

## Course Specification

<b>A. Course Information</b>																			
<b>Final award title(s)</b>	MSc Civil Engineering																		
<b>Intermediate exit award title(s)</b>	PgDip Civil Engineering PgCert Civil Engineering																		
<b>UCAS Code</b>		<b>Course Code(s)</b>	5289 (FT); 5290 (PT)																
<b>Awarding Institution</b>	London South Bank University																		
<b>School</b>	<input type="checkbox"/> ASC <input type="checkbox"/> ACI <input checked="" type="checkbox"/> BEA <input type="checkbox"/> BUS <input type="checkbox"/> ENG <input type="checkbox"/> IHSC <input type="checkbox"/> LSS																		
<b>Division</b>	Civil and Building Services Engineering																		
<b>Course Leader</b>	Dr Finian McCann																		
<b>Delivery site(s) for course(s)</b>	<input checked="" type="checkbox"/> Southwark <input type="checkbox"/> Havering <input type="checkbox"/> Croydon <input type="checkbox"/> Other: (please specify)																		
<b>Mode(s) of delivery</b>	<input checked="" type="checkbox"/> Full time <input checked="" type="checkbox"/> Part time <input type="checkbox"/> Other (please specify)																		
<b>Length of course/start and finish dates</b>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">Mode</th> <th style="padding: 5px;">Length (months)</th> <th style="padding: 5px;">Start - month</th> <th style="padding: 5px;">Finish - month</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Full time</td> <td style="padding: 5px;">16</td> <td style="padding: 5px;">Jan</td> <td style="padding: 5px;">May</td> </tr> <tr> <td style="padding: 5px;">Full time with placement</td> <td style="padding: 5px;">n/a</td> <td style="padding: 5px;">n/a</td> <td style="padding: 5px;">n/a</td> </tr> <tr> <td style="padding: 5px;">Part time</td> <td style="padding: 5px;">28</td> <td style="padding: 5px;">Jan</td> <td style="padding: 5px;">May</td> </tr> </tbody> </table>			Mode	Length (months)	Start - month	Finish - month	Full time	16	Jan	May	Full time with placement	n/a	n/a	n/a	Part time	28	Jan	May
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Full time	16	Jan	May																
Full time with placement	n/a	n/a	n/a																
Part time	28	Jan	May																
<b>Is this course suitable for a Visa Sponsored Student?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Students are advised that the structure/nature of the course is suitable for those on a Tier 4 visa, but other factors will be considered before a CAS number is allocated																		
<b>Approval dates:</b>	Course Validation date	Revalidated September 2023																	
	Course Review date	September 2028																	

	Course Specification last updated	September 2023
<b>Professional, Statutory &amp; Regulatory Body accreditation</b>	Joint Board of Moderators (on behalf of the Engineering Council), comprising; <ul style="list-style-type: none"> <li>• The Institution of Civil Engineers</li> <li>• The Institution of Structural Engineers</li> <li>• The Chartered Institution of Highways and Transportation</li> <li>• The Institute of Highway Engineers</li> <li>• The Permanent Way Institution</li> </ul> Accredited to 2024 intake.	
<b>Link to Institute of Apprenticeship (IoA) Standard and Assessment Plan (Apprenticeship only)</b>	n/a	
<b>Reference points (add or remove from internal and external points as necessary)</b>	Internal	<ul style="list-style-type: none"> <li>• Corporate Strategy 2020-2025</li> <li>• Academic Quality and Enhancement Website</li> <li>• School Strategy</li> <li>• LSBU Academic Regulations</li> <li>• LSBU Curriculum Framework</li> </ul>
	External	<ul style="list-style-type: none"> <li>• Engineering Council, Accreditation of Higher Education Programmes (Fourth Edition 2022);</li> <li>• Joint Board of Moderators Guidelines for Developing Degree Programmes, April 2022</li> <li>• QAA The UK Quality Code for Higher Education 2023</li> <li>• Subject Benchmark Statements (Dated)</li> <li>• OfS Guidance</li> <li>• PSRBs</li> <li>• SEEC Level Descriptors 2021</li> </ul>
<b>B. Course Aims and Features</b>		
<b>Distinctive features of course</b>	This is a comprehensive civil engineering course covering a range of civil engineering disciplines including structures, geotechnics, water engineering, transportation, computational modelling, and conservation. The technical modules of the course develop the understanding and application of advanced principles and practices of these specialised subjects. Concepts, principles and modelling techniques related to structural engineering are taught in Advanced Structural Design, and Finite Elements and Stress Analysis. The interaction of geotechnics and structures is taught the Soil-Structure Engineering. The Water Engineering module delivers teaching on hydraulics,	

	<p>hydrology and groundwater flow. Transportation engineering disciplines are studied in Highway Engineering and Operations, and Railway Engineering and Asset Management.</p> <p>In order to qualify for a full Master's degree, in addition to their taught modules, students are required to complete an individual project in a specific area of the course, where they are expected to pursue a course of independent study under the supervision of an academic specialised in their chosen field of research. The work is to be of an investigative nature having an experimental, analytical, computational modelling or fieldwork methodology.</p> <p>To aid students' development and awareness of professional engineering practices expected by professional bodies, seminars on ethics, law, commercial awareness and research methods are delivered on the Professional Engineering and Research Skills module.</p>
<p><b>Course Aims</b></p>	<p>The MSc Civil Engineering course aims to:</p> <ol style="list-style-type: none"> <li>1. Produce graduates with the most up-to-date training and technical knowledge in advanced civil engineering disciplines, including knowledge of industry-leading analysis software and awareness of current best practice in the industry.</li> <li>2. Produce graduates equipped to take up professional employment in the wider construction industry and civil engineering discipline, and become lifelong learners with an appreciation of the value to society of an education in civil engineering;</li> <li>3. Produce graduates with competent understanding of the key aspects of civil engineering professional practice, including ethics, legal responsibilities, commercial awareness, health and safety, and equality, diversity and inclusion.</li> <li>4. Allow graduates to acquire and develop problem-solving skills, and subject-specific skills;</li> <li>5. Develop graduates who bring practical solutions to design problems and who have the technical skills to see their ideas through to realisation;</li> <li>6. Provide an opportunity to those in full-time employment to study towards a degree in civil engineering on a part-time basis;</li> <li>7. Provide an engineering education centred within the built environment that recognises the important roles of other professions in the development of the built environment and cultivates interaction and teamwork with these other professionals.</li> </ol>
<p><b>Course Learning Outcomes</b></p>	<p>The Course has been designed in order to specifically meet and fulfil the Engineering Council Accredited Higher Education Programmes Fourth Edition (AHEP4) Learning Outcomes. These are provided below for reference throughout this Course Specification document.</p> <p><u>All eighteen M level Learning Outcomes from AHEP4 are addressed by the Course in order to accommodate students enrolling from different educational backgrounds and undergraduate course structures. Thus, students who may not necessarily have covered all B or C level Learning Outcomes at undergraduate level will not be disadvantaged, which is a positive effect for Inclusivity.</u></p> <p><b>M1.</b> Apply a comprehensive knowledge of mathematics, statistics, natural science and engineering principles to the solution of complex problems. Much of the knowledge will be at the forefront of the particular subject of study and informed by a critical awareness of new developments and the wider context of engineering.</p> <p><b>M2.</b> Formulate and analyse complex problems to reach substantiated conclusions. This will involve evaluating available data using first principles of mathematics,</p>

statistics, natural science and engineering principles, and using engineering judgment to work with information that may be uncertain or incomplete, discussing the limitations of the techniques employed.

**M3.** Select and apply appropriate computational and analytical techniques to model complex problems, discussing the limitations of the techniques employed.

**M4.** Select and critically evaluate technical literature and other sources of information to solve complex problems.

**M5.** Design solutions for complex problems that evidence some originality and meet a combination of societal, user, business and customer needs as appropriate. This will involve consideration of applicable health and safety, diversity, inclusion, cultural, societal, environmental and commercial matters, codes of practice and industry standards.

**M6.** Apply an integrated or systems approach to the solution of complex problems.

**M7.** Evaluate the environmental and societal impact of solutions to complex problems (to include the entire lifecycle of a product or process) and minimise adverse impacts.

**M8.** Identify and analyse ethical concerns and make reasoned ethical choices informed by professional codes of conduct.

**M9.** Use a risk management process to identify, evaluate and mitigate risks (the effects of uncertainty) associated with a particular project or activity.

**M10.** Adopt a holistic and proportionate approach to the mitigation of security risks.

**M11.** Adopt an inclusive approach to engineering practice and recognise the responsibilities, benefits and importance of supporting equality, diversity and inclusion.

**M12.** Use practical laboratory and workshop skills to investigate complex problems.

**M13.** Select and apply appropriate materials, equipment, engineering technologies and processes, recognising their limitations.

**M14.** Discuss the role of quality management systems and continuous improvement in the context of complex problems.

**M15.** Apply knowledge of engineering management principles, commercial context, project and change management, and relevant legal matters including intellectual property rights.

**M16.** Function effectively as an individual, and as a member or leader of a team. Evaluate effectiveness of own and team performance.

**M17.** Communicate effectively on complex engineering matters with technical and non-technical audiences, evaluating the effectiveness of the methods used.

**M18.** Plan and record self-learning and development as the foundation for lifelong learning/CPD.

## C. Teaching and Learning Strategy

The Course has been designed in line with the best pedagogical theories to reflect a broad range of teaching methods, learning styles, practical activities and exposure to the most up-to-date professional practice. Through a combination of lectures, seminars, tutorials, practical classes, coursework, design, computer sessions, project work and self-study, students will not only develop their competency in various civil engineering disciplines but also the communication, collaborative and creative skills that formulate a successful, talented engineer. In the descriptions provided below, direct reference is made to the Course Outcomes, i.e., the AHEP4 Learning Outcomes, mentioned in Section B, with the specific modules achieving them underlined.

Information about resources can also be found on Home Page - London South Bank University (lsbu.ac.uk). Further, student can contact staff via Salesforce and the student services via MyAccount. In the case of MyAccount, students can do live Chat from the bottom right corner to get a prompt response. Students are supported throughout this strategy and the activities involved primarily through SAL and MyAccount as the default, with additional support offered via our VLE moodle, Microsoft Teams, emails, and direct face-to-face meetings.

When necessary, due to professional, personal, health or other circumstances, hourly paid lecturers, PhD students, or any other qualified person can cover part of the lectures and activities of this course. This could also include guest lecturers, who will be introduced by the module leader. Guest lecturers will be bought in to provide students with information on how what they are doing relates to industrial practice, advancements in the industry around a particular subject area and the current research that is being carried out within that subject area. They will be always supervised by academics covering the role of module leaders and course directors.

The technical fundamentals, scientific principles and methodologies underpinning the various disciplines comprising the course are taught across most modules (AHEP4 LO **M1**), including structural mechanics in Advanced Structural Design, and Finite Elements and Stress Analysis, fluid mechanics in Water Engineering, and geomechanics and constitutive modelling in Soil-Structure Engineering.

More specifically then, the mathematical and statistical methods necessary to underpin these scientific principles (AHEP4 LO **M2**) are taught in Soil-Structure Engineering, Water Engineering, and Highway Engineering and Operations.

Having knowledge of these fundamental and mathematical modelling techniques, it is then important to be able to apply and integrate knowledge and understanding of other engineering disciplines to support their studying of civil engineering (AHEP LO **M3**), in addition to the ability to evaluate them critically and to apply them effectively (AHEP LO **M4**); such skills are taught and assessed in Finite Elements and Stress Analysis, Soil-Structure Engineering and Water Engineering, and in Railway Engineering and Asset Management and the research project (BEA 7 497 Project – MSc).

Knowledge of relevant codes of practice (AHEP LO **M5**), in particular the European structural design framework (as known as the Eurocodes) are taught in Advanced Structural Design (Eurocodes 0, 1, 2, 3 and 4), and Soil-Structure Engineering (Eurocode 7). Instruction in the use of these standards is bolstered through our teaching of current industry best practice in these disciplines.

Knowledge and understanding of the commercial, economic and social context of engineering processes (AHEP LO **M7**) are taught through an integrated design project in Advanced Structural Design and through modelling of groundwater flow in Water Engineering. Specifically, awareness of the need for engineering activities to promote sustainable development are taught in dedicated sessions in Advanced Structural Design.

The importance of understanding the need for a high level of professional and ethical conduct in engineering (AHEP LO **M8**) is taught directly through seminars and assessed in online quizzes in the Professional Engineering and Research Skills module.

Mitigating security risks (AHEP LO **M10**) is taught via seminars in the Professional Engineering and Research Skills module. Awareness of relevant legal requirements governing engineering activities, including personnel, health & safety, contracts, product safety and liability issues (contributing to AHEP LO **M5**) are taught in Highway Engineering and Operations.

Knowledge of management techniques, including project and change management (AHEP LO **M15**), are taught in detail via contributions by guest lecturers from the industry in Railway Engineering and Asset Management. There are also project management and employability seminars in the Professional Engineering and Research Skills module, which are assessed via online quizzes.

Analysis and problem-solving skills are developed through tutorial problems and design-based coursework exercises, while experimental and research skills are developed through laboratory demonstrations, research and design projects.

The ability to apply quantitative and computational methods, using alternative approaches and understand their limitations, in order to solve engineering problems and to implement appropriate action. (AHEP LO **M2**) is developed and taught on Soil-Structure Engineering and Water Engineering through computational modelling coursework taught throughout the semester.

An understanding of engineering principles and the ability to apply them to undertake critical analysis of key engineering processes (contributing to AHEP LO **M3**) is developed in particular on Soil-Structure Engineering, Advanced Structural Design, and Highway Engineering and Operations.

The ability to understand and evaluate business, customer and user needs, including considerations such as the wider engineering context, public perception and aesthetics. (contributing to AHEP LO **M5**) is developed specifically on Advanced Structural Design, and Highway Engineering and Operations.

The ability to apply, an integrated or systems approach to solving engineering problems (AHEP LO **M6**) is developed on Water Engineering and by undertaking the individual research project (Project – MSc). Such skills are also developed across the Advanced Structural Design group project.

Considerations of the life-cycle implications of an engineering system (AHEP LO **M7**) are developed through work in Advanced Structural Design, Highway Engineering and Operations, and Railway Engineering and Asset Management.

The ability to work with information that may be incomplete or uncertain, and to quantify such effects (AHEP LO **M9**) is developed on Advanced Structural Design group design project and the Railway Engineering and Asset Management coursework components, where the students are given an initial brief and must conduct further research to complete the task.

Students gain the skills to plan and manage the design process, including selecting appropriate materials and technologies (AHEP LO **M13**) on the Soil-Structure Engineering and Railway Engineering and Asset Management modules.

In addressing a key skill for practicing professional engineers, students communicate their work to technical and non-technical audiences (AHEP LO **M17**) as a mandatory component of the Project – MSc module. In addition, the group design project for Advanced Structural Design involves a presentation to the industry partners setting the design brief.

Throughout the course, students are exposed to practical skills that are developed through laboratory demonstrations, field trips and research project work, and thus gain the ability to apply relevant practical and laboratory skills to their future professions (AHEP LO **M12**).

A key component of the individual project (Project – MSc) is the ability to conduct a considered review of technical literature and other information sources. (AHEP LO **M4**)

Through such activities, students gain an understanding of the contexts in which engineering knowledge can be applied in practice (AHEP LO **M13**), in particular during the Highway Engineering and Operations field trip, the structural testing demonstration in Finite Element and Stress Analysis, and for students undertaking experimental topics, the individual research project (Project – MSc).

Knowledge of relevant legal and contractual issues (con, which form part of the competencies required for Chartership with the professional bodies that constitute the JBM, is developed via seminar sessions and online quizzes in the Professional Engineering and Research Skills module.

A practical appreciation of quality issues and their application to continuous improvement (AHEP LO **M14**) is developed on Finite Elements and Stress Analysis through understanding of the effects of parameter selection on the accuracy of modelling results, and Railway Engineering and Asset Management when discussing maintenance of rolling stock and railway assets.

Addressing the key engineering attribute of co-operation and collaboration, the ability to acknowledge the strengths of different roles within an engineering team and the ability to exercise initiative and personal responsibility, which may be as a team member or leader (AHEP LO **M16**) is developed through team work on the Advanced Structural Design group design project, and the Highway Engineering and Operations field work, which is also conducted in groups. In conducting these group works, students are also encouraged and expected to be inclusive and conscious of issues surrounding equality and diversity in the work (AHEP LO **M11**).

Transferrable skills are developed through a combination of presentations, meeting coursework deadlines, analytical work, design work and individual learning.

By apply their skills in problem-solving, communication, information retrieval, being inclusive of others and the effective use of general IT facilities across all modules, the students satisfy AHEP LO **M4** and **M11**.

Through regular assessments, extensive research project commitment, and by planning self-learning to improve their performance, students are laying the foundation for future professional development. (AHEP LO **M18**), including monitoring and adjusting a personal programme of work, which is inherent in conducting the individual research project (Project – MSc).

Throughout their studies, students are expected to exercise initiative and personal responsibility, which may also be as a team member or leader, in line with AHEP LO **M16**.

## D. Assessment

The assessment in this course is made by coursework (CW) and exams (EX).

CW can be in the form of phase-tests, reports, quizzes, etc. (individual or in groups; on-campus and/or online via Moodle).

Exams are individual assessments and can be in the form of on-campus written exercises or online.

There are modules which are CW 100%, there are others with different weights on CW and exams. CW can have several components.

The modality is defined module by module in the module guides.

Details about weights can be found at **H. Course Modules** in these specifications.

This course, through its modules, includes summative and formative assessments for students to prepare for their exams.

Summative assessments are the assessments that define the student's official marks on coursework and exams.

A formative assessment is like a summative assessment, but the marks obtained (if any) are not part of the official assessment. These marks are just a tool for the student to test themselves. A formative

assessment can be a previous year's coursework or exam paper, an original coursework or an original exam paper, quizzes, tests, etc. This will be decided and designed by the module leader.

Summative assessments can be reviewed and clarified after the students' requirements but the academic judgment will prevail (principle of academic judgment independence). When students are dissatisfied with their marks, they have an official appeal process to follow.

## E. Academic Regulations

The University's Academic Regulations apply for this course, with any course specific protocols identified therein:

<https://www.lsbu.ac.uk/about-us/policies-regulations-procedures>

### Compensation

A compensated pass is awarded if a minimum of 30% for undergraduate and 40% for masters is achieved at a component level and a minimum of 30% for undergraduate and 40% for masters is achieved at the module level.

A maximum of 20 credits can be compensated, throughout the whole course, excluding the Final Year Project.

### **Condonement**

No Condonement of modules is allowed

## F. Entry Requirements

In order to be considered for entry to the course applicants will be required to have one of the following qualifications:

- An undergraduate civil engineering degree with a minimum of a BEng (Hons) – Lower Second (2.2) classification, or equivalent degree from an engineering discipline; or
- An undergraduate civil engineering or architectural engineering degree with a minimum of a BSc (Hons) – Upper Second (2.1) classification, or equivalent degree from an engineering discipline; or
- Applicants with appropriate relevant professional engineering or construction experience deemed to be equivalent to an undergraduate degree will also be considered - their educational background and qualifications will be mapped against the course LOs in order to ensure equivalent Level 6 degree outcomes have been achieved.

For applicants whose first language is not English, an IELTS score of 6.5 or equivalent is required.

## G. Course Structure

The Course is run on Thursdays and Fridays. Part-time students attend on Thursdays in their first year and on Fridays in their second year. All taught modules are "short and thin", running across a single semester and assessed during the end-of-semester exam week (if applicable); professional engineering practice is covered in a zero-credit module, Professional Engineering and Research Skills.

Module Title	Module Code	Semester	Assessment	Weighting CW/EX	Mode / Day / Time
Soil-Structure Engineering	BEA_7_499	2	CW	100 CW	FT & PT1, Thurs am



Railway Engineering and Asset Management	BEA_7_481	2	CW/EX	50/50	FT & PT1, Thurs pm
Highway Engineering and Operations	BEA_7_480	2	CW/EX	50/50	FT & PT2, Friday am
Advanced Structural Design	BEA_7_449	1	CW/EX	60/40	FT & PT1, Thurs am
Finite Elements and Stress Analysis	BEA_7_494	1	CW	100 CW	FT & PT1, Thurs pm
Water Engineering	BEA_7_495	1	CW/EX	500/50	FT & PT2, Friday am
Professional Engineering and Research Skills	BEA_7_490	1,2	CW	100 CW	FT & PT2, Friday pm
Project - MSc	BEA_7_497	3	CW	100 CW	FT & PT2, Friday pm

CW/EX: Coursework / Examination

## H. Course Modules

All modules are core modules; there are no optional modules.

Module Code	Module Title	Semester	Credit value	Assessment CW / EX
BEA_7_499	Soil-Structure Engineering	2	20	100 CW
BEA_7_481	Railway Engineering and Asset Management	2	20	50 / 50
BEA_7_480	Highway Engineering and Operations	2	20	50 / 50
BEA_7_449	Advanced Structural Design	1	20	60 / 40
BEA_7_494	Finite Elements and Stress Analysis	1	20	100 CW
BEA_7_495	Water Engineering	1	20	50 / 50
BEA_7_490	Professional Engineering and Research Skills	1,2	-	100 CW
BEA_7_497	Project - MSc	3	60	100 CW

## I. Timetable Information

Timetables will be provided to newly enrolled students at course induction the week ahead of the start of the academic year. The MSc course is run across Thursdays and Fridays across the two semesters. The timetable is shown in section G, with four-hour lecture sessions held across 12-week semesters; the Professional Engineering and Research Skills module is delivered via one-hour seminars covering specific aspects of engineering practice.

## J. Costs and Financial Support

Information on tuition fees/financial support can be found by clicking on the following link:  
<http://www.lsbu.ac.uk/study/undergraduate/fees-and-funding> or  
<http://www.lsbu.ac.uk/study/postgraduate/fees-and-funding>  
<https://www.lsbu.ac.uk/international/fees-and-funding>

Information on living costs and accommodation can be found by clicking the following link:  
<https://www.lsbu.ac.uk/student-life/our-campuses/southwark/cost-of-living>

## List of Appendices

Appendix A: Curriculum Map

Appendix B: Personal Development Planning (postgraduate courses)

Appendix C: Terminology

## Appendix A: Curriculum Map

This map provides a design aid to help course teams identify where AHEP4 Learning 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. **LOs are marked “A” if assessed within a particular module.**

Module information		AHEP4 Learning outcomes								
Title	Code	M1	M2	M3	M4	M5	M6	M7	M8	M9
Advanced Structural Design	BEA_7_449					TDA		TDA		TDA
Finite Elements & Stress Analysis	BEA_7_494	TDA		TDA						
Water Engineering	BEA_7_495	TDA	TDA	TDA			TDA	TDA		
Soil-Structure Engineering	BEA_7_499		TDA	TDA						
Highway Engineering & Operation	BEA_7_480		TDA			TDA				
Railway Engineering & Asset Management	BEA_7_481				TDA					TDA
Project - MSc	BEA_7_497				TDA		TDA		TDA	
Title	Code	M10	M11	M12	M13	M14	M15	M16	M17	M18
Advanced Structural Design	BEA_7_449		TDA					TDA		
Finite Elements & Stress Analysis	BEA_7_494					TDA				
Water Engineering	BEA_7_495									
Soil-Structure Engineering	BEA_7_499				TDA					
Highway Engineering & Operation	BEA_7_480		TDA	TDA				TDA		
Railway Engineering & Asset Management	BEA_7_481				TDA	TDA	TDA			
Project - MSc	BEA_7_497	TDA					TDA		TDA	TDA

## Appendix B: Personal Development Planning

Personal Development Planning (PDP) is a structured process by which an individual reflects upon their own learning, performance and/or achievement and identifies ways in which they might improve themselves academically and more broadly. Course teams are asked to indicate where/how in the course/across the modules this process is supported.

Approach to PDP	Level 7
1 Supporting the development and recognition of skills through the personal tutor system.	The Course Director is the personal tutor of all the students (full- time and part-time). This is brought to the attention of all students at induction and regularly during the year. Each student will be offered a 15 minutes interview with the Personal Tutor, once in each of the two semesters; items discussed will be noted in the students' PDP diary.
2 Supporting the development and recognition of skills in academic modules/modules.	All modules are structured so that the combination of coursework exercises introduce and develop the technical skills at the post-graduate level in the fields of experimentation, hands-on computer modelling, design exercises, critical analysis, analysis methodologies, data interpretation and verification, research methodologies. Assessed coursework, in stages, provide the feedback for the consolidation and improvement of these academic skills.
3 Supporting the development and recognition of skills through purpose designed modules/modules.	The modules have been designed to support the development of skills in civil and structural engineering.
4 Supporting the development and recognition of skills through research projects and dissertations work.	Students will develop research skills in a variety of the modules, but in particular in the project module.
5 Supporting the development and recognition of career management skills.	An academic staff, who is the Liaison Officer for the Institution of Civil Engineers briefs the students on the benefits of the student membership of the institution. The London Branch of the Institution of Civil Engineers visits the students on site and briefs them about the activities and the benefits of the membership of the local activities, and routes to Chartership. Similar links through academic staff will be formed with other relevant professional bodies including the Chartered Institute of Highways and Transportation, the Institution of Highway Engineers, and the Institution of Structural Engineers. Students are encouraged to use the LSBU Careers Office for CV preparation, interview skills, job vacancies.

6 Supporting the development and recognition of career management skills through work placements or work experience.	There are employability sessions and work fairs that take place to support students gain work experience.
7 Supporting the development of skills by recognising that they can be developed through extra curricula activities.	Field trips and site visits are organised by members of the teaching team throughout the academic year.
8 Supporting the development of the skills and attitudes as a basis for continuing professional development.	Notices of lectures and presentations at the Institution of Civil Engineers, the Institution of Structural Engineers, the Chartered Institute of Highways and Transportation and the Institution of Highway Engineers are brought to the students' attention.
9 Other approaches to personal development planning.	Not applicable.
10 The means by which self-reflection, evaluation and planned development is supported e.g. electronic or paper-based learning log or diary.	Weekly meetings for the Project between the student and the supervisor. Written and/or verbal feedback on assessed coursework.

## Appendix C: Terminology

(Please review the definitions and add those 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:

<b>accelerated degree</b>	accelerated degrees (also known as two-year degrees) are full bachelor's degrees (undergraduate courses) you can complete in a condensed time period
<b>awarding body</b>	a UK higher education provider (typically a university) with the power to award higher education qualifications such as degrees
<b>bursary</b>	a financial award made to students to support their studies; sometimes used interchangeably with 'scholarship'
<b>collaborative provision</b>	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
<b>compulsory module</b>	a module that students are required to take
<b>contact hours</b>	the time allocated to direct contact between a student and a member of staff through, for example, timetabled lectures, seminars and tutorials
<b>coursework</b>	student work that contributes towards the final result but is not assessed by written examination
<b>current students</b>	students enrolled on a course who have not yet completed their studies or been awarded their qualification
<b>delivery organisation</b>	an organisation that delivers learning opportunities on behalf of a degree-awarding body
<b>end-point assessment</b>	End-point assessment (EPA) tests the knowledge, skills and behaviours that an apprentice has gained during their training. Unique to each standard, EPA demonstrates the competence of an apprentice in their role. Only approved End-Point

	Assessor Organisations (EPAOs) can carry out assessments as set out in the assessment plan.
<b>extended degree</b>	an extended degree provides a bridging route for students who don't meet the initial entry requirements for the undergraduate degree. The first year provides the necessary knowledge and skills before students begin the degree-level course.
<b>extracurricular</b>	activities undertaken by students outside their studies
<b>feedback (on assessment)</b>	advice to students following their completion of a piece of assessed or examined work
<b>formative assessment</b>	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
<b>foundation</b>	foundation year programmes are designed to develop skills and subject-specific knowledge to ensure a student can advance to a degree course. They may be offered as stand-alone one-year courses or integrated into degree programmes.
<b>gateway</b>	gateway takes place before an End-Point Assessment (EPA) can start. The employer and LSBU will review their apprentice's knowledge, skills and behaviours to see if they have met the minimum requirements of the apprenticeship set out in the apprenticeship standard, and are ready to take the assessment. Usually includes off the job training and reviews.
<b>higher education provider</b>	organisations that deliver higher education
<b>independent learning</b>	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
<b>integrated</b>	an integrated Master's degree combines undergraduate and postgraduate study. In relation to Apprenticeships, integrated

	would usually mean that the End-Point Assessment (EPA) is integrated with the academic award
<b>intensity of study</b>	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
<b>lecture</b>	a presentation or talk on a particular topic; in general lectures involve larger groups of students than seminars and tutorials
<b>material information</b>	information students need to make an informed decision, such as about what and where to study
<b>mode of study</b>	different ways of studying, such as full-time, part-time, e-learning or work-based learning
<b>module</b>	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 'unit' to refer to individual modules
<b>national teaching fellowship</b>	a national award for individuals who have made an outstanding impact on student learning and the teaching profession
<b>non-integrated</b>	in relation to Apprenticeships, non-integrated would usually mean that the End-Point Assessment (EPA) is not integrated with the academic award
<b>optional module</b>	a module or course unit that students choose to take
<b>performance (examinations)</b>	a type of examination used in performance-based subjects such as drama and music
<b>pre-registration (HSC only)</b>	a pre-registration course is designed for students who are not already registered with an independent regulator such as the Nursing and Midwifery Council (NMC)
<b>professional body</b>	an organisation that oversees the activities of a particular profession and represents the interests of its members

<b>prospective student</b>	those applying or considering applying for any programme, at any level and employing any mode of study, with a higher education provider
<b>regulated course / regulatory body</b>	a course that is regulated by a regulatory body, which is an organisation recognised by government as being responsible for the regulation or approval of a particular range of issues and activities
<b>scholarship</b>	a type of bursary that recognises academic achievement and potential, and which is sometimes used interchangeably with 'bursary'
<b>semester</b>	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)
<b>seminar</b>	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
<b>summative assessment</b>	formal assessment of students' work, contributing to the final result
<b>term</b>	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)
<b>top-up degree</b>	A top-up degree is the final year (Level 6) of an undergraduate degree course. It allows students to top-up an existing qualification to a full BA, BSc or BEng.
<b>total study time / workload</b>	the total time required to study a module, unit or course, including all class contact, independent learning, revision and assessment
<b>tutorial</b>	one-to-one or small group supervision, feedback or detailed discussion on a particular topic or project
<b>work/study placement</b>	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
<b>written examination</b>	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