Biochemistry (Molecular and Cellular) Information Sheet for entry in 2016

What is Biochemistry?

The study of living things at the molecular level has undergone tremendous expansion in recent years, leading to ever increasing insights into topics as various as the origin of life, the nature of disease and the development of individual organisms. Powerful new techniques, such as those of molecular genetics and NMR spectroscopy, enable us to analyse biological phenomena in more and more precise molecular terms. These studies have led to commercially valuable developments in drug design and synthesis, forensic science, environmental sensing and a whole range of other areas. Furthermore, advances in biochemistry are largely responsible for the breakdown of traditional boundaries between cell biology, medicine, physics and chemistry as their applications become increasingly wide reaching.

Molecular and Cellular Biochemistry at Oxford

The Biochemistry Department in Oxford is one of the largest in Europe, and includes academic divisions of: Cell and Chromosome Biology; Genes and Development; Molecular Biophysics; Molecular and Systems Biochemistry; and the Glycobiology Institute/Drug Discovery Research Unit. The department is extremely active in research, with about 300 postgraduate students and research staff. The breadth and excellence of these activities are reflected in the scope of the undergraduate course and underpin the teaching.

The department has superb research facilities – having moved into our brand new building in September 2008 – and excellent teaching facilities, computer network and access to a wide range of online and hard-copy journals.

An important aspect of the Oxford Biochemistry course is its fourth-year project, lasting 18 weeks full-time, which allows you to explore both laboratory-based research and specific recent advances in biochemistry in detail. You choose the project yourself. Under the supervision of a group leader, you will design your own experiments, and will learn to plan research programmes and present your results and ideas - orally and in written form - to other workers in the field. The experience gained is much valued by employers. The project also gives you the opportunity to reflect on your aptitude and enthusiasm for a research career.

Research placements/international opportunities

A wide choice of fourth-year research projects is available both within the Biochemistry Department and in related departments, such as Molecular Medicine, Clinical Biochemistry, Pathology and Pharmacology. About ten students each year can carry out their project in selected European universities under the Erasmus exchange scheme, and at Princeton University in the USA.

Years 1-3

During years 1–3, your work is divided between lectures (about ten a week), tutorials (one or two a week) and practicals (averaging one full day a week). The remaining time is spent on private study (set reading, or problem-solving exercises).

Year 4: Extended terms

There are three terms in the Oxford academic year, each eight weeks long. Students usually arrive a week early in the first term of their first year for welcome and induction activities. In the final year of the Biochemistry course, students also work an extended first term to begin their research project.

You will need to be in Oxford for 12 weeks in the first term, followed by a two-week break over Christmas. You will then complete your project in the first six weeks of the second term, and then submit your project dissertation and deliver an oral presentation at the beginning of the final term.

In the remaining two weeks of the second term, and throughout the eight weeks of your final term, you will study two further courses that you choose from a list of options (see table below). These are assessed at the end of the final term.

This additional work in your final year means that you will graduate with an MBiochem - a masters degree - as well as invaluable research experience that will be excellent preparation for further study or a range of careers.

Your final degree class is derived from a combination of marks from second, third and fourth-year courses.

1st year	
Courses Five courses are taken: • Molecular cell biology • Biological chemistry • Biophysical chemistry • Organic chemistry • Maths and statistics	**Assessment** First University examinations: Five written papers; satisfactory practical record
2nd and 3rd years	
Courses Five courses are taken: • Structure and function of macromolecules • Energetics and metabolic processes	**Assessment** Final University examinations, Part 1: Six written papers; satisfactory practical record

• Molecular biology and genetics • Cell biology and integration of function • Data analysis and interpretation	
4th year	
Courses A research project (full time, 18 weeks), plus two courses taken from a list of options. The list typically includes subjects such as: • Bionanotechnology • Cancer biology • Clinical and applied immunology • Membrane transport • Neuropharmacology • Signalling and coordination in plants • Structural proteomics • Virology	**Assessment** Final University examinations, Part 2: Project dissertation and oral presentation Options written papers and/or submitted course work

The University will seek to deliver each course in accordance with the descriptions set out above. However, there may be situations in which it is desirable or necessary for the University to make changes in course provision, either before or after registration. For further information, please see the University's Terms and Conditions.

Fees

These annual fees are for full-time students who begin this undergraduate course here in 2016.

Fee Status	Tuition fee	College fee	Total annual fees
Home/EU	£9,000	£0	£9,000
Islands (Channel Islands & Isle of Man)	£9,000	£0	£9,000
Overseas	£17,555	£7,135	£24,690

Information about how much fees and other costs may increase is set out in the University's Terms and Conditions.

Additional Fees and Charges Information for Biochemistry (Molecular and Cellular)

In the final year of the Biochemistry course, students work an extended first term to begin their research project. You will need to be in Oxford for 12 weeks in the first term, followed by a two-week break over Christmas. You will then complete your project in the first six weeks of the second term, and then submit your project dissertation and deliver an oral presentation at the beginning of the final term.

In the remaining two weeks of the second term, and throughout the eight weeks of your final term, you will study two further courses that you choose from a list of options. These are assessed at the end of the final term.

The extended terms mean that you will need to budget for higher living costs in the final year, as you will be required to be in Oxford for longer than the standard terms. The additional work in this final year means that you will graduate with an MBiochem - a master's degree - as well as invaluable research experience that will be excellent preparation for further study or a range of careers.

Living Costs

Your living costs will vary significantly dependent on your lifestyle. These are estimated to be between £970 and £1,433 per month in 2016-17. Undergraduate courses usually consist of three terms of eight weeks each, but as a guide you may wish to budget over a nine-month period to ensure you also have sufficient funds during the holidays to meet essential costs.

Living costs breakdown

	Per month		Total for 9 months	
	Lower range	Upper range	Lower range	Upper range
Food	£265	£298	£2,384	£2,673
Accommodation (including utilities)	£469	£667	£4,221	£6,002
Personal items	£119	£244	£1,073	£2,187
Social activities	£60	£107	£539	£960
Study costs	£36	£73	£314	£661

Other	£19	£44	£197	£410
Total	£970	£1,433	£8,727	£12,894

30 October 2015