Biochemistry

- GREAT PLACE TO STUDY
  NEW COURSES FOR 2018
- GUARDIAN UNIVERSITY GUIDE 2018
  UNIVERSITY RANKED 6TH
- £17M+ INVESTMENT IN
  STATE-OF-THE-ART STEM FACILITIES
Biochemistry is a rapidly developing, constantly advancing field of study – the branch of science that explores the chemical processes within, and related to, living organisms. The discoveries of biochemists are vital to our understanding of human life, health and disease, and, as such, will help us solve global challenges like our ageing population, and find cures, interventions and ways to manage health.

This is an incredible time to become a part of this fascinating area of study, with opportunities for highly-skilled graduates of Biochemistry both wide-ranging and likely to grow.

Drawing on Loughborough University’s multidisciplinary expertise in areas like regenerative medicine, health, nutrition and physical activity, our Biochemistry degree course is designed to offer a thorough grounding in biology and chemistry with an emphasis on practical laboratory work.

Studying Biochemistry at Loughborough you will benefit from our brand new state-of-the-art STERILab facilities, including a purpose-built and designed biological laboratory, alongside other high quality teaching and learning environments.

You will also benefit from the teaching and research insights of our internationally renowned academic staff – a world of expertise ranging from genetics and molecular biology to pharmacology and physiology.

With the opportunity to take an employability-boosting year-long placement in industry and all the quality support services and outstanding facilities our campus offers, Loughborough University is an excellent place to begin your career as a biochemist.
Loughborough University’s emphasis on developing practical skills alongside knowledge ensures our students gain hands-on experience in our world class laboratory facilities, across disciplines.

Continued extensive investment in student learning environments has seen the creation of new chemistry and bio-labs in our exciting STEMLab development. In addition, there has been further investment relocating and updating our biology “wet labs” and labs for anatomy and physiology.

As a university at the forefront of research into the ways sport, exercise and physical activity can be used in the prevention, treatment and management of long term health conditions, the campus is also home to the National Centre for Sport and Exercise Medicine East Midlands which boasts a range of cutting-edge technology and specialist medical equipment.

**STEMLab**

Your Loughborough University experience will be further enhanced by STEMLab, bringing new state-of-the-art learning facilities to our students across engineering and the sciences.

Opening this year, STEMLab is the cornerstone of the £25 million “Student Learning Zone” that has transformed the University’s West Park. You will be among the first students to benefit from the investment in a suite of laboratories for practical work in biosciences and bioengineering. The bio-laboratory will provide students with opportunities to gain applied experience with biological samples in a safe and cutting edge environment. The bio-laboratory includes a number of biosafety cabinets and fume cupboards, with spaces for fridges, freezers and incubators, plus instruments for the analysis of biological specimens.

**Everything our campus has to offer**

As a Loughborough student you will enjoy round-the-clock access to computer labs and our extensive library resources, as well as the award-winning support of our Mathematics Learning Support Centre and all the other high quality support services and amenities we provide.
Biochemistry explores the chemical processes within and related to living organisms. This exciting new course offers a thorough grounding in biology and chemistry, with an emphasis on practical laboratory work.

The programme is centred on molecular level processes and effects, particularly on those of importance for human health.

**Year 1**
Indicative areas for your studies may include: Biochemistry and Cell Biology; Genetics and Molecular Biology; An Introduction to Laboratory Skills for Biology; Fundamental Chemistry; An Introduction to Structure and Reactivity; Scientific Skills.

**Year 2**
Indicative areas for your studies may include: Cellular Signalling and Transport; Functional Genomics; Metabolic Basis of Health; Laboratory Skills for Biology; Research Methods in Data Analysis.

Optional modules may include: Anatomy and Physiology; Interdisciplinary Studies; Structure and Reactivity.

**Optional placement/study year**
Students taking the four-year course spend their third year on placement in an approved occupation or studying at an international university relevant to their degree. Satisfactory completion of the placement leads to the award of the Diploma in Professional Studies or Diploma in International Studies.

**Final year**
Indicative areas for your studies may include options selected from: Cellular Adaptation and Degeneration; Advanced Genetics of Health; Regenerative Medicine; Virology and Oncology; Pharmaceutical Analysis and Drug Metabolism; Drugs: Mode of Action and Screening, or Drugs: Synthesis and Properties.

Students also undertake a substantial research project.

**Graduate destinations**
Employers are increasingly looking for graduates with expertise in multiple science subjects. Our Biochemistry graduates will be equipped with knowledge, practical laboratory experience, and professional and transferable skills that will prepare them for a wide variety of careers in such diverse areas as scientific research and analysis, health, medicine, and environmental consultancy, as well as graduate positions in finance and management.

* *DPS/DIntS*: Diploma in Professional Studies/Diploma in International Studies.

The module information reflects the currently intended course structure and module details. Updates may be made on an annual basis and revised details will be published through Programme Specifications ahead of each academic year.
Careers and employability

With its emphasis on practical laboratory work, but also on the development of your transferable skills, a degree in Biochemistry can open up a wealth of opportunities for careers and further study.

This a brand new course for 2018, but we know that career opportunities for Biosciences graduates exist within scientific and medical research, industrial research and development, analytical laboratory work, scientific or clinical writing, and in areas such as immunology and microbiology.

The professional and transferable skills you will acquire (such as communication, project management and problem solving) will prepare you for roles in any number of diverse organisations.

Graduates from our existing programmes in Human Biology, Chemistry, and Medicinal and Pharmaceutical Chemistry have gone on to pursue rewarding careers with major recruiters, such as:

- Laboratory Analyst – GlaxoSmithKline
- Quality Control Analytical Chemist – 3M
- Genetic Technologist – NHS
- Retail Specialist – Fujitsu UK
- Statistical Analyst – Thames Valley Cambac
- Research Scientist – Unilever
- Graduate Auditor – PricewaterhouseCoopers
- Research and Development Specialist – Evacta
- Buying Assistant – Mondelez International
- Analyst – Royal Bank of Scotland
- Sales Development – Supernutrients

The value of a placement year

Students taking the four-year course (five for MSci) spend a year on placement in a real job with real responsibilities.

Loughborough has strong industry links which help our students secure year-long and flexible work placements in the UK and internationally. These placements are an invaluable opportunity to advance your skills, and apply your knowledge to a working environment. They can help you stand out in the competitive market for graduate jobs and sometimes enable you to secure a conditional job offer ahead of your graduation.

Students across our courses have undertaken incredible placements with incredible organisations, including:

- CERN (the European Organization for Nuclear Research)
- AstraZeneca (a British–Swedish multinational pharmaceutical and biopharmaceutical company)
- BioFocus DPI (drug discovery)
- Pfizer UK (pharmaceutical company)
- Reckitt Benckiser (a multinational consumer goods company producing health and hygiene products)
- Avectas (global biopharmaceutical company)
- Siemens AG (manufacturing and engineering)
- 3M Healthcare (pharmaceutical medicine)
Loughborough University is renowned for offering a life-changing student experience, consistently highly ranked in the Times Higher Education Student Experience Survey.

An outstanding campus
The University is based on a superb 440 acre campus – the largest single-site green campus in the UK. Boasting pleasant open spaces, gardens and sports areas, our campus is equipped for every aspect of student life, with high quality accommodation, shops, health services, student support centres and our award-winning Students’ Union. You will join a vibrant campus community of over 20,000 students and staff from over 100 countries.

Find out more: www.lboro.ac.uk/virtualtour

A unique sporting experience
As a Loughborough student you can take advantage of the two state-of-the-art gyms on campus, represent your Hall of Residence in over 30 sports, join any of our sporting societies or simply enjoy recreational sport and leisure activities. Our dazzling array of sports facilities include a 50m swimming pool, five recreational parks, seven fitness studios and five full-sized floodlit synthetic pitches for ball sports.

Find out more: loughboroughsport.com

Loughborough life
A busy market town in the East Midlands, Loughborough boasts great travel links and is situated between the three nearby cities of Leicester, Nottingham and Derby. The town has a variety of entertainment on offer, including theatre, comedy, cinema and restaurants serving up global cuisine, alongside pubs, delis, bars and coffee shops.

For more information go to: loveloughborough.co.uk

More than sport
The student motto at Loughborough is ‘work hard, play hard’, and in your spare time, there is something for everyone. You can join in with our Rag charity fundraising, community Action volunteering, the Media Centre, music and arts activities, and over 100 different clubs and societies. It really is a world of opportunity.

Find out more: www.lboro.ac.uk/about/students-union/

"The support and welcome present by the Students’ Union is immense. I was a member of Loughborough Kickboxing Club and I managed to get into the first team representing one of the most elite teams across the UK. This has been the greatest experience of my University career, as I got to represent Loughborough in front of crowds of 200 people."

Anand Ondhia
BSc Chemistry

The Loughborough Experience

Loughborough University

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