

"I'VE SPOKEN TO A LOT OF PEOPLE FROM OTHER UNIVERSITIES, AND THE QUALITY OF TEACHING HERE IS, IN MY VIEW, SO MUCH BETTER."

DAN O'SULLIVAN  
HUMAN AND MEDICAL SCIENCE BSc HONOURS





"I GRADUATED WITH FIRST CLASS HONOURS IN PHYSIOLOGY AND PHARMACOLOGY. THE STAFF, LECTURERS AND MY PERSONAL TUTOR HAVE BEEN VERY SUPPORTIVE THROUGHOUT MY STUDIES."

**WEI-CHIE TSE**  
CLINICAL RESEARCHER,  
NATIONAL HEALTH SERVICE

» As an undergraduate student within the School of Life Sciences at the University of Westminster, you will benefit from some of the best teaching and facilities available. Our state-of-the-art laboratories were recently completely refurbished as part of a multi-million pound modernisation plan. And our staff and courses are recognised for their excellence in teaching and in preparing our graduates for further study, training and employment.

» Our courses prepare you for employment, further study or training in a wide variety of careers, through the development of key transferable skills, communication skills, teamwork and practical training. The courses consider current issues in their field, and provide you with the tools and methods for addressing problems and answering questions.

» Recent Biosciences graduates have gone on to work in fields as diverse as healthcare management, medical and forensic science, public health nutrition, pharmaceutical research, sales, financial management, and teaching. Biomedical Science courses within the School are accredited by the Institute of Biomedical Science (IBMS), and the Applied Biomedical Sciences BSc Honours is approved by the Health Professions Council (HPC).

» Our Complementary Medicines courses have strong collaborative links with relevant professional bodies, ensuring the highest possible standards of practice and patient care. Our students have unrivalled opportunities to gain practical experience of clinical working through the Polyclinic, our on-site teaching environment which offers low-cost access to the general public for a wide range of complementary medicine treatments and therapies.

» Research in the School encompasses a wide range of disciplines from pure to applied science, integrating areas from structural biology, molecular genetics, applied microbiology and biotechnology through to human performance, Chinese medicine, public health nutrition and well-being. In the recent Research Assessment Exercise, a proportion of the research outputs in all subject areas submitted were judged to be at world-leading and internationally excellent levels. Experienced and research-active staff in the School work in close collaboration with bio-industry, the NHS and research institutions within the UK, Europe and the US. Each year, more than 15 per cent of our graduates choose to pursue their study to research levels at the University of Westminster or elsewhere.

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For more information about Life Sciences courses, visit the School of Life Sciences website at **[westminster.ac.uk/lifesciences](http://westminster.ac.uk/lifesciences)**

**Other related areas/courses you might be interested in:**

- Psychology (p168)

## Applied Biomedical Science BSc Honours

**Applied Biomedical Science represents an integrated approach to the study of human health and disease, with emphasis on the diagnosis and understanding of disease processes from a medical diagnostic perspective.**

**This course is only open to applicants employed in a suitable accredited diagnostic laboratory able to support work-based learning, with a written statement of support required from their employer. It's designed to build on the practical knowledge developed within the workplace and provide underpinning knowledge essential to the development of practising biomedical scientists.**

### Course content

Initially you will study the important fundamental sciences underpinning human health and disease, followed by further investigation of disease processes and the biology of associated sub-cellular changes, combined with the principles of laboratory procedures used to aid diagnosis. In addition to this, immunology, molecular biology and genetics are studied within the context of disease processes, along with training in research methods and techniques.

In Year 3 and Year 4 (Credit Levels 5 and 6) you will focus on the study of the complex nature of disease as it affects particular physiological systems. The investigation of the disease process centres on the laboratory procedures that are used in haematology, clinical chemistry, cellular pathology and medical microbiology to diagnose and monitor disease. A major research project, carried out in your home laboratory, will enable you to develop the skills required for genuine scientific inquiry. All academic stages of this degree are complemented with an integrated programme of work-based learning.

### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Human Physiology and Anatomy • Work-Based Learning 1

### Year 2 (Credit Level 4/5)

Subjects of study include: Concepts in Bioscience • Infection and Immunity • Principles of Laboratory Diagnosis • Work-Based Learning 2

### Year 3 (Credit Level 5/6)

Subjects of study include: Biology of Disease • Medical Genetics • Medical Microbiology • Research Methods • Work-Based Learning 3

### Year 4 (Credit Level 6)

Subjects of study include: Cellular Pathology • Clinical Chemistry • Haematology and Transfusion Science • Medical Immunology • Project

Formal credit is given via the work-based learning process to meet the requirements of an Honours degree in four years of part-time study, and in recognition of the learning associated with employment in medical laboratories. Approval by the Health Professions Council (HPC) enables you to become 'registrant' practitioners on successful completion of the course.

### Biomedical Sciences Foundation Degree (see p131)

If you are a healthcare professional in full-time employment in a National Health Service or private laboratory, but do not have the necessary qualifications for entry into the Applied Biomedical Science BSc Honours, you may choose to study the Biomedical Sciences Foundation Degree.

### Length of course

Four-year, part-time day release, one day per week

### Application

Apply directly to the University, at [westminster.ac.uk](http://westminster.ac.uk)

### Location

Central London (Cavendish)

### Professional recognition

The degree is approved by the Health Professions Council (HPC) and accredited by the Institute of Biomedical Science (IBMS) thereby enabling you to fulfil all requirements for HPC registration and membership of the Institute.

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

### Associated careers

Although already employed in diagnostic and research laboratories, your career prospects are enhanced by this degree. You might also wish to study one of the many MSc courses available in the School or elsewhere; a range of postgraduate biomedical degree courses accredited by the IBMS exists.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/Certificate	MWM/DM in Science

See also standard entry requirements on p206.

Biochemical engineering focuses on the design of biological systems and processes that allow the conversion of raw products into consumables and desirable products with the minimum consumption of energy, lowest levels of pollution and smallest impact on the environment in the safest possible manner. Biochemical engineers work in industries as diverse as healthcare, the brewing of beer, and the tissue engineering of replacement human organs. Their contribution is the application of biochemical and biological principles to the design, development and operation of bio-process systems.

We are seeking accreditation from the Institution of Chemical Engineers, which will enable students who successfully complete the Biochemical Engineering MEng course to acquire Chartered Engineer status and corporate membership of the Institution.

### Course content

You will be provided with sound foundations in mathematics, chemistry, biology, structural biochemistry and relevant analytical biochemical techniques. There is a broad range of modules which are taught in Year 3 and 4 (Credit Level 6 and 7) that reflect the research interests of our school. A core component of your degree is the research project, for which you are expected to undertake original research under staff guidance.

### Year 1 (Credit Level 4)

Subjects of study include: Bio-Material Science and Applications

- Cell Science
- Concepts in Bioscience
- Engineering Mathematics
- Introduction to Biochemical Engineering

### Year 2 (Credit Level 5)

Subjects of study include: Biochemical Unit Operations and Mathematics • Biochemistry • Conceptual Pilot Plant and Project Preparation • Microbial Physiology and Culture • Molecular Biochemistry • Recombinant DNA Applications

### Year 3 (Credit Level 6)

Subjects of study include: Bioprocess Design • Bioprocess Technology 1 • Bioprocess Technology 2 • Bioscience Business and Management • Computer Aided Engineering • Project • plus one option from Bioinformatics • Current Topics in Molecular Biology and Biochemistry • Protein Biochemistry

### Year 4 (Credit Level 7) MEng

Subjects of study include: Biochemical Process Modelling and Life Cycle Assessment • Environmental Biotechnology • Project • Recent Advances in Biotechnology 1 • Recent Advances in Biotechnology 2

### Length of course

MEng: four-year, full-time  
BEng: three-year, full-time

### UCAS codes

MEng: H813  
BEng: H811

### Location

Central London (Cavendish)

### Professional recognition

Accreditation is currently being sought from the Institution of Chemical Engineers.

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements utilising a wide range of modern biochemical equipment including bench-top pilot plants and full-size fermentation suites. You will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment, in addition to other resources such as MathCAD and other dedicated biochemical engineering software packages. Formal exams are supported by course work assessment.

### Associated careers

You will be able to apply for a range of jobs in the biochemical engineering industry in areas such as manufacturing and production, construction and installation, design, and research and development. The skills you develop during your course will also be useful in areas such as teaching, management and further study at PhD level.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	BCC to include Maths and one Science subject
International Baccalaureate	32 points to include 5 in Maths and one science subject
BTEC Diploma	DDM including Engineering

See also standard entry requirements on p206.

Biochemistry is one of the pivotal degree disciplines in the modern world, and a fundamental component of most biological science degree disciplines. Biochemistry is the study of living systems at the molecular level, and biochemists study the ways in which cells and organisms are formed and interact. This involves examining the structure and function of macromolecules such as proteins, nucleic acids and complex carbohydrates, as well as experimental investigations of the properties of biological systems ranging in complexity from cell extracts to whole organisms.

The foundation of this course is our buoyant research in areas of biochemistry as diverse as plant cell wall architecture, membrane transport, protein structure, identification of cancerous cells from surface glycosylation, fungal molecular genetics, and fungal metabolite biosynthesis. The course is recognised by the Royal Society of Chemistry.

#### Course content

You will be provided with sound foundations in chemistry, structural biochemistry and relevant analytical biochemical techniques. You will study a broad range of biochemistry-related modules in Year 3 (Credit Level 6), reflecting the research interests of our School. A core component is the research project, in which you will undertake original research of your own under staff guidance.

#### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience • Human Physiology and Anatomy • Working in Bioscience • plus one free choice module

#### Year 2 (Credit Level 5)

Subjects of study include: Biochemistry • Biological and Organic Chemistry • Laboratory Research Methods • Molecular Biochemistry • Molecular Genetics • plus one option module • plus one free choice module

#### Year 3 (Credit Level 6)

Subjects of study include: Bioinformatics • Current Topics in Biochemistry and Molecular Biology • Enzymes: Mechanisms and Control • Project • Protein Biochemistry • plus one option module • plus one free choice module

#### Length of course

Three-year, full-time;  
four-year, full-time with Foundation

#### UCAS codes

C700; with Foundation C708

#### Location

Central London (Cavendish)

#### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

#### Associated careers

You will be equipped with a wide range of subject-specific skills and knowledge that will enhance your employment prospects. You will be able to apply for a range of biochemical and related jobs, while further opportunities are also available in areas such as biotechnology, genetics, immunology and molecular biology. Companies employing biochemistry graduates include those in the pharmaceutical, diagnostic and water industries. The skills you acquire and develop will also be useful in careers in teaching or management, and more than 25 per cent of our graduates go on to undertake research or further study leading to an MSc, MPhil or PhD.

#### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.

This flexible course enables you to tailor your study according to your interests, by building up your own combination of modules from those on offer. You can study combinations of subjects not on offer in a single discipline, for example physiology and biochemistry, or pharmacology and biotechnology. Your course leader and personal tutor can help you to choose appropriate modules at Year 2 and Year 3 (Credit Levels 5 and 6) to ensure you build up a sound programme of study for your degree. This will also allow you to establish a foundation for a wide variety of careers in the biological sciences.

## Course content

Your tutors will work with you to plan an academically viable programme of modules as you progress through the course. The pathway you design for yourself is dictated by your preferences or career needs. Only the core modules are listed; other biosciences modules are chosen by you to complete the programme. Look at those on offer in our other degree programmes to get an idea of possible subjects.

### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience  
 • Human Physiology and Anatomy • Working in Bioscience  
 • plus one free choice module

### Year 2 (Credit Level 5)

Subjects of study include: Laboratory Research Methods • plus five option modules • plus one free choice module

### Year 3 (Credit Level 6)

Subjects of study include: Project • plus five option modules • plus one free choice module

## Length of course

Three-year, full-time;  
 four-year, full-time with Foundation

## UCAS codes

C900; with Foundation C901

## Location

Central London (Cavendish)

## Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, together with a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

## Associated careers

The strong multidisciplinary background of graduates from the course makes you attractive to a wide range of employers.

## Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MWM/DM in Science

See also standard entry requirements on p206.



## Biomedical Sciences BSc Honours

Biomedical science is concerned with the detailed study of the human body, both in health and disease, with emphasis on the diagnosis and understanding of disease states and the mechanisms involved. This Biomedical Sciences course has been designed to prepare scientists for careers in medical diagnostic, pharmaceutical and research environments. It provides a thorough education in the disciplines required to understand and investigate disease, and enables access to a variety of pathways of professional development in the biomedical sciences.

### Course content

Initially you will study the important fundamental sciences, including biochemistry, cell biology and human physiology and anatomy. As you progress, you will develop an understanding of disease processes and the biology of the associated sub-cellular changes, combined with the principles of laboratory procedures used to aid diagnosis. In addition, immunology, molecular biology and genetics are studied within the context of normal human health and disease processes, along with training in research methods and techniques.

In Year 3 (Credit Level 6) you will focus on the study of the complex nature of disease as it affects particular physiological systems. The study of disease processes centres on underlying physiological mechanisms and the laboratory procedures that are used in haematology, clinical chemistry, cellular pathology and medical microbiology to diagnose and monitor disease. A major research project will enable you to develop the skills required for genuine scientific inquiry.

### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience

- Human Physiology and Anatomy • Working in Bioscience
- plus one free choice module

### Year 2 (Credit Level 5)

Subjects of study include: Biology of Disease • Infection and Immunity

- Laboratory Research Methods • Medical Genetics • Principles of Laboratory Diagnosis • plus one free choice module

### Sandwich placement year

In association with NHS trusts, we offer selected students the opportunity to spend a year working in hospital laboratories. Between Year 2 and Year 3 (Credit Levels 5 and 6) you will gain valuable work experience, practical and career development skills, and the opportunity to learn more about biomedical sciences in the hospital context. You will receive a student bursary during your sandwich year.

### Year 3 (Credit Level 6)

Subjects of study include: Cellular Pathology • Clinical Chemistry

- Haematology and Transfusion Science • Medical Immunology
- Medical Microbiology • Project • plus one free choice module

### Length of course

Three-year, full-time;  
four-year, full-time sandwich;  
four-year, full-time with Foundation

### UCAS codes

B940; with sandwich B900;  
with Foundation B903

### Location

Central London (Cavendish)

### Professional recognition

The degree is accredited by the Institute of Biomedical Science (IBMS).

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, together with a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

### Associated careers

Employment prospects for graduates are excellent, with openings in a variety of diagnostic and research laboratories in hospitals, universities/research institutes and pharmaceutical companies. Honours graduates can expect to become registered with the Health Professions Council (HPC) as Biomedical Scientists, provided they fulfil the additional HPC requirements of competencies through suitable employment.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/Certificate	MMM/DM in Science

See also standard entry requirements on p206.

Biotechnology draws upon biochemistry, microbiology, genetics and biochemical engineering to create products and services from biological organisms. People's lives have been influenced by biotechnology for centuries through the use of micro-organisms to produce food and drink. The large-scale production of antibiotics has revolutionised healthcare, and biotechnology has now entered a new and exciting phase with the advent of molecular biology and molecular genetics.

Recent possibilities for medical applications, such as gene therapy and gene diagnosis, deserve wider consideration than the purely scientific, and this course aims to promote interest in ethical and societal issues. Scientists with a broad educational background will deliver developments in biotechnology, such as new environmental treatment processes or the production of novel therapeutic agents.

### Course content

The course will provide you with a thorough grounding in areas fundamental to many bioscience disciplines as well as an understanding of biochemistry, biotechnology, microbiology and molecular genetics. The option modules allow you to follow your particular interests in the various aspects of biotechnology.

#### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience • Human Physiology and Anatomy • Working in Bioscience • plus one free choice module

#### Year 2 (Credit Level 5)

Subjects of study include: Biochemistry • Laboratory Research Methods • Microbial Form and Function • Microbial Physiology and Culture • Recombinant DNA Applications • plus one option module • plus one free choice module

#### Year 3 (Credit Level 6)

Subjects of study include: Bioinformatics • Bioscience and Business • Environmental Biotechnology • Industrial Microbiology • Project • plus one option module • plus one free choice module

### Length of course

Three-year, full-time;  
four-year, full-time with Foundation

### UCAS codes

J700; with Foundation J708

### Location

Central London (Cavendish)

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

### Associated careers

There is a need for graduate biotechnologists in the UK and overseas. The combination of skills and knowledge obtained also provides a sound background for a wide range of opportunities for employment or further study at MSc or PhD level.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.



## Forensic Biology BSc Honours

Forensic Biology involves the analysis of all types of chemical and biological samples. Unlike other biological science disciplines, it is also concerned with the handling of evidence and the interactions of scientists with the courts as expert witnesses. Our central London location means you will be able to visit the Royal Courts of Justice and the Central Criminal Court at the Old Bailey, and use world-class resources, such as the Wellcome Trust. The School of Life Sciences has a dedicated research record and there is a firm emphasis on practical skills throughout this course.

The biological aspects of forensics are a rapidly expanding area of forensic applications in both criminal and civil cases. As such, there is a high demand for graduates skilled in biological molecular sciences and the analysis of biological forensic data. This course is designed to meet this demand as well as reflect how the use of science can provide evidence in legal investigations.

### Course content

The first year of the course will provide you with the foundation in biochemistry, chemistry, molecular biology and anatomy necessary for the forensic biologist. You will have an academic tutor to provide guidance throughout your University experience.

During the second year modules cover preservation of evidence, crime scene investigations and biometrics. You will develop a portfolio of practical skills in the Techniques in Forensic Biology module, including the analysis of blood stains, fingerprints, drugs and trace evidence. Microscopic, molecular and biochemical techniques are covered in the Research Methods module.

You will have the opportunity to carry out a practical research project in Year 3, in areas such as forensic entomology, taphonomy, DNA analysis, environmental forensics and forensic toxicology. In this year you will study the role of DNA in investigations, the criminal justice system and the role of the forensic scientist as an expert witness, including a mock court room presentation. You will also look in detail at forensic areas of pathology, analytical chemistry, toxicology, osteology and anthropology.

### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience • Human Physiology and Anatomy • Working in Bioscience • plus one free choice module

### Year 2 (Credit Level 5)

Subjects of study include: Biochemistry • Forensics and the Law • Laboratory Research Methods • Recombinant DNA Applications • Techniques in Forensic Biology • plus one option module • plus one free choice module

### Year 3 (Credit Level 6)

Subjects of study include: Forensic Evidence and the Law • Medical Forensic Biology • Molecular Applications in Forensic Biology • Processes in Pathology • Project • plus one option module • plus one free choice module

### Length of course

Three-year, full-time;  
four-year, full-time with Foundation

### UCAS codes

F410; with Foundation F411

### Location

Central London (Cavendish)

### Teaching and assessment

The course combines lecture, tutorial, a case study and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

### Associated careers

Successfully completing the degree will open up the possibility of a career in government agencies, for example as a scene of crime officer, or in laboratories as an analytical bioscientist. Your wide range of skills may also lead to jobs in teaching, management and related areas, or you could go on to embark on further research leading to an MSc, MPhil or PhD. Recent graduates have gone on to work in forensic science companies as analytical scientists, in police forces, or gone on to further education.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.

The Life Sciences branch of Healthcare Science is concerned with the study of disease states in the human body, and their diagnosis. This course has been designed to prepare scientists for a career in one of the Life Sciences streams of diagnostic pathology and will enable you to practice as a Healthcare Science Practitioner and apply for registration.

The course is a three-year integrated programme combining academic studies with an increasing workplace-based component involving practical training within the diagnostic environment, both during term time and during the University vacations.

### Course content

Initially you will study the important fundamental sciences including biochemistry, cell biology and human physiology and anatomy. As you progress you will develop your understanding of the disease processes in your chosen discipline, and the methods employed for investigation of those processes.

The work-based training element of this integrated degree will complement your academic study at the University and give you crucial 'on the job' training within laboratories providing the appropriate diagnostic services. A core component of the final year is the research project, for which you are expected to undertake original research under staff guidance in your chosen discipline.

### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience • Human Physiology and Anatomy • Integrated Work-Based Learning 1

### Year 2 (Credit Level 5)

Subjects of study include: Biology of Disease • Integrated Work-Based Learning 2 • Medical Genetics • Principles of Laboratory Diagnosis • Research Methods • plus one option module

### Year 3 (Credit Level 6)

Subjects of study include: Integrated Work-Based Learning 3 • Molecular Science and Genetics • Research Project • plus three option modules

### Length of course

Three-year, full-time, including vacation work and study

### UCAS codes

To be confirmed

### Location

Central London (Cavendish); work placement may include sites outside of London

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. The work placements throughout your degree will develop further your laboratory and professional skills necessary to become a Healthcare Science Practitioner. Formal exams are supported by course work assessment.

### Associated careers

This course will equip you for a career as a Healthcare Scientist, within the Department of Health's Modernising Scientific Careers Framework.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.

## Human and Medical Science BSc Honours

The recent rapid growth in knowledge and technology has led to an enhanced understanding of human function in health and disease. These have led to significant developments in the understanding of disease pathology and the subsequent diagnosis, two core elements of this course. This degree integrates biological and medical sciences in order to understand human structure, function, development and behaviour, providing ideal preparation for the graduate-entry programmes into medicine.

### Course content

You will study the core medical sciences (physiology, anatomy, cell biology, biochemistry, molecular biology and genetics) and choose from a range of options in pharmacology, neuroscience, molecular therapeutics, nutrition or pathology, to tailor your degree to your interests and career aspirations. Our ethos of 'teaching informed and enriched by research' will give you the good research and critical analytical skills needed to progress to postgraduate medicine or medical research at MSc, MPhil or PhD level.

### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Human Physiology and Anatomy • Working in Bioscience • plus either Concepts in Bioscience or Introduction to Health and Nutrition • plus one free choice module

### Year 2 (Credit Level 5)

Subjects of study include: Biochemistry • Cellular Communication • Laboratory Research Methods • Physiology for Health Sciences • plus two option modules • plus one free choice module

### Year 3 (Credit Level 6)

Subjects of study include: Diagnostic and Clinical Physiology • Disorders of Homeostasis and Metabolism • Endocrinology and Reproduction • Project • plus two option modules • plus one free choice module

### Length of course

Three-year, full-time;  
four-year, full-time with Foundation

### UCAS codes

B901; with Foundation B902

### Location

Central London (Cavendish)

### Teaching and assessment

The course combines lecture, tutorial, problem-based Learning (PBL) and practical laboratory elements supported by a variety of learning resources, including podcasts, Blackboard (our online learning environment), and Web 2.0 technology. Formal exams are supported by course work assessment.

### Associated careers

This degree provides ideal preparation for the graduate-entry programmes into medicine, as well as entry onto dedicated PhD programmes. Other employment opportunities include working in hospitals, research institutions (MPhil/PhD), industry and the scientific or medical civil services. Alternatively the transferable skills developed will enable you to move into such careers as teaching, journalism and management.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.

Public and media interest in what we eat has never been greater. Emerging as one of the most popular sciences, human nutrition integrates knowledge from diverse areas of science to present a unified view of this dynamic discipline and its applications. You will examine how nutrients and eating patterns impact on health and well-being, and the role of diet in both health and disease.

We have well-equipped laboratories in all bioscience disciplines including a suite of biochemical test facilities for nutritional analysis, whole body metabolism, and determination of body composition. A lively research culture in the area is reflected in current studies into metabolic features underlying obesity, diet and exercise treatments for those who are overweight, and nutritional strategies to improve performance.

### Course content

The course presents you with the relevant aspects of human nutrition, physiology, public health, biochemistry and psychology.

#### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Human Physiology and Anatomy • Introduction to Nutrition and Health • Working in Bioscience • plus one free choice module

#### Year 2 (Credit Level 5)

Subjects of study include: Biochemistry • Health Behaviour • Human Nutrition • Laboratory Research Methods • Physiology for Health Sciences • plus one free choice module

#### Year 3 (Credit Level 6)

Subjects of study include: Applied and Clinical Nutrition • Food Sciences in Nutrition • Project • Public Health • plus one option module • plus one free choice module

### Length of course

Three-year, full-time;  
four-year, full-time with Foundation

### UCAS codes

B401; with Foundation B408

### Location

Central London (Cavendish)

### Professional recognition

Accreditation is currently being sought from the Association for Nutrition (AfN) UK.

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

### Associated careers

Graduates in this exciting field gain employment as nutrition advisers and consultants, in regulatory and organisational bodies and in teaching and research. A number of graduates take postgraduate opportunities that allow them to gain professional accreditation as dietitians and registered public health or sports nutritionists.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.

## Microbiology BSc Honours

Microbiology complements biochemistry, genetics and biochemical engineering but offers specialisation in applied microbiology. This course is designed to provide the necessary academic, practical and vocational knowledge and skills to enable you to work effectively in a wide range of microbiological settings. You will study the diversity of microbial types, how micro-organisms can be used and manipulated to aid mankind, and the detrimental effects of micro-organisms (for example on health).

### Course content

The course will provide you with a grounding in areas fundamental to many bioscience disciplines, while focusing on microbiology. The option modules allow you to follow your interests in various aspects of microbiology.

#### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience  
• Human Physiology and Anatomy • Working in Bioscience  
• plus one free choice module

#### Year 2 (Credit Level 5)

Subjects of study include: Biochemistry • Infection and Immunity  
• Laboratory Research Methods • Microbial Form and Function  
• Microbial Physiology and Culture • plus one option module  
• plus one free choice module

#### Year 3 (Credit Level 6)

Subjects of study include: Bioinformatics • Environmental  
Biotechnology • Industrial Microbiology • Medical Microbiology  
• Project • plus one option module • plus one free choice module

### Length of course

Three-year, full-time;  
four-year, full-time with Foundation

### UCAS codes

C500; with Foundation C501

### Location

Central London (Cavendish)

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

### Associated careers

You will be able to apply for a range of microbiological and related jobs, along with opportunities in areas such as genetics, molecular biology, immunology and biotechnology. Companies that employ microbiology graduates include those in the pharmaceutical, diagnostic and water industries, and medical laboratories. The skills you develop during the course could also lead to employment in areas such as teaching and management, while more than 25 per cent of our graduates go on to undertake research or further study leading to an MSc, MPhil or PhD.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.

This course covers the rapidly expanding disciplines of molecular biology and genetics, which are having an increasing impact on modern life and, in particular, human health and disease. For example, the Human Genome Project has dramatically changed our views of how human life is controlled. Molecular biology and genetics have the potential to generate great benefits in improved healthcare provision, while applications beyond this include improvements in agriculture and the environment.

### Course content

You will begin the course with a broad-based introduction to the areas that underpin molecular biology and genetics, such as cell biology, biochemistry and microbiology. In later years, these subject areas are further developed and extended to consider issues supported by molecular biology, including classical, medical and molecular genetics. You will then specialise in the rapidly expanding area of bioinformatics, as well as recent applications of molecular biology and genetics.

### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience • Human Physiology and Anatomy • Working in Bioscience • plus one free choice module

### Year 2 (Credit Level 5)

Subjects of study include: Biochemistry • Laboratory Research Methods • Medical Genetics • Molecular Genetics • Recombinant DNA Applications • plus one option module • plus one free choice module

### Year 3 (Credit Level 6)

Subjects of study include: Bioinformatics • Current Topics in Biochemistry and Molecular Biology • Molecular Biology and Disease Diagnosis • Molecular Therapeutics • Project • plus one option module • plus one free choice module

### Length of course

Three-year, full-time;  
four-year, full-time with Foundation

### UCAS codes

C400; with Foundation CC74

### Location

Central London (Cavendish)

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

### Associated careers

Graduates are well qualified to pursue a career in a variety of areas requiring specialist molecular knowledge. These include the fields of medicine, agriculture, biotechnology, forensic science, pharmaceuticals and environmental sciences. In addition, your skills' portfolio will equip you for a career in teaching, management or sales. Further study and research may lead to an MSc, MPhil or PhD.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/Certificate	MMM/DM in Science

See also standard entry requirements on p206.



## Nutrition and Exercise Science BSc Honours

This degree focuses on the role that food, nutrition and physical activity play in all aspects of human health. Taking a unique holistic approach, the course draws on the disciplines of nutrition, physiology, psychology and exercise science. You will gain a solid scientific grounding on which to develop strategies to improve the general population's health and well-being and enhance performance.

We have well-equipped laboratories in all bioscience disciplines including a suite of biochemical test facilities for the effects of exercise on metabolism, nutritional analysis, whole body metabolism and determination of body composition. A lively research culture is reflected in current studies into metabolic features underlying obesity, diet and exercise treatments for those who are overweight, and nutritional strategies to improve performance.

### Course content

You will begin with the underpinning science for the study of nutrition and health. As the course progresses, modules in exercise physiology and human nutrition are central to your studies. You will have the opportunity to devise exercise programmes and conduct health screening.

#### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Human Physiology and Anatomy • Introduction to Nutrition and Health • Working in Bioscience • plus one free choice module

#### Year 2 (Credit Level 5)

Subjects of study include: Exercise Physiology • Health Behaviour • Human Nutrition • Laboratory Research Methods • Physiology for Health Sciences • plus one free choice module

#### Year 3 (Credit Level 6)

Subjects of study include: Advanced Exercise Physiology • Applied and Clinical Nutrition • Exercise Testing and Prescription • Project • Public Health • plus one free choice module

### Length of course

Three-year, full-time;  
four-year, full-time with Foundation

### UCAS codes

BC46; with Foundation BCK6

### Location

Central London (Cavendish)

### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

### Associated careers

You will be ideally qualified to pursue a career in nutrition or nutrition for exercise, research, education, media, the fitness industry, and health promotion.

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.

Physiology and pharmacology are closely related disciplines. Physiology is concerned with how the body and its systems are controlled, and the changes that lead to disease states. Pharmacology is the scientific study of drug action, and this element of the course builds on physiology to demonstrate how medicines may modify disease states. The aim of the course is to produce scientists with a sound understanding of the biological action of drugs and chemicals at the tissue, cellular and molecular levels, in addition to their use in medicines for the treatment of disease. These studies provide an ideal grounding for a career in the pharmaceutical industry or other areas of biomedical research. Collaborations with research laboratories provide the possibility of an external placement to further enhance your practical skills.

## Course content

In Year 1 (Credit Level 4) you will acquire a vital set of core skills necessary for more advanced studies undertaken later in the course. These fundamental topics include cell biology, human physiology, biochemistry, and scientific skills, and this base is greatly expanded at Year 2 (Credit Level 5), developing your knowledge of physiology, drug action, and the central nervous and immune systems. As you progress, modules reflect a more applied content, focusing upon central nervous system and peripheral pharmacology, clinical physiology and disease processes. In addition, your Year 3 (Credit Level 6) project will be undertaken in a department with an active and enthusiastic attitude towards fundamental and clinically related research.

### Year 1 (Credit Level 4)

Subjects of study include: Cell Science • Concepts in Bioscience  
• Drugs and Therapeutics • Human Physiology and Anatomy  
• Working in Bioscience

### Year 2 (Credit Level 5)

Subjects of study include: Biochemistry • Cell Communication  
• Laboratory Research Methods • Molecular Genetics  
• Nervous System • Organ Systems Pharmacology • Physiology for Health Sciences

### Year 3 (Credit Level 6)

Subjects of study include: Bioinformatics • Central Nervous System Pharmacology • Diagnostic and Clinical Physiology  
• Drug Development and Toxicology • Immunopharmacology  
• Project • plus one free choice module

## Length of course

Three-year, full-time;  
four-year, full-time with Foundation

## UCAS codes

BB12; with Foundation BBC2

## Location

Central London (Cavendish)

## Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment.

## Associated careers

Graduates are ideally equipped for life in a fast-evolving and exciting workplace. The degree offers good prospects for research careers in academia, industry, the Scientific Civil Service and hospitals. Physiology and pharmacology graduates become valuable members of the scientific community. Alternatively, it may lead on to non-research or non-pharmacological careers in areas such as marketing, publishing or teaching.

## Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MMM/DM in Science

See also standard entry requirements on p206.

If you do not have the formal entry qualifications for the three-year degrees in biosciences, this course is the first year of a four-year degree. It is a well-established route of access to higher education for mature students (those aged over 21) without formal qualifications. It is also suitable if you have completed Advanced GCEs in non-science subjects. If you have studied science subjects to this level you are not eligible to apply. This Foundation course enables many students to study for a degree at the University on a wide range of courses. Local education authorities recognise the Biosciences Foundation Level 3 (BS3) as qualifying for a mandatory grant award.

#### Course content

You will study the fundamentals of biology, chemistry, mathematics and physics, and no previous knowledge in these subjects is assumed. You will also study a skills-based module designed to ease your transition into full-time study and a subsequent career. All modules introduce and integrate transferable skills into your learning, enabling you to exercise various practical, reading, writing and presentational skills which will be of use later in your studies and career.

The modules studied in the course would normally be taken in one year. However, there is considerable flexibility in the time it takes to accumulate the modules and credits leading up to your final degree. This flexibility, along with the wide choice of subject area within the biological sciences after the Foundation year, makes the course particularly attractive to mature students.

#### Length of course

One-year, full-time, as first year (Credit Level 3) of a four-year, full-time Honours degree course

#### UCAS codes

See individual BSc degree entries

#### Location

Central London (Cavendish)

#### Teaching and assessment

The course combines lecture, tutorial and practical laboratory elements, and you will be able to use a variety of learning resources, including podcasts and Blackboard, our online learning environment. Formal exams are supported by course work assessment that operates in a variety of formats across the year, and is designed to promote learning and provide a sound basis for entering any of our courses at Year 1 (Credit Level 4).

#### Associated careers

Completion of this course will allow you to progress on to one of the named degrees at the University.

#### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CC in non-Science subjects
International Baccalaureate	26 points to include no Higher Level Science
BTEC National Diploma/ Certificate	MPP/MM to include no Science subjects

We welcome applications from candidates without formal qualifications.

This vocational qualification has been designed with the help of employers within the National Health Service (NHS) in the UK. The course is for healthcare professionals in full-time employment in NHS and private laboratories, who do not have the necessary qualifications for entry onto our BSc in Applied Biomedical Science. It is also planned to offer the course to international students in collaboration with appropriate partners in their countries.

The course provides a flexible approach to your learning by offering a blended teaching programme. This consists of extensive online learning using the University's virtual learning environment, supplemented by limited block attendance at the University for laboratory work and examinations.

## Course content

You will study modules containing human anatomy and physiology, chemistry, biochemistry, molecular biology and microbiology. However, you will start the course with a study skills module to prepare you for online learning. The course also contains a substantial element of work-based learning aligned to the professional responsibilities undertaken by students in their employing laboratories.

### Year 1 (Credit Level 4)

Subjects of study include: Concepts in Bioscience • Delivering Healthcare 1 • Introduction to Human Anatomy and Physiology 1 • Laboratory-Based Learning 1 • Study Skills

### Year 2 (Credit Level 5)

Subjects of study include: Cell Science • Introduction to Human Anatomy and Physiology 2 • Laboratory-Based Learning 2 • Laboratory-Based Learning 3

### Year 3 (Credit Level 6)

Subjects of study include: Delivering Healthcare 2 • Infection and Immunity • Laboratory-Based Learning 4 • Principles of Laboratory Diagnosis • Project Design

## Length of course

Three-year, part-time

## Application

Apply directly to the University, at [westminster.ac.uk](http://westminster.ac.uk)

## Location

Central London (Cavendish)

## Teaching and assessment

The course utilises the University's online learning environment to deliver teaching and assessments online, supplemented by practical sessions held in the University. Workplace learning is achieved in the student's workplace under the direction of a member of the course's teaching team. Course work assessment is online, but formal examinations will require university attendance.

## Associated careers

Completion of this course provides a qualification appropriate for healthcare science associate practitioners within the NHS. It will also allow successful students the opportunity for entry into the third year of a part-time Biomedical Sciences BSc Honours.

## Typical offer for September 2011

Students must normally have completed a full Level 3 qualification in line with the University of Westminster's admissions regulations:

- one A Level pass in a related science subject
- NCVQ recognised awards, including relevant GNVQ at Level 3
- AVCE Science (single award)
- Irish Leaving Certificate with passes in five subjects at Higher level
- pass in a link Foundation course
- BTEC/SCOTVEC National Certificate/Diploma in Science.

Equivalent qualifications and relevant professional experience will also be considered. Overseas applicants will be required to have achieved an IELTS score of 6 or equivalent.

## Chinese Medicine: Acupuncture MSci/BSc Honours

The medical principles originating in China between the 3rd Century BCE and 2nd Century CE remain integral components of the healthcare systems of China, Japan, the Koreas and Vietnam and are practiced today on a global scale. These principles and their development over the last 2,000 years, together with a wealth of practice and research that is currently taking place worldwide, provide the basis of this professional entry course in Chinese Medicine: Acupuncture.

The Chinese Medical (CM) model has developed from a world view which focuses on qi and cyclical change, expressed in the concepts of yin yang and wuxing (five phases). CM applies these concepts to the person, and describes health and disease in terms of harmonious or disrupted patterns of qi. The concept of 'pattern' (bianzheng) offers profound insights into the processes of illness and good health, which are becoming increasingly relevant to Western society.

Our focus is the education of competent scholar practitioners of Chinese Medicine: Acupuncture, who have the skills of critical thinking combined with mindfulness, and can participate in the current debates on science and practice that have an impact on this living tradition. Extensive practice in our on-site training clinic develops the clinical skills and competence to perform as self-reflective, autonomous, inquisitive and caring practitioners who can develop effective professional relationships with patients and colleagues.

The course is accredited by the British Acupuncture Accreditation Board, and membership of the British Acupuncture Council (BAC) can usually be recommended on successful completion of Year 3 (Credit Level 6).

### Course content

The course is structured to support your intellectual, professional and practical skills development. Much of this is achieved through the use of themes that run through the modules and across levels. So in addition to the specific knowledge and skills required in Chinese Medicine: Acupuncture the course integrates clinical skills development, health sciences, personal and professional development and research skills. Your development as a scholar practitioner comes together in the University's innovative Polyclinic where, under the guidance of experienced clinic tutors, your learning from the various aspects of the course is integrated.

#### Year 1 (Credit Level 4)

Anatomy and Physiology • Chinese Medicine Channels, Points and Techniques • Chinese Medicine Clinical Practice 1 • Chinese Medicine Concepts and Context • The Therapeutic Relationship

#### Year 2 (Credit Level 5)

Chinese Medicine Clinical Practice 2 • Chinese Medicine Points and Clinical Skills • Chinese Medicine Principles, Strategies and Treatment • Developing the Therapeutic Relationship  
• Pathophysiology • Research Methods in Complementary Medicine

#### Year 3 (Credit Level 6)

Chinese Medicine Clinical Practice 3 • Chinese Medicine Patients, Illness and Disease • Differential Diagnosis • Dissertation  
• Refining the Therapeutic Relationship • Starting Your Practice

#### Year 4 (Credit Level 7) MSci

Subject to choice of award and progression requirements:  
Acupuncture: A Living Tradition • Clinical Reasoning • Researching Contemporary Issues in Complementary Medicine

### Length of course

MSci: four-year, full-time;  
five-year full-time with Foundation;  
five to eight years, part-time.  
BSc: three-year, full-time;  
four-year, full-time with Foundation;  
four to six years, part-time.  
The clinic operates between September and early August and clinical attendance may be required during holiday periods. Many modules or parts thereof are available as short courses.

### UCAS codes

MSci: B347  
BSc: B343  
BSc with Foundation: B341

### Location

Central London (Cavendish)

### Teaching, assessment and associated careers

See p136

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/Certificate	MMM/DM in Science

Equivalent qualifications or relevant work experience will also be considered. All applicants will be expected to successfully complete a selection workshop and have the personal attributes necessary for clinical training.

See also standard entry requirements on p206.

This innovative course responds to the growing demand for a high-quality theoretical, practical and clinical instruction in naturopathy. Naturopathy is a holistic approach to health, based on six principles that form the foundation of its practice and philosophy. The physical, biochemical, intellectual and emotional aspects are addressed individually through a thorough case history and gentle therapeutic techniques, working towards optimum health.

The core naturopathic techniques include dietary and lifestyle advice, hydrotherapy, the use of poultices, therapeutic massage and soft tissue manipulation. In addition you will be introduced to the philosophy, principles and practice of other complementary medicines, including aromatherapy, homœopathy and herbal medicine, which provide a wider contextual awareness of complementary healthcare.

The course is practice orientated, providing the clinical experience needed to work with patients, but also encouraging research and practitioner self-development. It is aimed at those seeking a career as a naturopath as well as practitioners who want to deepen their knowledge and skills. On successful completion of Year 3 (Credit Level 6) you will be qualified to register as a naturopath with the appropriate professional body.

### Course content

The course is structured to support your intellectual, professional and practical skills development. Much of this is achieved through the use of themes that run through the modules and across levels. So in addition to the specific knowledge and skills required in naturopathy the course integrates clinical skills development, health sciences, personal and professional development, and research skills. Your development as a scholar practitioner comes together in the University's innovative Polyclinic where, under the guidance of experienced clinic tutors, your learning from the various aspects of the course is integrated.

### Year 1 (Credit Level 4)

Anatomy and Physiology • Biochemistry and Phytochemistry • Clinical Therapeutics 1 • Perspectives in Complementary Medicine • Principles of Naturopathy • Therapeutic Massage • The Therapeutic Relationship

### Year 2 (Credit Level 5)

Clinical Therapeutics 2 • Developing the Therapeutic Relationship • Dietetics and Dietary Therapy • Integrated Approaches to Bodywork • Pathophysiology • Research Methods in Complementary Medicine

### Year 3 (Credit Level 6)

Clinical Therapeutics 3 • Differential Diagnosis • Dissertation • Environmental Health • Naturopathic Approaches to Dietary Therapy • Refining the Therapeutic Relationship • Starting Your Practice

### Year 4 (Credit Level 7) MSci

Subject to choice of award and progression requirements: Clinical Reasoning • Health and Wellbeing • Mindfulness • Researching Contemporary Issues in Complementary Medicine

### Length of course

MSci: four-year, full-time; five-year, full-time with Foundation; five to eight years, part-time.  
BSc: three-year, full-time; four-year, full-time with Foundation; four to six years, part-time.  
The clinic operates between September and early August and clinical attendance may be required during holiday periods. Many modules or parts thereof are available as short courses.

### UCAS codes

MSci: B393  
BSc: B391  
BSc with Foundation: B392

### Location

Central London (Cavendish)

### Teaching, assessment and associated careers

See p136

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/Certificate	MMM/DM in Science

Equivalent qualifications or relevant work experience will also be considered. All applicants will be expected to successfully complete a selection workshop and have the personal attributes necessary for clinical training.

See also standard entry requirements on p206.



## Herbal Medicine MSci/BSc Honours

Herbal medicine has developed from the traditional use of plants and plant extracts from many parts of the world, confirmed and updated by scientific understanding and research. However, it maintains a holistic approach to treatment, focusing on illness in the person rather than symptoms of disease.

The course provides a practice-orientated education in herbal medicine, which includes both the theoretical and clinical development necessary for working with patients, and the preparation and dispensing of remedies. The course also includes fieldwork of growing and gathering herbs within approved organic sites, and visiting herb collections and conservation habitats.

The course is fully accredited by the National Institute of Medical Herbalists, and you will be able to apply for membership once you have successfully completed Year 3 (Credit Level 6).

### Course content

The course is structured to support your intellectual, professional and practical skills development. Much of this is achieved through the use of themes that run through the modules and across levels. So in addition to the specific knowledge and skills required in herbal medicine the course integrates clinical skills development, health sciences, personal and professional development, and research skills. Your development as a scholar practitioner comes together in the University's innovative Polyclinic where, under the guidance of experienced clinic tutors, your learning from the various aspects of the course is integrated.

#### Year 1 (Credit Level 4)

Anatomy and Physiology • Biochemistry and Phytochemistry  
• Botany and Botanical Medicine • Herbal Practice 1 • Perspectives in Complementary Medicine • The Therapeutic Relationship

#### Year 2 (Credit Level 5)

Developing the Therapeutic Relationship • Dietetics and Dietary Therapy • Herbal Medicine Practice 2 • Pathophysiology  
• Pharmacology • Research Methods in Complementary Medicine

#### Year 3 (Credit Level 6)

Dissertation • Herbal Medicine Clinical Skills • HM Materia Medica • HM Therapeutics • Refining the Therapeutic Relationship • Starting Your Practice • Systems Pathology

#### Year 4 (Credit Level 7) MSci

Subject to choice of award and progression requirements: Advanced Materia Medica and Therapeutics • Clinical Reasoning • Researching Contemporary Issues in Complementary Medicine

### Length of course

MSci: four-year, full-time;  
five-year, full-time with Foundation;  
five to eight years, part-time.  
BSc: three-year, full-time;  
four-year, full-time with Foundation;  
four to six years, part-time.  
The clinic operates between September and early August and clinical attendance may be required during holiday periods. Many modules or parts thereof are available as short courses.

### UCAS codes

MSci: B348  
BSc: B342  
BSc with Foundation: B340

### Location

Central London (Cavendish)

### Teaching, assessment and associated careers

See p136

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/ Certificate	MWM/DM in Science

Equivalent qualifications or relevant work experience will also be considered. All applicants will be expected to successfully complete a selection workshop and have the personal attributes necessary for clinical training.

See also standard entry requirements on p206.

This course, the first nutritional therapy training available at degree level, has been running since 1998. Our focus is a clinical education in the art and science of nutritional therapy and functional nutrition, using a functional medicine approach, and nutrition in the community. The integrated and reflective teaching and clinical environment will lead to your development as an independent scholar practitioner able to engage critically in evidence-informed practice.

Nutritional therapy practice involves patients in the management of their own healthcare through one-on-one practice, preventative education and community projects. Using diet, therapeutic foods, nutrient and phytonutrient supplements, the interpretation of biochemical and functional tests, and lifestyle advice, nutritional therapy practitioners enable individuals and groups to maximise their health potential. As many patients seeking treatment are often chronically unwell, you will be trained to work in collaborative partnerships with all other healthcare professionals. External placements allow you to experience the practice of nutritional therapy in a range of settings, for example private GP practice, a private day care hospital and community projects.

The course incorporates the National Occupational Standards for Nutritional Therapy and the Nutritional Therapy Council (NTC) Core Curriculum. Graduates of the course have been awarded Route C Grandparenting Status. Students are required to join the British Association of Applied Nutrition and Nutritional Therapy, and may also join the Nutrition Society and the British Society for Ecological Medicine as student members. Successful graduates are recommended to the professional body, BANT, and the regulator, the Complementary and Natural Healthcare Council (CNHC).

Please note that this course does not lead to a diploma in dietetics.

## Course content

The course is structured to support your intellectual, professional and practical skills development. Much of this is achieved through the use of themes that run through the modules and across levels. So in addition to the specific knowledge and skills required in nutritional therapy the course integrates clinical skills development, health sciences, personal and professional development and research skills. Your development as a scholar practitioner comes together in the University's innovative Polyclinic where, under the guidance of experienced clinic tutors, your learning from the various aspects of the course is integrated.

### Year 1 (Credit Level 4)

Anatomy and Physiology • Biochemistry and Phytochemistry  
• Clinical Practice • Dietary Therapy • Nutraceuticals • Perspectives in Complementary Medicine • Therapeutic Relationship

### Year 2 (Credit Level 5)

Developing the Therapeutic Relationship • Nutritional Therapeutics 1  
• Nutritional Therapy Clinical Practice 1 • Pathophysiology  
• Pharmacology • Research Methods in Complementary Medicine

### Year 3 (Credit Level 6)

Community Nutrition • Differential Diagnosis • Dissertation  
• Nutritional Therapeutics 2 • Nutritional Therapy Clinical Practice 2  
• Refining the Therapeutic Relationship

### Year 4 (Credit Level 7) MSci

Subject to choice of award and progression requirements: Clinical Reasoning • Functional Medicine in Nutritional Therapy Practice  
• Researching Contemporary Issues in Complementary Medicine

## Length of course

MSci: four-year, full-time;  
five-year full-time with Foundation;  
five to eight years, part-time.  
BSc: three-year, full-time;  
four-year, full-time with Foundation;  
four to six years, part-time.

The clinic operates between September and early August, and clinical attendance may be required during holiday periods. Many modules or parts thereof are available as short courses.

## UCAS codes

MSci: B403  
BSc: B400  
BSc with Foundation: B402

## Location

Central London (Cavendish)

## Teaching, assessment and associated careers

See p136

## Typical offer for September 2011

Qualification type	Grade/points
A Levels	CCC to include two Science subjects
International Baccalaureate	26 points to include a minimum of 5 in two Higher Level Science subjects
BTEC National Diploma/Certificate	MMM/DM in Science

Equivalent qualifications or relevant work experience will also be considered. All applicants will be expected to successfully complete a selection workshop and have the personal attributes necessary for clinical training.

See also standard entry requirements on p206.

## Complementary Medicines Foundation

This course is available for applicants who do not meet the entry requirements for the BSc or MSci courses offered in complementary medicines. It is a well-established route of access into higher education for mature students (those aged over 21) without formal qualifications, and is also suitable if you have completed A Levels in non-Science subjects. As this year of study is integral to your BSc or MSci it is recognised by local education authorities as qualifying for a mandatory grant where available.

### Course content

You will study the fundamentals of biology, physiology, chemistry, cell biology and issues in healthcare. You will also study a science-based module covering literacy, numeracy, information technology, communication and study skills, which will ease your transition into full-time study at Credit Level 4 and your subsequent career in complementary medicine. There is a practical element to the course which will focus on clinical cases and an overview of the complementary medicine profession.

### Teaching and assessment

The course combines lecture, tutorial, practical laboratory and clinical elements. You will be introduced to a variety of learning resources including Blackboard, our online learning environment. The emphasis on continuous and course work assessment during the first semester prepares you for self-directed studies and formal exams, and will provide a sound basis for entering your chosen course at Credit Level 4.

### Length of course

One-year, full-time as the first year of a BSc or MSci from the School of Life Sciences.

### UCAS code

See individual courses

### Location

Central London (Cavendish)

### Typical offer for September 2011

Qualification type	Grade/points
A Levels	CC in non-Science subjects
International Baccalaureate	26 points (not to include Higher Level Science)
BTEC National Diploma/Certificate	MPP/MM

We welcome applications from mature candidates without formal qualifications. Applicants will be expected to successfully complete a selection workshop.

See also standard entry requirements on p206.

## Teaching, assessment and associated careers (Complementary Medicines)

The University of Westminster leads the way in complementary medicine training and education. Our courses will equip you with the skills, knowledge and attitudes essential for a career in professional healthcare. You will develop your practical expertise under expert supervision in our innovative training clinic, the University Polyclinic.

We have a varied and diverse array of approaches to learning, including lectures, seminars, practicals, online activities, role-play and clinical observation and practice. Assessment methods range from traditional essays and written exams to portfolios, case studies, presentations, posters, reports, and critiques to practical and oral exams. All our courses are day-time during the week, and can be taken on a full-time or part-time basis, offering students maximum flexibility.

Most graduates from our complementary medicines courses become self-employed practitioners in private practice. Other career opportunities can be found in teaching, management, healthcare industries, research, consultancy, media, training, government, and community healthcare. You can also progress to postgraduate studies in areas such as medicine, physiotherapy, public health and teaching.

Alongside our established three-year Bachelor of Science (with Honours) degrees in a range of complementary medicines, we offer a four-year Integrated Masters – Masters in Health Sciences (MSci). All students successfully completing the third year (Credit Level 6) will be eligible to apply for membership of the appropriate professional body. However, if you meet the progression requirements you can choose to extend your studies to four years.

The aims of the additional year are to further your growth as a 'scholar practitioner' developing your critical thinking skills in your own discipline, supporting integrated clinical working through supervision and peer mentoring and challenging current research and debate within complementary medicine. The MSci route may be particularly suitable for those who have demonstrated previous learning at degree level, but it is open to all applicants.