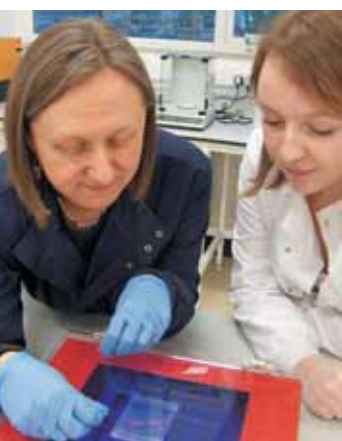




# Biological Sciences

## BSc (Honours): C100 and 102



The Biological Sciences course at Lancaster is aimed at students with a broad interest in life processes and allows you to tailor your degree to match your interests. There is something here for everyone! Our modules cover the whole spectrum of biology, from ecology and the conservation and management of biological resources, through to genetics, cell biology and biochemistry. Students receive a thorough grounding in the principles and issues of biology, along with training in the key techniques associated with modern biological research. Lectures, practicals and workshops take place in our brand new teaching facilities, containing state-of-the-art teaching laboratories and computer classrooms.

**Course options.** Students may choose to go to North America or Australasia for the second year of this course (see separate Study Abroad leaflet for details).

**Entry requirements.** Typically ABB at A-level for entry from the sixth form (AAB for the Study Abroad scheme) with at least two science subjects from Biol /Chem/Comp/EnvSci/Geog/Maths/Phys/Psych, or equivalent 2 A- plus 2 AS-levels. Applicants with other types of qualification should enquire for details.

**Specialist facilities.** Lancaster is committed to maintaining a strong and varied research base through the activities of both the School of Health & Medicine and the Lancaster Environment Centre.

Our world-class research includes many diverse aspects of biology, from investigating the way drought and pollution affects crop plants, to the molecular mechanisms involved in the development of Alzheimers disease, cancer and arthritis. Our research is funded by the EU, by government research councils such as the Biotechnology and Biological Sciences and Natural Environment Research Councils, and major charities, such as the Wellcome Trust and Cancer Research UK. Our high level of research activity and funding means that our students have the opportunity to use the latest technology during their own project, undertaken in a cutting edge research laboratory. Alternatively, Lancaster's position close to a diverse range of both terrestrial and aquatic habitats such as the Lake District and Morecambe Bay makes a field-based research project an exciting option. We also have extensive research links with industry, government agencies and hospitals, at both local and national level, allowing the possibility of undertaking a research project in an external laboratory.

**Careers.** More than two thirds of our graduates pursue biology-related careers such as research (academic, industrial and hospital), teaching, forensic science, environmental consultancy, etc. The remainder take advantage of the broad skills afforded by the degree and undertake careers in finance, management, marketing, etc.

### Nicky Levett

"I remember coming to the university open day and just feeling that Lancaster was the best place for me to study. I really liked the campus and college system. The department had a relaxed atmosphere and all the staff were very friendly and supportive. I didn't know which career I was interested in to begin with so I particularly enjoyed the chance to try out different areas of biology and to find out which subjects I enjoyed most. The academic knowledge and transferable skills that I gained during my degree have been essential in my job at Syngenta - those lecture notes are still coming in handy at times!"



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# Biological Sciences

## BSc (Honours): C100 and 102

### First Year

In the first year, students take Part I of their degree, which consists of a total of 15 modules, including at least 10 from those on offer from Biology, shown below. Students may take the remaining modules from those shown, or take modules in another subject on offer at Lancaster. Assessment is through course work, end of module tests and summer examinations.

- Molecules of Life
- Cell Structure & Function
- Genetics
- Biotechnology
- Protein Biochemistry

- Impact of Microbes
- Anatomy & Tissue Structure
- Infection & Immunity
- Hormones and Development
- Human Physiology

- Evolutionary Biology
- Variety of Life
- Aquatic Ecology
- Life in a Changing Environment
- Biodiversity & Conservation
- Spanish Field Course

- Experimental Design and Data Analysis
- Biomedicine and Society
- Diagnosis in Biomedical Sciences
- Introduction to Epidemiology

- Atoms & Molecules
- Introduction to Organic Chemistry
- Organic Chemistry
- Physical Chemistry for Life Sciences
- Spectroscopy

### Second Year

Students begin to specialise in year 2, taking two specialist subject modules in each of the Michaelmas and Lent terms, including at least one from group A and one from group B. Alongside these, courses in research skills are selected from those on offer in Biomedical & Life Sciences and the Lancaster Environment Centre. Modules are assessed through course work, end of module tests and examinations. In the final term of the second year, students begin a dissertation module, based around an original piece of scientific research.

#### Group A

- Environmental Physiology
- Populations to Ecosystems
- Evolution
- Principles of Biodiversity Conservation

#### Group B

- Cell Biology
- Biochemistry
- Genetics
- Medical Microbiology

#### Year Abroad Option

For students on the Study Abroad scheme (C102), the second year is spent at the overseas university

- Biology Research Project
- Choose from a range of Techniques Modules: Biochemical Techniques, Cell Biology Techniques, DNA Technology, Microbiological Techniques, Practical Physiology

### Third Year

Students take a total of eight specialist subject modules in the Michaelmas and Lent terms. There are a wide variety of modules available from Biomedical & Life Sciences and the Lancaster Environment Centre. Research project dissertations are also completed during the first term of the third year. The summer term of the third year is reserved for the Final exams.

#### Eight modules from:

- Genetics • Cell Signalling • Immunology • Neurobiology • Tropical Diseases • Biology of Ageing
- Protein Biochemistry • Developmental Biology • Medical Genetics • Biomedicine & Society
- Cancer Biology • Environmental Pathogens • Ions and Channels • Connective Tissue Biochemistry
- Ecology Field Course • Frontiers in Ecology and Evolution • Animal Behaviour • Environmental Plant Biology
- Ecophysiology of Host-Pest Interactions • Issues in Conservation Biology
- Conservation in Practice • Global Change Biology • Sustainable Agriculture