



Course Specification

A. Course Information				
Final award title(s)	BSc (Hons) Product Design			
Intermediate exit award title(s)	Dip HE in Product Design Cert HE in Product Design			
UCAS Code	H771	Course Code(s)	5660	
	London South Bank University			
School	<input type="checkbox"/> ASC <input type="checkbox"/> ACI <input type="checkbox"/> BEA <input type="checkbox"/> BUS <input checked="" type="checkbox"/> ENG <input type="checkbox"/> HSC <input type="checkbox"/> LSS			
Division	Mechanical Engineering and Design			
Course Director	Andrew Forkes			
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	June
	Full time with placement/ sandwich year	4	September	June
	Part time	N/A		
	Part time with Placement/ sandwich year	N/A		
Is this course generally suitable for students on a Tier 4 visa?	Yes			
Approval dates:	Course(s) validated / Subject to validation	January 2016		
	Course specification last updated and signed off	January 2016		
Professional, Statutory & Regulatory Body accreditation	Accredited as partially meeting the academic requirements for Chartered Technological Product Designer (CTPD) for 5 years from intake year 2015.			
Reference points:	Internal	Corporate Strategy 2015-2020		

		Academic Quality and Enhancement Manual School Strategy LSBU Academic Regulations
	External	<ul style="list-style-type: none"> • QAA Quality Code for Higher Education 2013 • Framework for Higher Education Qualifications (QAA, 2008); • QAA Subject Benchmark Statement for Art and Design • QAA Subject Benchmark Statement for Engineering • UK Standard for Professional Engineering Competence: Chartered Engineer and Incorporated Engineer Standard
B. Course Aims and Features		
Distinctive features of course	<p>Our product design graduates blend creative design thinking with scientific human centred analysis and insight to make workable and functional product solutions. Graduates will be able to identify consumer needs and design products that meets technical, functional, aesthetic and economic criteria. Academic modules cover the complete design cycle from conceptual design through to engineering science, analysis and optimisation, product development, prototyping, presentation and design for manufacture.</p> <p>The final year of the course revolves around the delivery of a major design project: students are required to design, develop, prototype and manufacture a product to their own specifications. They will need to choose the appropriate manufacturing techniques and materials to make and test a working prototype of their product using our state-of-the-art IT and workshop facilities. The result will be showcased at the University's annual design show.</p>	
Course Aims	<p>There is a fundamental need for appropriate, good quality design if a product is to be successful and so there is a continued demand for capable Product Designers who can produce desirable and functional products. This requirement exists for both consumer products and capital products markets with designers being employed directly or through consultancies. This course is thus intended for individuals who aspire to become Product Designers and helps them to develop the appropriate skills, knowledge and competencies required to meet the industry's needs and challenges.</p> <p>The general educational aims of this course are to develop students' intellectual and creative abilities, enabling them to enlarge their view of the study programme in a broad context beyond the limits of the subject and departmental perspectives. Critical self-awareness and confidence to make judgements will also be developed throughout the course. The course aims specifically to produce product designers who will be educated to Honours degree level and who are thus able to work as product designers at a professional level in industry. To this end graduates will be equipped with an understanding of design, materials, product functions and manufacturing; together with highly developed creative abilities and communication skills. In addition graduates will be able to make decisions, respond to market demand and successfully manage</p>	

design activities. Graduates will also be prepared to become self-employed product designers or to undertake suitable postgraduate study at Masters or Doctorate level.

The design of consumer durable products and all associated issues form the core of the course. This includes the study of aesthetics, semiotics and product semantics, ergonomics, human-centred and inclusive design, materials and production processes, and sustainability (environmental, social and economic concerns), and enterprise. In addition to physical artefacts students now address service and systems design, which has become part of the product design profession. As well as a traditional approach to drawing and problem-solving processes, students have access to a wide variety of computer courses and systems. They are additionally encouraged to make full use of the extensive engineering and model-making workshops and are expected to develop prototype products as well as appearance models.

The ethos of the course is the preparation of individuals for employment in the design profession through a well-rounded course programme and educational experience. As well as developing theoretical and practical knowledge pertaining to the design discipline, students develop transferable skills. This enables them to become flexible and adaptable and able to utilise new and contemporary practices and technologies as and when necessary.

Because Product Design is seen as a synthesis of art and engineering (with emphasis on Human and User-Centred Design), the course includes study of both design and technology. In general, learning is experiential i.e. 'by doing'. This is supported by more formal lectures, seminars and tutorials. Discussion and debate are important parts of the course and help to develop students' ability to analyse, criticise and assess their own and others' work as part of the design process. As well as facilitating the development of technical expertise and general design knowledge, students' aesthetic sensibilities are refined throughout the course, which develops their individuality through practice and the recognition of conceptual and practical boundaries. Graduates from the Product Design course will have the following knowledge, skills, abilities and characteristics:

1. Committed and able to follow a career in Product Design, allowing progression to Chartered Technical Product Designer.
2. Awareness of best current practice within industry, emerging, and future trends.
3. Industry-critical skills such as working effectively as part of a team and/or providing the leadership for the team.
4. Effective communication skills enabling the exchange of ideas specialist professionals and with the public at large.
5. Continual Professional Development (CPD) skills including critical awareness, reflection, independent judgement, responsibility for decisions, original thinking, managing own learning and making use of scholarly reviews and primary sources.
6. Systematic and broad understanding of the key topics within Product Design together with the skills needed to update, extend and

	<p>deepen in further study and future career development.</p> <p>7. Understanding of a cognitive map of topics within the Design subject area that incorporates a holistic view of the design process and incorporates design methods, creativity, materials and manufacture, aesthetics, modelling and visualisation, model making and prototyping, cognitive and physical ergonomics, sustainability, marketing and commercial and technical aspects.</p> <p>8. The ability to apply a range of creative and scientific design methods to solution of product design problems in order to develop substantially new physical products, services or systems and/or modify and improve an existing product or service design.</p> <p>9. The ability to analyse human-centred, social and environmental issues and to explore related design contexts from first principles to solution.</p> <p>10. The ability to analyse and critically evaluate historical, contemporary and emerging trends in design thinking and their appropriate application.</p> <p>11. Competent practical skills including drawing and sketching, prototyping and model making skills, manufacturing techniques, 2D graphical communication, and 2D and 3D digital (CAD) modelling And other visualisation systems.</p> <p>12. Awareness of differing manufacturing techniques (from low-tech to advanced level) to inform design choices and design products for cost-effective manufacture.</p>
<p>Course Learning Outcomes</p>	<p>a) Graduates must be able to demonstrate their knowledge, and they must have an appreciation of the wider multidisciplinary engineering context and its underlying principles. They must appreciate the social, environmental, ethical, economic and commercial considerations affecting the exercise of their engineering judgement.</p> <p>Students will have knowledge and understanding of:</p> <p>Design</p> <p>A1- Ability to evaluate design solutions against relevant constraints and criteria (D1p) Ability to address human needs through the use of research, anthropometric data and ergonomic principles and provide design solutions according to customer and user requirements. (D2p)</p> <p>Underpinning Maths and Science</p> <p>A2- Ability to consider and apply the appropriate mathematical and engineering principles to a particular product design problem (US1p)</p> <p>A3- Knowledge and understanding of risk issues, including health and safety, environmental and commercial risk, and of risk assessment and risk management techniques. (S2p)</p>

	<p>A4- Ability to create new processes or products through synthesis of ideas from a wide range of sources using a broad knowledge of material and material selection principles (P1p)</p> <p>A5- Ability to analyse problems of a creative nature and to provide appropriate solutions. (P4p)</p> <p>A6- Understanding and application of intellectual property rights (IPR) including patent search and principles of copyright and design registration. (P5p)</p> <p>b) Graduates must be able to demonstrate creative and innovative ability in the synthesis of solutions and in formulating designs. They must be able to apply appropriate quantitative science and engineering tools to the analysis of problems. They must be able to comprehend the broad picture and thus work with an appropriate level of detail.</p> <p>Students will develop their intellectual skills such that they are able to:</p> <p>B1- Ability to generate a product design specification (PDS) by defining requirements as separate criteria including other factors such technical aspects and legislative demands. (D2p)</p> <p>B2- Ability to recognise product design cost drivers for both recurring and non-recurring costs and to appreciate the cost implications of differing production volumes (D3p) Economic</p> <p>B3-Understanding that positive ethical and professional conduct underpins design practice. (S1p)</p> <p>B4- Knowledge and understanding of the management of the design process. (S4p)</p> <p>B5- Understanding of specific design codes of practice and industry standards, with some knowledge of design factors and requirements for safe operation. (P6p)</p> <p>B6-Awareness of management and quality assurance issues in product design. (P7p)</p> <p>B7- Ability to evaluate technical risks and address risk in design methodology. (P10p)</p> <p>B8- Ability to write a PDS, design reports and present design ideas in a rational and coherent manner. (P11p) Design</p> <p>B9- Ability to research, select, evaluate, manipulate and manage information relevant to the analysis and synthesis of product design solutions. (E1p)</p> <p>B10- Ability to apply analytical skills in relation to designed objects including the ability to undertake visual analysis and to analyse designed objects in relation to their context. (E2p)</p>
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	<p>c) Graduates must possess practical design and engineering skills acquired through, for example, work carried out in laboratories and workshops; in industry through supervised work experience; in individual and group project work; and in the development and use of computer software in design, analysis and control. Evidence of group working and of participation in a major project is expected.</p> <p>Students will acquire and develop practical skills such that they are able to:</p> <p>C1- Ability to generate a wide range of design ideas, concepts and proposals independently and in teams in response to set or self generated design briefs (D4p)</p> <p>C2- Ability to select, test and exploit materials and manufacturing processes in the synthesis of product design solutions (D5p)</p> <p>C3- Ability to apply creative and logical thinking processes as well as design methodologies to the creation of design solutions (D6p)</p> <p>C4- Ability to select and use the appropriate manual drawing / construction / CAD, communication and technological media in the realisation of design ideas (D7p)</p> <p>C5- Ability to demonstrate visual literacy and drawing ability appropriate to the practice of product design (D8P)</p> <p>C6- Ability to develop concepts sufficiently to provide manufacturing instructions and specifications (D9p)</p> <p>C7- Ability to employ materials, media, techniques, methods, technologies and tools associated with product design through drawing, modelling and computer visualisation using skill and imagination (D10p)</p> <p>C8- Ability to integrate Industrial Design aspects including form, texture and colour (D11p)</p> <p>C9- Ability to apply a systematic approach to problem solving using appropriate design tools and techniques. (E3p)</p> <p>d) Graduates must have developed transferable skills that will be of value in a wide range of situations. These include problem solving, communication and working with others, as well as the effective use of general IT facilities and information retrieval skills. They also include planning self-learning and improving performance, as the foundations for lifelong learning / CPD.</p> <p>Students will acquire and develop transferrable skills such that they are able to:</p> <p>D1-Awareness of legal requirements governing design activities, including personnel, health and safety, product liability and safety. (S3p)</p>
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	<p>D2-An awareness of financial, economic, social legislative and environmental factors of relevance to product design. (S5p)</p> <p>D3- Ability to practise collaborative and independent work to realise a range of practical, creative and theoretical projects (P2p)</p> <p>D4- Awareness of the social and environmental impact and the application of sustainable design principles. (S6p)</p> <p>D5- Ability to meet deadlines, liaise with industrial collaborators, make presentations, research and collate information, produce reports and evaluate the design and research work of self (P3p)</p> <p>D6- Working effectively as part of a group with respect for the dignity, rights and needs of others. (P8p)</p> <p>D7- To develop skills associated with professional practice; time management, project management, professional level communication, self promotion, interview techniques, information gathering and use of information and communication technology as appropriate. (P9p)</p> <p>In addition, the following advanced outcomes should be expected of partial CTPD Degree graduates:</p> <ul style="list-style-type: none"> • the ability to develop, monitor and update a plan, to reflect a changing operating environment; • the ability to monitor and adjust a personal programme of work on an ongoing basis, and to learn independently; • the ability to exercise initiative and personal responsibility, which may be as a team member or leader, and; • the ability to learn new theories, concepts, methods etc and apply these in unfamiliar situations.
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C. Teaching and Learning Strategy

Teaching and learning takes place through design studio practice, lectures, seminars, group and individual tutorials. Student learning is experiential, through design and other project work in the design teaching rooms, workshops and computing laboratories. Students enhance their critical, analytical and visual and oral communication skills through group discussions, group critiques and written assignments.

Knowledge and Understanding

A1: Acquisition starts in Level 4 with lectures and tutorials concentrating on the basic essentials of Product Design. The **Design Methods** module covers the essential design methods behind the study of product design.

At level 6 students learn to apply their human centred design and engineering knowledge to real-world and practical design problems. The **Portfolio Design Projects** module introduces design challenges through which students must apply their design thinking skills. The **Product Design Project** offers students the opportunity to apply diverse design and engineering skills to projects of their own choosing.

A2: This is covered by the **Design Methods, Inclusive Design and Usability** module, which introduces anthropometrics and ergonomics enabling students to understand and synthesis their design ideas with human data.

A3: Health and safety risks are introduced at L4 through **Design Methods**; students complete risk assessments for their prototyping activities for **Design and Manufacture Project** at L5 and **Product Design Project** at L6, through which they also consider commercial implications of risk in relation to the business case for the project.

A4: The **Visual Communications** and **CAD1** modules at Level 4 embed foundation skills in using commercial 2D and 3D software, and graphical presentation tools.

A5: Customer and user functional needs, and aesthetics are introduced through practical projects in the Level 4 **Design Methods** module; these understandings are developed along with ergonomics (including 1:1 scale rig building), business awareness, and public perception considerations in the Level 5 **Design Thinking and Applications** and **Design Contexts and Communications** modules; these are all common to both of the Design courses at LSBU.

The Level 5 **Design and Manufacture Project** introduces students to writing product design specifications and a technical report as a precursor to their major project at level 6.

A6: Students are introduced to intellectual property considerations in relation to their use of graphics and trade marking at L4 in the **Visual Communications** module. IP is further considered at L5 in **Design and Manufacture Project**, and in depth at L6 with the **Research Methods for Design Projects**.

A12: this is covered explicitly through an introductory workshop skills course that takes place as part of the **Design Methods** module at Level 4. From that point onwards however, the making of physical prototypes is central to many of the coursework assessments, and students are expected to practice and develop their workshop and making skills to a high degree.

A13: The ability to apply and use appropriate codes of practice and industry standards is essential in technical design projects. Students are introduced to these in the Level 5 **Design and Manufacture Project** module and subsequently in more detail in the **Research Methods for Design Projects** module at Level 6. They demonstrate their understanding in particular through their work on the major **Product Design Project** module. The understanding of external contexts gradually builds throughout the course.

Intellectual Skills

B1, B2:

The Level 5 **Design and Manufacture Project** introduces students designing and developing a complete project as an minor major project type experience including writing product design specifications and a technical report as a precursor to their major project at level 6.

The 60 credit Level 6 **Product Design Project** modules require acquisition of quantitative analysis and software skills to complete and demonstrate understanding of the work undertaken.

B4: the B4 learning outcome is achieved after the basic design building blocks have been taught and understood in earlier years. At level 5, students begin to apply their integrated knowledge of engineering through the **Design and Manufacture Project** EPD module. At Level 6, the **Product Design Project** requires a higher level application of an integrated approach to human centred/engineering design problems.

B5: This is covered in all of the design based modules of the course and put into practice to greatest effect through the **Research Methods for Design Projects** module at level 6, through which students investigate and define engineering design problems, identify constraints and develop design briefs for their major projects that will form the body of work in the **Product Design Project** module.

B6: A central feature of the teaching on this course is through project-based design briefs. As students progress through L5 (eg **Design Thinking and Applications**) and L6 (eg **Portfolio Design Projects**) these become more open-ended, requiring students to conduct further investigation to define the problem and demonstrate an awareness of the effects of any uncertainties.

B7: Students are introduced to principles and techniques of creative design in the Level 4 **Design Methods** module, and subsequently at Level 5 in the **Design Thinking and Applications** and the **Design and Manufacture Project** module, through which innovative solutions are proposed to a range of design project briefs. At level 6, the **Product Design Project** requires students to propose, test, and justify creative product/service design solutions. In addition to analytical methods, the project-based modules **Design Methods** and **Design Thinking and Applications** foster an empirical approach to testing fitness for purpose, and considering wider implications such as manufacturing and life cycle assessment techniques.

B8: The Level 6 **Product Design Project** requires students to identify and manage cost drivers within the context of the project. These skills are further developed at Level 6 through the **Research Methods for Design Projects** modules.

B9: At L6 through the **Portfolio Design Projects** module. They are expected to demonstrate and document their use of such engineering design methods in application to their own projects the **Product Design Project** at Level 6.

B10: Design Methods and creativity techniques for concept generation are introduced through the Level 4 **Design Methods** module, and built on more scientifically in the **Design Thinking and Applications** module at Level 5.

Practical Skills

C1: Throughout the taught courses students are expected to communicate their ideas to peers, tutors, external users, and professionals. The L4 **Visual Communications** module develops skills in graphical techniques and software, the **Design Methods** module introduces prototyping skills, and the **CAD1** module develops CAD skills. These foundations are expected to be developed and built upon through levels 5 and 6.

C2: These skills are introduced at level 4 in the **Design Methods** module, where students use design projects as a vehicle to cover design methodology, physical prototyping, workshop skills, and an introduction to materials and manufacturing technology. This skills are further developed at Level 5 through the **Design Thinking and Applications** module and Level 6 through **Research Methods for Design Projects**. Concurrently, skill based modules at level 4 (**Visual Communications** and **Digital Design and Modelling**) Level 5 (**Digital Visualisation and CAD**), and Level 6 (**Portfolio Design Projects**) cover discipline-specific tools and techniques. Computer-based workshops include practical investigations, design exercises and CAD simulations to develop more advanced skills.

Transferable skills

The course is largely centred around design project-based coursework, in which a broad range of transferrable skills – in particular relating to teamwork, leadership, project management and communication - are required

D1: The L5 module **Design Contexts and Communications** prepares students for work placements and introduces issues of ethical responsibility, professional codes of conduct, and the global context of their industry.

D2: All of the design project-based modules from Level 4 to Level 6 require students to embrace uncertainty as part of the design challenges that they address, and to apply problem-solving skills, technical knowledge and understanding to make appropriate judgments in their solution. In the Level 4 **Design Methods** module, the problems that students are given are deliberately limited in creative scope as they develop the skills and knowledge with which to tackle them. These skills range from cognitive creativity and design skills to practical, solution focused model making. As the course progresses, through the Level 5 **Design Thinking and Applications** and **Design and Manufacture Project** modules, and in particular in the Level 6 **Product Design Project** module, project briefs become less constrained, increasing the level of uncertainty and complexity within which students must work but also the scope for creative and innovative solutions. Students are introduced to the evaluation of technical risks through the **Research Methods for Design Projects**, and **Product Design Project** modules, in which they must conduct risk assessments to plan the prototyping work on the project.

D3: All of the design project-based modules require students to manage design processes; this requirement is emphasised at Levels 5 and 6 as the projects become more complex. Skills for project management are taught through the **Design Thinking and Applications** module (Level 5) and the **Research Methods for Design Projects** module (Level 6).

Students also work in teams on several occasions throughout the course, including specific requirements in **Design Thinking and Applications** (L5) and **Portfolio Design Projects** (L6).

D4: This outcome is developed through many of the coursework based modules as students tackle design briefs, research for information, and present their results.

D5: This is explicitly developed in the L5 module **Design Contexts and Communications**, through which students are prepared for applications to work placements and taught to present their design portfolios, and write CVs and covering letters. In addition, all students are encouraged to join and engage with the Institution of Engineering Designers, as a foundation for continuing CPD beyond their undergraduate degree programme.

D6: this is required at all levels of the course in the design project briefs that are set, culminating in the extended 60 credit solo project that is comprised of the L6 **Research Methods for Design Projects** and **Product Design Project** modules.

D7: this is also a requirement for the major solo projects. In addition, there are a number of team-based projects throughout the course.

D. Assessment

Each module is assessed by the process that is deemed most appropriate to the subject matter. In many engineering subjects, this may mean that there is a combination of coursework and examination, whilst in design and business-based modules assessment is by 100% coursework. When and where appropriate, assessment is undertaken as group presentations and critiques. During and after critiques, students benefit from oral and written feedback. As and when appropriate, assignments are submitted

to the Faculty Office or digitally through the VLE and are assessed by academic staff who provide written feedback and tutorial advice.

The **Product Design Project** at Level 6 is assessed by a variety of means, including the public display of work in the annual degree show, and the opportunity to be selected to display their projects at the New Designers exhibition.

E. Academic Regulations

The University's Academic Regulations apply for this course.

F. Entry Requirements

In order to be considered for entry to the course applicants are currently required (for 2018 entry) to have the following qualifications:

- A Level BBB (ideally including Product design/Art/Graphics, **or**;
- BTEC National Diploma DDM **or**;
- Access to HE qualifications with 24 Distinctions and 21 Merits (must include a minimum of 3 Merits in Design Technology) **or**;
- Entry level 3 qualifications worth 122 UCAS points

Applicants must hold 5 GCSEs A-C (including Maths and English) or equivalent.

The University welcomes applications from all those interested in furthering their education. If applicants do not meet the standard entry requirements but can demonstrate that life / work skills would make them suitable for undergraduate study, then they may be considered.

English language qualifications for international students: IELTS score of 6.0 or Cambridge Proficiency Advanced Grade C.

Applicants are normally interviewed before being offered a place and are asked to bring along a portfolio of work. There is no such thing as a 'standard' portfolio. In short, we would like to see exciting example sheets of design or other creative work that you have done, which collectively illustrate the breadth of your skills. This might include (in no particular order):

- Problem-solving
- 2D sketch work
- Creative thinking (mind maps, spider diagrams)
- Colour treatments
- Photography
- 3D collages
- 3D sculpture
- 2D and 3D prototyping/model making
- CAD or other digital work
- Presentation drawings/boards

This work doesn't have to be just from your formal education to date, it's always good to add some 3D design work (photos/drawings) from projects you have done outside school/college.

Have you built some furniture, made a poster for a local event or doctored your family's photographs? This all counts to a rounded and interesting body of work.

Along with your portfolio try to bring some small sketch models that you used to work through a problem.

Be honest and be yourself: if something isn't quite right with your design it's much better to be open about it than to try and gloss over it. And be concise. We cannot realistically look through 300 portfolio sheets in one interview, so try to select down to the key examples that show off your range of skills. Imagery is far more useful to us than large blocks of text.

G. Course structure

Course overview

The BSc (Hons) Product Design course consists of a single pathway that comprises the following mandatory modules:

Level 4 (Year 1)

Design methods		40 CATS
Visual communications		20 CATS
CAD1	20 CATS	
Inclusive Design and Usability	20 CATS	
Design for a Sustainable Society		20 CATS

Level 5 (Year 2)

Design thinking and applications		20 CATS
Design contexts and communications		20 CATS
CAD2	20 CATS	
Design Futures and Emerging Technologies		20 CATS
Design Interactions		20 CATS
Design and manufacture project		20 CATS

Sandwich (optional)

Industrial Placement (currently optional but strongly recommended)

Level 6 (Year 3 or Year 4)

Service and System Design		20 CATS
Design and Culture		20 CATS
Product Design project		60 CATS

Placements

Students are strongly encouraged to undertake a sandwich work placement between Levels 5 and 6. This placement must last for an equivalent of at least 30 weeks in total and be within the design and/or manufacturing industry.

H. Course Modules

Module Code	Module Title	Level	Semester	Credit value	Assessment
ENG_4_545	Design for a Sustainable Society	4	2	20	100% Exam

ENG_4_544	Inclusive Design and Usability	4	1	20	50% Coursework, 50% Exam
ENG_4_541	Design Methods	4	1+2	40	100% Coursework
ENG_4_542	Visual Communications	4	1+2	20	100% Coursework
ENG_4_xxx	CAD1	4	1+2	20	100% Coursework
ENG_5_548	Design Futures and Emerging Technologies	5	1	20	70% Exam, 30% Coursework
ENG_5_549	Design Interactions	5	2	20	70% Exam, 30% Coursework
ENG_5_546	Design Thinking and Applications	5	1	20	100% Coursework
ENG_5_547	Design Contexts and Communications	5	1+2	20	100% Coursework
ENG_5_xxx	CAD 2	5	1+2	20	100% Coursework
ENG_5_550	Design and Manufacture Project	5	2	20	100% Coursework
ENG_6_554	Design and Culture	6	1	20	100% Coursework
ENG_6_553	Service and System Design	6	1	20	100% Coursework
ENG_6_552	Research Methods for Design Projects	6	1	20	100% Coursework
ENG_6_557	Product Design Project	6	2	60	100% Coursework

I. Timetable information

Students are timetabled to be in classes for four days a week, plus one day of self-directed study.

Many classes may be taught in blocks, so that for a period of one or more weeks, students are mainly focussed on one specific project.

Students should expect around 18 contact hours per week at level 4 (year 1), and around 12 contact hours per week at levels 5 and 6 (years 2 and 3/4).

J. Costs and financial support

Course related costs

- **books or other learning materials:** Circa £30-50 per annum (*all required texts are available from the university library, but many students find it useful to own a copy of some core material*).
- **specialist equipment:** Circa £100 per annum (*for example, sketching equipment and student license for Adobe software*)
- **field trips:** Circa £30 per annum (*usually travel cost for London based field trips*)

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>
- 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.

Programme Title: BSc (Hons) Product Design

LSBU outcome	Year 1					Year 2					Year 4					
	Design Methods	Visual Communications	CAD 1	Inclusive Design and Usability	Design for a sustainable Society	Design Thinking and Applications	Design Contexts and Communications	Design and Manufacture project	CAD 2	Design futures and Emerging Technologies	Design Interactions	Service and Systems Design	Portfolio Design Projects	Design and Culture	Research Methods for Design Projects	Product Design Project
	4_541	4_542	4_543	4_544	4_545	5_546	5_547	5_550	5_551	5_516	5_549	6_553	6_556	6_554	6_552	6_557
A1	✓			✓		✓		✓				✓				✓
A2				✓	✓		✓	✓	✓	✓					✓	✓
A3												✓	✓			✓
A4							✓					✓	✓			✓
A5	✓			✓		✓		✓		✓	✓	✓	✓		✓	
B1	✓			✓	✓	✓		✓		✓		✓	✓		✓	✓
B10			✓	✓				✓						✓		✓
B2						✓						✓			✓	
B3				✓						✓		✓	✓		✓	
B4								✓				✓	✓			✓
B6																✓
B7								✓				✓				✓
B8	✓	✓			✓		✓	✓	✓						✓	
B9						✓				✓	✓	✓		✓		✓
C1	✓				✓	✓			✓		✓	✓	✓		✓	✓
C2	✓				✓	✓			✓		✓	✓	✓		✓	✓
C3	✓			✓	✓	✓			✓		✓	✓	✓		✓	✓
C4	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓
C5		✓						✓								✓
C6		✓	✓					✓	✓							✓
C7	✓	✓	✓		✓		✓		✓	✓		✓	✓		✓	✓
C8						✓		✓			✓		✓		✓	✓
C9					✓	✓		✓		✓	✓				✓	✓
D1								✓								✓
D2						✓									✓	
D2		✓						✓		✓		✓			✓	
D3	✓				✓	✓					✓	✓	✓	✓	✓	✓
D4								✓		✓						✓
D4	✓		✓		✓			✓							✓	
D5				✓	✓	✓		✓	✓			✓	✓	✓	✓	✓
D6						✓				✓						
D7	✓		✓	✓	✓		✓			✓	✓		✓	✓		✓

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 level 4.</p>	<p>Students are introduced to external stakeholders and potential employers in modules at all levels (e.g.; L5 Design and Manufacture Project; L6 Portfolio Design Projects all have an external brief and engagement with external stakeholders). We regularly invite visiting speakers. Field trips (e.g. to the Design Museum) also give students an external focus for their work.</p>
Embedded learning development	<p><u>Support for transition and academic preparedness</u> 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>In L4 Design Methods, students are taught design thinking within the context of their transition to higher education.</p> <p>Other modules at L4 and beyond develop this support, and include support in e.g. critical reading and reflection.</p>
High impact pedagogies	<p><u>Group-based learning experiences</u> 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>Students work in groups regularly throughout the course, including in the L4 modules Design Methods inclusive design and usability and Design thinking and applications. Students are assessed on group work. We balance student-selected groups and randomly</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.	allocated groups to give a range of experiences.
Inclusive teaching, learning and assessment	<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.	All course materials are provided in an accessible format, through the VLE and in hard copies.
Assessment for learning	<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 .	All L4 modules and design context and communications contain formative assessment.
High impact pedagogies	<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 level 4 and 5	Students are given small and well-defined projects in L4 (for example in Design Methods). At L5 the project briefs are more open-ended, in preparation for the final project at L6. Posters, presentations and reports are all assessed during the course, and are subject to peer review and discussion.

	<p>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 design courses at LSBU use live briefs and projects at all levels and industry guests contribute to some modules pending availability.</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>We are committed to this inclusivity.</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</p>	<p>Students are encouraged to complete a sandwich placement in their third year: they then use this work-based learning to inform their final year projects.</p>

	<p>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>	
<p>Embedded learning development</p>	<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 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>Within their course, students are asked to communicate in the languages of design engineering and graphical communication. To this end, they produce, and are assessed on, reports, posters, presentations, logbooks, physical models (both prototypes and production models), and short videos, as well as essays and exam answers. Scaffolding, including formative feedback, is provided to help students master each of these features of disciplinary communication.</p>
<p>High impact pedagogies</p>	<p><u>Multi-disciplinary, interdisciplinary or interprofessional group-based learning experiences</u></p> <p>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 work-</p>	<p>This is embedded within the course Product Design students work with Engineering Product Design students at all levels, students also get an opportunity to work with other disciplines within some of their specialist modules such as design interactions and inclusive design</p>

	place settings. Learning in multi- or interdisciplinary groups creates the opportunity for the development of student outcomes including inclusivity , communication and networking.	and usability and so gain from interdisciplinarity.
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>	Each module in the course is assessed in a variety of ways. This adds up to a range of assessment tasks across the curriculum.
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>	This is built into our learning outcomes for the course: see above.
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</p>	Our level 6 project is a capstone project for the course. The annual degree show highlights the importance of the L6 project, and allows students at earlier levels to understand the full possibilities of the course.

	student outcomes including professionalism, integrity and creativity.	
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Appendix C: 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.

Approach to PDP	
1 Supporting the development and recognition of skills through the personal tutor system.	<p>PDP is developed via individual tutorials / portfolio review sessions for Level 4 and 5 students at the end of every semester. This is intended to cater for students' pastoral care as well as their academic concerns, which may or may not relate to tutors' subject specialist areas. Skills shortfalls are identified by academic staff, and appropriate strategies implemented where necessary.</p> <p>At Level 6, each student is assigned two personal tutors for their final year project, with whom they are required to meet weekly. In addition to guiding the academic content of the project, this allows staff to direct the students on the PDP issues that arise from their Major Project.</p>
2 Supporting the development and recognition of skills in academic modules/modules.	<p>The nature of the subject and the appropriate teaching methodologies require that students continually develop their own plans for learning throughout the course, from the beginning of the first year to the end of the final year. Most Design teaching is tutorial based so PDP occurs throughout the course by default; students also present and discuss their design project work at the end of each assignment.</p> <p>Most modules are designed to develop student skills and professional attitudes: Student output is considered to be of a professional, industry-based, practical standard, as evidenced by the course's accreditation from the Institution of Engineering Designers. One of the hallmarks of London South Bank courses is the way that students carry out practical assignments in an industrial setting and this course develops this in a hands-on manner.</p> <p>In order to progress on the course it is necessary to demonstrate that students are developing professionalism and management skills, and that PDP is addressed. Each module is intended to assist in inculcating habits of working and ways of thinking which lead to the development of professionalism.</p>
3 Supporting the development and recognition of skills through purpose designed modules/modules.	<p>In addition to general PDP students engage in specific PDP activities. Students learn about aspects of PDP from a variety of individuals during specific careers tutorials, seminars and workshops (with alumni, practicing designers, placement students and members of the LSBU employability team) which take place mostly in the Design Contexts and Communications module (Level 5). Students attend guest lectures as part of and in addition</p>

	to modules; these sessions are both subject related and related to professional practice.
4 Supporting the development and recognition of skills through research projects and dissertations work.	The Design Contexts and Communications module (Level 5) introduces research habits with the production of a referenced contextual report. This includes learning how to research, using research material, time planning, personal organisation and project management. There is also a significant research requirement in the early stages of, and to some extent throughout, the Major Design Project, taught in the Research Methods for Design Projects module.
5 Supporting the development and recognition of career management skills.	The Design Contexts and Communications module (Level 5) lays specific emphasis on careers management skills, with student, exercises in identification of potential employment opportunities, developing professional portfolios, and writing targeted covering letters and CVs.
6 Supporting the development and recognition of career management skills through work placements or work experience.	All students are encouraged to undertake and are supported throughout a year-long sandwich placement. On return to LSBU they present an overview of their experience to current students and produce A3 sheets for their portfolios. Practical hands-on experience developed through taking the Product Design Project . This is designed to provide overall design and project management skills that are of a recognised industry and business standard. The Design Degree Show and New Designers exhibitions are also part of PDP – the students stage the public events (with support from academic staff) and liaise with visitors, many of whom are potential employers.
7 Supporting the development of skills by recognising that they can be developed through extra curricula activities.	Students are encouraged to develop their professional standard through membership of appropriate bodies at the correct professional level. This may include professional bodies, venture capital groups, other enterprise, technology transfer groups, research organisation, local business groupings, etc. Students are encouraged to participate in recruitment by presenting their work to prospective applicants at open days, and may make presentations to other groups as appropriate. Many of them also work as student ambassadors for the University. Evidence suggests that the students find this sort of extracurricular activity rewarding.
8 Supporting the development of the skills and attitudes as a basis for continuing professional development.	The teaching of the Design courses, combined with an open access policy in the engineering workshops, is intended to foster a strong “studio culture” amongst the student body, which is highly beneficial to the quality of the work produced and the professional attitudes of the students.
9 Other approaches to personal development planning.	Skills audit and group skills evaluation are recognised and developed through most of the modules that students undertake, particularly at Levels 5 and 6.
10 The means by which self-reflection, evaluation and planned development is supported e.g. electronic or paper-based learning log or diary.	Students maintain both a physical and a digital portfolio throughout their degrees, and this is reviewed with staff members at the end of each semester.

Appendix D: Terminology

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

