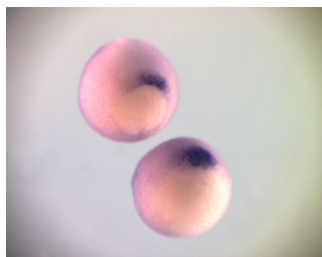


Division of Biomedical and Life Sciences Degree Schemes



BSc Cell Biology (Honours) C130 and C132



Cell Biology examines the structure and function of cells at all levels. Students on this course will study elements of biochemistry and molecular biology to examine how cells function at an individual level. This will be combined with studies on the interactions and signals that pass between cells in the development and maintenance of tissues within organisms. Overall, our flexible Cell Biology degree provides students with core modules in Cell Biology coupled with a solid background in other related fields such as genetics, microbiology, immunology and biochemistry. In the later parts of the course, students can choose modules, techniques courses and projects in specialised areas of Cell Biology to suit their own interests.

Course options. Students may choose to study at an overseas University for the second year of the course (C132; see separate Study Abroad leaflet for details).

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

Specialist facilities. Lancaster has a long history of highly rated cell biological research and the Division of Biomedical and Life Sciences in the School of Health

and Medicine is ranked joint 1st in the UK for Allied Health Professions and Studies research. Current interests include neuron destruction in Alzheimer's disease, cellular responses to DNA damage, corneal transparency, cellular signalling in plants, connective tissue research and cancer cell biology. Due to our high level of research funding and activity in these areas, our students are exposed to up-to-date research facilities and have a wide choice of final year projects. They are also able to use facilities such as the bioimaging facility containing confocal, atomic force and electron microscopes. Lectures, practicals and workshops will take place in our state-of-the-art teaching facilities.

Careers information. This degree will provide an excellent platform for research based careers in cell biology, including further postgraduate study for MSc or PhD qualifications. In addition there are many opportunities in the pharmaceutical industry, the food industry, forensic science and research institutes that are accessible to our graduates. Traditionally our graduates enter a wide range of careers and the transferable skills acquired during this degree will make the graduate attractive to employers in many other areas such as management, finance and marketing.

Paul Todd:

"I have thoroughly enjoyed my studies at Lancaster University. The Cell Biology course has helped me choose my career path as a Cell Biology researcher. I chose Lancaster University as it provided a wide insight into Biology and has very supportive teaching personnel. I chose Cell Biology as it provided me with a detailed view at an area of Biology that specifically interested me. My experience at Lancaster has been unforgettable."



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BSc Cell Biology (Honours)

C130 and C132

Year 1

In the first year of our Cell Biology degree, students take a total of 15 modules 11 of which are compulsory (**in bold**). Students may take the remaining 4 modules from those shown or take modules in another subject on offer at Lancaster. Assessment is through coursework, 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 & Development**
- **Human Physiology**

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

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

- **Experimental Design & Data Analysis**
- Environmental Issues for the 21st Century
- Interdisciplinary Skills
- Introduction to Epidemiology
- Diagnosis in Biomedical Science
- Biomedicine & Society

Year 2

In the second year of the degree students again take a range of compulsory modules designed to provide a detailed understanding of cell biology and associated research techniques. Modules are assessed through coursework, end-of-module tests and examinations. Exams take place in the summer term of the second year.



Compulsory Modules

- Biochemistry
- Biochemical Techniques
- Cell Biology
- Cell Biology Techniques
- Medical Microbiology
- Microbiological Techniques
- Genetics
- DNA Technology

Year Abroad Option

For students on the year abroad scheme (C132), the second year is spent at the overseas university



Year 3

In the final year of the degree students can choose to undertake a research project or a combination of laboratory project and literature review. They must also take the compulsory module combination shown in Group A (below) in addition to four further selections from the options shown in Group B. Exams take place in the summer term of the final year.

Group A (Compulsory)

- Cell Signalling 1
- Cell Signalling 2
- Cell Cycle & Stem Cells
- Biology of Ageing

Group B (Options)

- Genetics **OR** Immunology
- Protein Biochemistry **OR** Cancer
- Molecular & Biochemical Parasitology **OR** Environmental Pathogens
- Medical Genetics **OR** Tropical Diseases **OR** Neurobiology