Programme Specification for Postgraduate Programme Leading to:
MSc Engineering Management

Applicable for all postgraduate students starting in 2020

Version No.	Date	Notes – QA USE ONLY	QA
2020-21 v1	*6 October 2020*	*Programme Specification updated for 2020/21 entrants. Senate approved that a PGDip may be awarded by substitution of the dissertation for up to 30 credits of modular/assessment blocks in the taught part of the programme, provided the learning outcomes have been met.*	*JP*
2020-21 v2	*7 December 2020*	*Confirmation that the addition of a January start is a permanent addition,*	*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/ Department of Mechanical and Aerospace Engineering
4. Contributing college/department/division /associated institution	LBIC for Pre-masters (see section 25)
5. Programme accredited by	Institution of Engineering and Technology (IET) Institution of Mechanical Engineers (IMechE)
6. Final award(s) and FHEQ Level of Award	MSc Engineering Management FHEQ level 7
7. Programme title	MSc Engineering Management
8. Programme type (Single honours/joint)	N/A
9. Normal length of programme (in months) for each mode of study	FT – 1 year (equivalent to 52 weeks) Where students commence their programme in LBIC, the normal length stated above will vary as follows: April commencement (with placement): + 6 months June commencement (without placement): + 4 months
10. Maximum period of registration for each mode of study	Normal length of programme plus two years up to a maximum of five years
11. Variation(s) to September start	January from 2021 See document "Validated Programme Element Specification for LBIC Generic Pre-Masters (with and without work placement) for Alternative Level entry points
12. Modes of study	FT
13. Modes of delivery	Standard
14. Intermediate awards, titles and FHEQ Level of Award	Postgraduate Certificate in Engineering Management - FHEQ Level 7 Postgraduate Diploma in Engineering Management - FHEQ Level 7
15. UCAS Code	N/A
16. HECoS/JACS Code	100184/H900
17. Route Code	H900PENGMGT
18. Relevant subject benchmark statements and other external and	UK Quality Code for Higher Education QAA Subject Benchmark Statement (Engineering) Brunel 2030

internal reference points used to inform programme design	Brunel Placement Learning Policy, as published under the 'Placements' section of the 'Managing Higher Education Provision with Others' page. Engineering Council, UK-SPEC document "Chartered Engineer and Incorporated Engineer Standard"
19. Admission Requirements	Details of entry requirements are provided on the University's and College website. Levels of English for non-native speakers are outlined on Brunel International's language requirements pages.
20. Other relevant information (e.g. study abroad, additional information on placements)	None
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.	None
22. Further information about the programme is available from:	Course webpage

23. EDUCATIONAL AIMS OF THE PROGRAMME
The aim of the programme is to develop professionals in the area of Engineering Management who can take the skills they develop on the programme and make a significant difference in the marketplace. The online approach to teaching is designed to nurture practical business skills and confidence, and places huge emphasis on real-world challenges. Students will gain an in-depth understanding of operations management and strategy, how to analyse and design effective supply chain operations, how to use data, models and software to solve problems and inform decisions, the role of human resources in manufacturing and services, inventory management, accounting, quality and reliability and project management. In addition to the modules, the individual thesis offers the opportunity to apply the knowledge and skills developed on the programme. The programme aims to provide the student with specialist knowledge and skills necessary for a career in engineering management.

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:

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)
7	K	The student should develop a systematic advanced understanding of both operations management and engineering knowledge, as well as a crucial awareness of latest problems and/or new insights within engineering management.				MN5547 MN5554 MN5508 DM5535 MN5552 MN5610 MN5557 MN5502
7	K	Students should develop a comprehensive and in depth understanding of a range of research tools and techniques applicable to a wide range of engineering management problems				MN5501 MN5543 MN5610 MN5508
7	K	Students should demonstrate originality in the application of operations management and engineering knowledge, together with an advanced practical understanding of how established techniques of research and enquiry are used to create an interpret engineering management knowledge.				MN5547 MN5508 MN5501 MN5557 MN5502

	K	To assess and evaluate different methodologies and demonstrate the ability to critically assess the application of operations and engineering research and where appropriate, to propose new hypotheses				MN5501 MN5543 MN5547
7	K	A highly developed and critical understanding of operations concepts that enable the student to crucially and creatively evaluate research and advanced scholarship in the operations management				MN5547 MN5543 MN5508 MN5506 MN5501 MN5552 MN5610 MN5502
7	C	The student should develop the ability to investigate and solve complex operations issues both systematically and creatively, make sound judgements, and effectively communicate their conclusions to a range of audiences, including engineering managers				MN5547 MN5554 MN5543 MN5508 MN5506 MN5501 DM5535 MN5552 MN5502
7	C	Demonstrate commitment, self-direction, apply advanced and independent thinking skills and originality in tackling and solving complex engineering management problems, as well as acting autonomously in planning and implementing tasks at a professional level.				MN5547 MN5554 MN5508 MN5501 MN5557 MN5502

7	C	The student will be equipped to be able to continue to advance their knowledge and understanding of engineering management areas, and aspire to develop new skills to an advanced level				MN5610 MN5554 MN5543 DM5535 MN5557
7	S	Engineering management students should be able to exercise and demonstrate high levels of initiative and personal responsibility in their work				MN5543 MN5501
7	S	Students should be confident to make informed decisions in complex and unpredictable scenarios				MN5543 MN5508 DM5535 MN5557 MN5502
7	S	Students will be equipped to pursue independent engineering management learning required for CPD.				MN5554 MN5508 MN5506

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

Acquisition of above points is achieved via a combination of lectures, seminars, group tutorials, project/dissertation, Study materials (CD's course notes, lectures slides and notes- for Distance learning students) and directed private study as appropriate:
Lectures are (generally) used to deliver essential material. Seminars are generally used to apply acquired knowledge via exercises and/or to develop critical insight or reflect on material.
Directed private study is used to (a) supplement and consolidate the points above and (b) broaden individual knowledge and understanding of the subject matter.
The dissertation (and project) provides experience in defining and organizing a substantial individual and (group) investigation into an engineering topic and present the information in the form of a report.

Distance Learning: Module based distance learning teaching packages which include personal feedback questions, personal activities, case studies, problem solving exercises and staged examples.

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

A variety of assessment methods are used depending on the learning outcomes of the modules. These include coursework, group work, presentations, reports, exams, evaluation and solution of a case study, lab exercises. The dissertation module is assessed by the thesis, with the dissertation proposal being submitted for progression at the end of stage two of the course.

The specific ways in which each area is assessed is spelled out in the appropriate module specification.

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.

FHEQ Level 7	
Compulsory assessment block codes, titles and credit	**Optional assessment block codes, titles and credits**
Compulsory study block codes, titles and credit volume	**Optional Study block codes, titles and credit volume**
Compulsory modular block codes, titles and credits All modules are 15 credits unless otherwise specified MN5502 Manufacturing Systems Design & Economics MN5506 Managing People and Organisations MN5508 Project Management MN5543 Systems Modelling and Simulation MN5547 Logistics and Global Supply Chain Management MN5554 Quality Management and Reliability MN5501 Dissertation (60 credits) **Core: Block** Distance-learning Year 1: MN5506; MN5508; MN5502; MN5543 Year 2: MN5547; MN5554 plus two options Year 3: MN5501	**Optional modular block codes, titles and credits** All modules are 15 credits unless otherwise specified MN5610 Advanced Measurement Systems and Data Analysis MN5557 Sustainable Design & Manufacture MN5552 Robotics and Manufacturing Automation DM5535 Computer aided Design Techniques
Progression and Award Requirements As per Senate Regulation 3 A PGDip may be awarded by substitution of the dissertation (MN5501) 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 The Pre-Masters structure available to international students is specified in document “Validated Programme Element Specification for LBIC Generic Pre-Masters (with and without work placement)”. 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.