

## Course Specification

A. Course Information			
<b>Final award title(s)</b>	Pearson BTEC Level 4 Higher National Certificate in Applied Sciences; pathways in; <ul style="list-style-type: none"> <li>- Pearson BTEC Level 4 Higher National Certificate in Applied Sciences (Forensic Science)</li> <li>- Pearson BTEC Level 4 Higher National Certificate in Applied Sciences (Chemistry)</li> <li>- Pearson BTEC Level 4 Higher National Certificate in Applied Sciences (Biology)</li> </ul>		
<b>Intermediate exit award title(s)</b>	N/A		
<b>UCAS Code</b>		<b>Course Code(s)</b>	5820
<b>Awarding Institution</b>	London South Bank University/Pearson		
<b>School</b>	<input checked="" type="checkbox"/> ASC <input type="checkbox"/> ACI <input type="checkbox"/> BEA <input type="checkbox"/> BUS <input type="checkbox"/> ENG <input type="checkbox"/> HSC <input type="checkbox"/> LSS		
<b>Division</b>	Human Sciences; School of Applied Sciences LSBU SBC – Faculty of Science		
<b>Course Director</b>	TBC		
<b>Delivery site(s) for course(s)</b>	<input type="checkbox"/> Southwark <input type="checkbox"/> Havering <input type="checkbox"/> Croydon <input checked="" type="checkbox"/> Other: (please specify) South Bank Technical College		
<b>Mode(s) of delivery</b>	<input checked="" type="checkbox"/> Full time <input type="checkbox"/> Part time <input type="checkbox"/> Other (please specify)		
<b>Length of course/start and finish dates</b>	<b>Mode</b>	<b>Length years</b>	<b>Start - month</b>
	Full time	1	Sept
	<b>Finish - month</b>		
	July		
<b>Is this course suitable for a Visa Sponsored Student?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Approval dates:</b>	Course validation date	06/06/2022	
	Course Review date	June 2027	
	Course Specification last updated	August 2023	
<b>Professional, Statutory &amp; Regulatory Body accreditation</b>	Pearson are the awarding body for the qualification.		

<b>Link to Institute of Apprenticeship (IoA) Standard and Assessment Plan (Apprenticeship only)</b>	N/A	
<b>Reference points:</b>	Internal	Corporate Strategy 2020-2025 (including strategic plan for South Bank Colleges) Academic Quality and Enhancement Website School Strategy LSBU Academic Regulations
	External	Pearson BTEC Higher Nationals Applied Sciences Specification (First Teaching from September 2019, First Certification from 2020) QAA The UK Quality Code for Higher Education 2018 Framework for Higher Education Qualifications FHEQ Outcome Classification Descriptions for Level 6 Subject Benchmark Statements – Forensic Science; Biology; Chemistry OfS Guidance PSRBs SEEC Level Descriptors 2021 Competitions and Markets Authority

### **B. Course Aims and Features**

<b>Distinctive features of course</b>	<p>This HNC is designed to develop students learning and understanding in both core and subject specific theory and practical skills and techniques in applied science. The apparent differences reflected by the three pathways within the programme in fact represent a more coherent range of commonalities that includes fundamentals of laboratory techniques: Scientific data handling and techniques and regulation and quality in the applied sciences. There are also further commonalities in the specialist and optional specialist units at least 2 pathways, for example; Cell Biology; Anatomy and Human Physiology and Analytical Chemistry. The commonalities are detailed in the pathway structure tables on p. 8-10 of this document.</p> <p>This HNC programme and respective pathways have been specifically designed using the Pearson diet of modules (in the respective pathways) to allow progression onto L5 of selected courses in the Division of Human Sciences, School of Applied Sciences at London South Bank University as follows:</p> <p>Forensic pathway – BSc (Hons) Forensic Science Biology Pathway – BSc (Hons) Environmental Biology and Conservation</p>
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	<p>Entry to the L5 of the Biomedical Science degree at LSBU is subject to approval by regulatory body (The Institute of Biomedical Science – IBMS)</p> <p>Consideration may be given for entry to the Forensic Science degree at L5 from the chemistry pathway. This will be subject to agreement with the Course Director in the context of APEL assessment against L4 of the degree</p> <p>The HNC programme seeks to locate and contextualise these practical and intellectual skills so that students are best equipped to succeed within their chosen discipline. Students will find themselves able to work effectively within the demands of the respective pathways.</p> <p>To be a professional within these industries requires a practical, critical, and reflexive education, it also requires an appreciation of the wider theories and methodologies developed within Applied Sciences. The purpose of Pearson BTEC Higher Nationals in Applied Sciences is to develop students as professional, self-reflecting individuals able to meet the demands of employers in the Applied Sciences sector and adapt to a constantly changing world. The qualifications aim to widen access to higher education and enhance the career prospects of those who undertake them</p>
<p><b>Course Aims</b></p>	<p>The course aims are:</p> <ul style="list-style-type: none"> <li>• To equip students with the Applied Sciences skills, knowledge, and the understanding necessary to achieve high performance in the global Applied Sciences environment</li> <li>• To provide education and training for a range of careers in Applied Sciences, including Laboratory Technician, Research Technician, Technical Support Chemist /Biologist, Quality Support Technician, Manufacturing Technician, Science Technician, Technologist, Instrumentation Technician and Product Development Technician</li> <li>• To provide insight and understanding into the diversity of roles within the Applied Sciences sector, recognising the importance of collaboration at all levels</li> <li>• To equip students with knowledge and understanding of culturally diverse organisations, cross-cultural issues, diversity, and values</li> <li>• To provide opportunities for students to enter or progress in employment in the Applied Sciences, or progress to higher education qualifications such as an Honours degree in Biology, Chemistry, Environmental Sciences, Polymers, Forensic Science or a related area.</li> <li>• To provide opportunities for students to develop the skills, techniques, and personal attributes essential for successful working lives</li> <li>• To support students to understand the local, regional, and global context of the Applied Sciences sector and, for those</li> </ul>

	<p>students with a global outlook, to aspire to international career pathways</p> <ul style="list-style-type: none"> <li>• To provide students with opportunities to address contemporary Applied Science issues facing the sector, and society at large, with particular emphasis on environmental sustainability, food and nutrition and polymer recyclability</li> </ul>
<p><b>Course Learning Outcomes</b></p>	<p>Students will have a knowledge and understanding of</p> <ol style="list-style-type: none"> <li>1. The relevant scientific theory underpinning the major disciplines in Applied Science and within their chosen pathway.</li> <li>2. Experimental method and the development and testing of hypotheses</li> <li>3. Methods used in the analysis, evaluation, and critical review of evidence in the applied sciences and their chosen pathway</li> <li>4. Processes and procedures in sampling, data analysis and expressing precision, accuracy, and reproducibility.</li> <li>5. Moral, ethical, and social context in which a science is operating and the need to marshal reasoned and fully informed arguments to defend a position.</li> </ol>

### **C. Teaching and Learning Strategy**

Whilst students will be expected to attend all classes to make the most of their education, the programme will also employ remote and blended learning technologies. Considerable time will also be required for the student to experiment independently and develop the skills required for the production of a quality portfolio of assignment outcomes. The use of self-directed study and independent learning will be essential, with tutors guiding and assisting self-directed learning, dependent on the needs of the individual student.

#### **Employer collaborations**

Learners within the LSBU Group will benefit from courses that are supported by our extensive links employer partners. LSBU/Employer collaborations create a range of learning opportunities from career development, industry awareness and current industry practices. Employer activities such as guest speakers, project and assignment design, case studies, site visits and workshops are used to further prepare students towards achieving their next steps and career goals. Where possible, Students are encouraged to participate in employer and industry led competitions and awards to celebrate the highest standards of professional work and achievement.

#### **Knowledge and Understanding**

Knowledge and understanding will be acquired through several methods within this programme. Units for each pathway will be taught through a mix of practical workshops, and lectures, and seminars that underpin the development of practical and academic skills. Students are expected to show they can analyse data and information, make sense of this and then reach evaluative judgements. At the higher levels of study, there is an expectation that students will be able to apply a degree of criticality to their

synthesis of knowledge. This criticality would come from exposure to appropriate and relevant theories, concepts and models.

### **Intellectual Skills**

Intellectual thinking skills will be developed during the full range of unit sessions, including practical sessions. Students will be encouraged to engage in discussion, evaluation and analysis of scientific theory and context. Study skills and academic writing will be embedded throughout.

### **Practical and Professional Skills**

The programme will focus on practical and professional skills for students, so they can develop into confident and competent individuals ready to progress onto higher education or employment. Students will be encouraged to learn, develop, and evaluate their own skills in practice during each of the units and become adept at reflection and critical evaluation of the work of professionals, their own work, and the work of their peers.

### **Transferable Skills**

A broad range of important transferable skills will be embedded throughout the course designed to enable students to develop positive and professional attitudes towards their education and future employment. The skills embedded will introduce students to research, time management, presentation skills, the ability to work in a team and act on individual initiative, the presentation of 'the self', professional standards and professional register when working with clients.

## **D. Assessment**

- All students will have the opportunity to comment on the quality of the learning experience on each unit. Staff will also complete evaluations for each unit that they deliver. This feedback will be analysed by the programme leader and the results fed into the annual monitoring report, faculty self-evaluation document and subsequent year's module handbook. Programme and unit leaders will promote and undertake the relevant modification to all pathway units to improve the delivery of any assignment. These enhancements will be recorded in the annual monitoring report and carried forward as appropriate. All teaching staff will be observed delivering learning at least annually. Teaching and learning that does not satisfy the minimum expected standard will require an action plan agreed between the line manager and the member of staff. Student satisfaction will be measured by both cohort surveys and student opinion gathered at assignment culmination. Student representatives will be elected and invited to course team meetings and, additionally, have the opportunity to raise items with the course leader at individual meetings outside of these meetings. Course representatives will have access to the wider LSBTC –LSBU student fraternity and meet regularly to discuss and promote:
  - matters relating to the wider student experience student voice within the LSBTC – LSBU partnership's strategic and operational agenda
  - feedback on areas of good practice
  - suggestions for the development of Institutional policy and strategy
  - student learning experience
  - academic and research events and cultural events
  - student engagement in all aspects of educational quality processes.

Throughout their learning, all students will be expected to articulate a critical awareness towards challenging themes so that tutors can be confident they are being considered in a nuanced and appropriate manner. No material deemed to contravene existing UK hate crime legislation will be permitted in any area of the programme.

### **E. Academic Regulations**

The University's Academic Regulations apply for this course. Any course specific protocols will be identified here.

The final award classification for each pathway is determined by Pearson's regulations of 'Pass,' 'Merit,' or 'Distinction.'

### **F. Entry Requirements**

#### **Standard offer**

The standard entry requirement for the Higher National Certificate will be 64 UCAS points alongside a minimum of grade C/4 in GCSE or equivalent qualification in English and Maths.

#### **Non-standard offer**

We will encourage applications from non-traditional learners who lack formal academic qualifications. These non-traditional applicants will be assessed through an interview where their overall interest in the relevant specialist pathway as well as current academic skills will be judged. From this we will consider and assess their academic potential and relevant experience and skills. For example, a prospective candidate may not be able to evidence an educational background relevant to a specific pathway but may possess and demonstrate excellent problem-solving skills and a broad appreciation of the subject they are interested in studying. The desire to change careers through training will also be taken into consideration. In line with a strengths-based approach to widening participation, students without direct experience will be offered extra support and will also benefit from regular tutorials with both the Programme Leader and the pathway tutors so that they can integrate fully and access support for their educational journey.

#### **Accreditation of prior learning**

Applicants may be admitted with credit for prior certificated learning (APcL) or work/life experience or other uncertificated learning (APeL).

#### **International admissions**

We recognise a wide range of entry qualifications as being equivalent to 'A' level or Level 3 standard. International students must possess and be able to evidence a satisfactory command of the English language across reading, writing, listening and are expected to have achieved level B1 on the Common European Framework of Reference for Language (CEFR), as defined by UK Visas and Immigration.

Entry requirements from the HNC pathways to L5 of LSBU undergraduate courses

Entry onto L5 of the respective BSc Undergraduate programmes will require students to pass ALL modules in the HNC (120 credits) without exemption. For entry to the BSc (Hons) Forensic Science there are no conditions that apply in terms of compensation of L4/HNC modules as outlined by the Chartered Society for Forensic Science (CFCS). The same is true for entry to the BSc (Hons) Environmental Biology and Conservation (Royal Society of Biology) and the Institute of Biomedical Science (IBMS).

Note:

Compensation, where permitted within the regulations of the institution, must only be applied if, and when, the relevant LOs are achieved in an alternative, passed, module(s) covering the same LO(s)

## G. Course Structure(s)

### Course overview

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### Full time

#### Forensic Pathway

Unit Title	Type	Code (Ofqual)	Credits	Level	Delivery
Unit 01: Fundamentals of Laboratory Techniques	Core	A/617/5358	15	4	
Unit 2: Scientific Data Handling Approaches and Techniques	Core	F/617/5359	15	4	
Unit 3: Regulation and Quality in the Applied Sciences	Core	T/617/5360	15	4	
Unit 4: Cell Biology	Specialised mandatory	A/617/5361	15	4	
Unit 17: Fundamentals of Biochemistry	Specialised mandatory	T/617/5374	15	4	
Unit 21: Criminal Investigation	Specialised mandatory	L/617/5378	15	4	
Unit 6: Anatomy and Human Physiology	Specialised optional	J/617/5363	15	4	
Unit 35: Analytical Chemistry	Specialised optional	J/617/5394	15	4	

#### Biology Pathway

Unit Title	Type	Code (Ofqual)	Credits	Level	Delivery
Unit 01: Fundamentals of Laboratory Techniques	Core	A/617/5358	15	4	
Unit 2: Scientific Data Handling Approaches and Techniques	Core	F/617/5359	15	4	
Unit 3: Regulation and Quality in the Applied Sciences	Core	T/617/5360	15	4	
Unit 4: Cell Biology	Specialised mandatory	A/617/5361	15	4	
Unit 5: Fundamentals of Chemistry	Specialised mandatory	F/617/5362	15	4	
Unit 6: Anatomy and Human Physiology	Specialised mandatory	J/617/5363	15	4	
Unit 17: Fundamental of Biochemistry	Specialised optional	T/617/5374	15	4	

Unit 18: Microbiological Techniques	Specialised optional	A/617/5375	15	4	
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### Chemistry Pathway

Unit Title	Type	Code (Ofqual)	Credits	Level	Delivery
Unit 01: Fundamentals of Laboratory Techniques	Core	A/617/5358	15	4	
Unit 2: Scientific Data Handling Approaches and Techniques	Core	F/617/5359	15	4	
Unit 3: Regulation and Quality in the Applied Sciences	Core	T/617/5360	15	4	
Unit 8: Organic Chemistry	Specialised mandatory	R/617/5365	15	4	
Unit 7: Inorganic Chemistry	Specialised mandatory	L/617/5364	15	4	
Unit 9: Physical Chemistry	Specialised mandatory	Y/617/5366	15	4	
Unit 17: Fundamentals of Biochemistry	Specialised optional	T/617/5374	15	4	
Unit 35: Analytical Chemistry	Specialised optional	J/617/5394	15	4	



**Part time:N/A**

#### **H. Placement information/Work based learning**

Work-based learning is encouraged on this programme. However, it is appreciated that gaining admission to some areas of professional production and development can be difficult due to the secretive nature of new products located within a highly competitive marketplace. If students are placed in a studio, they may need to sign a non-disclosure agreement (NDA) to ensure they do not discuss the products they have seen before they are published or broadcast. Where possible and relevant, real-world clients will be used for practical pathway assignment briefs. This approach instils realism for pathway students and thus enables them to communicate with professionals and develop assignment outcomes within dynamic contexts. Examples of real

clients may include regional production and development companies and organisations, museums and art galleries, charities, local councils, and local schools.

### **I. Timetable Information**

Determined by LSBTC

### **J. Costs and Financial Support**

#### **Course related costs**

- All pathway students will have personal access to innovative hardware, industry-standard software, and the brand new, contemporary facilities for independent and collaborative study at SBTC (Vauxhall). The programme promotes small group sizes, one-to-one tutor support and a culture which encourages time and space for reflection, self-development, and collaboration. There are no resources required to pass the programme. However, it would be advantageous to the student to have use of a computer powerful enough to run the production and development software used on the programme. All students will be able to access the software used throughout the programme via educational licence

#### **Tuition fees/financial support/accommodation and living costs**

- Information on tuition fees/financial support can be found by clicking on the following link - <http://www.lsbu.ac.uk/courses/undergraduate/fees-and-funding> or
- <http://www.lsbu.ac.uk/courses/postgraduate/fees-and-funding>
- Information on living costs and accommodation can be found by clicking the following link- <https://my.lsbu.ac.uk/my/portal/Student-Life-Centre/International-Students/Starting-at-LSBU/#expenses>