

Programme Specification: Applied Biomedical Science (inc apprenticeship)

Course record information

Name and level of final award	<ul style="list-style-type: none"> • Bachelor of Science with Honours - Applied Biomedical Science <p>The award is Bologna FQ-EHEA first cycle degree or diploma compatible</p>
Name and level of intermediate awards	<p>Bachelor of Science (BSc) Honours - Biomedical Sciences Bachelor of Science (BSc) - Biological Sciences Diploma of Higher Education (Dip HE) - Biological Sciences Certificate of Higher Education (CertHE) - Biological Sciences</p>
Awarding body/institution	<p>University of Westminster</p>
Teaching institution	<p>University of Westminster</p>
Status of awarding body/institution	<p>Recognised Body</p>
Location of delivery	<p>Primary: Central London</p>
Language of delivery and assessment	<p>English</p>
QAA subject benchmarking group(s)	<p>Biomedical Sciences https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-biomedical-sciences.pdf?sfvrsn=2bf2c881_4</p>
Professional statutory or regulatory body	<p>Accredited by The Institute of Biomedical Science (IBMS) https://www.ibms.org/home/ (Reaccreditation pending spring/summer 2022) Approved by the Health and Care Professions Council (HCPC) https://www.hcpc-uk.org/ (Reapproval pending spring/summer 2022) Accredited by the Royal Society of Biology (RSB) https://www.rsb.org.uk/</p>
Westminster course title, mode of attendance and standard length	<p>BSc Honours Applied Biomedical Science PT, Part-time day, September start - 4 years standard length BSc Applied Biomedical Science (Apprenticeship), Part-time day, September start - 4 years standard length</p>
Valid for cohorts	<p>From 2024/5</p>

Additional Course Information

It is also an entry requirement of this course that prospective apprentices be able to provide documentary evidence at enrolment that their workplace holds current IBMS pre-registration training approval and that their employer undertakes to support the apprentice in the completion of their IBMS Registration Training Portfolio. This evidence will be required regardless of entry level and will be reviewed annually.

Admissions requirements

There are standard minimum entry requirements for all undergraduate courses. Apprentices are advised to check the standard requirements for the most up-to-date information. 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:

<https://www.westminster.ac.uk/study/undergraduate/how-to-apply>

Initial Assessments

Prospective candidates for the Apprenticeship route must possess recognised Level 2 qualifications in Maths and English. These are assessed by the University Apprenticeships Operations Coordinators prior to commencement of study.

In addition to the standard application process and checks for both BSc Applied Biomedical Science courses, once an offer has been made for the Apprenticeship route, a Training Needs Analysis (TNA) is completed by the learner. This is provided as a self assessment form by the University of Westminster Apprenticeships Operations Coordinators and viewed on completion by a course academic representative. The TNA enables the learner to provide details of their existing knowledge and experience in relation to the Level 6 Biomedical Scientist (Integrated Degree) Apprenticeship Standard. If the learner has aligned existing Level 4 or Level 5 qualifications they can apply for Recognition of Prior Learning or Recognition of Prior Experiential Learning, that if excepted, will give exemption for one or two years of study. Additionally, learners are encouraged to undertake a self-awareness task with their workplace mentor to include:

- 360 degree feedback
- SWOT analysis
- Skills Gap Analysis
- Review of current skills against job description/role requirements
- Review of a current personal development plan

Ultimately the TNA assists with personalisation of learning and development against the Level 6 Biomedical Scientist (Integrated Degree) Apprenticeship Standard.

Recognition of Prior Learning

Applicants with prior certificated or experiential learning at the same level of the qualification for which they wish to apply are advised to visit the following page for further information:

<https://www.westminster.ac.uk/current-Apprentices/guides-and-policies/apprentice-matters/recognition-of-prior-learning>

Aims of the programme

The BSc (Hons) Applied Biomedical Science Apprenticeship course is suitable for trainee biomedical scientists, associate practitioners and medical laboratory assistants who are

employed in an Institute of Biomedical Science Approved training laboratory and wish to further their career and become eligible for HCPC registration as a Biomedical Scientist.

The BSc (Hons) Applied Biomedical Science course has been designed to:

- Provide Apprentices with a comprehensive, current and relevant programme of study, delivered in a rich learning environment that is inclusive, supportive and equitable, enabling and encouraging all Apprentices to achieve their individual potential without impediment.
- Fulfil the Health and Care Professions Council Standards of Proficiency for Biomedical Scientists and meet the requirements of the Institute of Biomedical Science (IBMS) Certificate of Competence.
- Meet the requirements of the Level 6 Biomedical Scientist (Integrated Degree) Apprenticeship Standard.
- Instil within its graduates continuing professional development as a fundamental attribute of academic and professional life.
- Develop transferable skills to enhance employability and postgraduate education prospects.
- Develop the Apprentices' knowledge of biological and medical sciences in order that they may analyse and understand the basis of human health and disease
- Ensure that graduates have the skills to apply their understanding of disease processes and diagnostic procedures in the contexts of diagnostic pathology, biomedical research, public health and wider bio-industry.
- Enable Apprentices to relate to and function within the practical work undertaken in a variety of biomedical laboratory settings.
- Produce graduates capable of carrying out scientific research and disseminating the results
- Enable Apprentices to contextualise scientific knowledge and opinion within a historical, geographical and cultural framework, referencing current expected standards of equality, diversity and inclusivity.
- Promote Apprentices' awareness of the impact that global advances in science and technology have upon diagnostic and research laboratory practice. Give them an understanding of the importance of treating all individuals and cultures with respect, acknowledging the harm that has resulted from not doing so. With this knowledge our graduates will be responsible and compassionate members of different communities, both local and global.
- Develop learners as creative problem solvers in the design of solutions to help overcome global challenges by the application of their subject specific and transferable skills and knowledge to drive these solutions for sustainable development.

Employment and further study opportunities

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

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 Apprentices.

The development of these graduate attributes is oriented towards employability upon completion of the course and these five attributes are aligned to various Course Learning Outcomes as shown in the table later in this document.

Whilst graduate attributes are acquired through a number of different modules throughout your course, all courses in the School of Life Sciences also have an integrated framework of

employability skills and options running from level 4 up to level 6. This framework is intended to enable Apprentices to develop key skills which will prepare them for employment and/or further study following graduation. The specific modules for implementing this framework are Professional Development in Science (Level 4), Research Methods (level 5) and the Life Sciences Final Year Project (level 6). Along with subject specific knowledge and skills however, other modules in the course also incorporate Key Transferable Skills, which complement the employability skills in this framework and are applicable to a wide range of future careers, further study and many other activities. The key employability related skills Apprentices will develop through the course include subject specific skill applicable to the many branches of the life sciences and skills that are transferrable to a variety of scenarios. These include: the ability to critically analyse scientific literature and to discuss and correctly cite those sources; gaining competence in laboratory and other practical/ investigative techniques relevant to your specialism; the ability to process, analyse, interpret and present a variety of data types including the appropriate statistical analysis of that data using a variety of software packages including Microsoft office and dedicated statistical analysis software such as SPSS; teamworking and leadership skills from group work in practical classes/ workshops and group presentation tasks; presentation skills in a variety of formats (e.g. posters, oral presentations, infographics). All Apprentices undertake a final year project which also allows the development of important skills such as experimental design based on available resources (including budget), planning of day-to-day activities and keeping records. Skills such as these are important for a wide variety of jobs and activities both within the life sciences and in the wider context.

Apprentices on the Applied Biomedical Science degree pathway need to already be employed as health care professionals in approved laboratories, whether in hospital or private diagnostic practices. Many Apprentices also undertake a very diverse range of professional experience at other stages of the course, often at a high professional level. Our Apprentices are also encouraged to successfully integrate all such opportunities into the general programme of study. Our aim is to foster a culture of gathering expertise, building professional networks, and expanding academic learning with the knowledge and skills gained in working environments.

Graduates from all Biomedical Sciences courses have a high employment rate and are sought by a wide range of employers. Major employment areas include diagnostic pathology and clinical laboratories, NHS Blood and Transplant laboratories, private pathology laboratories, Public Health England, veterinary and agricultural laboratories, clinical genetics laboratories, forensic laboratories, research laboratories in universities, government or charity-funded research laboratories, research development for the pharmaceutical, diagnostics, medical devices and laboratory instrumentation industries, clinical trials, regulatory affairs (drug registration and patents), commerce (sales and marketing) related to healthcare and diagnostics products. We also have a strong record in preparing graduates for postgraduate study across a range of biomedical and molecular disciplines, as well as postgraduate teacher training.

Graduate employment and opportunities in the biomedical sciences industries is constantly shifting, and graduates from this course have demonstrated their responsiveness to these changes. We regularly monitor graduate career destinations, and reflect on this information in the planning of the course curriculum.

With respect to the NHS Terms of Conditions for Service (Agenda for Change) graduates from the BSc Applied Biomedical Science Apprenticeship and non-apprenticeship courses are able to apply for Registration as Biomedical Scientists with the Health and Care Professions Council (HCPC), once their award has been confirmed. This makes them eligible to apply for Agenda for Change Band 5 positions as registered Biomedical Scientists or Band 5 Healthcare Scientist posts. Those already employed via Band 5 but on the Annex U pay scale are able to transfer to full Band 5 payment.

What will you be expected to achieve

Learning outcomes are statements on what successful Apprentices 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)

Level 4 course learning outcomes: upon completion of Level 4 you will be able to:

- CLO4.1 Evidence a broad understanding of concepts and terminology in biochemistry, molecular biology and genetics, including; structure and function of biomolecules, cellular metabolism, and the structure, function and regulation of genes, Communicate about how understanding in these areas can contribute to sustainable development goals for people and the planet now and into the future. (KU GA)
- CLO4.2 Demonstrate a broad understanding of concepts and terminology of structure and function of prokaryotic and eukaryotic cell biology and life-cycles, biodiversity, natural selection and evolution of organisms. (KU GA)
- CLO4.3 Use correct terminology to demonstrate broad knowledge and understanding of the human body, its component parts and major systems, their structures, functions and controls. (KU GA)
- CLO4.4 Explain the need to establish and maintain a safe and legally compliant practice environment. Demonstrate awareness of governance and of key principles and processes necessary to do so, including relevant parts of ; the Health and Safety at Work Act 1974, the Data Protection Act 2018, the Equality Act 2010, the Human Tissue Act 2004 and the work of the Human Tissue Authority. The correct use of the International System of Units (SI), local quality assurance practice and processes, and external quality and competence standards. (KU GA)
- CLO4.5 Use standard laboratory techniques to safely work with laboratory equipment and reagents. Collect, assess and present simple experimental data, demonstrating expertise in basic numeracy and statistics skills. Evaluate your own strengths and weaknesses in the subjects studied to show professional development. (KU GA PPP KTS)
- CLO4.6 Evidence knowledge and understanding of; safe sample handling, preparation, staining techniques and the use of microscopy to visualise biological structures. (KU GA)
- CLO4.7 Increase your own knowledge base through the ability to assess the quality of information sources, access library resources, and appropriate online material and undertake simple research tasks. Demonstrate the ability to communicate using various written, oral and audio-visual methods, acknowledging academic standards, professional protocols and a range of audiences. (GA PPP KTS)
- CLO4.8 Effectively work with others on common tasks, demonstrating creativity, problem solving and time management skills. Evidence the ability to identify factors affecting team performance, recognise diversity and practice inclusion and display an understanding of the need for self-reflection. Show an awareness of careers in Biosciences and begin professional development practices to enhance employability. (GA PPP KTS)
- CLO4.9 Demonstrate the acquisition of specialist knowledge related to the clinical laboratory environment. For example, professional and regulatory body roles and standards, health and safety in the workplace, equipment maintenance and use, quality assurance procedures and processes, service provision communications, information governance as applicable to healthcare settings. (KU GA PPP KTS)

Level 5 course learning outcomes: upon completion of Level 5 you will be able to:

- CLO5.1 Evidence knowledge of microorganism biodiversity, host-pathogen interactions at molecular, organismal and population levels, body response mechanisms and how they affect human health. (KU GA)
- CLO5.2 Evidence 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 GA)

- CLO5.3 Demonstrate high level understanding of human genetics and patterns of inheritance. Outline methods of genetic testing and screening. Reflect upon best practice to capitalise upon diversity, support equality and inclusion, and acknowledge the ethical and social implications of current and historic scientific research and publication. In turn, appreciate the value of drawing upon diverse approaches and perspectives to achieve goals. (KU GA)
- CLO5.4 Demonstrate detailed knowledge of biochemical mechanisms involved in regulation of homeostasis; causes and consequences of metabolic disorders which affect human wellbeing. (KU GA)
- CLO5.5 Practice effective and interactive working within a group to formulate creative approaches to the task in hand; problem solving, the ability to seek and recognise support and to be a proactive group member, particularly leadership. Take responsibility for your actions and reflect on and evaluate your work, and that of the group. (GAPPP)
- CLO5.6 Demonstrate the ability to devise and perform experiments to provide new information and support innovation, evaluate experimental methods for investigation in biomedical sciences, select appropriate statistical methods, use relevant software packages and evaluate their application to experimental data. (GA PPP)
- CLO5.7 Demonstrate effective management of your own learning strategy in the biomedical sciences, problem solving, making effective and critical use of the variety of resources available and ability to access and use the scientific literature, including electronic databases. (GA KTS)
- CLO5.8 Use your expertise to identify and retrieve high quality, relevant scientific or clinical information from the literature. Provide evidence of understanding by using this information to produce a literature review, add context to cases studies, or prepare similar scientific reports, also to identify areas where further research is needed. Cite the scientific literature according to accepted format. (GA KTS)
- CLO5.9 Demonstrate the acquisition of specialist knowledge related to the clinical laboratory environment. For example, current scientific and/or evidence based developments their impact on healthcare service provision, local audit procedures and follow up, continuing professional development as applicable to career progression in healthcare science. (KU PPP KTS)

Level 6 course learning outcomes: upon completion of Level 6 you will be able to:

- CLO6.1 Demonstrate critical understanding of current technologies in sample preparation and microscopic examination of cells and tissues, including their gross structure, ultrastructure and changes occurring during disease. (KU GA)
- CLO6.2 Demonstrate in depth understanding of current methods of isolation, identification, characterisation, diversity and classification of human pathogens, including the impact of advances in science and technology on global public health. (KU GA)
- CLO6.3 Demonstrate critical understanding of the causes and consequences of diseases associated with abnormal immune function, and advances in immunological methods. (KU GA)
- CLO6.4 Demonstrate critical understanding of different elements that constitute blood in normal and disease state, the principles of biochemical investigation used in the diagnosis, treatment and monitoring of disease. (KU GA)
- CLO6.5 Successfully design, carry out and report on an independent project within an appropriate area. Recognise and reflect upon any ethical and social implications of current and historical scientific research and knowledge dissemination in that area. Deliver the project aims through timely delivery of strategic objectives. Record, analyse and interpret results, and disseminate that project outcomes and/or findings in a detailed and coherent way in a style appropriate to and respectful of the specified audience. (KU GA PPP)
- CLO6.6 Demonstrate working knowledge of relevant, current UK legislation and International Standards that govern and affect pathology and biomedical laboratory practice, and the importance of maintaining confidentiality and obtaining valid

consent. Use a multidisciplinary systematic approach and exercise professional judgement within the legal and ethical boundaries of the biomedical sciences. (KU GA PPP)

- CLO6.7 Identify and deploy methods/tools appropriate for interpreting results, including effective use of statistical and bioinformatics methods. Justify choices and suggest future directions based upon critical and authentic evaluation of performance. (GA KTS)
- CLO6.8 Treat all individuals and cultures with respect and acknowledge the harm that results from not doing so. With this knowledge act as a responsible and compassionate member of different communities, both local and global. (GA PPP)
- CLO6.9 Demonstrate that all the competencies documented in the Health and Care Professions Council's (HCPC) Standards of Proficiency have been met. For those undertaking the Apprenticeship route, this is additionally mapped to the Level 6 Biomedical Scientist (Integrated Degree) Apprenticeship Standard. (KU GA PPP KTS)

How will you learn?

Learning methods

The BSc Honours Applied Biomedical Science course responds to the rapidly changing healthcare settings, meeting the demand for multi-skilled, IT literate, confident, globally aware professionals. Our teaching and Learning strategy is designed to produce bioscientists who demonstrate competency in a wide range of laboratory techniques and who work effectively in modern highly automated biomedical laboratories. The philosophy of the course is inherently interdisciplinary. We aim to provide a broad range of practical and conceptual knowledge and opportunities to learn and practice skills specific to the biomedical sciences, but also applicable to the wider workplace. We ensure that our Apprentices engage with the broader ethical and social contexts that affect us all, and support them in becoming effective communicators through diverse media for local and global audiences. The courses build not only knowledge and skills relevant to Biomedical Science but graduate attributes that support employability and workplace effectiveness.

The teaching and learning methods of the course are directly related to the aims and learning outcomes identified above. The courses are designed to lead Apprentices through key theoretical concepts and broad understanding and basic skills across all course subjects, to focused knowledge, synoptic understanding and expert skills.

The Institute of Biomedical Science (IBMS) Registration Training Portfolio is integral to the BSc Applied Biomedical Science courses. The University provides learners with the IBMS Registration Training Portfolio shortly after the start of the course in Year 1, once their names have been passed to the IBMS. The learners then proceed to collect the necessary evidence against the Health and Care Professions Council Standards of Proficiency (HCPC SoP) for Biomedical Scientists present within the IBMS Registration Training Portfolio for the duration of the course. The University provides learners and their employers with an extensive mapping document, which provides suggestions for University coursework that can be used as evidence for named HCPC SoP. This is particularly applicable to the outputs from the Learning in Professional Practice and Advanced Learning in Professional Practice modules, which are the course work-based learning modules. The latter also provide mapping within the module. The remaining evidence is gathered from the workplace as the learners follow their individual workplace training programmes. For those on the Apprenticeship route the contractual 20% off-the-job training hours can be used to enable IBMS Registration Training Portfolio evidence collection from the off-the-job training provided in addition to use for the completion of the Learning in Professional Practice and Advanced Learning in Professional Practice assignments. Local training arrangements are followed for those on the non-apprenticeship route to enable completion of the work-based learning module requirements and the IBMS Registration Training Portfolio.

The School of Life Sciences is committed to the University of Westminster Equality, Diversity

and Inclusion (EDI) policy with a local implementation based on three central elements:

Our commitment is to ensure an inclusive, safe and supportive learning, working and social environment which enables scientific research and teaching to flourish and encourages our future scientists to grow and realise their true potential.

Our goal is to empower all Apprentices and staff to critically reflect on their understanding and positionality, with respect to the wide-ranging global scientific perspectives (past and present); encouraging the open debate of differing points of view.

Our pledge is to respect and value our diverse Life Sciences community (within and beyond the University of Westminster) and foster an equitable culture as we move forward in the field.

These three elements inform and direct all of our learning, teaching and research activities and have been central to our course design process as can be seen in the learning outcomes at module and course level. All staff and Apprentices in the school of Life Sciences are expected to embrace and respect these values.

Teaching methods

A number of different teaching styles may be expected, according to the nature of the subject matter covered in the different modules. At Level 4, the modules provide core knowledge and skills across the biomedical sciences. Much of the Level 4 programme is common across the School's undergraduate module scheme. The module Professional Development in Science enables all Biomedical Sciences undergraduates to develop selected study and key skills that form a basis for continued personal and professional development in higher levels of the programme and beyond.

General laboratory skills are embedded within core modules at Level 4 and 5 and in addition the Research methods module at Level 5 will prepare Apprentices for their final year project. In general modules are delivered using combinations of lectures, tutorials, workshops, laboratory and *in-silico* practical sessions. We practice with apprentice-centred learning. We deliver learning material through a blended approach with a mixture of online and on-site activities.

Course learning outcomes are not all delivered within the individual modules, rather the core modules as a group ensure the delivery of particular course learning outcomes. Module specific learning outcomes are listed in module proformas and published in the course handbook. The module proformas indicate which of the course learning outcomes they contribute to.

We ensure that our teaching material is delivered in fully accessible ways and we support our Apprentices progress with a personal tutoring program and a full range of extracurricular opportunities. Apprentices are encouraged to integrate theory with practice as they study. Our Apprentices receive continuous formative feedback through online activities, group and one-to-one tutorials and periodic reviews, designed to give multiple points of guidance throughout the programme and before any summative assessments. Core lectures and practicals address the whole year group, whereas tutorials, workshops and seminars are generally undertaken in smaller groups. The final year project is supported through focused one-to-one tuition with a project supervisor.

We support our modules with online material through Blackboard, the University's Virtual Learning Environment. This material may include recorded lectures, videos, practical examples, computer-based exercises, technical support, key references, discussion groups, and portfolios. The scheduled / supervised time represents only a proportion of study for each module (approximately one quarter overall). The remaining time is self-managed, offering scope for Apprentices to explore and develop their own best practice, ensuring the autonomy required in professional life.

Assessment methods

Our assessment strategy reflects the philosophy of the course, aiming to develop the creative, flexible and thoughtful scientists of the future. Assessment is integral to the overall learning process, and we offer a range of authentic assessment methods, allowing Apprentices to evidence their knowledge, skills and understanding in a variety of ways. This approach

provides a range of activities in which to excel, so supporting and encouraging a variety of preferred learning styles. Assessment methods are varied and include essays, practical work, group work, presentations, in- class tests and reports. The 40 credit Level 6 Research Project is primarily assessed by written thesis.

Clear assessment criteria are stated in module documents, and these are linked to the module Learning Outcomes. 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. Apprentices receive formal feedback from all summative assessments, and this directly relates to the assessment criteria for each module. To support their development Apprentices are actively encouraged to engage with feedback and are given the opportunity to discuss their results and feedback with members of the teaching team or their personal tutor. Some assessments might be partly peer assessed (by groups of your fellow Apprentices, under staff supervision) to support Apprentices in developing skills in critical judgement and self/peer evaluation. Some assessments might assess learning outcomes from more than one teaching module (called 'synoptic assessment'). This allows Apprentices to combine elements of learning from different modules and practice using their accumulated knowledge and understanding of biomedical sciences theory and practice.

The work-based learning modules, i.e. Learning in Professional Practice and Advanced Learning in Professional Practice, have three out of the six module learning outcomes in each module, set and marked by the employer. This tailors the learning from these tasks to the specific development requirements of the learner. For this purpose the University provides full training to the employers twice a year on assessment setting, writing of threshold and grading assessment criteria and marking and grading of their learners work. An academic member of staff is assigned to each learner and their employer to provide guidance on the completion of these modules, for instance checking of draft assessment criteria and comments on the marking when required. The final learning outcome of both modules requires submission of the completed output from the module in the form of a portfolio and this is marked and moderated as appropriate by the assigned academic member of staff for the learner and their employer.

Learners on the Apprenticeship route undertake an integrated End Point Assessment to complete the apprenticeship in the form of the completion and verification of the Institute of Biomedical Science Registration Training Portfolio mentioned earlier and the award of a BSc (Hons) Applied Biomedical Science degree by a Progression and Award Board of the University of Westminster. Completing the IBMS Registration Training Portfolio in a laboratory which holds current IBMS pre-registration training approval will allow learners to document their laboratory training and, when the portfolio is complete, it will be assessed by an independent verifier who will check that the learner has completed the Portfolio and their training has been conducted according to standards of good professional practice and competence set out in the Health and Care Professions Council (HCPC) standards of proficiency. The learner is also required to take the verifier on a tour of the laboratory to show that they understand the work of the department and their role within the laboratory team. Once the verification process is complete the verifier will give the candidate and training officer feedback on the portfolio and confirm that they are satisfied that the completed portfolio and the learner meets all the required standards. The combination of academic qualification and clinical laboratory training delivered through the integrated route of the Applied Biomedical Science programme confers eligibility to apply for registration with the HCPC with the protected title of 'Biomedical Scientist'.

Graduate Attribute	Evident in Course Outcomes
Critical and creativethinker	CLO4.1, CLO4.5, CLO4.7, CLO4.9, CLO5.3, CLO5.9, CLO6.1, CLO6.5, CLO6.7, CLO6.9
Literate and effective communicator	CLO4.1, CLO4.2, CLO4.3, CLO4.6, CLO4.7, CLO4.8, CLO4.9, CLO5.1, CLO5.2, CLO5.4, CLO5.5, CLO5.8, CLO5.9, CLO6.3, CLO6.4, CLO6.5, CLO6.7, CLO6.8, CLO6.9
Entrepreneurial	CLO5.6, CLO5.7, CLO5.8, CLO6.5

Global in outlook and engaged in communities	CLO4.1, CLO4.4, CLO4.8, CLO4.9, CLO5.3, CLO5.9, CLO6.2, CLO6.8, CLO6.9
Socially, ethically and environmentally aware	CLO4.1, CLO4.2, CLO4.9, CLO5.3, CLO5.9, CLO6.6, CLO6.8, CLO6.9

Course Structure

This section shows the core and option modules available as part of the course and their credit value. Full-time Undergraduate Apprentices study 120 credits per year. Course structures can be subject to change each academic year following feedback from a variety of sources.

Modules are described as:

Core modules are compulsory and must be undertaken by all Apprentices on the course. **Option** modules give you a choice of modules and are normally related to your subject area. **Electives**: are modules from across the either the whole University or your College. Such modules allow you to broaden your academic experience. For example, where electives are indicated you may choose to commence the study of a foreign language alongside your course modules (and take this through to the final year), thereby adding further value to your degree.

Additional information may also be included above each level for example where you must choose one of two specific modules.

Modules

Level 4

Module Code	Module Title	Status	PT Year (where applicable)	UK credit	ECTS
TBC	Biochemistry	Core	1	20	10
TBC	Cell Biology	Core	1	20	10
4BIOM004W	Functional Anatomy	Core	1	20	10
4PHYM001W	Human Physiology	Core	1	20	10
TBC	Professional Development in Science	Core	1	20	10
4BIOM001W	Learning in Professional Practice	Core	2	20	10

Level 5

Module Code	Module Title	Status	PT Year (where applicable)	UK credit	ECTS
5BIOM007W	Applied Pathobiology	Core	2	20	10
5BIOM008W	Infection and Immunity	Core	2	20	10
TBC	Medical Genetics and Genomics	Core	2	20	10
5BIOM005W	Advanced Learning in Professional Practice	Core	3	20	10

5BICH001W	Metabolic Biochemistry	Core	3	20	10
5BIOM010W	Research Methods	Core	3	20	10

Level 6

The module 6BIOM008W Registration Training Portfolio must be passed in order to gain the BSc Honours Applied Biomedical Science which is accredited by The Institute of Biomedical Science (IBMS) and approved by the Health and Care Professions Council (HCPC)

Module Code	Module Title	Status	PT Year (where applicable)	UK credit	ECTS
6BIOM002W	Cellular and Molecular Pathology	Core	3	20	10
6BIOM003W	Clinical Immunology and Immunohaematology	Core	4	20	10
6BIOM004W	Diagnostic Biochemistry and Haematology	Core	4	20	10
6BICH003W	Final Year Project in Life Sciences	Core	4	40	20
6BIOM005W	Medical Microbiology in the Genomics Era	Core	4	20	10
6BIOM008W	Registration Training Portfolio	Core	4	0	0

Please note: Not all option modules will necessarily be offered in any one year. In addition, timetabling and limited spaces may mean you cannot register for your first choice of option modules.

Professional body accreditation or other external references

BSc (Hons) Applied Biomedical Science is accredited by the Institute of Biomedical Sciences (IBMS), the professional body for biomedical scientists and approved by the Health and Care Professions Council, the regulatory body. This accreditation is a process of peer review and recognition by the profession of the achievement of quality standards for delivering the BSc Honours Applied Biomedical Science programme, which conforms to the QAA subject benchmark statement for biomedical science (October 2019). It also confirms that the course offers industry focused and professionally oriented learning, high quality work experience, and maintains engagement with its graduates as they develop their careers. The Health and Care Professions Council's (HCPC) Standards of Proficiency and Standards of Education and Training for biomedical scientists continue to inform the development of this course. This ensures that the successful completion of the BSc Honours Applied Biomedical Science enables the apprentice to meet an important requirement for registration in the biomedical scientist career pathway.

BSc (Hons) Applied Biomedical Science is also accredited by the Royal Society of Biology (RSB). RSB accreditation recognises degree programmes that fully prepare bioscience graduates to address the needs of employers and is an indication that the programme delivers up-to-date knowledge in the right learning, support and teaching environments. Graduates from this programme are entitled to one year of free membership of the RSB as an Associate Member of the Royal Society of Biology (AMRSB).

Course management

Your course is one of a number of programmes in the School of Life Sciences, part of the College of Liberal Arts and Sciences within the University of Westminster, and is managed by a designated course leader. In addition to the course specific role of the course leader, the Head of School, other senior school staff and the Associate Heads of College, also provide support and management at their respective levels. We also have a school employability director and global engagement coordinators who oversee work placement and international study arrangements respectively. The course leader is also collectively supported in the

management and running of the course by the course teaching team through their responsibilities for individual modules and contributions to planning. You will meet your course leader, teaching team and members of the school senior management during arrivals week, a programme of events designed to help you with enrolment, registration, and orientation to the university, its processes and the culture of higher education.

The course is monitored each year by the course leader and senior members of the School and College to ensure that it is running effectively and that issues that might affect the apprentice experience have been appropriately addressed. Each course will have Course Representative meetings throughout the year and staff will consider the outcomes from these meetings, evidence of apprentice progression and achievement and the external examiner's reports to evaluate the effectiveness of the course. All courses are reviewed annually as part of the School, College and University Annual Monitoring processes, reporting finally to the Academic Council of the University which has overall responsibility for the maintenance of quality and standards in the University.

Academic regulations

The current Handbook of Academic Regulations is available at westminster.ac.uk/academic-regulations. Course specific regulations apply to some courses.

Academic Support

Upon arrival, an induction programme will introduce you to the staff responsible for the course, the campus on which you will be studying, the Library and IT facilities, additional support available and to your Campus Registry. 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 Apprentices enrolled on a full-time course and part time Apprentices 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 Apprentices access their course materials, and can communicate and collaborate with staff and other Apprentices. Further information on Blackboard can be found at <https://www.westminster.ac.uk/current-Apprentices/studies/your-apprentice-journey/when-you-arrive/blackboard>

The Academic Learning Development Centre supports Apprentices in developing the skills required for higher education. As well as online resources in Blackboard, Apprentices have the opportunity to attend Study Skills workshops and one to one appointments. Further information on the Academic Learning Development Centre can be found at westminster.ac.uk/academic-learning-development.

Learning support includes four libraries, each holding a collection of resources related to the subjects taught at that site. Apprentices can search the entire library collection online through the Library Search service to find and reserve printed books, and access electronic resources (databases, e-journals, e-books). Apprentices 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 in their College. Apprentices can also securely connect their own laptops and mobile devices to the University wireless network.

Support Services

The University of Westminster Apprentice and Academic Services department provide advice and guidance on accommodation, financial and legal matters, personal counselling, health and disability issues, careers, specialist advice for international Apprentices and the chaplaincy providing multi-faith guidance. Further information on the advice available to Apprentices can be found at <https://www.westminster.ac.uk/apprentice-advice>

The University of Westminster Apprentices' Union also provides a range of facilities to support Apprentices during their time at the University. Further information on UWSU can be found at

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

The course was initially approved by a University Validation Panel. University Panels normally include internal peers from the University, academic(s) from another university, a representative from industry and an Apprentice Advisor.

The course is also monitored each year by the College to ensure it is running effectively and that issues which might affect the apprentice experience have been appropriately addressed. Staff will consider evidence about the course, including the evidence of apprentice surveys, apprentice progression and achievement and reports from external examiners, in order to evaluate the effectiveness of the course and make changes where necessary.

A Course revalidation 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. Apprentices meet with revalidation panels to provide feedback on their experiences. Apprentice feedback from previous years is also part of the evidence used to assess how the course has been running.

How do we act on apprentice feedback?

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

- Through engagement activities at Course/Module level, apprentices have the opportunity to express their voice in the running of their course. Course representatives are elected to expressly represent the views of their peers.
- The University and the Students' Union work together to provide a full induction to the role of the course representatives.
- There are also School Representatives appointed jointly by the University and the Students' Union who meet with senior School staff to discuss wider issues affecting apprentice experience across the School. Student representatives are also represented on key College and University committees.;
- All apprentices 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.
- Final year Undergraduate Apprentices will be asked to complete the National Student Survey which helps to inform the national university league tables.

Feedback Surveys

The Apprenticeship Operations Coordinators send the learners and their employers a feedback survey to complete twice a year. The responses are collated and discussed with the course team and feed into the internal quality assurance processes of the University of Westminster.

Additional Details

BSc Applied Biomedical Science Apprenticeship Additional Information

Admission Initial Assessments

Prospective candidates for the Apprenticeship route must possess recognised Level 2 qualifications in Maths and English. These are assessed by the University Apprenticeships Operations Coordinators prior to the commencement of study.

In addition to the standard application process and checks for both BSc Applied Biomedical Science courses, once an offer has been made for the Apprenticeship route, a Training Needs Analysis (TNA) is completed by the learner. This is provided as a self-assessment form by the University of Westminster Apprenticeships Operations Coordinators and viewed on completion by a course academic

representative. The TNA enables the learner to provide details of their existing knowledge and experience in relation to the Level 6 Biomedical Scientist (Integrated Degree) Apprenticeship Standard. If the learner has aligned existing Level 4 or Level 5 qualifications they can apply for Recognition of Prior Learning or Recognition of Prior Experiential Learning, that if excepted, will give exemption for one or two years of study. Additionally, learners are encouraged to undertake a self-awareness task with their workplace mentor to include:

- 360 degree feedback
- SWOT analysis
- Skills Gap Analysis
- Review of current skills against job description/role requirements
- Review of a current personal development plan

Ultimately the TNA assists with personalisation of learning and development against the Level 6 Biomedical Scientist (Integrated Degree) Apprenticeship Standard.

Off-the-Job Training

Learners on the BSc Applied Biomedical Science Apprenticeship course have a 20% off-the-job training requirement for the duration of the course. This means that 20% of their contracted working hours must be used for development activities alignment to the Level 6 Biomedical Scientist (Integrated Degree) Apprenticeship Standard. During University term- times, the day-release to University covers the 20% for those weeks, at other times examples of activities that can be used for off-the-job training include:

- Job shadowing
- Mentoring
- Attending meetings
- Project work
- Professional networks
- Events and competitions
- Visits to wider parts of the department
- Visits to industry and to other Government Departments
- Writing self-assessments
- Writing assignments
- Reflective journals
- Revision
- Peer discussions
- Preparation for Assessments & Exams
- One-to-one tutorials (with apprenticeship coach, line manager or colleagues) that contain guided learning or support for the apprenticeship

Tripartite Reviews

On starting studies, apprentices are provided with guidance on Induction on the use of software that enables them to record their off-the-job training hours and activities. Following this, apprentices, their workplace mentor, an academic representative and the University of Westminster Apprenticeships Operations Coordinators participate in tripartite reviews every twelve weeks. These are online meetings, with a date suitable to all booked in advance. The tripartite review facilitates a discussion around the apprentices progress with all aspects of the course including progress with their off-the-job training requirements. All items covered are recorded and any questions or issues immediately followed up, in the workplace or at the University as applicable.

Breaks in Learning

In line with University of Westminster policy for the interruption of studies, learners may request and take a break in learning. This is usually one academic year in duration, requests are dealt with on a case by case basis however. Apprentices inform the course leader and their Apprenticeship Operations Coordinator of the intended break and the relevant document are completed to record a break in learning from the apprenticeship and interruption of studies for the purposes of University of Westminster, Fitzrovia Registry records.

This programme specification provides a concise summary of the main features of the course and the learning outcomes that a apprentice might reasonably be expected to achieve and demonstrate, if they take full advantage of the learning opportunities that are provided. This specification is supplemented by the Course Handbook, Module proforma and Module Handbooks provided to Apprentices. Copyright in this document belongs to the University of Westminster. All rights are reserved. This document is for personal use only and may not be reproduced or used for any other purpose, either in whole or in part, without the prior written consent of the University of Westminster. All copies of this document must incorporate this Copyright Notice – 2021