

Engineering with Integrated Foundation Year

Applicable for all undergraduate students **starting a Foundation Year in 2021**.

Version No.	Date	Notes – QA USE ONLY	AO
2021.22 v1	16 August 2021	Programme specification for 2021 entrants to the Foundation Year. NB: FdSc Flood and Coastal Engineering removed as a progression pathway.	JP

Undergraduate 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
4. Contributing college/department/division/ associated institution	None
5. Programme accredited by	N/A
6. Final award(s) and FHEQ Level of Award	<p><i>BEng awards FHEQ Level 6, (with and without Placement) in the following Departments:</i> Electronic and Computer Engineering Mechanical Engineering Civil Engineering Chemical Engineering</p> <p>BSc awards FHEQ Level 6, (with and without Placement) in the following Departments: Mathematics Computer Science</p>
7. Programme title	Engineering with an Integrated Foundation Year
8. Programme type (Single honours/joint)	Single honours
9. Normal length of programme (in months) for each mode of study	48 months (Full-time) / 60 months (Thick Sandwich)
10. Maximum period of registration for each mode of study	Normal length of programme (as defined above in 9) + 3 years
11. Variation(s) to September start	None
12. Modes of study	Full Time
13. Modes of delivery	Standard
14. Intermediate awards and titles and FHEQ Level of Award	Intermediate awards are shown on the programme specification for the chosen pathway
15. UCAS Code	N/A
16. JACS Code	N/A
17. Route Code	H100UINTFDN
18. Relevant subject benchmark statements and other external and internal reference points used to inform programme design.	<p>UK Quality Code for Higher Education QAA Subject Benchmark Statement (Engineering) Brunel 2030 Brunel Placement Learning Policy, as published under the 'Placements' section of the 'Managing Higher Education Provision with Others' page.</p>
19. Admission Requirements	<p>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.</p>
20. Other relevant information (e.g. study abroad, additional information on placements)	None

21. Programme regulations not specified in Senate Regulation 2. Any departure from regulations specified in Senate Regulation 2 must be stated here and approved by Senate.	Enter progression requirements for pathways in section 25 below
22. Further information about the programme is available from the College website.	Further information about the programme is available from: <ul style="list-style-type: none"> • http://www.brunel.ac.uk/cedps/courses • http://www.brunel.ac.uk/courses/undergraduate/engineering-with-an-integrated-foundation-year

23. EDUCATIONAL AIMS OF THE PROGRAMME

The aim of this programme is to deliver the basic engineering principles necessary to prepare students to enter Level 1 of their selected pathway. Further programme aims can be found in the programme specification for the selected pathway.

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	Associated Assessment Blocks Code(s)	Associated Study Blocks Code(s)	Associated Modular Blocks Code(s)
Foundation Year					
	K	Basic laws of physics underpinning the engineering science			ME0605 ME0081 ME0080
	K	Basic knowledge of mathematical and analytical skills			ME0605 ME0006 ME0081 ME0080 ME0601
	K	Basic knowledge of engineering materials and their application to various engineering disciplines			ME0080 ME0601 ME0081
	K	Fundamental concepts of electronic engineering			ME0601 ME0605
	C	Analysing problems using appropriate mathematical techniques.			ME0605 ME0006 ME0081 ME0080 ME0601
	C	Identifying appropriate physical laws when analysing engineering problems			ME0605 ME0081 ME0080 ME0601
	C	Analysing and evaluating data for basic engineering tasks			ME0605 ME0080 ME0081 ME0601
	S	Working in teams to gain interpersonal work experiences			ME0080 ME0601
	S	Preparing technical reports			ME0080 ME0601
	S	Working safely in Laboratory and data analysis.			ME0080 ME0601
	S	Gaining experience to use spreadsheets and to improve communication skills			ME0601 ME0080

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

Knowledge and understanding learning outcomes are achieved mainly through specific lectures and seminars, supported by problem sheets, weekly small group tutorials. The material is reinforced through coursework or assignments as well as application in laboratory and workshop sessions. Analysis and problem solving skills are developed through solved example problems, question sheets issued by course lecturers and through supervision during seminars. Practical and transferable skills are developed through the teaching and learning programmes including group project work. Practical engineering and experimental skills are developed in laboratories and during their project work

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

Testing of the knowledge base and understanding is through a combination of written examinations and assessed coursework in the form of laboratory reports, assignments, coursework portfolios, project reports and presentations. Analysis and problem solving skills are assessed through written examinations. Experimental and design skills are assessed through laboratory reports, project reports and short presentations. Practical and transferable skills are assessed through laboratory reports, coursework, group and individual assignment reports and presentations; computer based testing and written examinations.

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 D- 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 D- or better, but not necessarily all elements, then the block itself is core.

e.g. AB3000 Project (40)
Core: Block

Where only some elements of assessments are required to be passed at D- 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 D- or better, but must be better than a grade F, in order to progress and to be eligible for the final award.

Foundation Year	
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	Optional modular block codes, titles and credits
ME0605 Foundations of Physics, 30 credits, Core: Block	
ME0006 Mathematical Methods, 30 credits, Core: Block	
ME0081 Engineering Science, 20 credits, Core: Block	
ME0080 Material Science, 20 credits, CN	
ME0601 Communications, Projects and Electronic Engineering, 20 credits, CN	

Progression Requirements: [As per Senate Regulation 2](#)

Detail progression requirements to individual pathways here:

PROGRESSION REQUIREMENTS						
Subject Area/Programme	MODULES (minimum grade)					OVERALL
	Foundations of Physics	Mathematical Methods	Materials Science	Engineering Science	Projects, Comms & Electronics Engineering	
Subject Area/Programme	ME0605_CB	ME0006_CB	ME0080_CN	ME0081_CB	ME0601_CN	
All programmes (within the framework of the First Year in Engineering).	C-	C-	C-	C-	C-	
Mathematics	D-	A-	D-	D-	D-	
Computer Science	B-	B-	C-	C-	C-	

Students who have failed to meet the progression criteria will be provided with an opportunity to repeat only up to 60 credits that have not reached the progression threshold in the September reassessment period to enable them to progress. Reassessment will be limited to the progressions threshold and not capped at D-. Students who have failed to meet the progression criteria following the September re-sit period will be withdrawn from the university and there is no provision to repeat the programme either in part or in full. Student who would need to be re-assessed in more than 60 credits to progress will be withdrawn from the course. Notwithstanding this statement, the Resit Board of Examiners reserves the right to vary these progression requirements subject to the University minimum standards for entry requirements.

FHEQ Levels 4-6	
Compulsory assessment block codes, titles and credits See programme specification for chosen pathway	Optional assessment block codes, titles and credits See programme specification for chosen pathway
Compulsory study block codes, titles and credit volume See programme specification for chosen pathway	Optional Study block codes, titles and credit volume See programme specification for chosen pathway
Compulsory modular block codes, titles and credits See programme specification for chosen pathway	Optional modular block codes, titles and credits See programme specification for chosen pathway
Progression and Award Requirements As per Senate Regulation 2	

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.