C103: Biological Sciences

Undergraduate BSc 2020

Essentials

<table>
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<tr>
<td>UCAS code</td>
<td>C103</td>
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<tr>
<td>Degree</td>
<td>BSc</td>
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<td>Mode of study</td>
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</tr>
<tr>
<td>Duration</td>
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<tr>
<td>Location</td>
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| Alternative qualifications | - Other UK qualifications [www.dur.ac.uk/resources/undergraduate/UKequivalencies2017-18.pdf]
|                      | - EU qualifications [www.dur.ac.uk/resources/undergraduate/apply/EUequivalencies2017-18.pdf]
|                      | - International qualifications [www.dur.ac.uk/international/country.information/] |
| Contextual Offers   | You may be eligible for an offer which is one or two grades lower than our standard entry requirements. Find out more [www.durham.ac.uk/study/ug/apply/contextualoffers/]. |
| More information    | Still have questions? [www.durham.ac.uk/study/askus/] |
| Department(s) Website | www.durham.ac.uk/biosciences |
Course Summary

Description

We operate a modular system in which you will study six modules each year. The Biological Sciences BSc (Hons) three-year degree course has been designed to allow you more choice between modules in each successive year so that you can follow specialised routes within Biological Sciences, or address specific areas of interest, as you progress.

Recommended module combinations ("routes") to allow various themes of specialisation are available, although these still allow choice at each level of the course. We have specified recommended routes corresponding to the following subject areas:

- Biochemistry and Molecular Biology
- Biomedical Science
- Cell Biology
- Genetics
- Ecology and Environmental Science.

Other module combinations are possible to give courses which specialise in "whole organism" biology, or plant sciences, or microbiology. Transfer to the four-year MBiol course is possible up to the end of Year 2.

Year 1

The first year covers fundamental aspects of biology including evolution, biochemistry, molecular biology, cell biology, genetics, physiology, and an overview of the diversity of organisms, through a set of four “core” modules covering the following topics:

- Organisms and Environment
- Animal Physiology
- Genetics and Molecular Biology
- Biochemistry and Cell Biology.

The module-linked tutorial system provides support for taught material and an introduction to essential scientific and transferable skills.

The Year 1 course also includes an integrated “Scientific Skills” module which covers underpinning chemistry and maths designed to support learning in the other modules. In addition, an optional module provides an introduction to all aspects of current research in the biosciences. A language module, provided by another department, can be taken as an alternative optional module.

Year 2

The second year of the course allows you to select a degree to meet your interests and career ambitions by choosing modules from those available. Choices of modules made for Year 2 then feed forward into the third year. There is a wide range of module themes which have previously included:
A Year 2 support module, “Research Skills” is also offered, in which skills required for research-led learning at Year 3 are covered. As in Year 1, learning is supported by a module-linked tutorial system.

Year 3

Year 3 of the degree places the strongest emphasis on research, with taught content directly linked to research being carried out in the Department. You will undertake three major pieces of work, each constituting its own module; a workshop/field course, a literature review and a research module.

The “Workshop” (laboratory based) or “Field Course” (field-based) module both involve research experience; field courses are currently held in South Africa or Scotland (residential field courses can incur an additional fee, which ranged from £150–£750 in 2017).

The "Literature Review" module involves the study of current research literature in a topic area selected by you, under personal supervision. The final year of the BSc (Hons) also includes the research module, which can be: a five-week laboratory or field-based Research Project; "Biological Enterprise", where you will develop the science and business case for a potential biotech-based product; "Biology into Schools", where you will gain hands-on practice of teaching at primary school level; or "Contemporary Issues in the Biosciences", where you will gain experience in the communication of bioscience by the production of a report.

In addition, you will study three modules linked to your interests from those offered. The Year 3 taught modules cover a wide range of topics, which previously have included:

- Advanced Topics in Ecology
- Conservation Biology
- Ecology in the Anthropocene
- Crops for the Future
- Stress and Responses
- Advanced Topics in Development
- Biochemistry and Biotechnology
- Stem Cells and Tissue Engineering
- Ageing
- Advanced Cell Biology
- Genomics
- Biology of Disease.
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 2020 entry from September 2019.

Study Abroad

You may be able to take a year abroad between the second and third year at a selected partner university in a range of overseas destinations (including Canada, Australia and China). The year abroad is a normal year at the host institution, although marks for assessments and exams taken abroad do not contribute to the Durham degree outcome. The course leads to the award of a BSc “Biological Sciences Degree with Year Abroad”. Places are limited and are subject to a competitive selection process during Year 2.

Placement Degrees

You can elect to follow a placement degree route, by transfer to a degree “With Placement” during Year 2. Placements are obtained by personal application to suitable placement providers, with assistance from the Department. The 40-week placement is taken between the second and the final year, for the award of the BSc “Biological Sciences with Placement” degree. The Department has links with a wide range of private, public and voluntary sector bodies that provide work experience opportunities for undergraduates.

Placements are typically with organisations such as the Royal Botanic Gardens Kew, the Natural History Museum, biotechnology companies such as AstraZeneca, pharmaceutical companies like GlaxoSmithKline, government agencies, such as the Food & Environmental Research Agency and NHS laboratories, such as those at the James Cook University Hospital, Middlesbrough.

Placement Year

You may be able to take a work placement. Find out more (www.durham.ac.uk/placements/).
Admissions Process

Subject requirements, level and grade

A level offer – AAA including Biology or Chemistry or Human Biology plus another science subject.

BTEC Level 3 National Extended Diploma/OCR Cambridge Technical Extended Diploma – DDD and A level requirements as above.

IB Diploma score – 37 with 666 in higher level subjects including Biology or Chemistry plus another higher level science subject.

In addition to satisfying the University’s general entry requirements, please note:

- We welcome applications from those with other qualifications equivalent to our standard entry requirements and from mature students with non-standard qualifications or who may have had a break in their study. Please contact our Admissions Selectors.
- Psychology, Maths and Geography are all considered sciences for the purposes of admissions. Although PE is accepted as a third A level, it is not a science for the purpose of admissions.
- There is no advantage in applying for both MBiol and BSc degrees.
- If you do not satisfy our general entry requirements, the Foundation Programme offers multidisciplinary degrees to prepare you for a range of specified degree courses.
- If you are an international student who does not meet the requirements for direct entry to this degree, you may be eligible to take an International Foundation Year pathway programme at the Durham University International Study Centre.
- 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/) .

How to apply

www.durham.ac.uk/undergraduate/apply
Information relevant to your country

www.durham.ac.uk/international/country.information/
Fees and Funding

Full Time Fees

<table>
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<th>Student Type</th>
<th>Fees (per year)</th>
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<tr>
<td>EU Student</td>
<td>£9,250.00</td>
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<tr>
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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/).

Scholarships and funding

www.durham.ac.uk/undergraduate/finance
Career Opportunities

Department of Biosciences

A degree in bioscience from Durham will give you an excellent start to your working life.

Not only will you receive an outstanding education in bioscience, you will also gain valuable transferrable skills to prepare you for future challenges, enhance your personal development, and improve your employment prospects. Durham bioscience graduates readily find employment in a range of careers, including further higher education such as university postgraduate research, medicine, teaching; the NHS sector; industrial research and development and biotechnology within the private sector; management; accountancy; conservation; ecological and environmental services; broadcast and print science journalism; environmental and biological patent law; the civil service; and the armed services. Graduates of the Biomedical Sciences degree also enter the NHS as trainee clinical scientists.

Of those students who graduated in 2017:

- 82% are in paid employment or further study 6 months after graduation

Of those in employment:

- 90% are in graduate level employment
- Median salary £25,000

(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)

Approximately 30% of graduates progress onto higher level study following their degree in Biological Sciences. Some remain within their academic field of interest and pursue a taught or research Masters at Durham, London School of Hygiene and Tropical Medicine, Imperial College, Warwick and King’s College, London. PhD study is
popular and graduates regularly compete successfully for funded places at Durham, York, Manchester, Exeter, Imperial College, Cambridge, University College London and Oxford. Others take a different route and pursue professional postgraduate programmes in law, journalism, finance and teaching to name but a few. Some students pursue careers in medicine and have competed successfully for a place on medicine degree courses at UK universities, including Durham, Southampton, Warwick, and Nottingham.

**Employment development opportunities**

The Careers, Employability and Enterprise Centre ([www.durham.ac.uk/careers/](http://www.durham.ac.uk/careers/)) collaborates closely with the Biological Sciences Department. The link Careers Adviser delivers presentations to each year group on a range of areas including options with the subject, career decision making, successful applications and interviews, and advice for those considering further study. Additional CV drop in clinics are offered in the department where students can have 1 to 1 help and advice from the link Careers Adviser.
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

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

Overseas Visit Schedule

www.durham.ac.uk/international/office/meetus
Department Information

Department of Biosciences

Overview

Bioscience is the fundamental science of life, and recent key developments make the twenty-first century a most exciting era, in which important biological challenges will be met and resolved. Our bioscientists are tackling challenges that include climate change and biodiversity conservation, developing new technologies for human healthcare, and feeding an increasing human population. As a Durham student, you will have access to state-of-the art technology for a range of techniques, including imaging using electron and confocal laser scanning microscopy, transgenic studies, genomics, DNA analysis and proteomics, bioinformatics, remote sensing, ecological field sampling and computer modelling.

Rankings

- 96% of Biological Sciences students were satisfied with their course overall in the National Student Survey 2018 (sector average 84%).

Staff

For a current list of staff, please see the Biosciences Department web pages.

Facilities

We have custom-designed buildings, equipped with modern teaching aids that create a stimulating learning environment. During their Research Projects undergraduates have access to the latest technology for electron and confocal laser scanning microscopy, transgenic studies, DNA analysis and proteomics, bioinformatics, remote sensing, ecological field sampling and computer modelling. We are close to extensive woodlands and a botanic garden, which provide additional teaching resources and opportunities for fieldwork.

Website

www.durham.ac.uk/biosciences