

# Durham University Faculty Handbook Online www.durham.ac.uk/faculty.handbook/

These programme regulations should be read in conjunction with the University's <u>core regulations for</u> undergraduate <u>programmes</u>, and the <u>marking and classification conventions for undergraduate programmes</u>.

# BSc Natural Sciences (CFG0), BSc Natural Sciences with Year Abroad (CFG1), BSc Natural Sciences with Placement (CFG2)

- 1. This programme is available at Durham City, in a full-time mode of study.
- 2. The BSc in Natural Sciences allows candidates to take modules from two or more subjects in a three year programme. The range of subjects is limited to those shown in the table under paragraph 20, Sport, languages offered by the University's Centre for Foreign Language Study, Natural Sciences and Education which excludes any History of Art module and Harry Potter and the Age of Illusion (EDUC 2381).
- 3. All module selections must be approved by the Director of Natural Sciences or by their nominee and be timetable compatible.
- 4. The degree certificate issued to successful candidates who have taken a BSc Natural Sciences degree shall list in alphabetical order all subjects in which they have taken at least 40 credits during Levels 2 and 3 of the degree programme.

# Level 1 (Certificate)

- 5. Candidates take modules: from at least two subjects; from not more than four subjects; to a maximum of 80 credits per subject. Candidates must take at least 60 credits from the Faculty of Science. The subjects within the Faculty of Science are: Biology, Chemistry, Computer Science, Earth Sciences, Mathematics, Physics and Psychology.
- 6. Candidates may take no more than 20 credits of language modules offered by the University's Centre for Foreign Language Study.

# Level 2 (Diploma)

- 7. Candidates take modules: from at least two subjects; from not more than three subjects; with at least 40 credits each in at least two subjects; to a maximum of 80 credits per subject.
- 8. In accordance with the core regulations, candidates are normally permitted to study Level 1 modules up to the value of 30 credits.
- 9. Candidates may take no more than 20 credits of language modules offered by the University's Centre for Foreign Language Study.
- 10. Candidates studying for a BSc Natural Sciences degree must take modules to the value of at least 120 credits from the Faculty of Science across Levels 2 and 3 of the degree programme.
- 11. Candidates who take 60 credits of Level 2 Earth Sciences are required to take additional tutorials as determined by the Department of Earth Sciences.

#### Level 3 (Degree)

- 12. Candidates take modules: from at least two subjects; from not more than three subjects; to a maximum of 100 credits per subject.
- 13. In accordance with the core regulations, candidates are normally permitted to study Level 2 modules up to the value of 30 credits;
- 14. Candidates are required to take Capstone modules to the value of at least 20 credits and no more than 60 credits from at most two Departments that must be approved by the Director of Natural Sciences or by their nominee.
- 15. Candidates studying for a BSc Natural Sciences degree must take modules to the value of at least 120 credits from the Faculty of Science across Levels 2 and 3.

#### **Joint Honours**

- 16. Within the Natural Sciences programme certain combinations of modules are known as "Joint Honours degrees". Candidates who follow these combinations of modules will be awarded a specific title for their degree.
- 17. Candidates who follow an approved Joint Honours degree will be awarded a BSc Honours in A and B within the Natural Sciences programme, where A and B are replaced by the approved subject titles.
- 18. Candidates studying for a Joint Honours degree are bound by the paragraphs above except 10. and 15. that relate to the number of credits of Science being taken in any given Level. In order to qualify for the degree BSc Honours in A and B within the Natural Sciences programme, candidates in Levels 2 and 3 must select modules from the same two subjects and the number of credits in either subject cannot exceed 80 in each of Levels 2 and 3.
- 19. The table below shows the Joint-Honours combinations that are currently available where a indicates that combining these two subjects is possible:

	An	Bi	Bs	Ch	CS	ES	Ec	Gg	Ма	Ph	Ру	Ps
An		•										
Bi	•			•		•		•	•		•	•
Bs					•							
Ch		•				•			•		•	
CS			•						•		•	
ES		•		•				•				
Ec									•			•
Gg		•				•						
Ma		•		•	•		•			•	•	•
Ph									•		•	
Ру		•		•	•				•	•		
Ps		•					•		•			

Table 1: Joint Honours combinations available in the A and B degree

The abbreviations represent the subjects in the above list:

An	Anthropology	Ec	Economics
Bi	Biology	Gg	Geography
Bs	Business	Ma	Mathematics
Ch	Chemistry	Ph	Philosophy
CS	Computer Science	Ру	Physics
ES	Earth Sciences	Ps	Psychology

20. Candidates studying for BSc Joint Honours degrees involving Anthropology are required to take the following modules:

			Credit value
Level 1	Human Evolution and Diversity	ANTH1091	20
	People and Cultures	ANTH1061	20
	Doing Anthropological Research	ANTH1101	20
Level 2	Research Project Design	ANTH2187	10
	Reading Ethnography	<b>ANTH2197</b>	10
	An additional 40 credits of Level 2 Anthropology to include		
	at least one of:		
	Evolutionary, Variation and Adaptation	ANTH2061	20
	Our Place in Nature	ANTH2071	20
Level 3	At least 40 credits of Level 3 Anthropology.		

- 21. There are five Joint Honours routes through modules offered by Biosciences: Ecological; Biology and Mathematics; Biology and Psychology; Biology and Chemistry; Biology and Physics route;
- 22. Candidates studying for BSc Joint Honours Biology degrees following the Ecological route\* are required to take the following modules:

			Credit value
Level 1	Genetics	BIOL1171	20
	Organisms and Environment	BIOL1161	20
Level 2	Evolution	BIOL2451	20
	Ecology	BIOL2461	20
	Behaviour	BIOL2511	20
Level 3	40 credits taken from the list:		
	Conservation Biology	BIOL3551	20
	Ecology in the Anthropocene	BIOL3541	20
	Advanced Topics in Ecology, Evolution and Behaviour	BIOL3561	20

<sup>\*</sup> The Ecological route is designed to go with Anthropology, Earth Sciences and Geography.

23. Candidates studying for the BSc Joint Honours degree in Biology and Mathematics are required to take the following modules:

			Credit value
Level 1	Genetics	BIOL1171	20
	Organisms and Environment	BIOL1161	20
Level 2	Evolution	BIOL2451	20
	Ecology	BIOL2461	20
	Molecular Biology	BIOL2441	20
Level 3	Conservation Biology	BIOL3551	20
	Ecology in the Anthropocene	BIOL3541	20

24. Candidates studying for the BSc Joint Honours degree in the Biology and Psychology are required to take the following modules:

			Credit value
Level 1	Genetics	<u>BIOL1171</u>	20
	Physiology	BIOL1151	20
	Organisms and Environment	<u>BIOL1161</u>	20
Level 2	Molecular Biology	BIOL2441	20
	Integrated Physiological Systems	BIOL2521	20
	Development	BIOL2471	20
Level 3	40 credits taken from the list:		
	Advanced Topics in Development	BIOL3521	20
	Ageing	BIOL3591	20
	Genomics	BIOL3651	20

25. Candidates studying for the BSc Joint Honours degree in Biology and Chemistry are required to take the following modules:

			Credit value
Level 1	Genetics	<u>BIOL1171</u>	20
	Molecules and Cells	BIOL1281	20
Level 2	Molecular Biology	BIOL2441	20
	Biochemistry	BIOL2491	20
	Cell Signalling	BIOL2501	20
Level 3	Biochemistry and Biotechnology	BIOL3601	20
	Stress and Responses to the Environment	BIOL3491	20
	And either Crops for the Future	BIOL3611	20
	<b>Or</b> Literature Review	BIOL3451	20
	<b>Or</b> Advanced Cell Biology	BIOL3481	20

26. Candidates studying for the BSc Joint Honours degree in Biology and Physics are required to take the following modules:

			Credit value
Level 1	Genetics	BIOL1171	20
	Molecules and Cells	BIOL1281	20
Level 2	Molecular Biology	BIOL2441	20
	Development	<u>BIOL2471</u>	20
	Cell Biology	BIOL2481	20
Level 3	Advanced Cell Biology	<u>BIOL3481</u>	20
	Advanced Topics Development	BIOL3521	20

And either Stem Cells and Tissue Engineering	BIOL3531	20
<b>Or</b> Literature Review	BIOL3451	20
Or Stress and Responses to the Environment	BIOL3491	20
<b>Or</b> Biochemistry and Biotechnology	BIOL3601	20

27. Candidates studying for the BSc Joint Honours degree in Business and Computer Science are required to take the following modules:

			Credit value
Level 1	Marketing Principles	<u>BUSI1131</u>	20
	People, Management and Organisations	<u>BUSI1141</u>	20
Level 2	Modules taken from the Level 2 Business		
Level 3	Modules taken from the Level 3 Business		

28. Candidates studying for BSc Joint Honours degrees in Chemistry are required to take the following modules:

			Credit value
Level 1	Core Chemistry 1	CHEM1078	30
	Practical Chemistry 1A	CHEM1087	10
	Plus EITHER		
	(Linear Algebra I <b>AND</b>	MATH1071	20
	Calculus I)	MATH1061	20
	OR		
	(Single Mathematics A AND	MATH1561	20
	Single Mathematics B)	MATH1571	20
	OR		
	Mathematical And Experimental Tools Required In	CHEM1111	20
	Chemistry		
Level 2	Core Chemistry 2	CHEM2012	40
	Candidates taking 60 credits or more at Level 2 must		
	take at least 20 credits of the following modules:		
	[Chemistry of the Elements* AND	CHEM2077	10
	Practical Chemistry 2 – Inorganic*]	CHEM2107	10
	[Structure and Reactivity in Organic Chemistry # AND	CHEM2087	10
	Practical Chemistry 2 – Organic #]	CHEM2117	10
	[Properties of Molecules ¥ AND	CHEM2097	10
	Practical Chemistry 2 – Physical ¥]	CHEM2127	10
Level 3	Core Chemistry 3	CHEM3012	40

Modules marked with \* should be taken with Earth Sciences; # should be taken with Biology; ¥ should be taken with Mathematics/Physics.

29. Candidates studying for a BSc Joint Honours degrees in Business and Computer Science are required to take the following modules:

			Credit value
Level 1	Computational Thinking	COMP1051	20
	Computer Systems	COMP1071	20
	Algorithms And Data Structures	COMP1081	20
Level 2	Modules selected from the Level 2 modules available. If modules to the value of 60 credits or more are taken, 20 credits can be at Level 2.		
Level 3	Modules selected from the Level 3 modules available. If modules to the value of 60 credits or more are taken, 20 credits can be at Level 2.		

30. Candidates studying for BSc Joint Honours degrees involving Computer Science and either Mathematics or Physics are required to take the following modules:

Level 1	Computational Thinking Plus at least 20 credits from:	<u>COMP1051</u>	Credit value 20
	Algorithms And Data Structures Computer Systems	COMP1081 COMP1071	20 20

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- **Level 2** Modules selected from the Level 2 modules available. If modules to the value of 60 credits or more are taken, 20 credits can be at Level 2.
- **Level 3** Modules selected from the Level 3 modules available. If modules to the value of 60 credits or more are taken, 20 credits can be at Level 2.
- 31. Candidates studying for BSc Joint Honours degrees involving Earth Sciences are required to take the following modules:

			Credit value
Level 1	Understanding Earth Sciences	<b>GEOL1101</b>	20
	Plus at least 20 credits from:		
	Earth Materials	GEOL1021	20
	Environment and Resources	<u>GEOL1111</u>	20
	To obtain accreditation the following modules must be		
	taken at either Level 1 or Level 2:		
	Field Studies	GEOL1051	20
Level 2	At least 60 credits of Level 2 Earth Sciences.		
	To obtain accreditation the following modules must be		
	taken (the latter module may be taken at level 1):		
	Fieldwork (Geological)	GEOL2191	20
	Environment and Resources (if not already taken)	<u>GEOL1111</u>	20
Level 3	Modules selected from the Level 3 modules available. If		
	modules to the value of 60 credits or more are taken, 20		
	credits can be at Level 2.		
	To obtain accreditation modules to the value of 80		
	credits or more must be taken and must include:		
	Dissertation	<u>GEOL3022</u>	40

32. Candidates studying for the BSc Joint Honours in Economics and Mathematics are required to take the following modules:

Level 1	Elements of Economics	ECON1011	Credit value 20
Level I			
	The World Economy	ECON1071	20
Level 2	Economic Principles I: Macroeconomics	ECON2011	20
	Economic Principles II: Microeconomics	ECON2021	20
Level 3	Modules selected from the Level 3 Economics modules available. If modules to the value of 60 credits are take, 20 credits can be at Level 2		

33. Candidates studying for BSc Joint Honours in Economics and Psychology are required to take the following modules:

			Credit value
Level 1	Elements of Economics	ECON1011	20
	Economic Methods	ECON1021	20
Level 2	Economic Principles I: Macroeconomics	ECON2011	20
	Economic Principles II: Microeconomics	ECON2021	20
Level 3	Modules selected from the Level 3 Economics modules		
	available. If modules to the value of 60 credits are taken,		
	20 credits can be at Level 2		

34. Candidates studying for BSc Joint Honours degrees involving Geography are required to take the following modules:

			Credit value
Level 1	Introduction to Geographical Research (BSc)	GEOG1232	40
Level 2	Scientific Research in Geography	<b>GEOG2462</b>	40
	Plus at least 20 credits from:		
	Handling Geographic Information	<b>GEOG2591</b>	20
	The modules on offer in the Level 2 List B in the BSc		
	Geography (F800) programme regulations		
Level 3	Modules selected from:		
	Dissertation B	<u>GEOG3432</u>	40

The modules on offer in the Level 3 Lists D and E in the BSc Geography (F800) programme regulations

35. Candidates studying for the BSc Joint Honours degree in Mathematics and Physics are required to take the following modules:

			Credit value
Level 1	Linear Algebra I	MATH1071	20
	Calculus I	MATH1061	20
	Analysis I	MATH1051	20
Level 2	Analysis in Many Variables II	MATH2031	20
	Complex Analysis II	MATH2011	20
	AND (Theoretical Physics 2	PHYS2631	20
	OR Mathematical Physics II)	MATH2071	20
	<b>AND</b> 20 credits of Level 2 Mathematics modules which may		
	include Mathematical Physics II		
Level 3	Modules selected from the Level 3 modules available. If modules to the value of 60 credits or more are taken, 20		
	credits can be at Level 2.		

36. Candidates studying for BSc Joint Honours Mathematics degrees following the Statistics route\* are required to take the following modules:

			Credit value
Level 1	Linear Algebra I	MATH1071	20
	Calculus I	MATH1061	20
	Statistics I	MATH1617	10
	Probability I	MATH1597	10
Level 2	At least 60 credits where at most 20 credits may be at Level		
	1.		
Level 3	Modules selected from the Level 3 modules available. If modules to the value of 60 credits or more are taken, 20 credits can be at Level 2.		

<sup>\*</sup> The Statistics route is designed to go with Biology, Computer Science, Economics and Psychology.

37. Candidates studying for BSc Joint Honours degrees involving Mathematics and one of: Chemistry; Philosophy; are required to take the following modules:

Level 1	Linear Algebra I Calculus I Analysis I	MATH1071 MATH1061 MATH1051	Credit value 20 20 20 20
Level 2 Level 3	At least 60 credits of Level 2 Mathematics.  Modules selected from the Level 3 modules available. If modules to the value of 60 credits or more are taken, 20 credits can be at Level 2.		

38. Candidates studying for the BSc Joint Honours in Mathematics and Philosophy are required to take the following modules:

			Credit value
Level 1	Knowledge and Reality	PHIL1021	20
	Science, Medicine and Society	PHIL1111	20
Level 2	Modern Philosophy I	PHIL2031	20
	Philosophy of Sciences	PHIL2151	20
Level 3	Modules selected from the Level 3 Philosophy modules		
	available. If modules to the value of 60 credits or more are		
	taken 20 credits can be at Level 2		

39. Candidates studying for the BSc Joint Honours in Philosophy and Physics are required to take the following modules:

			Credit value
Level 1	Knowledge and Reality	PHIL1021	20
	Science, Medicine and Society	<u>PHIL1111</u>	20

- **Level 2** Modules selected from the Level 2 Philosophy modules available.
- **Level 3** Modules selected from the Level 3 Philosophy modules available. If modules to the value of 60 credits or more are taken, 20 credits can be at Level 2.
- 40. Candidates studying for the BSc Joint Honours in Mathematics and Physics are required to take the following modules:

			Credit value
Level 1	Foundations of Physics 1	PHYS1122	40
	Discovery Skills in Physics	PHYS1101	20
Level 2	Foundations of Physics 2A	PHYS2581	20
	Foundations of Physics 2B	PHYS2591	20
	AND (Theoretical Physics 2	PHYS2631	20
	OR Mathematical Physics II)	MATH2071	20
	AND 20 credits of Level 2 Physics modules which may		
	include Theoretical Physics 2		
Level 3	Foundations of Physics 3A	PHYS3621	20
	<b>EITHER</b> Theoretical Physics 3 (if Theoretical Physics 2 was taken at Level 2)	PHYS3661	20
	OR 20 credit module offered by the Department of Physics (if Theoretical Physics was not taken at Level 2)		20

41. Candidates studying for the BSc Joint Honours degrees involving Physics (with the exception of the BSc Joint Honours degree in Mathematics and Physics) are required to take the following modules:

			Credit value
Level 1	Foundations of Physics 1	PHYS1122	40
	(Linear Algebra I <b>AND</b>	<u>MATH1071</u>	20
	Calculus I) <b>OR</b>	<u>MATH1061</u>	20
	(Single Mathematics A AND	<u>MATH1561</u>	20
	Single Mathematics B)	<u>MATH1571</u>	20
Level 2	Foundations of Physics 2A	PHYS2581	20
	Mathematical Methods in Physics	PHYS2611	20
	Discovery Skills in Physics	PHYS1101	20
Level 3	Foundations of Physics 3A	PHYS3621	20
	Foundations of Physics 2B	PHYS2591	20
	Laboratory Skills and Electronics 3	<u>PHYS3681</u>	20

42. Candidates studying for BSc Joint Honours degrees involving Psychology are required to take the following modules:

			Credit value
Level 1	Introduction to Psychological Research AND	PSYC1062	40
	(Introduction to Psychology I: Cognitive and Biological	PSYC1071	20
	Psychology <b>OR</b>		
	Introduction to Psychology II: Developmental, Social and	PSYC1081	20
	Abnormal Psychology)		
Level 2	Cognitive and Biological Psychology	PSYC2241	20
	Advanced Psychological Research for Non-single Honours	PSYC2261	20
	Social and Developmental Psychology	PSYC2271	20
Level 3	Psychology Project and Statistics ~	PSYC3041	20
	Differential and Clinical Psychology	PSYC2251	20
	At least 20 credits from the Level 3 Psychology modules		
	available		

# Assessment, progression and award

43. Modules marked with a ~ must be passed at 40% or above or above for the award of an honours degree. A mark of 30-39% cannot be compensated.

# Year Abroad

44. Students admitted to the BSc Natural Sciences (CFG0) are able to apply to transfer to the BSc Natural Sciences (with Year Abroad) programme (CFG1). Students undertaking the BSc Natural Sciences (with Year

Abroad) programme (CFG1) will undertake an approved exchange in an overseas university taking a course of study chosen in consultation with the Director of Natural Sciences or their nominee and the host institution.

- 45. Candidates wishing to transfer to the BSc Natural Sciences (with Year Abroad) (CFG1) must:
  - have successfully completed Level 1 of the BSc Natural Sciences (CFG1) and progressed to Level 2 of the honours or Ordinary programme, and;
  - b. during the first term of Level 2 study, apply to the Director of Natural Sciences or their nominee to be admitted to the BSc Natural Sciences (with Year Abroad) (CFG1) and have their application approved by the Director of Natural Sciences or by their nominee; and
  - c. secure an exchange opportunity with an approved international partner institution of the University; and
  - d. successfully complete Level 2 of the BSc Natural Sciences (CFG0) so as to be eligible to progress to Level 3 of the BSc Natural Sciences (CFG0) Honours programme.
- 46. Students who the Board of Examiners for Natural Sciences deem to have made satisfactory progress on the year abroad will continue to Level 3 of the BSc Natural Sciences (with Year Abroad) (CFG1). Students who have not made satisfactory progress on the year abroad will not be permitted to continue on the BSc Natural Sciences (with Year Abroad) (CFG1) programme, but must instead proceed to Level 3 of the BSc Natural Sciences (CFG0) programme.

#### **Placement**

- 47. Students admitted to the BSc Natural Sciences (CFG0) are able to apply to transfer to the BSc Natural Sciences with Placement (CFG2). Students undertaking the BSc Natural Sciences with Placement programme (CFG2) will undertake an approved placement chosen in consultation with the Director of Natural Sciences or their nominee and the host partner.
- 48. Candidates wishing to transfer to the BSc Natural Sciences with Placement (CFG2) must:
  - a. Have successfully completed Level 1 of the BSc Natural Sciences (CFG0) and progressed to Level 2 of the Honours or Ordinary programme; and
  - b. During the first term of Level 2 study the student must discuss their intention to apply with the Director of Natural Sciences or their nominee in order to be admitted to the BSc Natural Sciences with Placement (CFG2) and receive approval by the Director of Natural Sciences or their nominee; and
  - c. Secure a year-long placement opportunity (40 weeks or more) approved by the Director of Natural Sciences or their nominee with an approved partner of the University; and
  - d. Successfully complete Level 2 of the BSc Natural Sciences (CFG0) programme so as to be eligible to progress to Level 3 of the BSc Natural Sciences (CFG0) Honours programme.
- 49. Students who the Board of Examiners for Natural Sciences deem to have made satisfactory progress on the placement will continue to Level 3 of the BSc Natural Sciences with Placement (CFG2). Students who have not made satisfactory progress on the placement will not be permitted to continue on the BSc Natural Sciences with Placement (CFG2) programme, but must instead proceed to Level 3 of the BSc Natural Sciences (CFG0) programme.

# Professional accreditation

- 50. The specified Joint-Honours approved pathway through Geological Sciences within Natural Sciences has been accredited by the Geological Society for six years with effect from March 2016.
- 51. The specified Joint-Honours approved pathways through Psychology within Natural Sciences have been accredited from the 2012-13 intake on an ongoing basis as conferring eligibility for the Graduate Basis for Chartered Membership of the British Psychological Society. Candidates entering in and after October 2006 need to achieve a minimum of a second class honours degree to gain eligibility. The Psychology Project module must be passed in order to achieve the Graduate Basis for Chartered Membership of the British Psychological Society.
- 52. The specified Joint-Honours approved pathways through Physics within Natural Sciences have been recognised by the Institute of Physics as a degree with a physics component until February 2024.