</a>	20
	Economics of Social Policy	<a href="#">ECON2091</a>	20
	European Economics	<a href="#">ECON2071</a>	20
	Intermediate Methods for Economics and Finance	<a href="#">ECON2121</a>	20
	<b>Level 3 Modules</b>	Advanced Macroeconomic Theory	<a href="#">ECON3201</a>
Advanced Microeconomic Theory		<a href="#">ECON3211</a>	20
Applied Econometrics		<a href="#">ECON3011</a>	20
Development Economics		<a href="#">ECON3171</a>	20
Dissertation in Economics		<a href="#">ECON3012</a>	40
History of Economic Thought		<a href="#">ECON3051</a>	20
Industrial Organisation		<a href="#">ECON3061</a>	20
International Economics		<a href="#">ECON3071</a>	20
Labour Economics		<a href="#">ECON3081</a>	20
Monetary Economics		<a href="#">ECON3111</a>	20
Public Economics	<a href="#">ECON3191</a>	20	

#### REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING ECONOMICS

**Level 1** [ECON1011](#)Elements of Economics and [ECON1021](#)Economic Methods, unless any Level 1 Maths modules are taken in which case [ECON1031](#)The British Economy is taken in place of [ECON1021](#)Economic Methods.

**Level 2** [ECON2011](#)Economic Principles I: Macroeconomics  
[ECON2021](#)Economic Principles II: Microeconomics  
Any further modules selected from the Level 2 Economics modules listed above.

**Level 3** Modules selected from the Level 3 Economics modules listed above. If modules to the value of 60 credits or more are taken, one 20 credit module can be at Level 2.

## GEOGRAPHY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1 Modules</b>	Cities: From the Greeks to Globalisation	GEOG1211	20	
	Environment and Society	GEOG1061	20	
	Human Geography: Space and Place in a Changing World	GEOG1071	20	
	Information Technology and Skills for Geographers	GEOG1201	20	
	Physical Geography: Earth Systems Science	GEOG1081	20	
<b>Level 2 Modules</b>	Development, Society and the Environment	GEOG2541	20	
	Environmental Processes and Management	GEOG2251	20	
	Fluvial Systems	GEOG2521	20	
	GIS and Remote Sensing	GEOG2221	20	
	Glaciation and Landforms (with Project)	GEOG2341	20	
	Global Climate Change	GEOG2571	20	
	Political Geography	GEOG2581	20	
	Quaternary Studies with Field Weekend	GEOG2321	20	
	Scientific Research in Geography	GEOG2462	40	
	Social and Cultural Geography	GEOG2561	20	
	<b>Level 3 Modules</b>	Dissertation (40 Credits) in Geography B	GEOG3432	40
		Dynamics of Gravel-Bed Rivers	GEOG3461	20
		Environmental Processes of Change: Field Case Studies	GEOG3491	20
Environmental Remote Sensing		GEOG3261	20	
Geography, Gender and Change *		GEOG3161	20	
Hazard and Risk		GEOG3621	20	
Philosophy and Geography		GEOG3481	20	
Sea-Level Change and Coastal Evolution		GEOG3191	20	
Specialised Aspects of Physical Geography		GEOG3431	20	
The Quaternary of Glaciated Regions		GEOG3511	20	
Urban Transformations in the New Europe	GEOG3501	20		
Visual Culture, Media and the Politics of Place	GEOG3571	20		

\* Not available in 2006-2007.

## REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING GEOGRAPHY

<b>Level 1</b>	Two 20 credit modules from the following: GEOG1081 Physical Geography GEOG1071 Human Geography GEOG1201 Information Technology and Skills for Geographers GEOG1061 Environment & Society GEOG1211 Cities: From the Greeks to Globalisation
<b>Level 2</b>	Modules selected from the Level 2 Geography modules listed above.
<b>Level 3</b>	Modules selected from the Level 2 and Level 3 Geography modules listed above.

## MATHEMATICS MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1 Modules</b>	Core Mathematics A	MATH1012	40
	Core Mathematics B1	MATH1051	20
	Core Mathematics B2	MATH1041	20
	Data Analysis, Modelling and Simulation	MATH1711	20
	Discrete Mathematics	MATH1031	20
	Maths for Engineers and Scientists	MATH1551	20
	Single Mathematics A	MATH1561	20
	Single Mathematics B	MATH1571	20
	Statistics	MATH1541	20
	<b>Level 2 Modules</b>	Algebra and Number Theory II	MATH2061
Analysis in Many Variables II		MATH2031	20
Codes and Actuarial Mathematics II		MATH2131	20
Codes and Geometric Topology II		MATH2141	20
Complex Analysis II		MATH2011	20
Contours and Actuarial Mathematics II		MATH2171	20
Linear Algebra II		MATH2021	20
Mathematical Physics II		MATH2071	20
Numerical Analysis II		MATH2051	20
Probability and Actuarial Mathematics II		MATH2161	20

	Probability and Geometric Topology II	MATH2151	20
	Statistical Concepts II	MATH2041	20
<b>Level 3 Modules</b>			
	<b><u>Modules running 2006-2007</u></b>		
	Approximation Theory and Solutions of ODEs III	MATH3081	20
	Bayesian Statistics III	MATH3341	20
	Elliptic Functions III	MATH3221	20
	Geometry III	MATH3201	20
	Number Theory III	MATH3031	20
	Probability III	MATH3211	20
	Solitons III	MATH3231	20
	Statistical Mechanics III	MATH3351	20
	<b><u>Modules running 2007-2008</u></b>		
	Analysis III	MATH3011	20
	Bayesian Methods III	MATH3311	20
	Continuum Mechanics III	MATH3101	20
	General Relativity III	MATH3331	20
	Mathematical Finance III	MATH3301	20
	Representation Theory and Modules III	MATH3191	20
	Stochastic Processes III	MATH3251	20
	<b><u>Modules available every year</u></b>		
	Decision Theory III	MATH3071	20
	Differential Geometry III	MATH3021	20
	Dynamical Systems III	MATH3091	20
	Electromagnetism III	MATH3181	20
	Galois Theory III	MATH3041	20
	Mathematical Biology III	MATH3171	20
	Mathematics Teaching III	MATH3121	20
	Operations Research III	MATH3141	20
	Partial Differential Equations III	MATH3291	20
	Quantum Mechanics III	MATH3111	20
	Statistical Methods III	MATH3051	20
	Topology III	MATH3281	20

#### REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING MATHEMATICS

- Level 1**      **MATH1012**Core Mathematics A. If the other subject is Physics, then **MATH1051**Core Mathematics B1 must be taken.
- Level 2**      If the other subject is not Physics **MATH1051**Core Mathematics B1 (if not taken previously). Any other modules selected from the Level 2 Mathematics modules listed above.  
If the other subject is Physics at least **MATH2021**Linear Algebra II, **MATH2031**Analysis in Many Variables II and either **MATH2011**Complex Analysis II or **MATH2121**Contours and Hyperbolic Geometry II must be taken.
- Level 3**      Students select modules from the Level 3 Mathematics modules listed above. If Maths modules to the value of 60 or 80 credits are taken one 20 credit module can be at Level 2.

#### PHILOSOPHY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1 Modules</b>	Ethics and Values	PHIL1011	20
	History of Scientific Thought	PHIL1071	20
	Introduction to Logic	PHIL1031	20
	History and Theory of Medicine	PHIL1051	20
	Knowledge and Reality	PHIL1021	20
	Philosophy of Science	PHIL1061	20
<b>Level 2 Modules</b>	Reading Philosophy	PHIL1041	20
	Biomedical Ethics	PHIL2051	20
	Logic	PHIL2021	20
	Metaphysics	PHIL2141	20
	Modern Philosophy I	PHIL2031	20

	Moral Theory	PHIL2041	20
	Philosophy of Mind	PHIL2011	20
	Philosophy of Religion	PHIL2091	20
	Political Philosophy	PHIL2081	20
	Reason, Knowledge and Society	PHIL2111	20
	Science and Religion	PHIL2071	20
	Theory, Literature and Society	PHIL2131	20
<b>Level 3</b>	20 <sup>th</sup> Century European Philosophy	PHIL3051	20
<b>Modules</b>	Aesthetics	PHIL3031	20
	Applied Ethics	PHIL3071	20
	Ethical Concepts	PHIL3131	20
	Gender, Film and Society	PHIL3141	20
	Modern Philosophy II	PHIL3011	20
	Ontology	PHIL3161	20
	Philosophical Issues in Contemporary Science	PHIL3021	20
	Philosophy Long Dissertation	PHIL3112	40
	Philosophy of Language	PHIL3061	20
	Philosophy Short Dissertation	PHIL3101	20
	History of the Body	HEAL3001	20

### REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING PHILOSOPHY

<b>Level 1</b>	Two 20 credit modules selected from the Level 1 Philosophy modules listed above.
<b>Level 2</b>	Modules selected from the Level 2 Philosophy modules listed above.
<b>Level 3</b>	Modules selected from the Level 3 Philosophy modules listed above. If modules to the value of 60 credits or more are taken, one 20 credit module can be at Level 2.

### PHYSICS MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1</b>	Astronomy for All	PHYS1071	20
<b>Modules</b>	Discovery Skills in Physics	PHYS1101	20
	Foundations of Physics 1	PHYS1122	40
	Fundamental Physics A	PHYS1111	20
	Fundamental Physics B	PHYS1131	20
	Introduction to Astronomy	PHYS1081	20
<b>Level 2</b>	Electronics and Physics Laboratory	PHYS2561	20
<b>Modules</b>	Foundations of Physics 2	PHYS2511	20
	Laboratory Skills and Practice	PHYS2551	20
	Mathematical Methods in Physics	PHYS2521	20
	Stars and Galaxies	PHYS2541	20
	Thermal and Condensed Matter Physics	PHYS2531	20
<b>Level 3</b>	Astrophysics	PHYS3541	20
<b>Modules</b>	Condensed Matter Physics	PHYS3531	20
	Foundations of Physics 3	PHYS3522	40
	Key Skills A	PHYS3561	20
	Key Skills B	PHYS3571	20
	Laboratory Project	PHYS3601	20
	Mathematics Workshop	PHYS3591	20
	Team Project	PHYS3581	20
	Theoretical Physics	PHYS3551	20

### REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING ASTRONOMY

<b>Level 1</b>	<a href="#">PHYS1101</a> Discovery Skills in Physics and ( <a href="#">PHYS1111</a> Fundamental Physics A or <a href="#">PHYS1122</a> Foundations of Physics 1) ( <a href="#">MATH1561</a> Single Mathematics A and <a href="#">MATH1571</a> Single Mathematics B) or <a href="#">MATH1012</a> Core Mathematics A or <a href="#">MATH1551</a> Mathematics for Engineers and Scientists
<b>Level 2</b>	<a href="#">PHYS2541</a> Stars and Galaxies and <a href="#">PHYS2551</a> Laboratory Skills and Practice plus one other 20 credit module of Physics at Level 1 or Level 2 excluding <a href="#">PHYS1081</a> Introduction to Astronomy.
<b>Level 3</b>	<a href="#">PHYS3541</a> Astrophysics and <a href="#">PHYS3601</a> Laboratory Project.

## REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING PHYSICS

**Level 1** [PHYS1122](#)Foundations of Physics 1  
([MATH1561](#)Single Mathematics A and [MATH1571](#)Single Mathematics B) or  
[MATH1012](#)Core Mathematics A or [MATH1551](#)Mathematics for Engineers and Scientists

**Level 2** For a Joint Honours ‘and’ or a Joint Honours ‘Physics with’ degree not involving Mathematics, the following must be taken [PHYS2511](#)Foundations of Physics 2, [PHYS2521](#)Mathematical Methods in Physics and [PHYS1101](#)Discovery Skills in Physics if not taken previously. The module [PHYS2551](#)Laboratory Skills and Practice is also required for these degrees, but may be taken in either Level 2 or Level 3.

For a Joint Honours ‘and’ or a Joint Honours ‘Physics with’ degree with Mathematics, [PHYS2511](#)Foundations of Physics 2 and at least two of [PHYS2531](#)Thermal and Condensed Matter Physics, [PHYS2541](#)Stars and Galaxies, [PHYS2551](#)Laboratory Skills and Practice must be taken. The modules [PHYS2551](#)Laboratory Skills and Practice and [PHYS2531](#)Thermal and Condensed Matter Physics must be taken in either Level 2 or Level 3.

If the other subject is Mathematics, [PHYS2521](#)Mathematical Methods in Physics cannot be taken.

For a Joint Honours ‘Physics with’ degree [PHYS2531](#)Thermal and Condensed Matter Physics must be taken in either Level 2 or Level 3.

For a Joint Honours ‘with Physics’ degree modules selected from the Level 2 Physics modules listed above.

**Level 3** For a Joint Honours ‘and’ or a Joint Honours ‘Physics with’ degree [PHYS3522](#)Foundations of Physics 3 must be taken. Any further modules must be selected from the Level 3 Physics modules listed above. If [PHYS2551](#)Laboratory Skills and Practice was not taken in Level 2 it must be taken in Level 3.

For a Joint Honours ‘with Physics’ degree modules can be selected from the Level 3 Physics modules listed above.

For a Joint Honours ‘Physics with’ degree [PHYS2531](#)Thermal and Condensed Matter Physics must be taken in either Level 2 or Level 3.

Accreditation note: Joint Honours degrees of the type ‘Physics and A’ and ‘Physics with A’, where A can be Anthropology, Chemistry, Computer Science, Earth Science, Economics, Mathematics and Philosophy, are accredited by the Institute of Physics until February 2009.

## PSYCHOLOGY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

<b>Level 1</b> <b>Modules</b>	Introduction to Psychological Research	<a href="#">PSYC1062</a>	40
	Introduction to Psychology I	<a href="#">PSYC1071</a>	20
	Introduction to Psychology II	<a href="#">PSYC1081</a>	20
<b>Level 2</b> <b>Modules</b>	Abnormal Psychology and Personality	<a href="#">PSYC2071</a>	20
	Brain Processes of Cognition and Perception	<a href="#">PSYC2111</a>	20
	Memory and Language	<a href="#">PSYC2081</a>	20
<b>Level 3</b> <b>Modules</b>	Social and Developmental Psychology	<a href="#">PSYC2021</a>	20
	Child Health Psychology	<a href="#">PSYC3061</a>	20
	Developmental Psychology	<a href="#">PSYC3031</a>	20
	Emotion and Social Cognition	<a href="#">PSYC3171</a>	20
	Neuropsychology	<a href="#">PSYC3011</a>	20
	Psychology Project and Statistics	<a href="#">PSYC3041</a>	20
	Social Psychology	<a href="#">PSYC3081</a>	20
	The Architecture of Vision	<a href="#">PSYC3181</a>	20
	Applications of Cognitive Psychology	<a href="#">PSYS3191</a>	20
	Applied Development Psychology	<a href="#">PSYS3171</a>	20
Clinical Cognitive Neuroscience	<a href="#">PSYS3191</a>	20	
Psychology and Health	<a href="#">PSYS3041</a>	20	

**REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING PSYCHOLOGY**

**Level 1** [PSYC1062](#) Introduction to Psychological Research and normally [PSYC1071](#) Introduction to Psychology I. [PSYC1081](#) Introduction to Psychology II can be taken if [PSYC1071](#) Introduction to Psychology I does not fit in the timetable, but for a BPS accredited Joint Honours 'and' or 'Psychology with' degree, [PSYC1081](#) Introduction to Psychology II can only be taken if students have Biology or Psychology at A Level with grade B or higher (or the equivalent in other qualifications).

**Level 2** At least:  
[PSYC2081](#) Memory and Language  
[PSYC2111](#) Brain Processes of Cognition and Perception  
[PSYC2021](#) Social and Developmental Psychology.

**Level 3** For a Joint Honours 'and' or 'Psychology with' degree, [PSYC3041](#) Psychology Project and Statistics, [PSYC2071](#) Abnormal Psychology and Personality (if not taken previously) and Psychology module(s) to the value of either 20 or 40 credits from the Level 3 Psychology list above must be taken.

For a Joint Honours 'with Psychology' degree, modules selected from the Level 2 or Level 3 Psychology modules listed above.

Accreditation note: The specified pathways through the 'and' and 'Psychology with' programmes shown in the regulations are accredited from 2003 - 2004 for five cohorts as conferring eligibility for Graduate Membership of The British Psychological Society with the Graduate Basis for Registration. Students entering in and after October 2006 need to achieve a minimum of a second class honours degree to gain eligibility. Joint Honours degrees of the form 'A with Psychology' are not accredited.

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