#### Programme Regulations: 2025/26

# Programme Title: Bachelor of Engineering with Honours in Degree Apprenticeship in Product Design and Development Engineering – Battery Engineering

#### UCAS Code: 1904U

# Notes

- (i) These programme regulations should be read in conjunction with the University's Taught Programme Regulations.
- (ii) All optional modules are offered subject to the constraints of the timetable and to any restrictions on the number of students who may be taught on a particular module. Not all modules may be offered in all years and they are listed subject to availability.
- (iii) Unless otherwise stated under 'Type', modules are not core.
- (iv) A compulsory module is a module which a student is required to study.
- (v) A Core module is a module which a student must pass, and in which a fail mark may neither be carried nor compensated; such modules are designated by the board of studies as essential for progression to a further stage of the programme or for study in a further module.
- (vi) All modules are delivered in blended mode unless stated otherwise as linear, eLearning or distance learning.
- (vii) This programme is a Degree Apprenticeship and will contain a submission of an End Point Assessment (EPA) before any award is acknowledged.
- (viii) The period of study for this degree apprenticeship shall normally be 4 years starting in September.
- (ix) To receive retrospective accreditation (if approval is sought and awarded) appropriate assessment conditions will need to be met.

# 1. Stage 1

(a) All candidates shall take the following compulsory modules:

Code	Descriptive title	Total	Credits	Credits	Level	Туре	Mode
		Credits	Sem 1	Sem 2			
ENG1501	Engineering Mathematics 1	20	10	10	4	Core <u>core</u>	Blended
ENG1502	Industrial Project 1 – Design and	30	10	20	4	Core <u>core</u>	Distance
	Professional Skills						
ENG1503	Electrical and Magnetic Systems	20	10	10	4	Core <u>core</u>	Blended
ENG1504	Electronics and Sensors	10		10	4	Core <u>core</u>	Blended
ENG1506	Properties and Behaviours of	20	20		4	Core <u>core</u>	Blended
	Engineering Materials						
ENG1507	Mechanics 1	20	10	10	4	Core <u>core</u>	Blended

# 2. Stage 2/Year 1

(a) All candidates shall take the following compulsory modules:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Туре	Mode
ENG2501	Engineering Mathematics 2	10	10		5	Core <u>core</u>	Blended

ENG2502	Automatic Control Systems	10		10	5	Core <u>core</u>	Blended
ENG2503	Energy Sources and Storage	10	10		5	Core <u>core</u>	Blended
ENG2505	Materials Science	10	10		5	Core <u>core</u>	Blended
ENG2509	Electrical Power and Conversion	10		10	5	Core	Blended

#### 3. Stage 2/Year 2

(a) All candidates shall take the following compulsory modules:

Code	Descriptive title	Total	Credits	Credits	Level	Туре	Mode
		Credits	Sem 1	Sem 2			
ENG2506	Mathematical Modelling and	10		10	5	Core <u>core</u>	Blended
	Statistical Methods						
ENG2507	Design and Manufacturing	20	10	10	5	Core <u>core</u>	Blended
ENG2508	Semiconductor Devices and	20	20		5	Core <u>core</u>	Blended
	Analogue Electronics						
ENG2504	Mechanics II	20		20	5	Core	Blended

#### 4. Stage 3

#### (a) All candidates shall take the following compulsory modules:

Code	Descriptive title	Total	Credits	Credits	Level	Туре	Mode
		Credits	Sem 1	Sem 2			
ENG3505	Battery Materials and	20	10	10	6	Core <u>core</u>	Blended
	Characterization						
ENG3506	Chemical and Electrochemical	20	10	10	6	Core <u>core</u>	Blended
	Principles for Batteries						
ENG3507	Battery Manufacturing and	20	10	10	6	Core <u>core</u>	Blended
	Testing						
ENG3508	Battery Management System	20	10	10	6	Core <u>core</u>	Blended
ENG3594	Industrial Project 2 (Dissertation	40	20	20	6	Core <u>core</u>	Distance
	module)						

#### 5. Assessment methods

Details of the assessment pattern for each module are explained in the module outline.

Apprentices must complete and pass all credit carrying modules of the BEng Honours engineering degree accredited by an Engineering Council (UK) licensed Professional Engineering Institution (PEI).

# 6. Degree classification

Candidates will be assessed for degree classification on the basis of all the modules taken at Stages 2 and 3 with the weighting of the stages being 1:3 for Stage 2 and Stage 3 respectively.

# Award of the Apprenticeship

Apprenticeship Grading Performance in the EPA will determine the apprenticeship grade of pass, merit, distinction or fail. Each end-point assessment method will be marked and graded, and each should be passed. The individual grades will then be aggregated to produce the final apprenticeship grade. To gain an

apprenticeship pass or higher grade, the apprentice must achieve a minimum of a pass in each method. An apprenticeship pass represents full competence against the standard. A grade of merit or distinction means an apprentice is demonstrating competence above the standard.

# Award of the BEng (Hons) in Degree Apprenticeship in Product Design and Development Engineering – Battery Engineering

Apprentices cannot successfully complete the Bachelors' degree without passing the EPA and vice versa.