Bioprocessing of New Medicines (Business and Management) BSc /

This programme is designed to give you a good grounding in both the science of bioprocessing and the management of new emerging technologies in healthcare. You will develop an understanding of the latest biomedical and diagnostic advances, together with the business skills necessary for health and clinical research management.

Key information

Programme starts
September 2018

Location
London, Bloomsbury

Degree benefits

This BSc is a truly interdisciplinary programme. It draws on the knowledge of experts from across UCL in science, engineering, management and humanities.

The department has among the most modern and comprehensive biochemical engineering facilities of any university in the world. Valued at over £35 million, our facilities attract leading industrial collaborators.

Our teaching is designed to help you work at a detailed analytical level and also see the bigger picture in terms of addressing environmental and ethical issues.

We have been pioneers in providing our undergraduates with training to help them understand the business environment in which the life science industries operate. This will prepare you better for your future career.

Research Excellence Framework (REF) 2014

The Research Excellence Framework, or REF, is the system for assessing the quality of research in UK higher education institutions. The 2014 REF was carried out by the UK’s higher education funding bodies, and the results used to allocate research funding from 2015/16.

90% rated 4* (‘world-leading’) or 3* (‘internationally excellent’)

Learn more about the scope of UCL’s research, and browse case studies, on our Research Impact website.

Degree structure

In each year of your degree you will take a number of individual modules, normally valued at 0.5 or 1.0 credits, adding up to a total of 4.0 credits for the year. Modules are assessed in the academic year in which they are taken. The balance of compulsory and optional modules varies from programme to programme and year to year. A 1.0 credit is considered equivalent to 15 credits in the European Credit Transfer System (ECTS).

In the first year, you will study the basics of how a drug is created, made at scale and what the challenges of creating new medicines are. You will also study the prerequisite management principles involved in running an organisation and dealing with the accounts, as well as the fundamentals of data management.

In year two you will study the internal and external factors that govern pharmaceutical production, with emphasis on clinical needs and their constraints. A wide spectrum of knowledge is encompassed, from statistical analysis to legal and ethical concerns. You will also grow to understand the role of the Internet in globalisation and access to medicines.

The third year addresses a more in-depth understanding of global practices, business planning, and the feasibility and economics of creating therapeutics and vaccines in both developed as well as developing markets. You will also undertake an independent bioprocess research project.

YEAR ONE

Core or compulsory module(s)
- Accounting for Business
- Biochemistry and Molecular Biology
- Communication and Behaviour in Organisations
- Introduction to Biochemical Engineering
- Introduction to Biochemical Engineering Processing and Design
- Introductory Statistical Methods and Computing
- Understanding Management

Optional modules
- You will select 0.5 credits from a range of options

YEAR TWO

Core or compulsory module(s)
- Cell Production Growth
- Downstream Processing
- Evaluation and Planning of Business Opportunities in Bioprocessing and Life Sciences
- Law for Managers
- Manufacturing Regenerative Medicines: from Lab Bench to Industry
- Strategic Human Resource Management

Optional modules
- You will select two modules of 0.5 credits each from a range of options

FINAL YEAR

Core or compulsory module(s)
- Advanced Bioprocess Business Plan and Enterprise Implementation
- Bioprocess Design Study
- Bioprocess Research Project
- Business Planning in Bioprocessing and Life Sciences
- Project Management
- Vaccine Bioprocessing

Optional modules
- You will select 0.5 credits from a range of options.
Your learning

You will be taught through a combination of lectures, case studies, team-based projects and experiments. Leading industrialists and researchers regularly visit the department to provide guest lectures. Case studies are conducted in small teams, and your personal and departmental tutors are available to offer individual support.

Assessment

Written examinations, individual reports, coursework and oral presentations all contribute towards your assessment.

Your career

The core science, engineering, business and leadership skills that you acquire on the programme will provide you with excellent and diverse career prospects. In addition to your core subject knowledge, the programme will provide you with skills such as innovative thinking, team-working and computing.

The excitement of advances towards new medicines and greener sustainable processes is creating an ever-growing need for biochemical engineering graduates in the biotechnology, pharmaceutical, biofuels, chemical, environment and food industries.

First career destinations of recent graduates (2013-2015) of this programme include:

- Administrator, LSE (The London School of Economics and Political Science)
- MRes in Biomedicine, UCL

Your application

Application for admission should be made through UCAS (the Universities and Colleges Admissions Service). Applicants currently at school or college will be provided with advice on the process; however, applicants who have left school or who are based outside the United Kingdom may obtain information directly from UCAS.

In addition to academic requirements, we will use your application to assess your motivation for studying bioprocessing. We will be seeking applicants committed to studying at the highest level, who are eager and able to rise to the challenges presented both by the programme and by a career in the discipline.

If we are considering making you an offer, and you live in the UK, you will be invited to an applicant open day. Your visit will provide an excellent opportunity to examine the departmental facilities before making a final decision.
Entry requirements

A LEVELS

Grades
A*AA-AAA

Subjects
Biology, Chemistry or Physics required.

GCSE

English Language and Mathematics at grade C. For UK-based students, a grade C or equivalent in a foreign language (other than Ancient Greek, Biblical Hebrew or Latin) is required. UCL provides opportunities to meet the foreign language requirement following enrolment, further details at: www.ucl.ac.uk/ug-reqs

IB DIPLOMA

Points
38-39 overall.

Subjects
A total of 18-19 points in three higher level subjects including one of Biology, Chemistry or Physics, with no score below 5.

OTHER QUALIFICATIONS

UCL considers a wide range of UK and international qualifications for entry into its undergraduate programmes. Full details are given at: www.ucl.ac.uk/otherquals

UNDERGRADUATE PREPARATORY CERTIFICATES (International foundation courses)

The Undergraduate Preparatory Certificates (UPCs) are intensive one-year foundation courses for international students of high academic potential who are aiming to gain access to undergraduate degree programmes at UCL and other top UK universities.

Typical UPC students will be high achievers in a 12-year school system which does not meet the standard required for direct entry to UCL. For more information see: www.ucl.ac.uk/upc.

TUITION FEES

The fees indicated are for undergraduate entry in the 2017/18 academic year and are for the first year of the programme at UCL only. Fees for 2018 entry will appear here as soon as they are available.

UK & EU: £9,250 (2017/18 - see below)

Overseas: £23,710 (2017/18)

The UK/EU fee quoted above may be subject to increase for the 2018/19 academic year and for each year of study thereafter and UCL reserves the right to increase its fees in line with UK government policy (including on an annual basis for each year of study during a programme). Fees for overseas students may be subject to an annual increase in subsequent years of study by up to 5%.

Please see the full details of UCL’s fees and possible changes on the UCL Current Students website.

FUNDING

Several major international companies have established a Trust Fund with the department. This fund provides five bursaries, each worth at least £1,500, which are open to all applicants of this programme.

Various funding options are available, including student loans, scholarships and bursaries. UK students whose household income falls below a certain level may also be eligible for a non-repayable bursary or for certain scholarships. Please see the Fees and funding pages for more details.

CONTACT

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EU referendum

For up-to-date information relating to specific key questions following the UK’s decision to leave the EU, please refer to: www.ucl.ac.uk/eu-referendum

Disclaimer

This information is for guidance only. It should not be construed as advice nor relied upon and does not form part of any contract. For more information on UCL’s degree programmes please see the UCL Undergraduate Prospectus at www.ucl.ac.uk/prospectus