

Part 2: Educational Aims of the Programme

The BSc (Hons) Healthcare Science (Life Sciences) programme is part of the University's extensive Biomedical Science provision to provide the principle training route for Healthcare Science Practitioners. This exciting course is delivered through a unique collaboration between the University of the West of England and local NHS providers in the South-West, and has been developed in direct response to the Modernising Scientific Careers programme at the Department of Health. This has been established to develop a common career pathway, education and training standards for Healthcare Scientists. The degree programme enables students to develop the knowledge and skills required of a healthcare scientist whilst also completing the extensive work-based training that forms an integral and significant proportion of a three year course, and to demonstrate specified standards of practice.

The programme provides:

- Opportunities for students from a wide range of backgrounds to develop and realise their potential in a supportive and responsive teaching and learning environment.
- Added value for learners in their specialised, subject-specific knowledge and transferable skills.
- A broad knowledge base in biosciences with specific areas of deeper understanding relevant to healthcare sciences.
- Understanding of the causes, diagnosis and treatment of disease through the combination of theoretical and laboratory-based modules studied.
- Outstanding levels of practical experience (8 – 10 modules with a laboratory component) in addition to integrated work placements.

More specifically it provides:

- Cutting edge healthcare sciences using state of the art equipment and learning materials.
- Experiential placements within the first year to introduce Healthcare Science in practice and give the student an understanding of the four pathways within Life Science.
- An understanding of the importance of patient-centred care, evidence based practice, clinical audit and multidisciplinary team working.
- Practical experience of working in NHS or private laboratories enabling the student to perform a range of relevant methods and techniques, and to undertake a project in a working context.
- An extensive use of blended approaches to support work-based-learning.
- The underpinning knowledge, skills and professional attitude to prepare students to work as a scientist, with research skills modules at all levels.
- Specialist knowledge, skills and experience within pathways specifically designed for the pursuance of a career as a Healthcare Scientist in the NHS (but not exclusively).
- Quality enhancement that incorporates stakeholders views and feedback as critical to maintaining "Fitness for purpose and practice".

Programme requirements for the purposes of the Higher Education Achievement Record (HEAR)

The BSc (Hons) Healthcare Science programme is a professionally accredited course that integrates theoretical and practical approaches to understanding the human body in health and disease. It provides a foundation in core bioscience subjects that builds to a choice of science specialisms at more advanced levels, e.g. genetics, blood sciences, cell pathology and microbiology. These subjects are supported by laboratory investigation to develop student proficiencies in data analysis, diagnosis and problem solving. Central to the programme are

Part 2: Educational Aims of the Programme

placement opportunities in life science laboratories (predominantly within the NHS but also private) to provide professional training to greatly enhance student employment prospects.

Part 3: Learning Outcomes of the Programme (Levels 1 and 2)

The award route provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:

	L1 Anatomy & Physiol	L1 Cell Biol, Biochem & Genetics	L1 Pathophysiol of Disease	L1 Biomedical Skills	L2 Practice & Comms of Science	L2 Physiol & Immunol Systems	L2 Studies in the Biol of Disease	L2 Service Improvement	L2 Microbiology	L2 Molecular Genetics
Learning Outcomes: Level 1 and 2										
A) Knowledge and understanding of:										
Laboratory practical (P); Specialist module (S)	P	P	P	P		P	P		P	P
Students will be able to:										
Demonstrate knowledge of anatomy, physiology, pharmacology, pathology, biochemistry, immunology, epidemiology, genetics, and microbiology to provide the foundations for study in any of the Life Science pathways of Healthcare Science.	☐	☐	☐			☐	☐		☐	☐
Understand the context of healthcare sciences and their application to practical problems.								☐		
Understand a broad range of diagnostic laboratory measurement techniques including the rationale for the investigation, interpretation of test results and treatment of disease.				☐		☐	☐		☐	☐
Demonstrate competence in specific areas of laboratory measurement with an understanding of the principles underlying the techniques used.				☐		☐	☐		☐	☐
Demonstrate an understanding of the research, development and innovation across the NHS and in healthcare science in particular.					☐					
(B) Intellectual Skills										
Students will develop the ability to:										
Actively question and seek relevant information.				☐	☐					
Compare and contrast information from different sources online and offline.	☐	☐	☐							
Critically evaluate information against hypotheses in a range of research scenarios.						☐	☐		☐	☐

Part 3: Learning Outcomes of the Programme (Levels 1 and 2)

Part 3: Learning Outcomes of the Programme (Level 3)

<p><i>Learning Outcomes:</i> Level 3</p>	L3 Healthcare Project	L3 Professional Practice	L3 Medical Microbiology	L3 Infectious Disease Control	L3 Cellular Pathol & Oncology	L3 Human Development & Pathol	L3 Medical Genetics	L3 Genomic Technologies	L3 Blood Sciences	L3 Immunohaematology
A) Knowledge and understanding of:										
Laboratory practical (P); Placement (PI); Specialist (S)	PI	PI	S	S	P S	P S	S	S	S	S
Students will be able to:										
Demonstrate knowledge of anatomy, physiology, pharmacology, pathology, biochemistry, immunology, epidemiology, genetics, and microbiology to provide the foundations for study in any of the Life Science pathways of Healthcare Science.										
Understand the context of healthcare sciences and their application to practical problems.	☐	☐								
Understand a broad range of diagnostic laboratory measurement techniques including the rationale for the investigation, interpretation of test results and treatment of disease.			☐	☐	☐	☐	☐	☐	☐	☐
Demonstrate competence in specific areas of laboratory measurement with an understanding of the principles underlying the techniques used.			☐	☐	☐	☐	☐	☐	☐	☐
Demonstrate an understanding of the research, development and innovation across the NHS and in healthcare science in particular.	☐	☐								
(B) Intellectual Skills										
Students will develop the ability to:										
Actively question and seek relevant information.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Compare and contrast information from different sources online and offline.	☐									
Critically evaluate information against hypotheses in a range of research scenarios.	☐									
Actively analyse and apply problem-solving strategies.	☐									
Demonstrate independent self-directed learning, and skills for life-long learning.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(C) Subject/Professional/Practical Skills										

Part 3: Learning Outcomes of the Programme (Levels 1 and 2)

Students will develop the ability to:										
Understand the importance of patient-centred care, evidence based practice, clinical audit and multidisciplinary team working.	<input type="checkbox"/>	<input type="checkbox"/>								
Critically observe, analyse and evaluate information arising from a wide range of sources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Apply practical approaches to the study of selective aspects of healthcare science and demonstrate an awareness of safety and good laboratory practice.	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>				
Communicate effectively scientific data and concepts using a range of communication strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop discipline-specific interests by specialising within the programme in relation to subject and/or career aspirations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Obtain, record, collate and critically analyse data using appropriate laboratory techniques, working as an individual or within a group.	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>				
Demonstrate an understanding of the research process, including the current ethical and legal frameworks within which human and animal research can be conducted in the UK, through the execution of a research project.	<input type="checkbox"/>	<input type="checkbox"/>								
(D) Transferable skills and other attributes										
Students will develop the ability to:										
Communicate information, advice, instruction and professional opinion to colleagues, patients, clients, users, their relatives and carers.	<input type="checkbox"/>	<input type="checkbox"/>								
Critically analyse data arising from various means of biological or work-based inquiry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Undertake active learning and development.	<input type="checkbox"/>	<input type="checkbox"/>								
Apply information management skills to their learning and practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work effectively as a team member.	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>				
Demonstrate an autonomous and reflective approach to lifelong learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 4: Student Learning and Student Support

The suite of Healthcare Science programmes are unique in that work-based learning is fully integrated into the three-year programme, rather than being part of an additional “sandwich” placement year. Furthermore, the credit associated with work-based learning represents a significant proportion of the total credit for the course. The number of students recruited onto the programme is determined by the total number of placements made available via the Workforce Development Groups, and placements will be available within Blood, Genetic,

Part 4: Student Learning and Student Support

Infection and Tissue Science subjects.

There is an overarching SHA Learning Development Agreement between the university and hospital trusts which supports placement arrangements. In addition the obligations and responsibilities of the student, the laboratory training officer/supervisor and the University are clearly set out in a personal Learning Agreement drawn up between all three parties. This emphasizes and encourages the student to take responsibility for the attainment of the learning outcomes.

At level 1, students observe and experience each setting, and they will be interviewed in order to be allocated their specialist pathway of choice for progression into level 2. In level 2, students undertake a 15 week long placement, with underpinning knowledge gained from a range of science and research skills modules. In level 3, students undertake a 25 week placement in which they complete their professional portfolios and also an individual research project.

This integrated approach, and one that allows for student choice, allows them to develop expertise in a range of scientific techniques and skills, (delivering and reporting of quality-assured tests, investigations on patients or samples).

Professional Accreditation

The programme is currently accredited by the Institute of Biomedical Sciences (IBMS) and by Medical Education England and Health and Care Professions Council. Students graduating with Honours are entitled to claim Licentiate Membership of the Institute. Those graduates who subsequently undertake a satisfactory period of specific training enabling them to complete a Registration Training Portfolio are eligible to apply to the Health and Care Professions Council (HPC) for registration as a Biomedical Scientist.

Laboratory resources

The Faculty has a well-equipped range of scientific laboratories and specialist facilities for teaching and research in health sciences. Across the programme, between 8 – 10 modules (depending on the specialist pathway) involve laboratory practicals. The ranges of professional and real-life assessments ensure that students develop a range of key skills required of a scientist, including systematic literature searches, critical review and scientific writing competencies (in case studies, essays and reports); numeracy, statistical analysis and data handling (in laboratory write ups and data exercises), and problem solving and critical thinking at higher level modules. More independent research skills are achieved in the Healthcare Project where students will lead a project from conception, to design, to analysis and communication.

Specialist training is located onsite in addition to integrated visits to local hospitals, and in student longer term placements in Year 2 and 3.

Learning and teaching strategy

At UWE Bristol, the learning and teaching policy requires a minimum average of 12 hours per week contact time throughout the full undergraduate programme. This includes face-to-face activities, online learning and independent learning that enable the learning outcomes to be achieved and demonstrated. The following activities take place:

Part 4: Student Learning and Student Support

- Scheduled learning - lectures, seminars, tutorials, project supervision, practical classes. Activities may include field trips and external visits. Scheduled sessions will vary slightly depending on the module choices made.
- Independent learning – students are provided with essential reading and online supplementary materials, and are supported in their academic development through formative assessment, assignment preparation and completion. Students are encouraged to develop their health science interests by attending departmental research seminars and external events.
- Work-based experiential learning.

Supporting student transition and students on placement

New students are supported in their transition to university, and additionally supported in achieving successful placements by:

- A week long induction event including orientation and introduction to the programme team.
- Timetabled introductions to module leaders.
- Being supported throughout university by a personal tutor (Academic Personal Tutor APT scheme in year 1 and 2; project supervisor in the Graduate Development Programme GDP scheme in year 3).
- University-wide support services, all available and signposted via the virtual learning environment Blackboard “Programme Area”.
- Being provided with Programme and Module Handbooks that introduce the University and Faculty, alongside all the relevant support services, regulations and procedures.
- At the start of each year, a further induction enables students to plan their study as effectively as possible. Assessment maps showing all deadlines across the academic year are produced and included in the handbooks.

All Handbooks and relevant information are also passed to work-based placement supervisors. To support student transition to their healthcare placements, in L1 students rotate around the specialist disciplines to gain observe a range of laboratories and inform their specialist choices later on. Prior to their L1 summer placement, they are introduced to the portfolio, online system as part of pre-training weeklong event. Whilst students are on clinical placement, a visiting tutor makes regular visits to provide support and to liaise with supervisors. Students have access to further support via web-based Blackboard and Profile systems.

Employability and personal development

Students are supported during their time at UWE by academic tutors. Personal tutoring involves timetabled sessions leading students through the development of basic academic skills (e.g. learning how to be a successful student), and also encompassing employability.

In year 2 a UWE placement tutor is allocated and makes planned visits to provide support and to liaise with work place supervisors and assessors. Students on placement may take an optional Professional Practice Module which is managed through our bespoke online system Profile.ac.uk, an innovative web-based interface designed to support and record placement

Part 4: Student Learning and Student Support

learning progress, with the interface mapping to all the practice competencies.

The University Central Careers Service provides specialist subject advice, offering one-to-one sessions and regular drop in sessions. Enhancement opportunities such as becoming a student ambassador, voluntary work and engaging with enterprise activity are available to national and international students alike.

Students with specialist needs

In addition to a personal tutor who is a student's first port of call, there is the university Centre for Student Affairs (CSA) that supports and guides on a range of non-curricular issues including welfare, disability and psychological support and counselling. Students with disabilities or learning differences are needs assessed, and any specific learning support measures can be implemented e.g. in the classroom or examinations, and through support of the programme team.

Library and technology enhanced learning

The library at Frenchay and Glenside campuses provides an extensive range of literature for the programme, and students have support from a subject-specific librarian. Students have 24-hour access to computers, and IT support services are available from the University's Computing Helpdesk. Students have access to IT support and library facilities additionally at hospitals or private providers whilst out on placement.

Description of any Distinctive Features

One of the distinctive features of Healthcare Science is the outstanding collaborative relationships between the NHS service providers and UWE. NHS staff attend regular meetings, input and partly deliver aspects of the curriculum.

The Faculty has a longstanding investment in web-based support for teaching and learning with a learning technologist team working alongside academic staff. Supplementary learning resources and access to formative quizzes so students can test their knowledge and understanding is available through Blackboard.

The department has a bespoke experiential learning platform supporting placements (Profile) that manages the acquisition of all professional competencies. Profiles is accessed by the student, and progress is overseen by the Work Base Supervisor. The UWE tutors and programme leaders monitor overall progression through the course.

Part 5: Assessment

Approved to [University Regulations and Procedures](#)

In order to be eligible to apply for HCPC Registration a student must graduate with a BSc (Hons) Healthcare Science (Life Sciences) award. The programme will have at least one external examiner appointed who is appropriately experienced and qualified and is from the relevant part of the HCPC register.

Assessment Strategy

Assessment strategy to enable the learning outcomes to be achieved and demonstrated:

Part 5: Assessment

One of the four ambitions of the new UWE 2020 Strategy is to become the best university for:

“Professionally recognised and practice-oriented programmes, which contribute to an outstanding learning experience and generate excellent graduate employment opportunities and outcomes for all students”.

(<http://www1.uwe.ac.uk/aboutus/visionandmission/strategy.aspx>).

The suite of Healthcare Science programmes are professionally accredited and practice-oriented, and map to the strategic ambition of the university. A range and types of assessments underpin the personal and professional skills recognised by the healthcare sector.

The assessment strategy maps with the UWE regulations, and the assessment outcomes ensure students are consistent with the awards of Certificate, Diploma or Degree in accordance with the QAA Framework for Higher Education Qualifications. Graduates will achieve the personal and professional skills and underpinning knowledge.

The subject requirements as framed by the Institute of Biomedical Science, Health and Care Professions Council and QAA Subject Benchmarks (Biomedical Science and Bioscience) build from years 1 to 3, from a basic foundation in bioscience knowledge and analytical skills, through to years 3 with more specialist choices at an advanced level.

The alignment of assessment strategy with learning outcomes is as follows:

Subject knowledge and understanding:

Students will demonstrate their subject knowledge and understanding gained through practical and skills evaluations, written and oral communication, and subject examinations. Additional evidence will be supplied through the work based training portfolios. Assessment methods are specified in each module guide and are varied and designed to test the learning outcomes.

Intellectual skills and ability:

Through a range of formative and summative assessment opportunities, the student develops intellectual skills demonstrating through student-centered learning and reflection, written assignments, practical work, data handling and interpretation, tutorial and seminar work. Levels 1 to 3 see incremental increases in the level of independence and critical thinking assessed, from demonstrating basic skills at level 1 to applying them in level 3; from basic understanding of knowledge in level 1 to critical appraisal and problem solving in level 3.

Subject, Professional and Practical Skills

Subject knowledge acquired through face-to-face teaching and independent learning are primarily assessed through examination, coursework and practical assessments. (These address skills 2 to 6 – critical observation, communication, data analysis). Skill 1 that is acquired within professionally related modules (e.g. Service Enhancement (Level 2), Project (Level 3) and Professional Practice (Level 3) is assessed through case studies, reflective practice and the competency portfolio (training manual). The independent project (Level 3) is pivotal to acquiring all skills, in particular skill 7 with an understanding of research governance and processes, and this is assessed through a research dissertation, progress report and oral poster defense.

Part 5: Assessment

Transferable Skills and other attributes

Students develop transferable skills (independent learning, IT, time management, literacy, numeracy and reflective practice) within each module and explicitly through skills modules each year and during work placements in accredited NHS laboratories. These skills are evaluated through university-based coursework – essays, practical sessions, and also work-based training portfolios. Skill 1 – the ability to communicate with professionals, patients and clients is an IBMS competency, so maps to the training portfolio.

Assessment Map

The programme encompasses a range of **assessment methods** including writing (essays); problem solving (case studies and research); numeracy (data analysis and practical write ups) and science communications (oral presentations and poster presentations). These are detailed in the following assessment map:

All modules are COMPULSORY although students will chose according to their specialist pathway.

Assessment Map for Healthcare Science (Life Science)

		Unseen Written Exam	In-class Written Test	Practical Skills Assessment	Oral assessment and/or presentation	Written Assignment (essay / case study)	Written Assignment (data analysis / reporting)	Project Report	Portfolio
Compulsory Modules Level 1	USSKA3-30-1 Anatomy & Physiology	A (40)	B (30)				B (30)		
	USSKA5-30-1 Biomedical Skills	A (40)					B (30)		B (30)
	USSKA4-30-1 Cell Biol, Biochem & Genetics	A (40)				B (30)	B (30)		
	USSKA7-30-1 Pathophysiology of Disease	A (40)			B (45)	B (15)			
Compulsory Modules Level 2	USSKAR-30-2 Practice & Comms of Science	A (50)			B (25)		B (25)		
	USSKAS-30-2 Physiological & Immunological Systems	A (50) B (50)							
	USSKAT-30-2 Studies in the Biology of Disease	A (50)				B (25)	B (25)		
	UZYSNA-15-2 Service Improvement								A (100)
	USSKB6-15-2 Microbiology (INFECTION)	A (50)				B (40)	B (10)		
	USSKB7-15-2 Molecular Genetics (ALL OTHER)	A (50)				B (50)			
	USSJSJ-30-3 Healthcare Project				A (20)	A (20)		A (60)	
Compulsory Modules Level 3	USSJSK-30-3 Professional Practice			A (P/F)		B (3x33)			A (P/F)

Part 5: Assessment

USSKBJ-30-3 Medical Microbiology (INFECTION)	A (60)				B (10, 30)			
USSKBU-30-3 Infectious Disease Control (INFECTION)	A (60)				B (20)	B (20)		
USSKBM-30-3 Cellular Pathol & Oncology (CELL PATHOL)	A (60)			B (20)		B (20)		
USSKBR-30-3 Human Development & Pathol (CELL PATHOL)	A (60)				B (20)	B (20)		
USSKBH-30-3 Medical Genetics (GENETICS)	A (60)				B (20, 20)			
USSKBF-30-3 Genomic Technologies (GENETICS)	A (60)				B (20)	B (20)		
USSKBS-30-3 Blood Sciences (BLOOD)	A (60)			B (20)	B (20)			
USSKBT-30-3 Immunohaematol (BLOOD)	A (60)			B (10)	B (20, 10)			

*Assessment should be shown in terms of either **Written Exams**, **Practical exams**, or **Coursework** as indicated by the colour coding above.

Part 6: Programme Structure

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including:
 level and credit requirements
 interim award requirements
 module diet, including compulsory and optional modules

ENTRY	Year 1	Compulsory Modules	Optional Modules	Interim Awards
		USSKA3-30-1 Anatomy & Physiology	none	Cert HE Healthcare Science • Credit requirements: 120
		USSKA5-30-1 Biomedical Skills		
		USSKA4-30-1 Cell Biology, Biochemistry & Genetics		
		USSKA7-30-1 Pathophysiology of Disease		

Year 2	Compulsory Modules *specialist modules as appropriate to pathway	Optional Modules	Interim Awards
	USSKAR-30-2 Practice and Communication of Science	none	Dip HE Biomedical Science • Credit requirements: 240
	USSKAS-30-2 Physiological & Immunological Systems		
	USSKAT-30-2 Studies in the Biology of Disease		
	UZYSNA-15-2 Service Improvements		
	USSKB6-15-2 Microbiology (INFECTION PATHWAY)		
	USSKB7-15-2 Molecular Genetics (ALL OTHER PATHWAYS)		



Year 3	Compulsory Modules *2 specialist modules as appropriate to pathway	Optional Modules	Interim Awards
	USSJSJ-30-3 Health Care Science Project	none	
	USSJSK-30-3 Professional Practice		

USSKBJ-30-3 Medical Microbiology (INFECTION PATHWAY)		
USSKBU-30-3 Infectious Disease Control (INFECTION PATHWAY)		
USSKBM-30-3 Cellular Pathology & Oncology (CELL PATHOLOGY PATHWAY)		
USSKBR-30-3 Human Development & Pathology (CELL PATHOLOGY PATHWAY)		
USSKBH-30-3 Medical Genetics (GENETICS PATHWAY)		
USSKBF-30-3 Genomic Technologies (GENETICS PATHWAY)		
USSKBS-30-3 Blood Sciences (BLOOD PATHWAY)		
USSKBT-30-3 Immunohaematology (BLOOD PATHWAY)		

GRADUATION

Part time:

The following structure diagram demonstrates the student journey from Entry through to Graduation for a typical **part time student**.

Copy the diagram above, but indicate the structure in terms of Year 1.1, 1.2, 2.1, 2.2 and 3

Part 7: Entry Requirements

Admission into the Healthcare Science Programme will be administered by the Faculty Admissions Team. Students are selected in an interview process run by academic staff. Successful application to the Programme must meet one of the following minimum requirements:

Tariff points: 320 as of 2014

Tariff points as appropriate for the year of entry (refer to the UWE website
<http://courses.uwe.ac.uk/C990/#entry>)

GCSE: Grade C or above in English Language, Mathematics and Double Science

Part 7: Entry Requirements

A-level subjects: Grade C or above in Biology or Chemistry plus a pass in another science subject. Points from A-Level General Studies and AS-Level subjects (not taken onto full A-Level) can be included towards overall tariff. You must have a minimum of two A-Levels.

Specific subjects: Biology, Chemistry

EDEXCEL (BTEC) Diploma: A minimum of DDM from the BTEC Diploma, to include 6 units in Biology or Chemistry and 6 units in another science subject

Access: Achievement of the Access to HE Diploma; to include 15 level 3 credits at merit in Biology or Chemistry, and an additional 15 credits at merit in another science subject; achievement of level 2 credits giving GCSE equivalence (where appropriate) in English Language, Mathematics and Science.

Baccalaureate IB: 27 points, with a minimum grade of 5 in higher level Biology or Chemistry plus a pass in another higher level science subject

All applicants must meet the following additional criteria:

- Occupational Health and Criminal Record Bureau checks will be undertaken on all candidates in accordance with university, faculty and programme policies.
- Admission to the course will be subject to interview for which the panel will comprise an academic and a professional from clinical practice.

Part 8: Reference Points and Benchmarks

The aim of the Department of BBAS is to evolve a portfolio of programmes that align with the UWE 2020 Strategy that includes:

“Connecting and working with our local and regional economy, businesses and communities and international partners to advance knowledge, and to advance the health, sustainability and prosperity of our locality and region”.

“Being digitally advanced, agile and responsive in the way we work, embracing and leading change to create new sustainable opportunities”.

Healthcare Science connects with external partners including business, the National Health Service and communities, and to achieve high quality and outstanding delivery, our programmes are aligned with quality and professional frameworks.

Health and Care Professions Council Standards

The BSc (Hons) Healthcare Science (Life Sciences) programme is consistent with the Health Professions Council standards:

- Health Professions Council (2009) Standards of Education and Training
- Health Professions Council (2007) Standards of Proficiency for Biomedical Scientists
- Health Professions Council (2008) Standards of Conduct, Performance, and Ethics

Qualification descriptors used in the QAA Framework for Higher Education Qualifications (2008)

Part 8: Reference Points and Benchmarks

The learning outcomes for the programme have been developed with reference to the qualification descriptors used in the QAA Framework for HE Qualifications. The learning outcomes for modules at level one and level two have been considered to be consistent with the award of a Certificate in Higher Education and a Diploma in Higher Education, respectively. Graduates of the award will have acquired the knowledge and understanding, and gained the intellectual, subject, professional, practical and transferable skills listed in previous sections.

QAA subject benchmarks

Our curricula and skills map to the QAA subject benchmark statements for **Biomedical Science** and **Bioscience** in order to embrace a broad range of scientific and medical knowledge, alongside the research and practicals skills that are expected of a graduate in order to become a competent IBMS-accredited scientist.

The Basic Knowledge sub-headings within the Biomedicine benchmark are listed as human anatomy and physiology, cell biology, biochemistry, genetics, molecular biology, immunology and microbiology, all of which map to modules in this programme. This provides students with an integrated knowledge of the human body at a physiological, cellular, molecular and genetic level, in both health and disease. At level 1 modules provide a foundation of generic biomedical content including scientific and analytical skills, biology of disease, biochemistry, microbiology, and genetics. At level 2, building on core subjects, there is the introduction of choice around research themes, so that students can develop research interests aligned to their career aspirations.

As well as achieving the benchmarking goals of understanding a “multidisciplinary approach to the study of human disease”, they also develop “an awareness of the current methods used for the laboratory investigation, diagnosis and monitoring of disease.” The level of choice extends in the final year, with more advanced modules aligned to the research themes, alongside the core IBMS specialisms (Cellular Pathology, Blood Sciences, Immunohaematology, Medical Genetics and Medical Microbiology).

The Bioscience benchmark statements also map to our programme and are “a family of methods and disciplines grouped around the investigation of life processes”; “practical and experimental subjects”. Our programme includes basic organism structure and diversity, as well as social and environmental aspects of science, with a toxicology theme, and final year module on science and community / communication. Reflecting the Bioscience benchmarks for numeracy and IT, our programme includes bioinformatics and statistics. The benchmark typical standard includes students being able to: “describe and critically evaluate the evidence for the mechanisms of life processes”; “interpret the significance of internal and external influences on the integration of metabolism for survival and health”, “describe and analyse patterns of inheritance and complex genetic interactions”; all these areas map to compulsory modules within the programme.

University teaching and learning policies

In line with the University’s teaching and learning policies, this programme takes a student-centred approach to learning by allowing students to take control of aspects of their learning and providing a learning environment that stimulates active participation and engagement in the learning process. The programme seeks to create an environment that stimulates students to take responsibility for aspects of their learning, while lecturers facilitate that learning. The module learning outcomes are designed to ensure that students meet the overall programme learning outcomes by completion.

A variety of assessment methods is incorporated within the programme to cater for a diversity

Part 8: Reference Points and Benchmarks

of student strengths and abilities. The course team recognises the importance of both formative and summative assessment activity as an integral part of the learning and teaching process. All assessments comply with the University Assessment Policy, Academic Regulations and Procedures and the Workbased Learning Policy (<http://www1.uwe.ac.uk/aboutus/policies>).

Research themes underpinning the programme

Academic staff involved in the programme are from a diversity of backgrounds including industry, healthcare and research, and their interests inform module delivery.

The majority of staff involved are research active and the Faculty strongly supports the research activities, particularly within the Centre for Research in Biosciences (CRIB), which was submitted to RAE2008 in UoA12 – Allied Health Professions and Studies. According to the RAE, UWE has proportionately more internationally excellent research than any other University in the UK. Furthermore, the Times Higher Education RAE ratings placed our Biomedical Science research within the top 10% of University submissions. This highlights the world class research being undertaken in CRIB.

Learning and teaching excellence

The quality of learning and teaching within the department is reflected in the awards of two university teacher fellows and one national teacher fellow, and staff who actively publish educational research. The Quality, Management and Enhancement (QME) of the provision is further enhanced through staff development. Staff receive annual appraisals, in-house training, and are actively encouraged to attend external courses and conferences, for which the faculty provides funds.

New academic staff undertake a one-year Academic Professional Development Programme which leads to Post-Graduate Certificate in Education, which is accredited by the Higher Education Academy (HEA). All staff are actively encouraged toward university and national teacher awards and fellowships.

External interaction and outreach

The integrated nature of the programme necessitates ongoing and close liaison with employers of Healthcare Scientists within the national health service. This is extremely important and is achieved in the following ways:

- A culture of two-way communication exists between University academic staff and biomedical scientists within the South West, in particular the Joint Training Officers (JTO) group.
- UWE has representation on the local IBMS Branch Committee and several of the associated discussion groups. These and many other opportunities for sharing ideas and views exist and are actively used to the advantage of all parties.
- Practitioners are actively involved in the design, delivery and continued development of the Healthcare Science programmes. Similarly, service users are consulted on a regular basis to ensure that the programmes deliver training that matches service needs.
- The Joint Training Officer's Committee monitors and advises on the operation of the Clinical Pathology Accreditation/IBMS accredited training places in accordance with agreed standards and policies. In addition, this committee provides a valuable forum for practitioners' views on the undergraduate provision, and for discussion pertaining to development of the degree programme.
- Academic staff supervising sandwich (year-long) placements and shorter term local

Part 8: Reference Points and Benchmarks

hospital placements facilitate the development of collaborations, and achieve valuable professional “voice” that advises all of our programmes.

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of individual modules can be found in module specifications, available on the [University's website](#).