

PROGRAMME SPECIFICATION

Course record information

Name and level of final award:	Foundation Degree in Biomedical and Physiological Sciences <i>The Foundation Degree in Biomedical and Physiological Sciences is a Foundation degree that is Bologna FQ-EHEA first cycle degree linked or diploma compatible.</i>
Name and level of intermediate awards:	Certificate of Higher Education
Awarding body/institution:	University of Westminster
Teaching Institution:	University of Westminster
Status of awarding body/institution:	Recognised Body
Location of delivery:	115 New Cavendish Street
Language of delivery and assessment:	English
Mode, length of study and normal starting month:	Three years part time distance learning and block attendance. September start.
QAA subject benchmarking group(s) :	Foundation Degree
Professional statutory or regulatory body:	
Date of course validation/review:	February 2015
Date of programme specification approval:	May 2015
Valid for cohorts :	2016/17 level 4, 2017/18 level 4,5 and 6
Course Leader	Chrystalla Ferrier
UCAS code and URL:	TBC

What are the minimum entry requirements for the course?

There are standard minimum [entry requirements](#) for all undergraduate courses. Students are advised to check the standard requirements for the most up-to-date information.

westminster.ac.uk/courses/undergraduate/how-to-apply

For most courses a decision will be made on the basis of your application form alone. However, for some courses the selection process may include an interview to demonstrate your strengths in addition to any formal entry requirements.

More information can be found here: westminster.ac.uk/courses/undergraduate/how-to-apply

Accreditation of Prior Learning

Under the University of Westminster's Academic Regulations, a student may be awarded recognition for previous learning through the Accreditation of Prior Certificated Learning (APCL) or Accreditation of Prior Experiential Learning (APEL). This will normally be undertaken at the beginning of the course or when a student first applies for the course. However, a student must apply, with guidance from the course leader, by completing the appropriate form and supplying the appropriate evidence, which will then be considered by the APCL/APEL Board at the University. Should grounds for the award of additional APCL or APEL credits come to light, and the student wishes to apply for them during the course, the course leader can again offer guidance through the process.

For APEL applications

For APEL applications a student will be required to prepare a portfolio of evidence to demonstrate that he/she has the necessary learning to gain exemptions from course modules.

Admissions and Equal Opportunities

In accordance with the University's Equal Opportunities Policy, applicants are assessed for admission according to the University Admissions Regulations for Taught Courses. The University will admit students to its courses on the basis of the following principles:

- a) Reasonable expectation that the applicant will be able to fulfil the objectives of the course and achieve the standard required for the award;
- b) The University requirements for admission to the course leading to a particular award;
- c) Equality of opportunity for all applicants.

Students with disabilities are welcome at the University and there are various ways in which support is provided. Students are actively encouraged to make known their requirements and disability in a timely manner so that appropriate services and practices can be provided where necessary.

An applicant who has declared a disability (other than Dyslexia) on their application form is automatically referred to the relevant Disability Adviser, or where necessary, to the University's Student Health Service. The purpose of this is to assess the applicant's needs in terms of any assistance that can be provided by the University, and allow the applicant to decide if the available support and accommodation meets their needs.

Aims of the course

The course has been developed in partnership with healthcare employers, with the following aim:

- To provide an appropriate academic and professional qualification for the post currently called Associate Practitioner Healthcare Scientist (stage 4 in the Healthcare Scientists Career

Framework, 2005) employed within the UK National Health Service and the related private sector. It is designed for new entrants to the profession as well as existing practitioners wanting continuing professional development.

- To provide an appropriate academic and professional qualification to those currently employed in technical roles within industries related to human or animal healthcare provision.
- To suitably align with the first two years of the Modernising Scientific Careers (MSC) Practitioner Training Programme to facilitate career progression in accordance with MSC.
- To provide graduates with information regarding legislation and guidelines that relate to healthcare provision in their country of employment.
- To respond to the changing training needs of healthcare science professions by offering a blended learning experience of e-learning, work-based learning and limited block attendance at university.
- To develop the confidence of the graduates so that they can successfully apply, in the workplace, the knowledge and skills developed on this course.
- To equip graduates with the knowledge, understanding and academic skills to progress onto a BSc Honours programme through further study
- To facilitate student personal development planning (PDP) by the inclusion of reflective practice and portfolio production, this can serve the dual purpose of evidence for continuing professional development and professional competency evidence.
- To widen participation and lifelong learning by recruiting such professionals who have not previously studied at an institution of higher education.
- To provide the opportunity for overseas students, for example in sub-Saharan Africa, who are currently working in diagnostic or research laboratories to obtain an internationally recognised qualification by studying a course offered in their own countries.

What will you be expected to achieve?

Learning outcomes are statements on what successful students have achieved as the result of learning. These are threshold statements of achievement the learning outcomes broadly fall into four categories:

- The overall **knowledge and understanding** you will gain from your course (KU).
- **Graduate attributes** are characteristics that you will have developed during the duration of your course (GA).
- **Professional and personal practice learning outcomes** are specific skills that you will be expected to have gained on successful completion of the course (PPP)
- **Key transferable skills** that you will be expected to have gained on successful completion of the course. (KTS)

Course learning outcomes are not delivered within the individual modules, but the core modules identified in brackets below focus the delivery of particular course learning outcomes as shown.

Upon completion of level 4, you will be able to demonstrate:

LO 4.1 Broad understanding of concepts and terminology of biochemistry, molecular biology with genetics, including structure and function of biological molecules, cellular metabolism, structure and function of genes, mechanisms of their control and regulation. **KU** (Biochemistry)

- LO 4.2** Broad understanding of concepts and terminology of structure and function of prokaryotic and eukaryotic cell biology, including their life cycle, cell division, self-replication and death. **KU** (Cell Biology)
- LO 4.3** Broad understanding of the structure, function and control of the human body, its component parts and major systems, terminology of human anatomy and physiology. **KU** (Human Physiology, Functional Anatomy)
- LO 4.4** Good understanding of the need to establish and maintain a safe practice environment, key principles and laboratory processes, health and safety legislation, the Human Tissue Act, correct use of SI units, importance of quality assurance, CPA and ISO 15189. **KU** (Critical Skills for the Biomedical Sciences)
- LO 4.5** The use of standard laboratory techniques, safe handling of laboratory materials, the collection, manipulation and presentation of experimental data and the use of basic numeracy skills. The ability to evaluate your own strengths and weaknesses in the subjects studied to continually demonstrate personal development. **PPP** (Critical Skills for the Biomedical Sciences, Practice-Based Learning)
- LO 4.6** Skills in safe sample handling, preparation, staining techniques and the use of microscopy. **PPP** (Functional Anatomy)
- LO 4.7** The acquisition of a broad knowledge base, ability to access library resources, online material and undertake simple research tasks with guidance and the ability to communicate in written, oral and audio-visual modes, acknowledging academic standards, professional protocols and a range of audiences. **KTS** (Cell Biology, Biochemistry)
- LO 4.8** Effective work with others on common tasks, ability to recognise the factors affecting team performance, the need for time management and self-reflection. **KTS** (Human Physiology)
- LO 4.9** The acquisition of specialist knowledge related to the clinical laboratory environment. **KU** (Practice-Based Learning)

Level 5 learning outcomes

At level 5, you will acquire expertise in a comprehensive range of biomedical sciences subject-specific knowledge, specialist investigative techniques, data analysis and research methods. In addition, you will be able to develop relevant professional and key transferable skills for your continuing practice in Higher Education or in employability.

Upon completion of level 5, you will be able to demonstrate:

- LO 5.1** A detailed knowledge of host-pathogen interactions on the population, organismal and molecular levels, body response mechanisms and how they affect human health. **KU** (Infection and Immunity)
- LO 5.2** Detailed understanding of the complex processes and events leading to human diseases and the principles of a system-led approach to the study of disease and its treatment. **KU** (Applied Pathobiology)
- LO 5.3** A critical awareness of human genetics, pattern of inheritance with methods of genetic testing and associated ethical issues. **KU** (Medical Genetics and Genomics)
- LO 5.4** A detailed knowledge of biochemical mechanisms involved in regulation of homeostasis; causes and consequences of metabolic disorders which affect human wellbeing. **KU** (Metabolic Biochemistry)
- LO 5.5** Awareness of current UK legislations, British, European and International Standards that govern and effect pathology and biomedical laboratory practice, the importance and ability to maintain confidentiality and to obtain informed consent. **PPP** (Medical Genetics and Genomics, Advanced Practice-Based Learning, Delivering Healthcare)
- LO 5.6** Ability to devise and perform experiments to provide new information, evaluate experimental methods for investigation in biomedical sciences, select appropriate statistical methods, use relevant software packages and evaluate their application to experimental data. **PPP** (Infection and Immunity, Research Methods)
- LO 5.7** Effective management of your own learning strategy in the biomedical sciences, making effective and critical use of the variety of resources available and ability to access and use the scientific literature, including electronic databases. **KTS** (Metabolic Biochemistry)
- LO 5.8** Expertise to retrieve scientific or clinical information from the literature, including interrogation of electronic databases, to collect and synthesise this information and produce a literature review of an area, cite the scientific literature according to an accepted format and prepare a design for a new research project. **KTS** (Applied Pathobiology, Research Methods)
- LO 5.9** The advanced acquisition of specialist knowledge related to the clinical laboratory

environment. **KU** (Advanced Practice-Based Learning, Delivering Healthcare)

How will you learn?

You will be encouraged to become self-motivated and independent learners. The curriculum has been designed to meet the professional needs of healthcare practitioners who are both working and learning in an ever changing professional environment. The course acknowledges your professional requirements to manage your personal development and career planning. The course offers blended learning: the majority of the modules will be delivered in our virtual learning environment, Blackboard, where emphasis will be placed on encouraging you to communicate with each other, as well as with tutors, to develop and sustain a learning community during your studies. It is also planned to involve your workplaces as part of your learning experience. In three modules, the content is integrated with requirements placed upon you as part of your career progression. You will require between 12 and 20 hours of study per academic calendar week to meet the course requirements.

There are three main teaching approaches employed for the course: e-learning delivered through Blackboard, work-based learning and block teaching. Academic staff with expertise in online learning have been involved at all times in the development of e-learning materials and will also play a key role in maintaining accessibility of teaching materials in Blackboard for you.

Work-based learning will involve the relevant module leader, a work-based tutor and yourself working together to ensure that you receive appropriate support and development opportunities. This will ensure the relevant module teaching can respond to your changing professional needs throughout the course. It will also facilitate input of employers into the teaching and assessment of the FdSc Biomedical and Physiological Sciences. Since laboratory-based teaching forms an important component of any life sciences programme, block delivery of laboratory sessions have been integrated with the science-based modules. One week of university attendance is programmed in each year for you if you are a UK student to facilitate this. If you are an overseas student, arrangements will be organised with a local education provider. During this block, laboratory-based assessments will also be carried out.

How will you be assessed?

Assessment has been planned as an integral part of the learning process, ensuring achievement of specific learning outcomes. Where modules are the same in content as those taught to first and second year undergraduate life science students attending the University, the same assessment strategy will be followed. For modules unique to this course i.e. Practice-based Learning, Advanced Practice-based Learning and Delivering Healthcare the assessment strategy will ensure linkage with your requirements for the development of skills and knowledge required for your workplace roles.

The Practice-based Learning modules will offer a flexible approach in that the pre-determined assessments will be completed in a timely manner to align with your workplace training rotation. The underpinning knowledge required for these modules will be provided within the modules themselves and Delivering Healthcare.

Formative feedback is also given throughout modules in tutorials, group discussions, and in the laboratory practical sessions. It is designed to inform you of areas for improvement, and of current strengths which are to be nurtured and developed.

Some modules may be partly or wholly peer assessed (by groups of your fellow students, but under staff supervision) to support you in developing skills in critical judgement and self-evaluation.

Some modules assess learning outcomes from another module (called 'synoptic assessment'). This allows you to combine elements of learning from different modules and show your accumulated knowledge and understanding of biomedical sciences theory and practice (especially the linkage of theory and practice). It also helps to reduce formal assessment and so ensure that you have as much time and opportunity as possible to develop your skills, knowledge and experience.

Employment and further study opportunities

University of Westminster courses capitalise on the benefits that London as a global city and as a major creative, intellectual and technology hub has to offer for the learning environment and experience of our students.

University of Westminster graduates will be able to demonstrate the following five Graduate Attributes:

- Critical and creative thinkers
- Literate and effective communicator
- Entrepreneurial
- Global in outlook and engaged in communities
- Social, ethically and environmentally aware

These Graduate Attributes are oriented towards your employability after completion of the course, and are aligned to the Course Learning Outcomes as follows:

Table 1. Alignment of Graduate Attributes to Course Learning Outcomes

Graduate Attribute	Evident in Course Learning Outcomes
Critical and creative thinker	LO4.1, LO4.9, LO5.3, LO5.9
Literate and effective communicator	LO4.7, LO4.8, LO5.5, LO5.8, LO5.9
Entrepreneurial	LO4.5, LO4.7, LO5.6, LO5.7
Global in outlook and engaged in communities	LO4.4, LO4.8, LO5.4, LO5.5
Socially, ethically and environmentally aware	LO4.1, LO4.2, LO4.3, LO4.5, LO5.3, LO5.4, LO5.7

Employability & Skills Strategy

All course modules incorporate Key Transferable Skills, which are also integral to the course Employability & Skills Strategy. Key Transferable Skills support you in seeking entry into the biomedical sciences industries, as well as into a broad range of other professions & employment.

A further element of our Employability & Skills Strategy is the use of Personal Development Planning (PDP). This enables you to reflect upon personal and career goals, and the means by which these may be achieved.

Course structure

This section shows the core and option modules available as part of the course and their credit value. Students study on a part-time basis completing 80 credits per year. Course structures can be subject to change each academic year following feedback from a variety of sources.

Credit Level 4				
Module code	Module title	Status	UK credit	ECTS
4BIOM003D	Critical skills for the Biomedical sciences	Core	20	10
4PHYM001D	Human Physiology	Core	20	10
4BICH001D	Biochemistry	Core	20	10
4BIOM004D	Functional Anatomy	Core	20	10
4BIOL002D	Cell Biology	Core	20	10
4BIOM002D	Practice-based Learning	Core	20	10
Award of Certificate of Higher Education available				

Credit Level 5				
Module code	Module title	Status	UK credit	ECTS
5BIOM001D	Medical Genetics and Genomics	Core	20	10
5BIOM008D	Infection and Immunity	Core	20	10
5BIOM006D	Advanced Practice-Based Learning	Core	40	10
5BIOM007D	Applied Pathobiology	Core	20	10
5HMDS002D	Delivering Healthcare	Core	20	10
Award Foundation Degree available				

Please note: Not all option modules will necessarily be offered in any one year.

Professional Body Accreditation or other external references

Approval to be sought from the Institute of Biomedical Sciences

Academic regulations

The current Handbook of Academic Regulations is available at westminster.ac.uk/academic-regulations

How will you be supported in your studies?

Course Management

The course is managed by a course team, which comprises of academic staff from the Faculty of Science and Technology and staff from and Information Services and Library Services.

The staff team also collectively support the management of the course through responsibilities for individual modules, workshop areas and contributions to planning.

The professional and research practice of course staff is employed in improving the delivery of the course to ensure that we reflect current and emerging real-world concerns and demands. Regular staff meetings ensure this, as well as formal and informal interaction between the staff and outside industry professionals. Key course staff are members of the Higher Education Academy, the professional body for academics in higher education. Many staff within the department of Biomedical Sciences are also members of the Institute of Biomedical Science and some are also HCPC Registered. All course staff participate in continuing personal development, annual appraisal and peer observation of their teaching by their colleagues. This can inform staff development through course or conference attendance and research/professional activity.

Academic Support

Upon arrival, an induction programme will introduce you to the staff responsible for the course, the site at which you will be studying, the Library and IT facilities, additional support available and to your Faculty Registry Office. You will be provided with the Course Handbook, which provides detailed information about the course. Each course has a course leader or Director of Studies. All students enrolled on a full-time course and part time students registered for more than 60 credits a year have a personal tutor, who provides advice and guidance on academic matters. The University uses a Virtual Learning Environment called Blackboard where students access their course materials, and can

communicate and collaborate with staff and other students

Learning Support

The Academic Learning Development Centre supports students in developing the skills required for higher education. As well as online resources in Blackboard, students have the opportunity to attend Study Skills workshops and one to one appointments.

Learning support includes four libraries, each holding a collection of resources related to the subjects taught at that site. Students¹ can search the entire library collection online through the Library Search

¹ Students enrolled at Collaborative partners may have differing access due to licence agreements.

service to find and reserve printed books, and access electronic resources (databases, e-journals, e-books). Students can choose to study in the libraries, which have areas for silent and group study, desktop computers, laptops for loan, photocopying and printing services. They can also choose from several computer rooms at each campus where desktop computers are available with the general and specialist software that supports the courses taught at their Faculty. Students can also securely connect their own laptops and mobile devices to the University wireless network.

Support Services

The University of Westminster Student Affairs department provide advice and guidance on accommodation, financial and legal matters, personal counselling, health and disability issues, careers, specialist advice for international students and the chaplaincy providing multi-faith guidance. The University of Westminster Students' Union also provides a range of facilities to support students during their time at the University.

How do we ensure the quality of our courses and continuous improvement?

The course was initially approved by a University Validation Panel in **2009**. The panel included internal peers from the University, academic(s) from another university and a representative from industry. This helps to ensure the comparability of the course to those offered in other universities and the relevance to employers. The course is also monitored each year by the Faculty to ensure it is running effectively and that issues which might affect the student experience have been appropriately addressed. Staff will consider evidence about the course, including the outcomes from Course Committees, evidence of student progression and achievement and the reports from external examiners, to evaluate the effectiveness of the course. Each Faculty puts in to place an action plan. This may for example include making changes on the way the module is taught, assessed or even how the course is structured in order to improve the course, in such cases an approval process is in place. A Course review takes place periodically to ensure that the curriculum is up-to-date and that the skills gained on the course continue to be relevant to employers. Students meet with review panels to provide feedback on their experiences. Student feedback from previous years e.g. from Course Committees is also part of the evidence used to assess how the course has been running.

How do we act on student feedback?

Student feedback is important to the University and student views are taken seriously. Student feedback is gathered in a variety of ways.

- Through Course Committees students have the opportunity to express their voice in the running of their course. Student representatives are elected to Committee to expressly represent the views of their peer. The University and the Students' Union work together to provide a full induction to the role of the student representatives.
- Each Faculty also has its own Faculty Student Forum with student representatives; this enables wider discussions across the Faculty. Student representatives are also represented on key Faculty and university committees.
- All students are invited to complete a questionnaire before the end of each module. The feedback from this will inform the module leader on the effectiveness of the module and highlight areas that could be enhanced.
- The University also has an annual Student Experience Survey which seeks the opinions of students about their course and University experience. Final year Undergraduate students will be asked to complete the National Student Survey which helps to inform the national university league tables.

For more information about this course:

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Please note: This programme specification provides a concise summary of the main features of the course and the learning outcomes that a student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. This specification should be read in conjunction with the Course Handbook provided to students and Module Handbooks, which provide more detailed information on the specific learning outcomes, content, teaching, learning and assessment methods for each module.

