

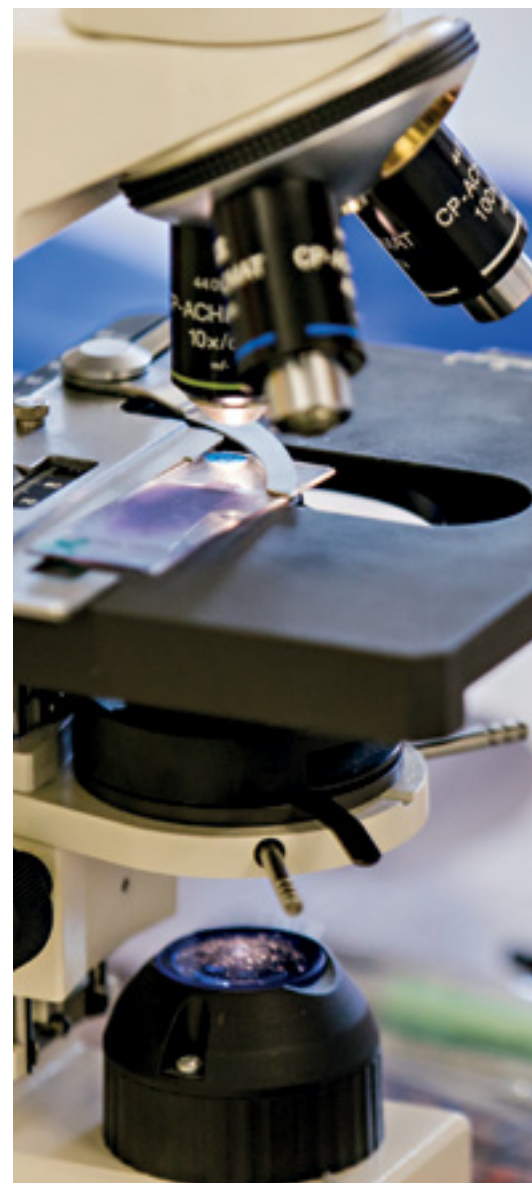
BIOSCIENCES

Biosciences teaching at Westminster explores fundamental and applied aspects of the biological sciences, ranging from basic biochemistry through to environmental science, biotechnology and pharmacology. The course is informed and supported by research within the University and in collaboration with researchers at other national and international institutions.

Applied biotechnology is an area of science with immense growth due to the emerging need for bio-products produced using renewable resources which are hence sustainable in the future, leading to a strong bio-economy. These products include biofuels, biopolymers, chemicals, pharmaceuticals, nutraceuticals, food and textiles. These products in turn can have a variety of applications, of which one of the major applications is in the area of medicine. These include applications such as tissue engineering, medical implants, novel drug development and controlled drug delivery.

The Biotechnology research at Westminster aims towards the exploitation of biological resources for the production and development of a range of bio-products and their use for environmental, medical and chemical/ biochemical applications.

This research group has international repute in several areas including: biopolymer production, biomaterials, scaling up of bioprocesses, bioprocess optimisation, antibiotic production, green chemistry including environmentally friendly dye remediation, enzyme technology, biofuels, small molecule production including chiral compounds, antibacterial products of natural origin, antibacterial materials, exploitation of plant and algal resources, plant structure, quorum sensing, drug delivery, tissue engineering (cardiac, nerve, bone, cartilage, skin), medical device development and wound healing.



Dedicated fermentation laboratory includes up to pilot-plant scale fermenters



APPLIED BIOTECHNOLOGY MSc

Length of course: one year full-time, starting in September
Location: Central London (see map p200)
Fees and funding: see course web page and westminster.ac.uk/fees
Entry requirements: see page p192

For full and most up-to-date information, see course web page:
westminster.ac.uk/applied-biotechnology-msc

Our established programme in Biotechnology, which has been extensively updated, includes a wide range of modern molecular biology techniques and how biotechnology can be used by today's society.

You will complement your theoretical studies with hands on experience of fully controlled fermenters that are up to pilot-plant scale, and are linked to modern monitoring and control systems.

Course content

You will study a range of subjects in considerable depth, including bioactive compounds, industrial bioprocesses, microbial physiology and fermentation technology, microbial production of novel metabolites, monitoring and control of fermentation, topics in biotechnology, and types of bioreactors.

Core modules

- Advanced Molecular Biology
- Fermentation Technology
- Industrial and Environmental Biotechnology
- Postgraduate Research Methods
- Postgraduate Project
- Science, Technology and Commercialisation

Option modules

- Communicating Science
- Extended Postgraduate Project
- Molecular Bioinformatics
- Molecular and Cellular Therapeutics
- Regenerative Medicine
- Systems Biology

Associated careers

The course is aimed at those aspiring to be researchers and managers in the biotechnology and pharmaceutical industries or other biosectors.

