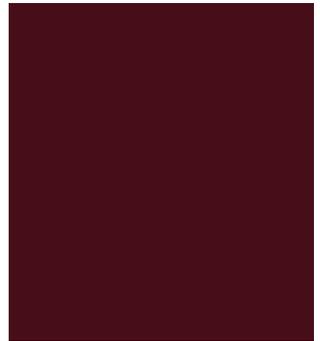
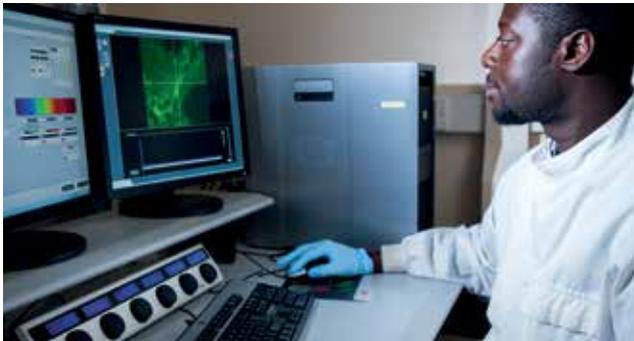




University of
BRISTOL

Undergraduate Biochemistry



Faculty of Medical and
Veterinary Sciences



The modular nature of the course gives students in the first two years a wide range of units to choose from, which are not necessarily related to biochemistry. I have had the opportunity to work alongside world-class researchers giving me an amazing insight into the world of science. My experience at Bristol has persuaded me to pursue a career in science, and more than anything I have enjoyed my studies so far.

Martin

Bsc Biochemistry 2011



Why study biochemistry at Bristol?

Studying a degree in biochemistry will give you a unique insight into life at a molecular level and will prepare you for a career in any of the major biosciences.

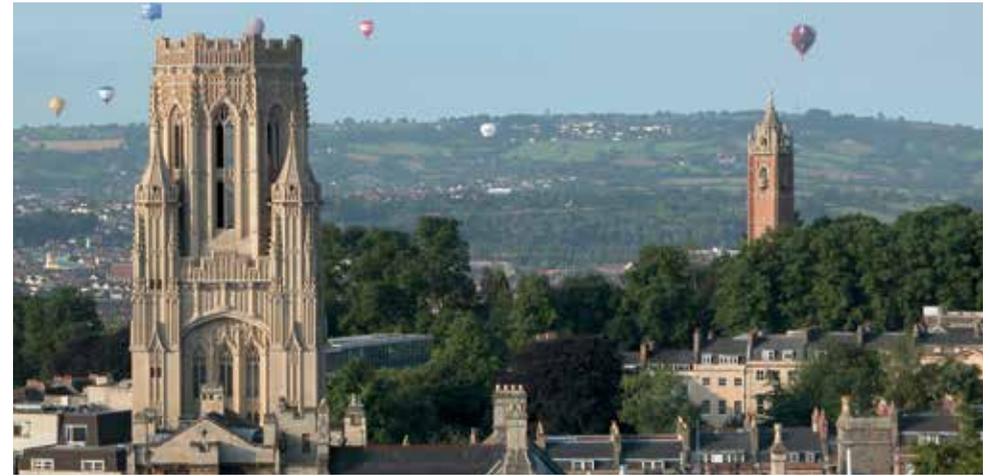
Biochemistry is the study of life processes at a molecular level, and as such spans all aspects of cellular biology and chemistry. The discipline covers the structure and function of biological molecules and seeks to understand the roles of these molecules within cells. It encompasses the chemical natures and 3-D structures of these biological molecules, how they interact with each other, complex cellular reactions and the generation of energy to power cellular activity, communication and co-ordination between and within cells, and the replication and expression of genetic material.

The School of Biochemistry at Bristol has an excellent international reputation and is one of the top biochemistry departments in the UK. Our research focuses on several areas that form major challenges in biochemical research: protein, DNA interactions, membrane trafficking within cells, and molecular events at cell membranes. These themes include studies related to neuroscience, cardiovascular disease and cancer. Research also covers the complex interactions between biological

molecules, computer-aided protein modelling and drug design. Our school has a large number of researchers active in these areas and their research helps to inform the teaching programme, ensuring the very latest biochemical discoveries are covered within our courses.

50

The School of Biochemistry celebrates its 50th anniversary in 2014



What will I study?

Single Honours courses

BSc Biochemistry, three years	C700
BSc Biochemistry with Medical Biochemistry, three years	C720
BSc Biochemistry with Molecular Biology and Biotechnology, three years	C790
BSc Biochemistry with Study in Industry, four years (entry by transfer at the end of year one)	

Year one

During your first year you take Biochemistry I which provides a comprehensive introduction to the subject. In addition you will study units in biological chemistry to provide the necessary foundation for your future studies. There is also a choice of other units as listed below for the different biochemistry degree courses:

BSc Biochemistry C700

- Anatomy, Biology, Physics, Maths, Microbiology, Cellular Pathology, Pharmacology I or Physiology I

BSc Biochemistry with Molecular Biology and Biotechnology C790

- Microbiology or Cellular Pathology

BSc Biochemistry with Medical Biochemistry C720

- Pharmacology I or Physiology I

In each unit you attend lectures and practicals, and most include small-group tutorials where you can discuss essays, practise numerical questions, share problems, give presentations and develop a range of transferable skills. Our practical teaching takes place in our well-equipped teaching laboratories and is supported by the online dynamic laboratory manual, eBiolabs. This innovative web-based system allows you to engage fully with the practical teaching and develop your experimental skills.

Year two

In your second year you study two biochemistry units, Organisation and Communication in Cells and Energy & Motion in Cells, and two molecular genetics units, Recombinant DNA Technology and Gene Expression and Rearrangement. You also study a unit called Biomedical Research, Employability and Enterprise Skills.

You will also have a choice of an optional unit as shown:

BSc Biochemistry (C700) choose from*:

- Cellular and Molecular Pathology
- Infection and Immunity
- Microbiology
- Pharmacology I or II
- Physiology I or II
- Mathematics

BSc Biochemistry with Molecular Biology and Biotechnology (C790):

- Cellular and Molecular Pathology
- Infection and Immunity
- Mathematics

BSc Biochemistry with Medical Biochemistry (C720):

- Cellular and Molecular Pathology
- Infection and Immunity
- Pharmacology II
- Physiology II

*In many cases, a range of other units (eg modern languages) may be chosen provided that they can be timetabled. The range of optional units you can choose from will depend on which units you have taken during year one. As in the first year, you will attend lectures, tutorials and practicals in your second year.

Final year

You will take core lectures in advanced biochemistry and will have the opportunity to study a number of specialist areas. In addition, you will carry out a research project for about eight weeks, where you will conduct original cutting-edge research under individual guidance from a member of staff in a research laboratory. This work

is presented as a report. You will also undertake a library-based literary project where you write an extended essay on a biochemical topic. For both the practical and the literary projects, there is a wide choice of topics available.

Year in industry

You may apply to spend a year in an industrial placement. The industrial placement takes place at the end of your second year of study and you spend one year as a paid employee of the industrial partner. At the end of the year you will be required to submit a report which will be assessed.

Throughout the degree you will be assessed through both written exams and coursework.

100%

of students are satisfied overall with the quality of their course (National Student Survey 2013)



What are my career prospects?

We aim to produce graduates with the best possible training in both biochemical science and in skills that can be marketed to a wide range of employers. You will develop analytical and problem-solving skills, teamwork skills and will be able to communicate effectively, both orally and in writing. Biochemistry is a research-based subject, and those students who achieve a good Honours degree have an excellent chance of following a career in bioscience research, and many of our graduates proceed to a PhD or Master's degree.

Biochemists are in demand in the biotechnology and pharmaceutical industries and some work in medical research establishments, or in the scientific and medical publishing fields. Graduates may use their biochemistry knowledge by teaching science in schools and some join graduate-entry medicine courses. Alternatively, some students find our degree a good preparation for a number of non-scientific careers in IT, management or finance.

90%

of graduates go on to work or further study within six months of graduating*

*Destination of Leavers from Higher Education survey 2011/12



Making your application

Entry requirements

Typical offer for BSc Biochemistry

Please visit bristol.ac.uk/ug15-biochem for other qualifications

A-levels AAA (contextual offer AAB[†]) including Chemistry and at least one other science subject or Mathematics (Mathematics, Physics or Biology AS-levels preferred if these are not taken at A-level)

IB Diploma 37 points overall (contextual offer 35[†]) with 6, 6, 6 at Higher level including Chemistry and at least one other science subject or Mathematics

Access Pass Access to HE Diploma (Science) with 30 credits at Distinction, including at least 12 credits in Chemistry, and 15 credits at Merit. Level 3 units must include at least 15 credits in Chemistry and at least one other science. Higher Maths is recommended, and is required for those without GCSE Maths at A or A*

English Language Profile E*

GCSEs Grade C or above in Mathematics (or A* or A if Mathematics or Physics are not taken at A- or AS-level) and English

Selection UCAS or Common Application

Part-time study Not available

Deferred entry Welcomed

*For details of English language profiles please visit bristol.ac.uk/study/undergraduate/language-requirements

[†]For information on contextual offers please visit bristol.ac.uk/study/undergraduate/apply/#typical-contextual-offers

You will need a strong background in chemistry and at least one other science (typically biology) or maths. You will need to be interested in and committed to the study of biochemistry, and your personal statement should demonstrate your intellectual curiosity by, for example, showing that you have read beyond your school syllabi or have undertaken any relevant work experience.

Our degree courses require independent work, and so your personal statement and reference should show that you are self-motivated and work hard. The personal statement should show that you can communicate effectively and write clear and correct English.

Further information

Find out more about the School of Biochemistry: bristol.ac.uk/biochemistry.



Contacts

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University guide to the city of Bristol
bristol.ac.uk/citybristol

Undergraduate study website
bristol.ac.uk/ug-study

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