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 Sub-Dean of the Faculty of Science.

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 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.

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.

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 Named Route 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 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 Sub-Dean of the Faculty of Science. All selected modules must be timetable compatible.

ANTHROPOLOGY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

Level 1	Human Origins and Diversity	ANTH1071	20
Modules	People and Cultures	ANTH1061	20
Level 2	Biological Anthropology I	ANTH2061	20
Modules	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
Level 3	Business Anthropology	ANTH3041	20
Modules	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
	Material Culture	ANTH3081	20
	Medical and Nutritional Anthropology	ANTH3151	20
	Primate Evolution and Adaptation	ANTH3091	20
	Regional Studies	ANTH3181	20
	Social Evolution	ANTH3121	20
	Evolutionary Medicine	HUSS3361	20
	Knowledge and Practice	HUSS3251	20

	Nations and Ethnic Groups *	HUSS3331	20
	New Perspectives on Family and Kinship	HUSS3321	20
	Populations and Development	HUSS3311	20

* Not available in 2005-2006.

REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING ANTHROPOLOGY

Level 1 ANTH1071 Human Origins and Diversity
ANTH1061 People and Cultures

Level 2 ANTH2061 Biological Anthropology I and/or ANTH2011 Biological Anthropology II. Any further modules in Anthropology must be selected from the Level 2 Anthropology modules listed above.

Level 3 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

Level 1	Ancient Civilisations of the East	ARCH1111	20
Modules	Discovering World Prehistory	ARCH1121	20
	From Roman Empire to Nation State	ARCH1101	20
	Introduction to Archaeology	ARCH1071	20
	Scientific Methods in Archaeology	ARCH1041	20
Level 2	Ancient Complex Societies in Action	ARCH2141	20
Modules	Applied Archaeological Science	ARCH2041	20
	Archaeology of Medieval and post-Medieval Britain	ARCH2131	20
	Experimental Methods in Archaeological Science (EMAS)	ARCH2111	20
	Field Archaeology of Britain and Ireland	ARCH2101	20
	Mediterranean Expansion: Rome and Native Societies	ARCH2091	20
	Prehistoric Europe: from Foragers to State Formation	ARCH2081	20
Level 3	Archaeological Artefacts and Materials *	ARCH3471	20
Modules	Archaeological Surveying *	ARCH3491	20
	Archaeology Dissertation (20 Credits)	ARCH3371	20
	Bones and Human Societies *	ARCH3461	20
	Computer Techniques in Archaeology *	ARCH3071	20
	Frontiers of Archaeological Science	ARCH3051	20
	Hunters and Gatherers Past and Present (AR)	ARCH3521	20
	Specialised Aspects of Archaeology (20 Credits)	ARCH3451	20
	Specialised Aspects of Archaeology (40 Credits)	ARCH3472	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

Level 1 ARCH1041 Scientific Methods in Archaeology plus at least one of ARCH1121 Discovering World Prehistory, ARCH1101 From Roman Empire to Nation State and ARCH1111 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 ARCH1071 Introduction to Archaeology.

Level 2 ARCH2041 Applied Archaeological Science 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 Frontiers of Archaeological Science 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

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

Level 1	Introduction to Management	BUSI1101	20
Modules	Business Accounting and Finance	ECON1041	20
	Economic Methods	ECON1021	20
	Elements of Economics	ECON1011	20
Level 2	Marketing Management	BUSI2111	20
Modules	The Small Business and its Development	BUSI2031	20
	Theories of Work and Organisations II	BUSI2081	20
Level 3	Asia and the Pacific Rim	BUSI3041	20
Modules	Corporate Governance	BUSI3061	20
	Dissertation in Business (20 Credits)	BUSI3091	20
	Public Administration and Management	BUSI3031	20
	Strategy and International Business	BUSI3012	40

CHEMISTRY MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

Level 1	Core Chemistry 1A	CHEM1012	40
Modules	Core Chemistry 1B	CHEM1022	40
	Molecules in Action	CHEM1061	20
Level 2	Biological Chemistry	CHEM2051	20
Modules	Chemistry of the Elements	CHEM2021	20
	Computational Chemistry	CHEM2061	20
	Core Chemistry 2	CHEM2012	40
	Properties of Molecules	CHEM2041	20
	Ring Chemistry	CHEM2031	20
Level 3	Advanced Organic Chemistry	CHEM3031	20
Modules	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

Level 1 CHEM1012 Core Chemistry 1A
Level 2 CHEM2012 Core Chemistry 2

Students taking at least 60 credits of Chemistry must take at least one of CHEM2021 Chemistry of the Elements, CHEM2031 Ring Chemistry or CHEM2041 Properties of Molecules.

Level 3 CHEM3012 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

Level 1	Computer Systems	COMP1071	20
Modules	Formal Aspects of Computer Science	COMP1021	20
	Foundations of Computer Science	COMP1041	20
	Introduction to Programming	COMP1011	20
	Programming and Data Structures	COMP1082	40
Level 2	Computer Systems II	COMP2161	20
Modules	Programming and Reasoning	COMP2171	20
	Software Applications	COMP2071	20
	Software Engineering	COMP2092	40
	Theory of Computation	COMP2181	20
Level 3	Advanced Artificial Intelligence (20 Credits)	COMP3311	20
Modules	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

Level 1 (COMP1011 Introduction to Programming or COMP1082 Programming and Data Structures)
COMP1021 Formal Aspects of Computer Science
Level 2 Modules selected from the Level 2 Computer Science modules listed above.
Level 3 Modules selected from the Level 2 and Level 3 Computer Science modules listed above.

EARTH SCIENCES MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

Level 1	Earth and Environment	GEOL1041	20
Modules	Earth History and Life	GEOL1031	20
	Earth Materials	GEOL1021	20
	Field Studies	GEOL1051	20
	How the Earth Works	GEOL1011	20
	Mathematical Methods in Geosciences	GEOL1061	20
	The Oceans	GEOL1071	20
Level 2	Chemical Tracing of Earth Processes	GEOL2171	20
Modules	Earth Visualisation L2	GEOL2221	20
	Fieldwork I	GEOL2191	20
	Fieldwork II	GEOL2201	20
	Fossils and Dynamic Stratigraphy of the British Isles	GEOL2051	20
	Geophysics Methods in Geology	GEOL2081	20
	Petrology of Earth Materials	GEOL2031	20
	Structural Geology and Tectonics	GEOL2011	20
Level 3	Dissertation	GEOL3022	40
Modules	Dynamic Earth I	GEOL3011	20
	Dynamic Earth II	GEOL3181	20
	Earth Sciences into Schools	GEOL3251	20
	Earth Structure and Dynamics	GEOL3151	20
	Earth System and Climate	GEOL3231	20
	Earth Visualisation L3	GEOL3241	20
	Environmental Geochemistry	GEOL3041	20
	Evolutionary Palaeobiology	GEOL3071	20
	Geology and Geophysics Dissertation	GEOL3131	20
	Magmatism	GEOL3051	20
	Petroleum Geophysics	GEOL3221	20
	Rheology and Deformation Processes	GEOL3091	20
	Sedimentary and Petroleum Systems	GEOL3031	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:

Level 1

GEOL1011 How the Earth Works
GEOL1021 Earth Materials

To obtain accreditation the above two modules must be taken. In addition GEOL1051 Field Studies and GEOL1041 Earth and the Environment must be taken at either Level 1 or Level 2.

Level 2

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 GEOL2191 Fieldwork 1, GEOL1041 Earth and the Environment and GEOL1051 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 (MATH1561 Single 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

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

Level 1 Modules	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
Level 2 Modules	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
Level 3	Dissertation (40 Credits) in Geography B	GEOG3432	40
Modules	Dynamics of Gravel-Bed Rivers	GEOG3461	20
	Environmental Processes of Change: Field Case Studies	GEOG3491	20
	Environmental Remote Sensing	GEOG3261	20
	Geographies of Transformation	GEOG3561	20
	Geography, Gender and Change	GEOG3161	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

REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING GEOGRAPHY

Level 1	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
Level 2	Modules selected from the Level 2 Geography modules listed above.
Level 3	Modules selected from the Level 2 and Level 3 Geography modules listed above.

MATHEMATICS MODULES AVAILABLE TO NATURAL SCIENCES STUDENTS

Level 1	Core Mathematics A	MATH1012	40
Modules	Core Mathematics B1	MATH1051	20
	Core Mathematics B2	MATH1041	20
	Data Analysis, Modelling and Simulation	MATH1711	20
	Discrete Mathematics	MATH1031	20
	Foundation Mathematics	MATH1641	20
	Maths for Engineers and Scientists	MATH1551	20
	Single Mathematics A	MATH1561	20
	Single Mathematics B	MATH1571	20
	Statistics	MATH1541	20
Level 2	Algebra and Number Theory II	MATH2061	20
Modules	Analysis in Many Variables II	MATH2031	20
	Complex Analysis II	MATH2011	20
	Contours and Hyperbolic Geometry II	MATH2121	20
	Linear Algebra II	MATH2021	20
	Mathematical Physics II	MATH2071	20
	Numerical Analysis II	MATH2051	20
	Statistical Concepts II	MATH2041	20
	Topics in Mathematics II	MATH2101	20
Level 3			
Modules			
	Modules running 2005-2006		
	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

Modules running 2006-2007

Approximation Theory and Solutions of ODEs III	MATH3081	20
Bayesian Statistics III	MATH3**1	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	MATH3**1	20

Modules available every year

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

Level 1 Modules	Ethics and Values	PHIL1011	20
	History of Science	PHIL1071	20
	Introduction to Logic	PHIL1031	20
	History and Theory of Medicine	PHIL1051	20
	Knowledge and Reality	PHIL1021	20
	Philosophy of Science	PHIL1061	20
	Reading Philosophy	PHIL1041	20
Level 2 Modules	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 in the 19th Century	PHIL2071	20
	Theory, Literature and Society	PHIL2131	20
Level 3 Modules	20th Century European Philosophy	PHIL3051	20
	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

REQUIREMENTS FOR BSc JOINT HONOURS DEGREES INVOLVING PHILOSOPHY

Level 1 Two 20 credit modules selected from the Level 1 Philosophy modules listed above.
Level 2 Modules selected from the Level 2 Philosophy modules listed above.
Level 3 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

Level 1	Astronomy for All	PHYS1071	20
Modules	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
Level 2	Electronics and Physics Laboratory	PHYS2561	20
Modules	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
Level 3	Astrophysics	PHYS3541	20
Modules	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

Level 1 PHYS1101 Discovery Skills in Physics and (PHYS1111 Fundamental Physics A or 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 PHYS2541 Stars and Galaxies and PHYS2551 Laboratory Skills and Practice plus one other 20 credit module of Physics at Level 1 or Level 2 excluding PHYS1081 Introduction to Astronomy.
Level 3 PHYS3541 Astrophysics and PHYS3601 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

Level 1	Introduction to Psychological Research	PSYC1062	40
Modules	Introduction to Psychology I	PSYC1071	20
	Introduction to Psychology II	PSYC1081	20
Level 2	Abnormal Psychology and Personality	PSYC2071	20
Modules	Brain Processes of Cognition and Perception	PSYC2111	20
	Memory and Language	PSYC2081	20
	Social and Developmental Psychology	PSYC2021	20
Level 3	Child Health Psychology	PSYC3061	20
Modules	Cognitive Psychology	PSYC3151	20
	Developmental Psychology	PSYC3031	20
	Emotion and Social Cognition	PSYC3171	20
	Neuropsychology	PSYC3011	20
	Psychology Project and Statistics	PSYC3041	20
	Social Psychology	PSYC3081	20
	The Architecture of Vision	PSYC3181	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 please note the restriction in the next paragraph.

For a BPS accredited route, 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 PSYC2081 Memory and Language
PSYC2111 Brain Processes of Cognition and Perception
PSYC2021 Social and Developmental Psychology

Level 3 For a Joint Honours 'with' or 'and Psychology' degree, PSYC3041 Psychology Project and Statistics, PSYC2071 Abnormal Psychology and Personality and Psychology module(s) to the value of 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: a specified pathway through this programme (as shown in the regulations) is accredited from 2003-2004 for five cohorts as conferring eligibility for Graduate Membership of the British Psychological Society, and the Graduate Basis for Registration. Joint Honours degrees of the form 'A with Psychology' are not accredited.