

**Programme Specification for Postgraduate Programme**  
**Leading to:**  
**MSc Integrated Product Design**



*Applicable for all postgraduate students starting in 2021*

Version No.	Date	Notes – QA USE ONLY	QA
2021-22 v1.0	6 August 2021	Programme Specification ready for 2021/22 entrants.	JP

Postgraduate Taught Programme	
1. Awarding institution	Brunel University London
2. Teaching institution(s)	Brunel University London
3. Home college/department/division	College of Engineering, Design and Physical Sciences/Brunel Design School/Design
4. Contributing college/department/division /associated institution	Brunel Pathway College for Pre-Masters (see section 25)
5. Programme accredited by	The Institute of Engineering Designers
6. Final award(s) and FHEQ Level of Award	MSc Integrated Product Design FHEQ level 7
7. Programme title	MSc Integrated Product Design
8. Programme type (Single honours/joint)	N/A
9. Normal length of programme (in months) for each mode of study	FT – 12 months (equivalent to 52 weeks) PT – 30 months (from the 1st October) entry  Where students commence their programme at pre-Masters Level in Brunel Pathway College, the normal length stated above will vary as follows: Pre-Master Level June commencement + 4 months
10. Maximum period of registration for each mode of study	Normal length of programme (as defined above in 9) + 2 years
11. Variation(s) to September start	January from 2021.  See document “Validated Programme Element Specification for BPC Generic Pre-Masters (with and without work placement) for Pre-Masters entry points
12. Modes of study	Full-time
13. Modes of delivery	Standard
14. Intermediate awards, titles and FHEQ Level of Award	Postgraduate Diploma in Integrated Product Design FHEQ level 7
15. UCAS Code	N/A
16. HECoS Code	100050 (10%) and 100182 (90%)
17. Route Code	W240PINTPRDN
18. Relevant subject benchmark statements and other external and internal reference points used to inform programme design	<a href="#">UK Quality Code for Higher Education</a> <a href="#">QAA Subject Benchmark Statement</a> <a href="#">Brunel University London 2030</a> Brunel Placement Learning Policy, as published under the ‘Placements’ section of the <a href="#">‘Managing Higher Education Provision with Others’</a> page.
19. Admission Requirements	Details of <a href="#">PGT entry requirements</a> are provided on the University’s and College website. Levels of English for non-native speakers are outlined on Brunel International’s <a href="#">language requirements</a> pages.
20. Other relevant information (e.g. study abroad, additional information on placements)	Students will be encouraged to undertake an optional industrial placement as part of their dissertation project over the summer. This will be facilitated by the programme director and the individual dissertation supervisors, exploiting the good links between Brunel Design and relevant industrial colleagues.  Students will also be encouraged to apply for student membership of The Institute of Engineering Designers, attend its events and to support the accreditation process for this programme.

21. Programme regulations not specified in Senate Regulation 3. Any departure from regulations specified in Senate Regulation 3 must be stated here and approved by Senate.	N/A
22. Further information about the programme is available from the College website.	<a href="#">MSc Integrated Product Design</a>

### 23. EDUCATIONAL AIMS OF THE PROGRAMME

The primary aim of this programme is to integrate IT technology, management, sustainable development, ergonomics, marketing, service business, design methods and practice into design education to produce highly qualified and sought after designers able to cope with the challenges the global economy presents, which are required to be at the forefront of globally integrated product design research and development in either industrial or service or academic employment.

Specific aims are as follows:

To provide an integrated programme of study across a broad range of knowledge and skills in product/industrial and service design with a "user oriented view" of design problems

To develop design and technology research skills in practising applied research related to design process.

To develop advanced design skills enabling graduates to practise an independent design profession and to further develop design and professional skills in industrial design engineering.

To nurture scientific rigour as well as creativity to enable graduates to follow a successful career in product/industrial and service design and leadership with national and international companies and institutions.

### 24. PROGRAMME AND INTERMEDIATE LEARNING OUTCOMES

The programme provides opportunities for students to develop and demonstrate knowledge and understanding (K) cognitive (thinking) skills (C) and other skills and attributes (S) in the following areas:

FHEQ Level	Category (K = knowledge and understanding C = cognitive (thinking) skills, S = other skills and attributes)	Learning Outcome	Masters Only	Associated Assessment Blocks Code(s)	Associated Study Blocks Code(s)	Associated Modular Blocks Code(s)
<b>7</b>						
	K	1. Critical understanding of the nature of an international new product design & development environment and the total design process with emphasis on conceptualisation and collaboration.	X			DM5534, DM5551
	K	2. Critical awareness of current contemporary design challenges and issues in the global economy and sustainable design, and design futures.	X			DM5533, DM5544, DM5551
	K	3. The advanced design theories and methods appropriate to global excellence.	X			DM5534, DM5561, DM5551
	K	4. Systemic understanding of the principles of Human Factors and their impacts on international product design and development.				DM5563 DM5534

	K	5. Critical understanding of the key elements of NPD, process & change management to build sustainable and socially responsible enterprises				DM5562 DM5534
	K	6. Systemic understanding of the principles of Sustainable design linked to environmental concerns of: energy, materials, major industries, recycling, human behaviours and policy				DM5533 DM5534
	K	7. Comprehensive understanding of the design communications, creative design, design analysis, optimisation and simulation, and virtual design techniques.				DM5534, DM5535, DM5561
	C	8 Evaluate critically the nature of design research and its application to product, service and system design as a basis for formulating original strategies, plans and implementation recommendations.				DM5562 DM5551
	C	9 Identify and critically evaluate key issues for design research, international product, service and system design and development	X			DM5562, DM5551
	C	10 Critically evaluate the application of appropriate methodologies and tools to enhance 'design thinking' and processes so as to address complex issues in globally distributed product, service and system design, development, production and management				DM5533, DM5534, DM5562 DM5535 DM5551
	C	11 Systematically evaluate the ergonomic and user aspects within product / service development.				DM5563 DM5534
	C	12 Analyse critically and develop original innovative product/service/system combinations to satisfy the needs of stakeholders on the basis of a balanced interest between the designer, the user, the industry and society with full respect of international ethical issues.	X			DM5534, DM5551
	C	13 Critically evaluate the major contemporary environmental considerations and understand a spectrum of environmental 'positions' in response to the situations				DM5534 DM5533

	C	14 Critically evaluate and communicate a well-researched and argued critical appraisal of a contemporary professional design issue.				DM5534, DM5544, DM5551
	S	15 Evaluate, and critically justify the selection of suitable methodological tools for carrying out design, branding and innovation research studies.				DM5534, DM5551
	S	16 Develop a practical understanding of how "design thinking" skills can be applied in the organisation and strategic planning of project based activities.				DM5562 DM5534
	S	17 Synthesize and develop skills in a wide range of practical design and development tools (digital and analogue) to support the development of products, services and systems.				DM5535 DM5534 DM5561
	S	18 Originality in the application of higher level design research and process skills to a complex contextual design issue.	x			DM5534, DM5551
	S	19 Demonstrate self-direction and originality in formulating a sound methodological approach in dealing with the range of predominately soft complex issues.	x			DM5534, DM5551
	S	20 Work constructively within a team; managing resources, allocating and completing tasks, and communication relating to undertaking a strategic design process within a contemporary design context.				DM5534 DM5544 DM5562
	S	21 Develop and write coherent academic critiques on theoretical elements of the subject matter building upon current academic state-of-the-art research				DM5533 DM5534 DM5551 DM5561

**Learning/teaching strategies and methods** to enable learning outcomes to be achieved, including formative assessments

The teaching methods will generally be a mix of lectures (including guest speakers where appropriate), seminars, tutorials, practical workshops, web-based learning, case studies, directed reading, and independent research.

Wherever possible across the programme, the use of active learning techniques and web-based support tools will be encouraged. These deeper levels of learning will be achieved by increased dependence on the active learning techniques mentioned above; such may include seminars/tutorials, professional design studios, discussion groups (either in class or on-line), reading clubs, workshops, or case studies.

Practical and transferable skills will be acquired through both direct teaching and indirect learning throughout the programme. Practical activities, such as design studios, workshops, tutorials, and independent projects, will be supplemented with seminars, individual tutorials and project supervision for the main dissertation.

Note that the modules Professional Design Studio and Computer Aided Design Methods and Manufacturing Techniques directly addresses issues of integrated product design methods, tools, and project development, etc. in their topics of study.

**Summative assessment strategies and methods** to enable learning outcomes to be demonstrated.

A range of assessment methods will be used across the modules, including examinations, independent coursework, practical assignments, web-based tests, and presentations.

In addition to the more practical-based assessments described above (coursework assignments, presentations), these cognitive learning outcomes will be assessed in the main dissertation project (either project-based or research-based).

Practical assignments, presentations, independent coursework, and the main dissertation project will be used to evaluate these learning outcomes.

## 25. Programme Structure, progression and award requirements

Programme structures and features: levels, assessment blocks, credit and progression and award requirements.

- **Compulsory block:** one which all students registered for the award are required to take as part of their programme of study. These will be listed in the left hand column;
- **Optional block:** one which students choose from an 'option range'. These will be listed in the right hand column;
- A **core assessment** is an assessment identified within an assessment block or modular block (either compulsory or optional) which must be passed (at grade C- or better) in order to be eligible to progress and to be eligible for the final award. All core assessments must be specified on the programme specification next to the appropriate assessment or modular block:

Where students are expected to pass the block at C- or better, but not necessarily all elements, then the block itself is core.

e.g. AB5500 Project (40)  
Core: Block

Where only some elements of assessments are required to be passed at C- or better, these will be identified by listing each element that is core

e.g. ABXXX1 Title (XX credits)  
Core: 1 & 4

Where students are expected to pass all assessments in a block then this will be identified. By setting the assessment this way, students are also required to pass the block by default. This will be identified thus:

e.g. ABXXXX Title (XX credits)  
Core: All, Block

- A **non-core assessment** does not have to be passed at grade C- or better, but must D- or better in order to be eligible for the final award.

All modules on this programme are considered compulsory and there is no optional module available.

### FHEQ Level 7

#### Compulsory modular block codes, titles and credits

DM5563 Human Factors in Design (15 credits)  
DM5533 Sustainable Design (15 credits)  
DM5534 Professional Design Studio (30 credits)  
DM5535 Computer Aided Design and Manufacturing Techniques (15 credits)  
DM5544 Design Innovation Futures: Seminar & Workshop Programme (15 credits)  
DM5561 Design Creativity and Aesthetic Awareness (15 credits)  
DM5562 Strategic Design Management and Research (15 credits)  
DM5551 Dissertation Project (IPD) (60 credits) Core: Block

#### Optional modular block codes, titles and credits

N/A

## **FHEQ Level 7 Progression and Award Requirements**

### [As per Senate Regulation 3](#)

A PGDip may be awarded by substitution of the dissertation (DM5551) for up to 30 credits of modular/assessment blocks in the taught part of the programme, provided the learning outcomes have been met.

### **pre-Masters Level**

The pre-Masters Level structure available to international students is specified in document "Validated Programme Element Specification for Generic Pre-Masters". This document also specifies the admission and progression requirements.

Please note: this specification provides a concise summary of the main features of the programme and the learning outcomes that a student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods can be found in the modular block, assessment and study block outlines and other programme and block information. The accuracy of the information contained in this document is reviewed by the University from time to time and whenever a modification occurs.