

# Division of Biomedical and Life Sciences Degree Schemes



## BSc Cell Biology with Biomedicine (Honours) C1C7



Cell Biology and Biomedicine are at the heart of much of the exciting research in biological sciences worldwide. This degree scheme provides students with a mainstream Cell Biology course with a strong bias towards human and disease-related topics. Students will examine the structure and function of normal cells at all levels, studying core modules in cell biology coupled with other related fields such as genetics, microbiology, immunology and biochemistry. These areas are integrated with specific biomedical topics such as cancer biology, medical microbiology, clinical biochemistry and haematology. Students also receive an in-depth training in the key techniques associated with modern cell biological and biomedical research by taking a series of techniques courses, practical classes and a final year project.

**Entry requirements.** Typically ABB at A-level 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 research in cell biology and biomedicine. 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. Our research interests

include familial predisposition to breast cancer, cellular response to DNA damage, leukaemia, joint destruction in arthritis, Alzheimer's disease, metastatic spread of cancer, and the biochemistry of corneal disease. 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 brand new teaching facilities containing state-of-the-art teaching laboratories and computer classrooms.

**Careers information.** This degree will provide an excellent platform for research based careers in cell biology and biomedicine, 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 Biochemistry 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.

### Sophie Hanson:

"I chose to study Cell Biology with Biomedicine as my degree at Lancaster University because from the first time I visited on an open day I knew it was the University that I wanted to study at for my next 3 years in education. Not only were all the students very polite and helpful, the campus itself helped me to settle into university life, with all the amenities close to hand, and a wide variety of societies to join I felt I fit in right away. This particular degree scheme allowed me to choose from a wide variety of modules such as Genetics and cell structure and function to human development and other anatomy modules."



Further information contact:

Telephone: 01524 593265

E-mail: [admitbiol@lancaster.ac.uk](mailto:admitbiol@lancaster.ac.uk)

Web: <http://www.lancs.ac.uk/shm/bls/>

# BSc Cell Biology with Biomedicine (Honours) C1C7

## Year 1

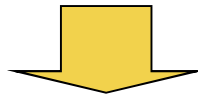
In the first year of the degree, students take a total of 15 modules (shown below) 12 of which are compulsory due to the specialized nature of this degree scheme. The remaining 3 modules can be taken either from the remaining subjects shown below are from another subject on offer at Lancaster. Assessment 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**

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

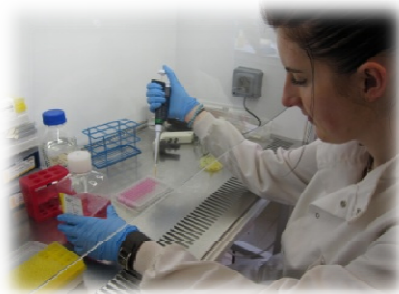
- Atoms & Molecules
- Introduction to Organic Chemistry
- Physical Chemistry for Life Sciences
- Organic Chemistry
- Spectroscopy & Bioinorganic Chemistry

- **Experimental Design & Data Analysis**
- Environmental Issues for the 21<sup>st</sup> Century
- Interdisciplinary Skills
- Introduction to Epidemiology
- Diagnosis in Biomedical Science



## Year 2

In the second year of the degree students again take a range of compulsory modules (Group A below) designed to provide a detailed understanding of cell biology, biomedicine and associated research techniques. They must also select one module from Group B. Modules are assessed through coursework, end-of-module tests and examinations. Exams take place in the summer term of the second year.



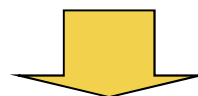
### Group A (Compulsory)

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



### Group B (One Selection)

- Microbiological Techniques
- Practical Physiology



## 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) along with two modules from Group B and one module from Group C.

### Group A (Compulsory)

- Cell Signalling 1
- Cell Signalling 2
- Immunology
- Medical Genetics
- Ethics in Biomedicine

### Group B (Two Selections)

- Biology of Ageing
- Molecular & Biochemical Parasitology
- Environmental Pathogens

### Group C (One Selection)

- Cell Cycle & Stem Cells
- Cancer