

# CFG0: Chemistry and Physics



Undergraduate BSc 2019

## Essentials

<b>UCAS code</b>	CFG0
<b>Degree</b>	BSc
<b>Mode of study</b>	Full Time
<b>Duration</b>	3 years
<b>Location</b>	Durham City ( <a href="http://www.durham.ac.uk/study/location/durham.city">www.durham.ac.uk/study/location/durham.city</a> )
<b>A-Level</b>	A*AA
<b>BTEC</b>	D*DD
<b>International Baccalaureate</b>	38
<b>Alternative qualifications</b>	<ul style="list-style-type: none"> <li>• Other UK qualifications (<a href="http://www.dur.ac.uk/resources/undergraduate/UKequivalencies2017-18.pdf">www.dur.ac.uk/resources/undergraduate/UKequivalencies2017-18.pdf</a>)</li> <li>• EU qualifications (<a href="http://www.dur.ac.uk/resources/undergraduate/apply/EUequivalencies2017-18.pdf">www.dur.ac.uk/resources/undergraduate/apply/EUequivalencies2017-18.pdf</a>)</li> <li>• International qualifications (<a href="http://www.dur.ac.uk/international/country.information/">www.dur.ac.uk/international/country.information/</a>)</li> </ul>
<b>Contextual Offers</b>	You may be eligible for an offer which is one or two grades lower than our standard entry requirements. Find out more ( <a href="http://www.durham.ac.uk/study/ug/apply/contextualoffers/">www.durham.ac.uk/study/ug/apply/contextualoffers/</a> ).
<b>More information</b>	Still have questions? ( <a href="http://www.durham.ac.uk/study/askus/">www.durham.ac.uk/study/askus/</a> )
<b>Department(s) Website</b>	<a href="http://www.durham.ac.uk/natural.sciences/">www.durham.ac.uk/natural.sciences/</a>

## Course Summary

### Description

## BSc Degrees

The BSc Natural Sciences degree provides a wide choice of subjects to study and does not require applicants to study any particular subject. These subjects are divided into three groups:

### Group 1

- Biology
- Chemistry
- Computer Science
- Earth Sciences
- Mathematics
- Physics
- Psychology.

At least half of your studies in the second and third years in Natural Sciences must be from the subjects listed in Group 1. Not all subjects can be taken together.

### Group 2

- Anthropology
- Business
- Economics
- Geography
- Philosophy.

**No more than half** of your studies in the second and third years can be from subjects in Group 2. Each of these subjects contributes to at least one Joint Honours degree with the subjects from Group 1.

### Group 3

These subjects are Sport and Education (excluding History of Art) and are based in Durham City. None of the subjects in Group 3 contribute to a Joint Honours degree in Natural Sciences (and so no combination with these subjects is guaranteed to work in the timetable) and no more than half of your studies in the second and third years can be made up of subjects in Groups 2 and 3. If you are interested in taking subjects from Group 3, you are strongly recommended to contact the Natural Sciences Admissions Selector to judge on the feasibility of combining subjects from Groups 1 and 3.

Typically, first-year BSc Natural Sciences students either take three modules from two subjects or modules from three subjects. Other combinations are possible, but this combination would normally allow you to progress with any or all three of these subjects, as well as starting some new subjects in your second year.

### **Flexibility and choice**

The degree allows you to choose from a wide choice of subjects to include in your degree. It also allows you to delay the choice about the direction of your studies until the end of your first year (and in some cases to the end of your second year). Each year you can normally change your choice of modules within the first three weeks of the academic year.

### **Depth**

The degree requires final-year students to undertake capstone modules which are student driven and involve independent thought, personal management of the work's direction and are synoptic of the programmes learning outcomes. Typically, these modules will have a very small taught component and staff act as mentors, rather than delivers of information.

### **Patterns of study**

As part of the BSc Natural Sciences degree you may follow one of the following patterns of study:

## **BSc Honours Natural Sciences Degrees**

With this route you could study the same three subjects each year. You could also build on your first-year studies in one or two subjects and then combine advanced modules in these subjects with a new subject(s) in your second year.

You could then study two or three subjects in your third year, all of which you must also have studied in earlier years. With this route you would graduate with a BSc Honours degree in Natural Sciences with your main subjects studied listed on the degree certificate.

At the end of Year 2, the BSc allows you the option of transferring onto either "with Year Abroad" or "with Placement" pathway. Note that these options are competitive and so applicants cannot apply for these pathways through UCAS.

## **BSc Joint Honours Degrees within Natural Sciences**

With a BSc Joint Honours degree in two subjects, you will study each of these two subjects in all of the three years of study. In the first year, there may be the opportunity to take modules in a third subject, if you wish. If you follow the requirements for a Joint Honours degree you graduate with a BSc Honours degree in A and B within the Natural Sciences programme (where A and B are replaced with the relevant subjects). If a combination is not offered, it might still be possible for you to combine them with a third subject within a Natural Sciences degree that is not a Joint Honours degree. Please contact the Natural Sciences Admissions Selector for further details. Note that the "with Year Abroad" and "with Placement" pathways are also offered as added extras with Joint Honours degrees.

## Year 1

You must study at least two subjects, but no more than four, which give you a good progression into your second year subjects. You can specialise by taking up to four modules in one subject.

**For instance, students who want to do the BSc Joint Honours degree in:**

- Biology and Earth Sciences must do four core modules, which leaves them free to choose any two optional modules from any subject on offer.
- Economics and Mathematics must do five core modules from these subjects leaving them one free module from any subject.

To find out the number of core modules for each subject you are advised to look at the Natural Sciences webpages as a guide.

BSc Natural Sciences students often take two modules from three subjects, although other combinations are possible, but this combination would normally allow progression with any or all three of these subjects. The design of the programme is constrained by the entry requirements and limits of the University's academic timetable which is published five months before the start of the academic year.

## Year 2

You must study at least two subjects, but no more than three, which gives you reasonable progression into your third-year subjects. You can specialise by taking up to four modules in one subject.

**For instance, students following the BSc Joint Honours degree in:**

- Mathematics and Physics must do five core modules leaving them free to choose another module from these subjects to achieve an equal balance.
- Biology and Psychology must do six core modules.

Students who are taking the BSc in Natural Sciences have considerable freedom which is only limited by progression and the academic timetable, so in this scenario they do not need to adhere to the strict Joint Honours rules. They must build on one or two subjects studied in their first year, but also have the option of starting a new subject by taking a first-year module in their second year.

## Year 3

You must study at least two subjects, but no more than three. You can specialise by taking up to five modules in one subject. Students may also take a second-year module during this year.

**For example, students following the BSc Joint Honours degree in:**

- Chemistry and Earth Sciences must do two core modules in Chemistry and at least two modules from Earth Sciences with the remaining modules from these subjects, which could be none, one or two.
- Business and Computer Science must do at least two modules from each subject with the remaining modules from these subjects.

Students taking the BSc in Natural Sciences have continued freedom and are required to take a capstone module. They combine modules in subjects already studied to a higher level. The main subjects studied will be listed on the degree certificate having studied at least 50% science-subjects in Years 2 and 3.

We review course structures and core content (in light of e.g. external and student feedback) every year, and will publish finalised core requirements for 2019 entry from September 2018.

## Placement Year

You may be able to take a work placement. Find out more ([www.durham.ac.uk/placements/](http://www.durham.ac.uk/placements/)).

## Course Detail

To find out more about the modules available to students studying at Durham University please click here ([www.durham.ac.uk/resources/faculty.handbook/degrees/frameworks/cfg0.pdf](http://www.durham.ac.uk/resources/faculty.handbook/degrees/frameworks/cfg0.pdf)).

**Please note:** Current modules are indicative. Information for future academic years may change, for example, due to developments in the relevant academic field, or in light of student feedback.

## Admissions Process

### Subject requirements, level and grade

Provisional subject preferences must be declared in decreasing order of interest (see here ([www.dur.ac.uk/natural.sciences/prospective/bscxandy/](http://www.dur.ac.uk/natural.sciences/prospective/bscxandy/)) for further details of appropriate abbreviations). Using the first two subject preferences the offer is then augmented with specific grades as outlined above.

All applicants taking **A levels** will need three A levels with at least one Science (Biology; Human Biology; Chemistry; Mathematics; Physics.) The standard offer is A\*AA and you will need specific A level grades to study:

- o Biology: A in either Biology or Chemistry.
- o Chemistry: A\*A in any order in Chemistry and Mathematics.
- o Computer Science: A in Mathematics.
- o Economics: A in Mathematics.
- o Mathematics: Either A\*A in any order in Maths and Further Maths at A level or A\* in Maths plus A in AS Further Maths for students unable to take A2 Further Maths.
- o Physics: A\*A in any order in Maths and Physics.
  
- o We do not include General Studies or Critical Thinking A levels as part of our offer.

All applicants taking the **International Baccalaureate** will need a score of 38 points overall including either 766 or 666 at the Higher Level with at least one of these in a Science (Biology; Chemistry; Mathematics; Physics.) You will need specific Higher Level grades to study:

- o Biology: 6 in either Biology or Chemistry.
- o Chemistry: 76 in any order in Chemistry and Mathematics.
- o Computer Science: 6 in Mathematics.
- o Economics: 6 in Mathematics.
- o Mathematics: 7 in Mathematics.
- o Physics: 76 in any order in Mathematics and Physics.
  
- o If the augmented offer includes a 7 at the Higher Level in any subject, then the offer will be 766 at the Higher Level, otherwise, it will be 666 at the Higher Level.

Entry requirements are the same for both Natural Sciences programmes.

We are pleased to consider applications for deferred entry.

### **Science A levels**

Applicants taking Science A levels that include a practical component will be required to take and pass this as a condition of entry. This applies only to applicants sitting A levels with an English examination board.

### **English Language requirements**

Please check requirements for your subject and level of study ([www.durham.ac.uk/learningandteaching.handbook/1/3/3/](http://www.durham.ac.uk/learningandteaching.handbook/1/3/3/))

### **How to apply**

[www.durham.ac.uk/undergraduate/apply](http://www.durham.ac.uk/undergraduate/apply)

### **Information relevant to your country**

[www.durham.ac.uk/international/country.information/](http://www.durham.ac.uk/international/country.information/)

## Fees and Funding

### Full Time Fees

<b>EU Student</b>	£9,250.00 per year
<b>Home Student</b>	£9,250.00 per year
<b>Island Student</b>	£9,250.00 per year
<b>International non-EU Student</b>	£24,300.00 per year

The tuition fees shown for **home and EU** students are for one complete academic year of full time study and are set according to the academic year of entry. Fees for subsequent years of your course may rise in line with an inflationary uplift as determined by the government.

The tuition fees shown for **overseas** students are for one complete academic year of full time study, are set according to the academic year of entry, and remain the same throughout the duration of the programme for that cohort (**unless otherwise stated**).

Please also check costs for colleges and accommodation ([www.durham.ac.uk/undergraduate/accommodation/costs/](http://www.durham.ac.uk/undergraduate/accommodation/costs/)).

### Scholarships and funding

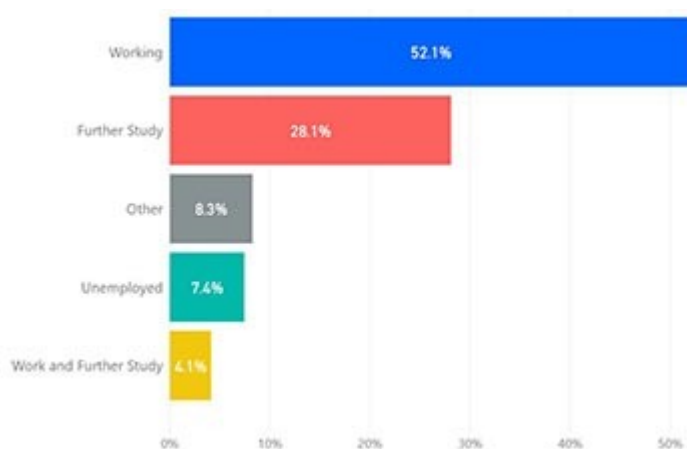
[www.durham.ac.uk/undergraduate/finance](http://www.durham.ac.uk/undergraduate/finance)



## Career Opportunities

### Natural Sciences

Durham has an excellent graduate employment record. You can open up a wide choice of careers with a Natural Sciences degree. Many employers prefer a broadly based multidisciplinary science degree rather than a specialism in a single field. Recent graduates have gone into accountancy, administration, law, advertising, the armed forces, banking, the City, the civil service, financial management, general management, information technology, marketing, publishing, retailing, teaching, telecommunications, industrial and academic research. For a fuller picture, you can visit the University Careers website ([www.dur.ac.uk/careers/s/careerplanning/des/](http://www.dur.ac.uk/careers/s/careerplanning/des/)).



### Of students that left in 2017:

- 85% are in employment or study six months after graduating

#### Of those in employment:

- 94% are in graduate level employment

- Median salary £28,000

(Source: Destinations of Leavers from Higher Education (DLHE) survey of 2016/17 graduates. The DLHE survey asks leavers from higher education what they are doing six months after graduation. Full definitions for the DLHE Record can be found here: [www.hesa.ac.uk/support/definitions/destinations](http://www.hesa.ac.uk/support/definitions/destinations))

A significant number of Natural Science graduates progress onto higher level study following their degree. Several remain within their academic field of interest, notably at Durham but also other prestigious institutions including Oxford, Cambridge, York, Bath, Edinburgh to name a few. Others pursue vocational professional study such as teaching (PGCE) and Journalism. A small number take conversion courses in law (Graduate Diploma Law) in preparation for training as a solicitor or barrister.

“ A huge percentage of trainees join KPMG from Durham University to the full range of graduate training schemes ranging we offer, from consulting to compliance. This demonstrates

that Durham produces consistently high calibre candidates each year who possess a wide range of competencies both personal and technical. It's only the skills and abilities of our people which enables KPMG to achieve its global leadership status so in turn; we are committed to engaging with and providing development opportunities to Durham students throughout the academic year. ”

## Employment development opportunities

Careers Advisers deliver regular talks to all undergraduate year groups

Year 1 focusing on developing employability skills, penultimate year on internships , work experience and final year on graduate employers/schemes , the recruitment cycle and making effective applications for jobs and further study.

Durham University Natural Sciences graduates progress into a diverse range of careers and employment sectors. The private, public and charitable sectors are all represented. Example roles include Nuclear Environmental Officer, Policy Adviser, Accountant, Research Analyst, Assistant Psychologist, Public Health Analyst, Investment Banking Analyst, Sports Trader, Assistant Scientific Commissioning Editor, Investment Consultant, Management, Recruitment Consultant, Auditor, Insurance Underwriter, Safety Policy and Environment Assistant Manager, Software Developer and Insurance Underwriter to name a few. Example high profile employers include Barclays, Deloitte, Dept for Business Innovations & Skills, Future Science Group, KPMG, NHS, DSTL, HM Treasury, Towers Watson, Bank of America, PwC, Deutsche Bank, Army, Casino Capital Management, JP Morgan, Natural History Museum, Sky News, RAF, United Nations World Conservation Centre

Natural Sciences  
Faculty of Science Office  
Level 3 Chemistry Building  
Durham University  
DH1 3LE  
United Kingdom

External Enquiries? Get in touch using our enquiry form ([www.dur.ac.uk/study/askus/](http://www.dur.ac.uk/study/askus/)). Have you seen our helpful FAQs ([studyatdurham.microsoftcrmpartals.com/en-US/knowledgebase/](http://studyatdurham.microsoftcrmpartals.com/en-US/knowledgebase/))?

Internal Enquiries ([www.dur.ac.uk/natural.sciences/password/contacts/details/](http://www.dur.ac.uk/natural.sciences/password/contacts/details/))

WWW: Natural Sciences home page ([www.dur.ac.uk/natural.sciences/](http://www.dur.ac.uk/natural.sciences/))



For an introduction to our Careers Service follow the link to <https://www.dur.ac.uk/careers/>

## **Open days and visits**

### **Pre-application open day**

Pre-application open days are the best way to discover all you need to know about Durham University. With representatives from all relevant academic and support service departments, and opportunities to explore college options, the open days provide our prospective undergraduates with the full experience of Durham University.

Please see the following page for further details and information on how to book a place:  
[www.durham.ac.uk/opendays](http://www.durham.ac.uk/opendays)

### **Discover Durham Tours**

Discover Durham tours offer a brief introduction to the University. The tour begins at one of our undergraduate colleges, where you will receive an introductory talk from a member of college staff, followed by a tour of the college by current students.

[www.durham.ac.uk/undergraduate/live/visit/discoverdurham](http://www.durham.ac.uk/undergraduate/live/visit/discoverdurham)

### **Overseas Visit Schedule**

[www.durham.ac.uk/international/office/meetus](http://www.durham.ac.uk/international/office/meetus)

## Department Information

### Natural Sciences

#### Overview

Follow your own path with this most adaptable and versatile of degrees.

This is a long-standing, challenging and rewarding degree programme for science students who wish to read more than one subject at degree level. Key characteristics are choice, flexibility and depth. It offers the option of 24 BSc and 5 MSci Joint Honours degrees provided by 12 departments and the opportunity of designing your own BSc or MSci programme major in at least one science, with the wide choice of subjects being supplemented by Education and Sport.

Many pathways are accredited, so that by graduation you will have interdisciplinary training regardless of your route of study. Our ethos is research-led, with a range of modules being taught by leaders in their field.

#### Rankings

- Durham University is in the top 40 for employer reputation in the *QS World University Rankings® 2018*
- 77% of the subject departments contributing to Natural Sciences are ranked in the UK's top 10 in *The Times and Sunday Times Good University Guide 2017*.

#### Staff

For a current list of staff, please see the Natural Sciences web pages ([www.dur.ac.uk/natural.sciences/staff/](http://www.dur.ac.uk/natural.sciences/staff/)).

#### Website

[www.durham.ac.uk/natural.sciences/](http://www.durham.ac.uk/natural.sciences/)

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