



A. Course Information				
Final award title(s)	BSc. (Hons) Environmental Biology & Conservation			
Intermediate exit award title(s)	Cert HE Environmental Biology & Conservation 120 credits at L4 Dip HE Environmental Biology & Conservation 120 credits at L4 and 120 credits at L5			
UCAS Code		Course Code(s)	5845	
	London South Bank University			
School	<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			
Division	Human Sciences			
Course Director	Dr Rachel Grant			
Delivery site(s) for course(s)	<input checked="" type="checkbox"/> Southwark <input type="checkbox"/> Havering <input type="checkbox"/> Other: please specify			
Mode(s) of delivery	<input checked="" type="checkbox"/> Full time <input type="checkbox"/> Part time <input type="checkbox"/> other please specify			
Length of course/start and finish dates	Mode	Length years	Start - month	Finish - month
	Full time	3	September	July
	Full time with placement/ sandwich year	4	September	July
	Part time			
	Part time with Placement/ sandwich year			
Is this course suitable for a Visa Sponsored Student?	Please complete the International Office questionnaire Yes Students are advised that the structure/nature of the course is suitable for visa sponsored students, but other factors will be taken into account before a CAS number is allocated.			
Approval dates:	Course(s) validated	July 2022		
	Course specification last updated and signed off	July 2022		
Professional, Statutory & Regulatory Body accreditation	Royal Society of Biology (RSB) accreditation will be applied for in due course			

Reference points:	Internal	Corporate Strategy 2020-2025 Academic Quality and Enhancement Website School Strategy LSBU Academic Regulations
	External	QAA Quality Code for Higher Education 2018 Framework for Higher Education Qualifications Subject Benchmark Statements - Biosciences (2019) Sections 7.14 & 7.15 PSRB Competitions and Markets Authority SEEC Level Descriptors 2021
B. Course Aims and Features		
Distinctive features of course	<ul style="list-style-type: none"> - A fascinating mix of ecology, wildlife and environmental topics underpinned by a solid grounding in general biology - Practical work and field work embedded throughout - A focus on employability, solving real world problems and work placements to produce employment ready graduates 	
Course Aims	The BSc (Hons) Environmental Biology & Conservation aims to: <ol style="list-style-type: none"> 1. Provide students with a detailed knowledge of biology from the molecular to the ecosystem level 2. Give students options to explore more specialised topics relating to environmental biology wildlife, ecology and conservation at levels 5 and 6 (L5 and L6). 3. Provide students with a range of practical competencies and problem-solving strategies which they can take forward into their future careers 4. Expand students' responsibility for their own learning and personal development using reflective approaches 5. Develop students' ability to critically evaluate evidence and come to informed conclusions 6. Produce employment-ready graduates who will fit into a variety of environmental biology sectors including waste and water management, conservation, ecotourism, government, ecological consultancy, sustainability and charities. 	
Course Learning Outcomes	Students will have knowledge and understanding of: A1. Fundamental bioscience, including anatomy, physiology, cell biology, genetics, molecular biology, biochemistry, immunology, microbiology, ecology, biological classification and diversity, genetics and evolution A2. Basic principles of biology relating to ecology, the earth as a system, animal nutrition and welfare, and health and disease A3. Specialised contemporary topics such as wildlife forensics, DNA barcoding, e-DNA, animal ethics, zoonotic disease and pandemics, climate change and sustainability, rescue and rehabilitation, biodiversity conservation (both ex situ and in situ), remote sensing,	

	<p>pollution mitigation, bioremediation and other specialist topics as they emerge. The analysis of ecosystems including resilience, ecosystem services and ecological economics.</p> <p>A4. Bioinformatic, mathematical and statistical principles for analysis of data for the study of ecological modelling, phylogenetics and geographic information systems, basic programming skills and standard ecological calculations</p> <p>A5. Research design, quantitative/qualitative methods, critical review of evidence in the Biology, data interpretation, reporting, biosafety, ethics and conduct.</p> <p>Students will develop their intellectual skills such that they are able to:</p> <p>B1. Apply theories, paradigms, concepts or subject-specific principles to a new context</p> <p>B2. Obtain and integrate lines of subject-specific evidence to formulate hypotheses, design experiments, critically evaluate data and use it to develop a research proposal</p> <p>B3. Demonstrate independence of thought to identify the key features of a problem and suggest possible means of investigation</p> <p>B4. Keep abreast of current insights in core and specialist areas of Biology</p> <p>B5. Recognise the moral and ethical issues of investigations and appreciate the need for ethical standards and professional codes of conduct</p> <p>B6. Synthesise, analyse and summarise a body of information and come to an informed and logically consistent conclusion</p> <p>Students will acquire and develop practical skills such that they are able to:</p> <p>C1. Demonstrate competence in the basic experimental skills relevant to cell and molecular biology, anatomy and physiology, microbiology and biochemistry</p> <p>C2 Demonstrate competence in basic fieldwork skills relevant to ecology, environmental science and conservation</p> <p>C3. Demonstrate knowledge of quality assurance and quality control principles, hazard identification, risk assessment and safety procedures associated with a particular technique or methodology</p> <p>C4. Select and apply appropriate techniques, and evaluate alternative methodologies for an investigation, or to complete a process</p> <p>C5. Undertake practical investigations in a responsible, safe and ethical manner, while observing relevant health and safety regulations</p> <p>C6. Organise and allocate duties, set targets and evaluate progress in achieving specific technical goals, evaluate their own performance and performances of others within a team</p> <p>C7. Use relevant numerical techniques and demonstrate competence in bioinformatic and statistical methods to validate, calibrate and analyse data</p>
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	<p>C8. Present data in seminars or small-group tutorials to develop interpersonal skills such as information retrieval, problem-solving, communication and team working</p> <p>C9. Demonstrate competence in the use of word-processors, spreadsheets, biological databases and data presentation packages.</p> <p>Students will acquire and develop transferrable skills such that they are able to:</p> <p>D1. Identify individual and collective goals and responsibilities</p> <p>D2. Develop the ability to work on their own initiative, and manage their own time to meet deadlines</p> <p>D3. Develop negotiation skills, and lifelong learning in the field of Biology, including enterprise and knowledge transfer skills</p> <p>D4. Provide reflective and evidence-based solutions to problems</p> <p>D5. Recognise and respect the views and opinions of other team members</p> <p>D6. Evaluate their performance as an individual and as a team member, as well as the performance of others</p> <p>D7. Develop a flexible and effective approach to study and work</p> <p>D8. Communicate ideas, arguments and concepts in a rational and systematic way using a variety of media</p> <p>D9. Clearly communicate in writing for both academic and lay audiences</p> <p>D10. Use the full range of sources of information, citing materials correctly and avoiding plagiarism.</p>
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C. Teaching and Learning Strategy

- The teaching and learning (T&L) strategy employed in the course is designed to encourage a progressive approach towards the acquisition of subject knowledge and practical skills, thus leading students from a greater level of support provided in L4 towards more independent and self-directed learning at L6.
- Teaching and learning activities vary based on module aims and learning outcomes. All modules offered at L4 provide the basic background in cell biology, environmental biochemistry, animal and plant anatomy and physiology, genetics and molecular biology, and microbiology (A1) through a blend of keynote lectures, tutorials, group work, flipped learning, and problem-based learning activities. Many of the L4 modules develop practical skills, for which students must demonstrate competence. The laboratory-based practicals will predominantly use approaches that engage students through structured demonstrations, experiments, group work, and problem-based learning.

The L5 year is intended to provide the necessary foundation for the study of more advanced and applied topics at L6. After students gain the background in core biological subjects at L4, they will be introduced at L5 to modules covering the diversity and evolution of life on earth, the health, nutrition and disease of animals and plants, concepts in animal behaviour and welfare, basic ecology and field census techniques. Students will also take the research methods module, providing them with knowledge on scientific enquiry, statistics, ethics and the development of a research proposal. This module provides additional practice and assessment of scientific writing as students have to research and develop a workable project proposal to be conducted in their final year (A5). Writing is further developed in the third year (L6) in the Project module, which concentrates on data analysis and presentation, including accessing

and review of published sources. Also at L5, students will undertake a placement in a work sector related to their future career interests to gain valuable employability skills. L6 will develop the students' ability to study a range of specialist applied topics and develop their skills of independence, problem solving, creativity and critical evaluation of evidence.

- Lectures will convey major elements of the subject-specific content and provide explanations of difficult concepts. They will facilitate the development of students' active listening skills, and enable them to appreciate how information is structured and presented. Additionally, lectures will make use of computer-based aids and multimedia, as well as encouraging interactive participation of students in groups. Lectures will be provided on the basis of hybrid learning, which is a mix of online lectures complemented by small group tutorials, seminars and practical sessions on campus, as well as off-campus field work.
- All modules employ teaching methods that encourage students to consider and challenge the evidence with which they are presented. The assessment schedule requires students to question and evaluate the arguments surrounding key concepts or principles. This may be formally assessed or simply part of group discussions, debates or problem-solving exercises. Biology of the Cell, Environmental Biochemistry, Genetics & Molecular Biology at L4 introduce the students to current thinking over a range of rapidly developing areas in biology, and to look at the different approaches being adopted to analyse these in a series of in-class workshops and coursework tasks (B1 and B2). Research Methods at level 5 and the Project module at L6 have specific lectures on how to approach the primary literature and evaluate the evidence presented (B1, B2, B3, B4). This is assessed by the project proposal the student is required to generate as part of this module (B2), in preparation for their final year, a proposal that must include a preliminary experimental design (B2, B3). The topics selected for the research proposal must be current and up to date, requiring the students to keep abreast of current insights in core and specialist areas of biological science (B4). Additionally, the research proposal will have to be approved by the research ethics committee of the School, thus requiring the students to recognise the moral and ethical issues associated with investigations and to appreciate the need for ethical standards and professional codes of conduct (B5). The final year project report is required to conclude by placing the findings in the context of current thinking (B6).
- Laboratory skills, fieldwork skills and technical proficiency in analytical methods are developed from first-year to third-year modules through practical elements that offer subject-specific techniques (C1, C2 and C3). This is reiterated during the final year Project.
- A key emphasis of the Environmental Biology & Conservation programme is the development of the student's practical and analytical skills through subject-specific and generic practicals and fieldwork. Students are inducted into teamwork skills, and into health and safety regulations and their evaluation from their first sessions in Research Methods (C4).
- Skills in biostatistics and bioinformatics and *in silico* approaches to practical work are developed at L5 to analyse big data through the use of relevant biological databases (C6).
- Presentation skills are practiced from L4 and extend up to L6 in most modules. Group work, including the use of word processing software, spreadsheets and presentations that review recent scientific literature, features in several subject-specific modules at L5 and L6 and in the project module (C7 and C8). Subject-specific modules encourage the students to consider alternative ways to approach particular problems or questions (C1, C2, C3), typically through their practicals and fieldwork. In this way we are able to build student confidence in their technical and practical skills and reinforce the basic concepts delivered in the associated lecture programme. The L6 module Current Perspectives in Environmental Biology & Conservation allows students to explore a range of contemporary and sometimes controversial topics such as genetic modification, human-wildlife conflict, animal ethics, as well as issues of current

importance such as antibiotic resistance and zoonotic disease (B4, D3, D5). There is scope in this module to add emerging topics, which will allow the module to keep abreast of changes in technology and other developments.

- Transferable skills, employability aspects and personal development are fully mapped across the curriculum. Through the Work Placement module and Ecology & Census Techniques, students will work with others to define collective goals and responsibilities (D1). Through the final year Project and Work Placement they will also be expected to demonstrate initiative, time management and the ability to meet deadlines (D2). Negotiation, lifelong learning and enterprise are embedded into the School-wide Employability module at L4, Placement (L5), and Employability & Sustainability (L6, D3). In the modules Animal Behaviour & Welfare (L5), Placement (L5) and Advanced Wildlife Conservation (L6) students will be expected to reflect and find evidence-based solutions to real-world problems (D4). The module Current Perspectives in Environmental Biology & Conservation gives students the opportunity to explore a range of contemporary and controversial topics and will develop their ability to respect others' viewpoints (D5). Students will have the opportunity to evaluate their own performance and those of others in the context of a team, as well as developing a flexible approach to work in the Work Placement module and in the formative and peer-assessment opportunities provided in various modules (D6, D7). All modules will enable students to refine their skills in the communication of ideas, arguments and concepts in various media, including in writing, and in particular in the Current Perspectives, Research Methods and Project modules (D8, D9). Academic referencing and the avoidance of plagiarism will be embedded in all modules, but will particularly apply to those modules with extended pieces of writing such as Current Perspectives, Research Methods and the Project (D10).
- Digitally Enhanced Learning will be incorporated into the T&L strategy to develop and support learning. Examples will include the University VLE (Moodle / Aula), Panopto lecture capture, TEAMS lectures, on-line formative assessment platforms, discussion groups and remote tutorial support.
- Students will be expected to engage in independent learning as outlined in each of the module descriptor documents, which will be made available on the Moodle sites. Where appropriate this learning will be guided by staff via tasks set in class and on the VLE.
- A wide range of subject-related resources are available within the LSBU Library. These reflect a typical academic repository that includes access to textbooks, licensed E-journal subscriptions, scientific databases, interactive e-learning platforms, and multimedia. Moreover, students have access to site-licensed software and assistive technologies to support their learning if they are registered as having disability and/or specific learning difficulties.
- The current infrastructure is well equipped to support the course. There are a total of 4 teaching and research laboratories that provide a rich learning environment for combining theory and practice. Each contains state-of-the art equipment to support delivery across all core and specialist modules. Also the location of the university is well placed to carry out a variety of fieldwork trips. Examples include the Zoological Society of London (ex situ conservation), The London Wildlife Trust (in situ conservation), numerous ecological consultancies, WWT London Wetland Centre, etc, as well as waste management, bioremediation and ecotourism facilities, and environmental / animal charities.
- The staff that will teach on the programme comprise (at the time of writing): 1 Professor, 2 Associate Professors, 2 Senior Lecturers, and 4 Lecturers. Contributions to the programme may also be made by guest lecturers, hourly paid lecturers and postdoctoral trainees. All staff are appropriately qualified and postdoctoral trainees will be appropriately trained and supervised.

- There are three modules shared with the Bsc. BioMedical Science course which, while teaching basic biology and necessary for the degree, are more human focused. In these, the assignments will be contextualised for environmental biology, animals and conservation

D. Assessment

- Formative assessment is designed to help students learn more effectively, to progress in their studies and to prepare for summative assessment; formative assessment does not contribute to the final mark, grade or class of degree awarded to students. For each module, an opportunity will be provided for formative assessment, on which feedback can be gained to help with preparation of the summative assessment. The module descriptors detail the nature of the formative assessment.
- The course will be assessed by a variety of means, including oral and poster presentations, calculations, essays, reports, analyses and fieldwork, to allow all students to play to their strengths and to meet the course learning outcomes.
- At L4 the assessment is primarily by means of a mix of in-class MCQ tests, practical work and some coursework. These are required to assess and consolidate the basic subject-specific knowledge that is needed to progress to higher levels. At L5 and L6 assessment is 100% coursework.
- The assessments have been designed to allow students to progressively apply their knowledge in wider and more interdisciplinary contexts as they progress through the degree. For example, at L4 they are expected to demonstrate their theoretical knowledge through a series of essays, exams and multiple choice tests, and their practical knowledge through lab reports. These have a relatively narrow and detail-oriented remit, focused on the acquisition of skills and knowledge. Word limits are kept to around 1000 per component to allow students to practice written communication on shorter pieces at L4, building up to longer pieces at higher levels. At L5 the assignments are designed to assess a wider range of more interdisciplinary skills where students are required to demonstrate the application of their knowledge to wider contexts (example – diet and health plan, animal welfare assessment). At L5 there is more emphasis communication of science to an audience in a variety of ways including group and individual presentation. There starts to be an emphasis on collaborative skills (Group field report), ipsative skills assessment and personal and professional development (Work placement – reflective statement). Word limits are now longer for essay type assignments and reports. Students' independence and creative thinking starts to be developed (Research proposal). At L6 the assessments test students' levels of critical analysis, creative problem solving and innovation (Critical analysis of a conservation intervention, propose innovative and creative solutions to a global conservation problem), presenting balanced arguments to persuade an audience regarding controversial real world problems (Write a press release to communicate a scientific development or controversial issue to your intended audience), and interdisciplinary approaches (An e-pitch group presentation on employability in a sustainable environment). Students are now expected to critically analyse the literature and produce a sustained piece of hypothesis-driven research (dissertation).
- LSBU Assessment Regulations will apply to this course (https://www.lsbu.ac.uk/data/assets/pdf_file/0010/84349/assessment-and-examination-procedure.pdf).

E. Academic Regulations

The University's Academic Regulations applying to this course are at:

http://www.lsbu.ac.uk/data/assets/pdf_file/0008/84347/academic-regulations.pdf .

F. Entry Requirements

In order to be considered for entry to the course, applicants will be required to have the following qualifications.

Level 4

2022 entry

- A Level: a minimum of 2 A levels CCD to include biology and a second A level subject or
- BTEC National Diploma DMM, ideally with a good biology profile or
- Access to Science with 39 Merits and 6 Passes including 12 credits in science-related subjects or
- Equivalent level 3 qualifications worth 104 UCAS points.
- Applicants must hold 5 GCSEs, minimum grade C, including maths, biology and English, or equivalent (reformed GCSEs, grade 4 or above).
- We welcome qualifications from around the world. There is an English language requirement for international students: IELTS score of 6.0 or Cambridge Proficiency or Advanced Grade C.

Direct Entry to Level 5

Students with the knowledge and skills equivalent to the required learning outcomes for L4 modules of this BSc (Hons) Environmental Biology & Conservation will be encouraged to make direct entry to L5. Such knowledge and skills should be commensurate with those identified in the Policy and Procedures for the Accreditation of Prior Learning of London South Bank University, and in the guidelines on levels and learning outcomes produced by the South East of England Consortium for Credit Accumulation and Transfer (SEEC/CAT, May 1996, SEEC Credit Level Descriptors for HE, 2021).

G. Course structure(s)

Course overview

The academic year is organised into two semesters of 15 weeks each, this includes 12 or 13 teaching weeks (including a revision week) and 2 exam weeks. Teaching will be by means of hybrid delivery – group synchronous teaching on TEAMS and regular face-to-face smaller group tutorials, labs and fieldwork trips, supplemented by asynchronous activities on the VLE.

BSc (Hons) Environmental Biology & Conservation - **Full time**

	Semester 1 (all modules on this course are compulsory)		Semester 2 (all modules on this course are compulsory)	
Level 4	Biology of the Cell (Shared with Biomedical Science)	20	Microbiology (Shared with Biomedical Science)	20
	Employability for Environmental Biology & Conservation	20	Genetics & Molecular Biology (Shared with Biomedical Science)	20
	Environmental Biochemistry	20	Biology of Organisms	20

Level 5	Research Methods	20	Professional Work Placement (Employability)	20
	Biodiversity, Phylogenetics & Evolution	20	Animal Behaviour & Welfare	20
	Nutrition, Health & Disease	20	Ecology & Census Techniques (Employability)	20
Level 6	Project	20	Project	20
	Ecosystems & Field Trip	20	Sustainability & Employability	20
	Advanced Wildlife Conservation	20	Current Perspectives in Environmental Biology & Conservation	20

Placements information

For the module professional work placement in Semester 2 at L5, students will undertake placements in various organisations, such as waste management companies, animal rescue charities, wildlife trusts, ecology consultancies, conservation organisations, research institutes, zoos, ecotourism organisations, pet day-care / boarding, veterinary surgeries OR voluntary groups which carry out hands on conservation such as bird ringing, toad patrols, habitat restoration, etc. which are related to their career interests. Students may carry out work for a virtual organisation or they may physically visit the organisation. As part of the assessment for this module students will be expected to keep a log of their experiences signed by their manager at the workplace and they will need to obtain this to progress to L6.

Additionally there is an opportunity for students to undertake a one-year industrial placement between years 5 and 6.

H. Course Modules

All modules are compulsory but optional modules may be introduced at a later stage

* = already validated as part of BioMedical Science

Module Code	Module Title	Level	Semester	Credit value	Assessment
ASC_4_476	Biology of the Cell *	4	1	20	<u>CW1 (50%)</u> Practical Work <u>CW2 (50%)</u> Exam
	Environmental Biochemistry	4	1	20	<u>CW1 (60%)</u> Presentation on a pre-released topic to cover 20 minutes per student. LO's 1,2,3,4,7. <u>CW2 (40%)</u> Exam covering basic laboratory calculations and techniques 1 hour. LO's 5 & 6
	Microbiology *	4	2	20	<u>CW1 (50%)</u> Practical laboratory sessions <u>CW2 (50%)</u> MCQ test
	Biology of Organisms	4	2	20	<u>CW1 (60%)</u> A 1 hour multiple-choice test on animal and plant anatomy and physiology with around 30 questions. LO1,2,3. <u>CW1 (40%)</u> A 1000 word essay on a species of choice. LO 4,5,6.

	Genetics and Molecular Biology *	4	2	20	<u>CW1 (100%)</u> In class test. Pedigree construction/analysis and multiple-choice questions (MCQs).
	Employability for Environmental Biology & Conservation	4	1	20	<u>CW1 (60%)</u> Reflective blog (60%). 1500 words. LO's 1, 2,5. <u>CW2 (40%)</u> Group oral presentation (40%).LO's 3,4,5.
	Research Methods	5	1	20	<u>CW1 (30%)</u> Statistics in class test, 1 hour, approx. 20 questions. LO 1 <u>CW2 (70%)</u> Research proposal with GANNT chart and ethics form. 1500 words. LO's 2,3,4,5,6
	Biodiversity, Phylogenetics & Evolution	5	1	20	<u>CW1 (60%)</u> Essay 1500 words. LO's 1,2,3,5,7 <u>CW2 (40%)</u> Computer-based assessment - construction of a phylogenetic tree. LO's 4, 6
	Nutrition, Health & Disease	5	1	20	<u>CW1 (40%)</u> Annotated bibliography on a zoonotic disease of choice, 1000 words. LO's 3,4,5 <u>CW2 (60%)</u> Diet and preventative health plan for a species, 1500 words. LO's 1,2,4,6
	Animal Behaviour & Welfare	5	2	20	<u>CW1 (40%)</u> Ethogram and activity budget group poster and explanatory A4 sheet, up to 1000 words. LO's 1 & 4. <u>CW2: (60%)</u> Students will critically evaluate a poor welfare scenario. 1500 words. LO's 2,3,5,6
	Ecology & Census Techniques	5	2	20	<u>CW1 (75%)</u> Reflective fieldwork report on group project. 2000 words. LO's 1,2,3,4,5 <u>CW2 (25%)</u> Mark recapture calculations in-class test. LO 6
	Professional Work Placement	5	2	0	<u>CW1 (60%)</u> Work Experience Log, 1500 words. LO's 1,2,3,5 <u>CW2: (40%)</u> Reflective Statement, 1500 words LO's 4,6
ASC_6_448	Project	6	1 & 2	40	<u>CW1 (15%)</u> Interim Report Poster, 750 words max. LO 1,3,5

					<p><u>CW2 (20%)</u> Project notebook and management, 2000 words. LO 2</p> <p><u>CW3 (50%)</u> Dissertation, 2000 words. LO 1,3,5</p> <p><u>CW4 (15%)</u> Viva voce 10 minutes + questions. LO 4</p>
	Ecosystems plus Field trip	6	1	20	<p><u>CW1 (60%)</u> Poster presentation (20 mins per student, individual, oral). 1000 words. LO's 1,2,4,6</p> <p><u>CW2 (40%)</u> GIS map and commentary fdgrtd 1000 words. LO's 3,5</p>
	Advanced Wildlife Conservation	6	1	20	<p><u>CW1 (60%)</u> Critical analysis of conservation intervention, 2000 words. LO's 1,2,3,4</p> <p><u>CW2 (40%)</u> 40 minute powerpoint presentation, 10 minutes per student. LO 5</p>
ASC_6_450	Current Perspectives in Environmental Biology & Conservation	6	2	20	<p><u>CW1 (30%)</u>. Press release. 500 words. LO's 1,4</p> <p><u>CW2 (70%)</u> Extended Essay 2000 words in length. LO's 2,3</p>
	Sustainability & Employability	6	2	20	<p><u>CW1 (60%)</u> A 2000 word essay. LO's 1,2,3</p> <p><u>CW2 (40%)</u> An e-pitch (10 minute video) group presentation LO's 5,6</p>

I. Timetable information

- Students will receive their timetables in advance of the start of the semester.
- Delivery will be by blended learning – usually one day on campus (at least 5 hours) and other lessons over TEAMS on up to two other days of the week. This pattern may be subject to change, especially in practical based modules where more on-campus time may be required.
- Wednesday afternoon will be free for sporting and cultural activities.
- Students will be informed of any timetable changes by Moodle and TEAMS in good time.

J. Costs and financial support

Course related costs

Costs of tuition, including all lectures, seminars, fieldwork, lab work and day trips and visits are included within the tuition cost (except for the major field trip - see below). For the work placement, students will have to cover the cost of travel to their respective placements. For students wishing to undertake a final year project at a location where travel is necessary, students will bear the cost of this, as well as any costs associated with external institutions (a research fee at a zoo, for example). One major field trip will be included in the final year (L6)

and this will be paid for by students, will be optional and non-credit bearing. Textbooks required for the course will be available in the library, but students will bear the costs of purchase of additional textbooks.

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>

List of Appendices

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- Appendix D: Terminology

Appendix A: Curriculum Map

This map provides a design aid to help course teams identify where course outcomes are being developed, taught and assessed within the course. It also provides a checklist for quality assurance purposes and may be used in validation, accreditation and external examining processes. Making the learning outcomes explicit will also help students to monitor their own learning and development as the course progresses. Please see attached spreadsheet as this form was not large enough for the LOs we have.

Appendix B: Embedding the Educational Framework for Undergraduate Courses

The Educational Framework at London South Bank University is a set of principles for curriculum design and the wider student experience that articulate our commitment to the highest standards of academic knowledge and understanding applied to the challenges of the wider world.

The Educational Framework reflects our status as University of the Year for Graduate Employment awarded by *The Times and The Sunday Times Good University Guide 2018* and builds on our 125 year history as a civic university committed to fostering social mobility through employability and enterprise, enabling our students to translate academic achievement into career success.

There are four key characteristics of LSBU's distinctive approach to the undergraduate curriculum and student experience:

- Develop students' professional and vocational skills through application in industry-standard facilities
- Develop our students' graduate attributes, self-awareness and behaviours aligned to our EPIIC values
- Integrate opportunities for students to develop their confidence, skills and networks into the curriculum
- Foster close relationships with employers, industry, and Professional, Statutory and Regulatory Bodies that underpin our provision (including the opportunity for placements, internships and professional opportunities)

The dimensions of the Educational Framework for curriculum design are:

- **informed by employer and industry** needs as well as professional, statutory and regulatory body requirements
- **embedded learning development** for all students to scaffold their learning through the curriculum taking into account the specific writing and thinking requirements of the discipline/profession
- **high impact pedagogies** that enable the development of student professional and vocational learning through application in industry-standard or authentic workplace contexts
- **inclusive teaching, learning and assessment** that enables all students to access and engage the course
- **assessment for learning** that provides timely and formative feedback

All courses should be designed to support these five dimensions of the Educational Framework. Successful embedding of the Educational Framework requires a systematic approach to course design and delivery that conceptualises the student experience of the curriculum as a whole rather than at modular level and promotes the progressive development of understanding over the entire course. It also builds on a well-established evidence base across the sector for the pedagogic and assessment experiences that contribute to high quality learning.

This appendix to the course specification document enables course teams to evidence how their courses meet minimum expectations, at what level where appropriate, as the basis for embedding the Educational Framework in all undergraduate provision at LSBU.

Dimension of the Educational Framework	Minimum expectations and rationale	How this is achieved in the course
Curricula informed by employer and industry need	<p><u>Outcomes focus and professional/employer links</u> All LSBU courses will evidence the involvement of external stakeholders in the curriculum design process as well as plan for the participation of employers and/or alumni through guest lectures or Q&A sessions, employer panels, employer-generated case studies or other input of expertise into the delivery of the course provide students with access to current workplace examples and role models. Students should have access to employers and/or alumni in at least one module at L4.</p>	<p>Due to the new curriculum framework there will be a school-wide employability module at L4. The course has been informed by the QAA Biology Benchmarks (2019). We will expose the students to skill requirements of employers via guest speakers, industrial visits, engagement with professional scientists. Students may take advantage of a year placement in industry and qualify for a sandwich award. Additionally at L5 all students undertake a work placement module where they undertake at least 40 hours of work in a sector related to their future career interests. As part of the module they are required to reflect upon their skills development.</p>
Embedded learning development	<p><u>Support for transition and academic preparedness</u> At least two modules at L4 should include embedded learning development in the curriculum to support student understanding of, and familiarity with, disciplinary ways of thinking and practising (e.g. analytical thinking, academic writing, critical reading, reflection). Where possible, learning development will be normally integrated into content modules rather than as standalone modules. Other L4 modules should reference and reinforce the learning development to aid in the transfer of learning.</p>	<p>Throughout the course there is an emphasis on the development of skills and competencies specific to the scientific discipline, such as at L4 there is an emphasis on the development of practical skills and numeracy, at higher levels the focus shifts to more applied aspects of the discipline such as calculations of biodiversity or population size, along with critiques and problem solving approaches for real world problems. At L6 through the process of the 40 credit project module students will refine their skills in critical analysis and inquiry.</p>
High impact pedagogies	<p><u>Group-based learning experiences</u></p>	<p>Most modules will involve group work and breakout rooms for</p>

	<p>The capacity to work effectively in teams enhances learning through working with peers and develops student outcomes, including communication, networking and respect for diversity of perspectives relevant to professionalism and inclusivity. At least one module at L4 should include an opportunity for group working. Group-based learning can also be linked to assessment at L4 if appropriate. Consideration should be given to how students are allocated to groups to foster experience of diverse perspectives and values.</p>	<p>group discussion. At L4 the modules Biology of Organisms and Environmental Biochemistry require students to work in groups for tutorials, formative and summative assessment. Also at L5 and L6 group work is formalised in three modules - the Work Placement module at L5 requires students to work within a team and reflect on individual performance within the team. Ecological Census Techniques allows students to work in groups to carry out ecological surveys. In the L6 module Employability and Sustainability students will work in groups to prepare a pitch for presentation.</p>
<p>Inclusive teaching, learning and assessment</p>	<p><u>Accessible materials, resources and activities</u> All course materials and resources, including course guides, PowerPoint presentations, handouts and Moodle should be provided in an accessible format. For example, font type and size, layout and colour as well as captioning or transcripts for audio-visual materials. Consideration should also be given to accessibility and the availability of alternative formats for reading lists.</p>	<p>All of the PowerPoint presentations and other teaching materials and course guides will be available both on the Moodle site and also on TEAMS sites which are created for this module (this is unless we switch to a new platform). Attention will be paid to the font size, colour and layout of materials to be inclusive or disability and neurodiversity. Examples will be chosen from diverse sources, not only colonial sources.</p>
<p>Assessment for learning</p>	<p><u>Assessment and feedback to support attainment, progression and retention</u> Assessment is recognised as a critical point for at risk students as well as integral to the learning of all students. Formative feedback is essential during transition into university. All first semester modules at L4 should include a formative or low-stakes summative assessment (e.g. low weighted in final outcome for the module) to provide an early opportunity for students to check progress and receive prompt and useable feedback that can feed-forward into future learning and assessment.</p>	<p>All modules have a piece of formative assessment on which they receive feedback which can be used to improve their work. At L4 there are low weighting summative assessments (50% or less). Detailed and personalised feedback will be given on each piece of assessed work</p>

	Assessment and feedback communicates high expectations and develops a commitment to excellence .	
High impact pedagogies	<p><u>Research and enquiry experiences</u></p> <p>Opportunities for students to undertake small-scale independent enquiry enable students to understand how knowledge is generated and tested in the discipline as well as prepare them to engage in enquiry as a highly sought after outcome of university study. In preparation for an undergraduate dissertation at L6, courses should provide opportunities for students to develop research skills at L4 and L5 and should engage with open-ended problems with appropriate support. Research opportunities should build student autonomy and are likely to encourage creativity and problem-solving. Dissemination of student research outcomes, for example via posters, presentations and reports with peer review, should also be considered.</p>	<p>Opportunities for inquiry are mapped through modules at all levels. At L4 the high percentage of practical work in each module offers students the opportunity to experiment and develop practical research skills. At L5 the module Research methods requires students to use creativity in generating research questions and hypotheses, as well as carrying out a literature review forming the introduction of a research proposal. At L6 in the Project, as well as requiring a piece of in depth research and enquiry in to a topic, in this module students will produce an interim report (sem1) in poster format to be displayed for other students to review, and feed back on, either online or in person (peer assessment).</p>
Curricula informed by employer and industry need / Assessment for learning	<p><u>Authentic learning and assessment tasks</u></p> <p>Live briefs, projects or equivalent authentic workplace learning experiences and/or assessments enable students, for example, to engage with external clients, develop their understanding through situated and experiential learning in real or simulated workplace contexts and deliver outputs to an agreed specification and deadline. Engagement with live briefs creates the opportunity for the development of student outcomes including excellence, professionalism, integrity and creativity. A live brief is likely to develop research and enquiry skills and can be linked to assessment if appropriate.</p>	<p>Authenticity is embedded throughout the course. For example, at L5 the module professional work placement allows students to be immersed in a workplace setting relevant to their chosen future career sector. Students will carry out work, reflect on progress and skills gained and deliver the outputs required by the module (work based log and reflective statement). Furthermore the modules Animal Behaviour & Welfare (L5) and Advanced Wildlife Conservation (L6) develop students' problem solving skills in real world contexts by requiring them to critique actual welfare scenarios or conservation interventions, in order to creatively propose</p>

		solutions. Also at L6 the Module Employability and Sustainability considers the skills and attributes needed to contribute to twenty first century sustainable workplaces, along with visits to sustainable businesses to investigate how they operate.
Inclusive teaching, learning and assessment	<p><u>Course content and teaching methods acknowledge the diversity of the student cohort</u></p> <p>An inclusive curriculum incorporates images, examples, case studies and other resources from a broad range of cultural and social views reflecting diversity of the student cohort in terms of, for example, gender, ethnicity, sexuality, religious belief, socio-economic background etc. This commitment to inclusivity enables students to recognise themselves and their experiences in the curriculum as well as foster understanding of other viewpoints and identities.</p>	Care will be taken to produce material reflecting a range of social and cultural views, and to use in the images, the examples, the activities and the language, Care will be taken not to make assumptions based on heteronormative, gender identity-normative, Christian-centred, ethnic – majority, colonial, neurotypical, etc values. Where examples and case studies and indeed scientific papers are used as study materials, sources from a variety of countries and continents will be used.
Curricula informed by employer and industry need	<p><u>Work-based learning</u></p> <p>Opportunities for learning that is relevant to future employment or undertaken in a workplace setting are fundamental to developing student applied knowledge as well as developing work-relevant student outcomes such as networking, professionalism and integrity. Work-based learning can take the form of work experience, internships or placements as well as, for example, case studies, simulations and role-play in industry-standards settings as relevant to the course. Work-based learning can be linked to assessment if appropriate.</p>	The Module Professional Work Placement requires the students to undertake at least 40 hours of work in a sector of their choice. This is a compulsory credit bearing module, with assessment linked to the work experience gained. Additionally students have the option of a sandwich year in industry between L5 and L6.
Embedded learning development	<p><u>Writing in the disciplines: Alternative formats</u></p> <p>The development of student awareness, understanding and mastery of the specific thinking and communication practices in the discipline is fundamental to applied</p>	A variety of assessment formats is used to scaffold the development of written work, for example: reports, critiques, essays, annotated bibliographies, reflections, research proposals, posters, diet

	<p>subject knowledge. This involves explicitly defining the features of disciplinary thinking and practices, finding opportunities to scaffold student attempts to adopt these ways of thinking and practising and providing opportunities to receive formative feedback on this. A writing in the disciplines approach recognises that writing is not a discrete representation of knowledge but integral to the process of knowing and understanding in the discipline. It is expected that assessment utilises formats that are recognisable and applicable to those working in the profession. For example, project report, presentation, poster, lab or field report, journal or professional article, position paper, case report, handbook, exhibition guide.</p>	<p>plans, literature reviews, dissertations PowerPoint presentations.</p>
High impact pedagogies	<p><u>Multi-disciplinary, interdisciplinary or interprofessional group-based learning experiences</u> Building on experience of group working at L4, at L5 students should be provided with the opportunity to work and manage more complex tasks in groups that work across traditional disciplinary and professional boundaries and reflecting interprofessional work-place settings. Learning in multi- or interdisciplinary groups creates the opportunity for the development of student outcomes including inclusivity, communication and networking.</p>	<p>In the module “Ecology and Census Techniques” at L5, students will work together in groups to carry out a range of practical ecology techniques, which draw on cross disciplinary knowledge attained at L4 and L5 S1 such as The Biology of Organisms, BioDiversity, Phylogenetics and Evolution, and Environmental Biochemistry. In the L6 module, Employability & Sustainability, this is a cross disciplinary module which covers the skills needed to work in sustainable business</p>
Assessment for learning	<p><u>Variation of assessment</u> An inclusive approach to curriculum recognises diversity and seeks to create a learning environment that enables equal opportunities for learning for all students and does not give those with a particular prior qualification (e.g. A-level or BTEC) an advantage or disadvantage. An holistic assessment strategy should provide opportunities for all students to be able to demonstrate achievement of learning</p>	<p>All students will be given the chance to undertake formative assessment to improve their work. For example in the research methods module at L5 students are given feedback on drafts of their research proposal by their supervisor before submitting the final assessment. Additionally there is a 500 word formative assessment on this module as well.</p>

	<p>outcomes in different ways throughout the course. This may be by offering alternate assessment tasks at the same assessment point, for example either a written or oral assessment, or by offering a range of different assessment tasks across the curriculum.</p>	<p>The course has a variety of assessment types including group work, posters, powerpoints, oral presentations, essays, reports, critiques, ethograms, calculations, reflective statements, diaries / logs and in class tests.</p> <p>In many cases students are able to pick their own topic or interest area from a list of options or freeform.</p>
<p>Curricula informed by employer and industry need</p>	<p><u>Career management skills</u> Courses should provide support for the development of career management skills that enable student to be familiar with and understand relevant industries or professions, be able to build on work-related learning opportunities, understand the role of self-appraisal and planning for lifelong learning in career development, develop resilience and manage the career building process. This should be designed to inform the development of excellence and professionalism.</p>	<p>At L4 there is a school-wide employability module (detail TBC). At L5 the module “Professional Work Placement” fulfills this requirement and at L6 there is a dedicated module “Employability & Sustainability” which examines the features of sustainable businesses.</p>
<p>Curricula informed by employer and industry need / Assessment for learning / High impact pedagogies</p>	<p><u>Capstone project/dissertation</u> The L6 project or dissertation is a critical point for the integration and synthesis of knowledge and skills from across the course. It also provides an important transition into employment if the assessment is authentic, industry-facing or client-driven. It is recommended that this is a capstone experience, bringing together all learning across the course and creates the opportunity for the development of student outcomes including professionalism, integrity and creativity.</p>	<p>The L6 project provides the opportunity for creativity (hypothesis formation), originality (contributing to new knowledge through inquiry) and problem solving, as well as time and personal management. Professionalism and integrity are embedded in the module, as to meet the outcomes a high degree of personal and time management, self – motivation and individual discipline are required.</p>

Appendix D: Terminology

[Please provide a selection of definitions according to your own course and context to help prospective students who may not be familiar with terms used in higher education. Some examples are listed below]

awarding body	a UK higher education provider (typically a university) with the power to award higher education qualifications such as degrees
bursary	a financial award made to students to support their studies; sometimes used interchangeably with 'scholarship'
collaborative provision	a formal arrangement between a degree-awarding body and a partner organisation, allowing for the latter to provide higher education on behalf of the former
compulsory module	a module that students are required to take
contact hours	the time allocated to direct contact between a student and a member of staff through, for example, timetabled lectures, seminars and tutorials
coursework	student work that contributes towards the final result but is not assessed by written examination
current students	students enrolled on a course who have not yet completed their studies or been awarded their qualification
delivery organisation	an organisation that delivers learning opportunities on behalf of a degree-awarding body
distance-learning course	a course of study that does not involve face-to-face contact between students and tutors
extracurricular	activities undertaken by students outside their studies
feedback (on assessment)	advice to students following their completion of a piece of assessed or examined work
formative assessment	a type of assessment designed to help students learn more effectively, to progress in their studies and to prepare for summative assessment; formative assessment does not contribute to the final mark, grade or class of degree awarded to students

higher education provider	organisations that deliver higher education
independent learning	learning that occurs outside the classroom that might include preparation for scheduled sessions, follow-up work, wider reading or practice, completion of assessment tasks, or revision
intensity of study	the time taken to complete a part-time course compared to the equivalent full-time version: for example, half-time study would equate to 0.5 intensity of study
lecture	a presentation or talk on a particular topic; in general lectures involve larger groups of students than seminars and tutorials
learning zone	a flexible student space that supports independent and social learning
material information	information students need to make an informed decision, such as about what and where to study
mode of study	different ways of studying, such as full-time, part-time, e-learning or work-based learning
modular course	a course delivered using modules
module	a self-contained, formally structured unit of study, with a coherent and explicit set of learning outcomes and assessment criteria; some providers use the word 'course' or 'course unit' to refer to individual modules
national teaching fellowship	a national award for individuals who have made an outstanding impact on student learning and the teaching profession
navigability (of websites)	the ease with which users can obtain the information they require from a website
optional module	a module or course unit that students choose to take
performance (examinations)	a type of examination used in performance-based subjects such as drama and music
professional body	an organisation that oversees the activities of a particular profession and represents the interests of its members
prospective student	those applying or considering applying for any programme, at any level and employing any mode of study, with a higher education provider

regulated course	a course that is regulated by a regulatory body
regulatory body	an organisation recognised by government as being responsible for the regulation or approval of a particular range of issues and activities
scholarship	a type of bursary that recognises academic achievement and potential, and which is sometimes used interchangeably with 'bursary'
semester	either of the parts of an academic year that is divided into two for purposes of teaching and assessment (in contrast to division into terms)
seminar	seminars generally involve smaller numbers than lectures and enable students to engage in discussion of a particular topic and/or to explore it in more detail than might be covered in a lecture
summative assessment	formal assessment of students' work, contributing to the final result
term	any of the parts of an academic year that is divided into three or more for purposes of teaching and assessment (in contrast to division into semesters)
total study time	the total time required to study a module, unit or course, including all class contact, independent learning, revision and assessment
tutorial	one-to-one or small group supervision, feedback or detailed discussion on a particular topic or project
work/study placement	a planned period of experience outside the institution (for example, in a workplace or at another higher education institution) to help students develop particular skills, knowledge or understanding as part of their course
workload	see 'total study time'
written examination	a question or set of questions relating to a particular area of study to which candidates write answers usually (but not always) under timed conditions

