

Course Specification

| A. Course Information | | | | | | | | | | | |
|---|---|---|----------------|------|--------------|---------------|----------------|-----------|---------|-----------|------|
| Final award title(s) | HNC Civil Engineering Apprenticeship | | | | | | | | | | |
| Intermediate exit award title(s) | N/A | | | | | | | | | | |
| UCAS Code | | Course Code(s) | 4953 | | | | | | | | |
| | London South Bank University | | | | | | | | | | |
| School | <input type="checkbox"/> ASC <input type="checkbox"/> ACI <input checked="" type="checkbox"/> BEA <input type="checkbox"/> BUS <input type="checkbox"/> ENG <input type="checkbox"/> HSC <input type="checkbox"/> LSS | | | | | | | | | | |
| Division | Civil and Building Services Engineering | | | | | | | | | | |
| Course Director | Carlos Gonzalo | | | | | | | | | | |
| 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 type="checkbox"/> Full time <input checked="" type="checkbox"/> Part time <input type="checkbox"/> other please specify | | | | | | | | | | |
| Length of course/start and finish dates | <table border="1"> <thead> <tr> <th>Mode</th> <th>Length years</th> <th>Start - month</th> <th>Finish - month</th> </tr> </thead> <tbody> <tr> <td>Part time</td> <td>2 years</td> <td>September</td> <td>July</td> </tr> </tbody> </table> | | | Mode | Length years | Start - month | Finish - month | Part time | 2 years | September | July |
| Mode | Length years | Start - month | Finish - month | | | | | | | | |
| Part time | 2 years | September | July | | | | | | | | |
| Is this course generally suitable for students on a Tier 4 visa? | Please complete the International Office questionnaire No | | | | | | | | | | |
| Approval dates: | Course(s) validated / Subject to validation | Revalidated May 2021 | | | | | | | | | |
| | Course specification last updated and signed off | May 2021 | | | | | | | | | |
| Professional, Statutory & Regulatory Body accreditation | Joint Board of Moderators on behalf of the: Institution of Civil Engineers, Institution of Structural Engineers Chartered Institution of Highways & Transportation Institute of Highway Engineers Approved to 2024 intake | | | | | | | | | | |
| Reference points: | Internal | - Corporate Strategy 2015-2020 - Academic Quality and Enhancement Manual - School Strategy - LSBU Academic Regulations | | | | | | | | | |

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| | External | <ul style="list-style-type: none"> - QAA Quality Code for Higher Education 2018 - Framework for Higher Education Qualifications Subject Benchmark Statements (2015) - SEEC Level Descriptors 2016 - Competitions and Markets Authority - The course is informed by the Joint Board of Moderators Guidelines for Developing Degree Programmes, January 2018 (Version 1 – Revision 2) - Institute for Apprenticeships, Construction Site Engineering Technician Standard ST0046 - ICE: Institution of Civil Engineers for EPA and On-the-Job training programme - PSRB - Industrial Advisory Panel for programme support |
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B. Course Aims and Features

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| Distinctive features of course | <p>This course is intended for apprentices who wish to study the discipline of civil engineering to HNC level and who may wish to achieve, by further learning, the professional status of Incorporated Engineer. The course embraces recent industry developments, in particular the introduction of ECUK UK Standard for Professional Engineering Competence (UK-SPEC).</p> <p>The course is ideal for those with either a National Certificate in related topics, or a relevant A-level, to further their studies, and also for those intending to progress to degree level by an apprenticeship route.</p> |
| Course Aims | <p>The Division of Civil Engineering together with the sound structure of apprenticeship scheme set up at LSB aims to provide, in support of the LSBU mission statement, a high quality education and training. This is through its flexible policies on admissions to give opportunities to apprentices with a diverse range of educational backgrounds, including mature candidates with practical experience, committed to a career in civil engineering, and particularly those who may only be able undertake higher education on a part-time basis with one day release.</p> <p>The HNC Civil Engineering Apprenticeship aims to:</p> <ol style="list-style-type: none"> 1. Produce higher technician apprentices who are committed to a technical career in a variety of disciplines. 2. Produce higher technician apprentices equipped to keep on employment in the construction industry and become lifelong learners with the potential to develop into graduate apprentices. |

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| | <ol style="list-style-type: none"> 3. Produce higher technician apprentices who have knowhow and understanding of the fundamental aspects of civil engineering. 4. Allow higher technician apprentices to acquire problem-solving skills and competencies. 5. Produce higher technician apprentices who have knowledge and understanding of the construction industry, construction technology, and the organisation of the process. 6. Provide an engineering education and training centred within the construction industry that recognises the important roles of related professions. 7. For Pearsons to maintain recognition of the HNC Civil Engineering awarded by LSBU. |
| <p>Course Learning Outcomes</p> | <p>The course outcomes have been developed with reference to the JBM guidelines and Engineering Council's Accreditation of Higher Engineering Programmes document, Third Edition (2014). The number and letter in brackets e.g. (SM2i) refer to the Learning Outcomes described in Engineering Council Documentation Appendix C.</p> <p>The curriculum map showing the modules in which the material that each of the learning outcomes covers is taught, developed and assessed is in Appendix A.</p> <p>a) Students will have knowledge and understanding of:</p> <p>A1: Knowledge and understanding of the scientific principles underpinning relevant current technologies, and their evolution. (SM1i)</p> <p>A2: Knowledge and understanding of mathematical and statistical methods necessary to underpin engineering surveying in civil engineering and to enable them to apply mathematical and statistical methods, tools and notations proficiently in the analysis and solution of engineering problems. (SM2i)</p> <p>A3: Understanding of the need for a high level of professional and ethical conduct in engineering and knowledge of professional codes of conduct. (EL1i)</p> <p>A4: Knowledge and understanding of the commercial, economic and social context of engineering processes. (EL2i)</p> <p>A6: Understanding of the requirement for engineering activities to promote sustainable development. (EL4i)</p> <p>A8: Gain awareness of risk issues, including health & safety, environmental and commercial risk (EL6i)</p> |

b) Students will develop their intellectual skills such that they are able to:

B1: Ability to monitor, interpret and apply the results of analysis and modelling in order to bring about continuous improvement. (EA1i)

B2: Ability to apply quantitative methods in order to understand the performance of systems and components. (EA2i)

B3 Ability to use the results of engineering analysis to solve engineering problems and to recommend appropriate action. (EA3i)

B5: Be aware of business, customer and user needs, including considerations such as the wider engineering context, public perception and aesthetics. (D1i)

B6: Define the problem, identifying any constraints including environmental and sustainability limitations; ethical, health, safety, security and risk issues; intellectual property; codes of practice and standards. (D2i)

B7: Work with information that may be incomplete or uncertain and be aware that this may affect the design. (D3i)

B10: Communicate their work to technical and non-technical audiences (D6)

c) Students will acquire and develop practical skills such that they are able to:

C1: Knowledge of contexts in which engineering knowledge can be applied (eg operations and management, application and development of technology, etc). (P1i)

C2: Understanding of and ability to use relevant materials, equipment, tools, processes, or products. (P2i)

C3: Knowledge and understanding of workshop and laboratory practice. (P3i)

C4: Ability to use and apply information from technical literature. (P4i)

C6: Awareness of quality issues and their application to continuous improvement. (P7i)

d) Students will acquire and develop transferrable skills such that they are able to:

D1: Apply their skills in problem solving, communication, information retrieval, working with others and the effective use of general IT facilities. (G1)

D2: Plan self-learning and improve performance, as the foundation for lifelong learning/CPD. (G2)

D4: Exercise personal responsibility, which may be as a team member. (G4i)

Apprenticeship Standards

Knowledge

K1 Health and Safety

Understand the principles and responsibilities imposed law and other regulations in a construction environment

K2 Sustainability

Understand the sustainability issues in projects across economic, social and environmental aspects

K3 Engineering Principles

Understand engineering techniques, procedures and methods and the principles of design

K4 Construction Management

Understand management principles and the project management lifecycle

K5 Planning and Organising Work

Understand the importance of project planning and resourcing and be able to analyse different techniques

K6 Monitor Quality

Able to define the quality required on a finished construction project

Skills

S1 Health and Safety

Identify risk of activities and encourage all employees to demonstrate safety-conscious behaviours

S2 Sustainability

Assess, identify and record the environmental impact of projects

S3 Engineering Solutions

Assist in the implementation of the most appropriate solutions for construction projects

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| | <p>S4 Construction Management Use effective management principles and be able to supervise construction workers</p> <p>S5 Planning and Organising Work Understand overall plan for project and measure and record progress against plan</p> <p>S6 Monitor Quality Assess and report on quality standards of finished construction projects</p> <p>Behaviours</p> <p>B1 Professional Judgement Be able to work within own level of competence and know when to seek advice from others</p> <p>B2 Commitment to Code of Ethics Work within Rules and Regulations of Professional Competence and Conduct for the relevant PEI</p> <p>B3 Continuing Professional Development Identify own development needs and take action to meet those needs. Use own knowledge and expertise to help others when requested.</p> <p>B4 Commitment to Equality and Diversity Understand the importance of equality and diversity and demonstrate these attributes so as to meet the requirements of fairness at work.</p> <p>B5 Communicate Effectively Be able to contribute effectively to meetings and present information in a variety of ways including oral and written.</p> <p>B6 Work in Teams Be able to work with others in a collaborative</p> <p>B7 Demonstrate Innovation Be able to identify areas for improvement and suggest innovative solutions.</p> |
| <p align="center">C. Teaching and Learning Strategy</p> <p>Knowledge and Understanding</p> <p>Teaching methods include lectures, tutorial, experiments, computing and online sources for self-study.</p> <p>Scientific principles underpinning structures, materials, Surveying principles and Fluid Mechanics (outcome A1) (standard K3) are taught at this level.</p> | |

Mathematics B (**outcome A2) (standard K3)** is taught at level 4 using lectures, tutorials, and online formative assessments. Basic mathematics skills are revised in the Structures and Construction Technology B and fluid Mechanics B modules, and more advanced theory and statistics in Mathematics B module.

Students are taught professional and ethical conduct (**outcome A3) (standard K1, K6, B2)** in Construction Practice C module at level 4.

Knowledge and understanding of the commercial, economic and social context of engineering processes (**Outcome A4) (standard K6)** is taught in Structures and Construction Technology B.

Sustainability (**outcome A6) (standard K2, S2)** principles and analysis are taught at level 4 in Construction Practice C and Materials and Geology C modules.

The application of health and safety is through risk assessment (**Outcome A8)** (standard K1, S1), which students are introduced to in lab work.

Intellectual Skills

Students are taught to interpret and assess their results (**outcome B1) (standard S3)** in most level 4 modules.

The ability to use calculations (**outcome B2) (standard S3)** is taught in Mathematics B.

Students are taught to apply their results (**outcome B3) (standard S3)** in Engineering Surveying at level 4.

Students are taught the necessity to understand end users' needs (**outcome B5) (standard K6, S6)** in the Construction Practice C module and develop this through the group design projects in the same module.

The skill of defining the problem (**outcome B6) (standard S3)** is taught in Construction Practice C, as well as tackling uncertainty and incomplete information (**Outcome B7) (Standard B7)**.

In design projects in Construction Practice C students learn how to manage and use the design process and also to communicate their work (**outcome B10) (standard K4, S4, B5)**

Practical Skills

Students appreciate the context of engineering (**outcome C1) (standard K5, S5)** in Structures and Construction Technology B at level 4.

Understanding of materials, equipment etc. (**outcome C2) (standard K3, S3)** and the laboratory practice (**outcome C3) (standard K3, S3, B6)** is largely taught and developed at levels 4, in technical and computing laboratories and in lectures and tutorials.

In their study, students are taught to use technical literature related to a specific discipline (**outcome C6)**(standard K5). Q

Quality issues (**outcome C4) (standard K6, S6)** are introduced in Materials and Geology C, in relation to the laboratory experiments.

Transferable Skills

In most level 4 modules, students acquire their **D1 outcome (standard S3)** related skills in communication (Construction Practice C), problem-solving (Mathematics B, Fluid Mechanics B, Structures and Construction Technology B), computing (Construction Practice C, Mechanics B), information retrieval (Materials and Geology C), surveying (Engineering Surveying) and working with others (Construction Practice C).

Self-learning and personal development (**outcome D2) (standard B3, B7)** is taught in Construction Practice C.

Exercising personal responsibility (**outcome D4) (standard B7)** is part of Construction Practice C.

Self study is an integral part of this course and for every module students are expected to complete 148 hours of self study. This does not include contact time in lectures, tutorials and labs which is 52 hours per module.

The library has a number of in-line resources to help students including:

- IHS
- Access to ICE Library.
- British Standards
- Access to numerous construction magazines.

Staff teaching on the course are LSBU Civil Engineering Division staff.

D. Assessment

Knowledge and Understanding

The understanding of scientific principles (**outcome A1) (standard K3)** is assessed through exams and in-class tests in Fluid Mechanics B and Structures and Construction Technology B. Coursework is also used, comprising: laboratory, computing and design reports.

Mathematics B (**outcome A2) (standard K3)** is assessed through phase tests and exams.

Students are assessed professional and ethical conduct (**outcome A3) (standard K1, K6, B2)** in Construction Practice C module.

The knowledge and understanding of the commercial, economic and social context of engineering processes (**outcome A4) (standard K6)** is assessed in Structures and Construction Technology B, through coursework.

Health and safety principles (**outcome A8) (standard K1, S1)** and the understanding of sustainability (**outcome A6) (standard K2, S2)** is assessed in laboratory reports in Materials and Geology C and group project work in the Construction Practice C module.

Intellectual Skills

The interpretation of results (**outcome B1) (standard S3)** is assessed in lab reports where results from two or more different approaches are compared and recommendation given. This mainly occurs in Structures and Construction Technology B.

The ability to use quantitative methods (**outcome B2) (standard S3)** is assessed through tests and exams in Mathematics B.

The application of results (**outcome B3) (standard S3)** is assessed in Materials and Geology C coursework.

Identifying end users' needs (**outcome B5) (standard K6,S6)** is assessed in project work in the Construction Practice C module.

The skill of defining the problem (**outcome B6) (standard S3)** is assessed in most modules, but mainly Materials and Geology C.

The communication skills (**outcome B10) (standard B5)** are assessed in Construction Practice C (academic writing, AutoCAD).

Practical Skills

Structures and Construction Technology B coursework combines real buildings and beam structural analysis (**Outcome C1**).

Understanding of materials, equipment etc. (**outcome C2) (standard K3, S3)** and the laboratory practice (**outcome C3)(standard K3, S3, B6)** is assessed in labs module like Fluid Mechanics B and Materials and Geology C with technical and computing laboratory reports.

The appreciation of quality issues (**outcome C6) (standard K6, S6)** such as the quality of results is included in lab reports in Materials and Geology C.

Transferable Skills

The **D1 outcome (standard S3)** is tested in a variety of ways The most important one in the module Engineering Surveying.

Self-learning and personal development (**outcome D2) (standard B3, B7)** is assessed in Construction Practice C.

Exercising personal responsibility (**outcome D4)(standard B7)** is assessed in Construction Practice C.

E. Academic Regulations

The University's Academic Regulations apply for this course.

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:

Entry requirements

GCSE passes in five subjects (grade C or above), including English Language and Mathematics. Additionally, applicants must possess one of the following:

- A-level EEE or
- BTEC National Diploma MPP or
- Access Level 3 qualifications worth 48 UCAS points.

Credit for prior learning (APEL)

Applicants may be able to use their learning from work or other life experiences to gain academic credit towards their course of study. Applicants need to demonstrate that their learning is equivalent to formal learning on the course and produce satisfactory evidence. If an applicant has gained a qualification from a professional body or another institution this may be credited towards the University qualification via our transfer credit scheme.

G. Course structure(s)**Course overview**

The course is delivered on a semester pattern, each semester being 15 weeks in duration. The course is delivered over two years by a part-time mode of study, taught one day per week over four semesters. Students study six 20-credit modules. A university 20 credit is the equivalent of 200 student study hours. Each module is a self-contained part of the course of study.

Year 1

Each student studies three core modules:

- Construction Practice C
- Materials and Geology C
- Mathematics B

To progress into year 2 learners have to achieve a minimum of 40 credits (2 modules) **and** repeating a maximum of 20 credits (1 module)

Year 2

Each student studies three core modules:

- Fluid Mechanics B
- Engineering Surveying
- Structures and Construction Technology B

A student who has completed 120 credits of study will be awarded a Higher National Certificate:

HNC Civil Engineering Apprenticeship

| | Semester 1 | | Semester 2 | |
|---------------------------|--|--|--|----|
| Level 4 Year 1 | Mathematics B | | Mathematics B | 20 |
| | Construction Practice C | | Construction Practice C | 20 |
| | Materials and Geology C | | Materials and Geology C | 20 |
| Level 4 Year 2 | Fluid Mechanics B | | Fluid Mechanics B | 20 |
| | Structures and Construction Technology B | | Structures and Construction Technology B | 20 |
| | Engineering Surveying | | Engineering Surveying | 20 |

Placements information

n/a

H. Course Modules

| Module Code | Module Title | Level | Semester | Credit value | Assessment |
|-------------|--|-------|----------|--------------|----------------------|
| BEA-4-406 | Engineering Surveying | 4 | 1 and 2 | 20 | 50% Cswk 50% Exam |
| BEA-4-513 | Fluid Mechanics B | 4 | 1 and 2 | 20 | 50% Cswk 50% Exam |
| BEA-4-408 | Mathematics B | 4 | 1 and 2 | 20 | 50% Cswk 50% Exam |
| BEA-4-409 | Structures and Construction Technology B | 4 | 1 and 2 | 20 | 50% Cswk 50% Exam |
| BEA-4-486 | Construction Practice C | 4 | 1 and 2 | 20 | 100% Cswk |
| BEA-4-531 | Materials and Geology C | 4 | 1 and 2 | 20 | 50% Cswk 50% Exam |

I. Timetable information

The course will run one day per week for two years plus the EPA. Timetables will be made available to students when they register.

Students will be notified by email of any changes to the timetable.

J. Costs and financial support

- For Materials and Geology Module, students will need to purchase safety boots which cost around £20.
- Constructionarium in Bircham Newton would cost a maximum of £500 per students, this includes transportation, food and accommodation for 5 days (this trip is recommended but optional).

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

- Appendix A: Curriculum Map
- Appendix B: Educational Framework (undergraduate courses)
- Appendix C: Personal Development Planning (postgraduate courses)
- 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. Due to the approval condition of a Higher National Qualification, not all the learning outcomes are required to be met. **(T: Taught; D: Developed; A: Assessed)**

| Units | | | | | | | | | | | | | |
|-------|--|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Level | Title | Code | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | | | |
| 4 | Construction Practice C | BEA-4-486 | D | | TDA | | | TD | | TD | | | |
| | Materials and Geology C | BEA-4-530 | TD | | | | | TDA | | TDA | | | |
| | Engineering Surveying | BEA-4-406 | TD | | | | | | | | | | |
| | Fluid Mechanics B | BEA-4-513 | TDA | TD | | | | | | | | | |
| | Mathematics B | BEA-4-408 | TD | TDA | | | | | | | | | |
| | Structures and Construction Technology B | BEA-4-409 | TD | | | TDA | | TD | | | | | |
| Units | | | | | | | | | | | | | |
| Level | Title | Code | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | |
| 4 | Construction Practice C | BEA-4-486 | | | | | TDA | TD | TDA | | | TDA | |
| | Materials and Geology C | BEA-4-530 | | TD | TDA | | | TDA | | | | | |
| | Engineering Surveying | BEA-4-406 | | | TD | | | | | | | TD | |
| | Fluid Mechanics B | BEA-4-513 | TD | | TD | | | | | | | | |
| | Mathematics B | BEA-4-408 | | TDA | TD | | | | | | | | |
| | Structures and Construction Technology B | BEA-4-409 | TDA | TD | | | | | | | | | |
| Units | | | | | | | | | | | | | |
| Level | Title | Code | C1 | C2 | C3 | C4 | C5 | C6 | C7 | D1 | D2 | D3 | D4 |
| 4 | Construction Practice C | BEA-4-486 | | TD | | | | | | T | TDA | | TDA |
| | Materials and Geology C | BEA-4-530 | | TDA | TDA | TD | | TD | | T | | | |
| | Engineering Surveying | BEA-4-406 | TDA | | TD | | | TDA | | TDA | | | |
| | Fluid Mechanics B | BEA-4-513 | TD | TD | TDA | | | | | TD | | | TD |
| | Mathematics B | BEA-4-408 | TD | | | | | | | TD | | | |
| | Structures and Construction Technology B | BEA-4-409 | TD | | | TDA | | | | TD | | | |

| MODULES VS AS | | Modules Year 1 | | | Modules Year 2 | | | | | | |
|--|------------------|----------------|-------------------------|-------------------------|-------------------|--|-----------------------|---|--|---|---|
| | | Mathematics B | Construction Practice C | Materials and Geology C | Fluid Mechanics B | Structures and Construction Technology B | Engineering Surveying | Company on the job formative assessment | | | EPA summative assessment by independent ICE assessors |
| <u>APPRENTICESHIP STANDARDS</u> | Knowledge | | | | | | | | | | |
| | K1 | | TDA | TDA | | | TD | DA | | | A |
| | K2 | | TDA | TDA | | | TD | DA | | | A |
| | K3 | TDA | T | TD | TDA | TDA | TDA | DA | | | A |
| | K4 | | TDA | | | | TDA | DA | | | A |
| | K5 | | TD | TD | TDA | | TD | DA | | | A |
| | K6 | | TD | | | TDA | TDA | DA | | | A |
| | Skills | | | | | | | | | | |
| | S1 | | TDA | TDA | TD | TD | TD | DA | | | A |
| | S2 | | TDA | TDA | | | | DA | | | A |
| | S3 | TDA | T | TD | TDA | TDA | TDA | DA | | | A |
| | S4 | | TDA | | | | TDA | DA | | | A |
| | S5 | | TD | TD | TDA | | TD | DA | | | A |
| | S6 | | TD | | | TDA | TDA | DA | | | A |
| | Behaviour | | | | | | | | | | |
| | B1 | | TDA | | | | | DA | | | A |
| | B2 | | TDA | | | | TDA | DA | | | A |
| | B3 | | | | | | | DA | | | A |
| | B4 | | TD | TD | | | TD | DA | | | A |
| | B5 | TD | TDA | TD | TD | TD | TD | DA | | | A |
| B6 | | DA | D | TD | | TD | DA | | | A | |
| B7 | | TDA | | | | | DA | | | A | |

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></p> <p>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 level 4.</p> | <p>The curriculum design is informed by the JBM and the Industrial Advisory Panel at LSBU. Teaching staff on the course are LSBU staff.</p> <p>All students on the part-time HNC Civil Engineering will be working in the Construction Industry and should thus be supported through their studies by their employer. It is recommended that every student has a mentor and the support of ICE.</p> |
| Embedded learning development | <p><u>Support for transition and academic preparedness</u></p> <p>At least two modules at level 4 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 level 4 modules should reference and reinforce the learning development to aid in the transfer of learning.</p> | <p>These expectations are achieved in the Construction Practice C Module in which academic writing is introduced and in the Materials and Geology CModule where the behaviour of materials is introduced and linked to the performance of structures, which can be seen as an introduction to analytical thinking. Mathematical analysis and practice are strongly enhance in Mathematics B.</p> |
| High impact pedagogies | <p><u>Group-based learning experiences</u></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 level 4 should include an opportunity for group working. Group-based learning</p> | <p>There is a Group Project in Construction Practice C. Students experience site visits as a group. This is also encouraged in different tasks both in labs and workshops</p> |

| | | |
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| | <p>can also be linked to assessment at level 4 if appropriate. Consideration should be given to how students are allocated to groups to foster experience of diverse perspectives and values.</p> | |
| Inclusive teaching, learning and assessment | <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>Students will be given copies of course notes in a timely manner (a minimum of one week before the lecture) to give students an opportunity to prepare for the lectures and tutorials. In modules like Mathematics B students have the opportunity to have a formative assessment via a diagnostic text. Peer to peer work and formative assessment is encouraged in several lectures and modules.</p> |
| Assessment for learning | <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 level 4 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. Assessment and feedback communicates high expectations and develops a commitment to excellence.</p> | <p>In the Construction Practice Module writing techniques are taught early in the first Semester and feedback given within 15 days.</p> <p>Short in class formative tests will also be used to check the progress of the students.</p> <p>More examples are described as per above dimension.</p> |
| High impact pedagogies | <p><u>Research and enquiry experiences</u> 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 level 6, courses should provide opportunities for students to develop research skills at</p> | <p>In the Construction Practice Module there are opportunities for students to be introduced to research and be introduced to creativity in the group project.</p> |

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| | <p>level 4 and 5 (n/a) 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>Curricula informed by employer and industry need / Assessment for learning</p> | <p><u>Authentic learning and assessment tasks</u> 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>The group project introduces the students to working on a live brief. The Industrial Advisory Panel actively collaborates for the involvement of the curricula.</p> |
| <p>Inclusive teaching, learning and assessment</p> | <p><u>Course content and teaching methods acknowledge the diversity of the student cohort</u> 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> | <p>Students work in diverse groups in labs for Fluid Mechanics B and Materials and Geology C. They also carry out Field work in groups in Engineering Surveying . The site visits is a further opportunity for students to experience group dynamics and behaviours.</p> |
| <p>Curricula informed by employer and industry need</p> | <p><u>Work-based learning</u> Opportunities for learning that is relevant to future employment or undertaken in a workplace setting are fundamental to developing student applied knowledge</p> | <p>As noted above students on the course are part-time and working in the construction industry where they will have many opportunities to network</p> |

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| | <p>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> | <p>and undertake work based learning.</p> |
| <p>Embedded learning development</p> | <p><u>Writing in the disciplines: Alternative formats</u> The development of student awareness, understanding and mastery of the specific thinking and communication practices in the discipline is fundamental to applied 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>Student writing skills are taught and assessed at the beginning of the first Semester. These skills are needed to produce the lab reports, and group project report that form part of the module assessment.</p> |
| <p>High impact pedagogies</p> | <p><u>Multi-disciplinary, interdisciplinary or interprofessional group-based learning experiences</u> Building on experience of group working at level 4, at level 5 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 workplace settings. Learning in multi- or</p> | <p>As this is a Level 4 course students are introduced to these expectations in the Group Project.</p> |

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| | interdisciplinary groups creates the opportunity for the development of student outcomes including inclusivity , communication and networking. | |
| Assessment for learning | <p><u>Variation of assessment</u></p> <p>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 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>There are a range of assessments on the course including:</p> <p>Examinations and in class tests. Laboratory Reports. Presentations. Group Project and Group Surveying Project.</p> |
| Curricula informed by employer and industry need | <p><u>Career management skills</u></p> <p>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> | As noted above the course is informed by the JBM and the Industrial Advisory Panel at LSBU. |
| Curricula informed by employer and industry need / Assessment for learning / High impact pedagogies | <p><u>Capstone project/dissertation</u></p> <p>The level 6 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</p> | N/A at Level 4 |

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| | professionalism, integrity and creativity. | |
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Appendix C: Personal Development Planning

N/A for undergraduate courses

| Approach to PDP | Level 7 |
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| 1 Supporting the development and recognition of skills through the personal tutor system. | |
| 2 Supporting the development and recognition of skills in academic modules/modules. | |
| 3 Supporting the development and recognition of skills through purpose designed modules/modules. | |
| 4 Supporting the development and recognition of skills through research projects and dissertations work. | |
| 5 Supporting the development and recognition of career management skills. | |
| 6 Supporting the development and recognition of career management skills through work placements or work experience. | |
| 7 Supporting the development of skills by recognising that they can be developed through extra curricula activities. | |
| 8 Supporting the development of the skills and attitudes as a basis for continuing professional development. | |
| 9 Other approaches to personal development planning. | |
| 10 The means by which self-reflection, evaluation and planned development is supported e.g. electronic or paper-based learning log or diary. | |

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]

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| 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 |

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| 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 |

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| 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 |