Programme Regulations: 2025/26

Programme Titles:

Degree of Bachelor of Engineering with Honours in Electrical and Electronic Engineering - UCAS Code: H607

Degree of Bachelor of Engineering with Honours in Electrical and Electronic Engineering with Placement

Year - Code: 1182U

Degree of Bachelor of Engineering with Honours in Electrical and Electronic Engineering with International Study Year – Code 1857U

Degree of Bachelor of Engineering with Honours in Electrical Engineering Science - Code: 1623U

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) A compulsory module is a module which a student is required to study.
- (iv) All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.
- (v) If a candidate meets the requirements for the four year degree, MEng with Honours in Electrical and Electronic Engineering (H605) they may transfer to that programme at any time before the start of Stage 3.
- (vi) Programme transfers for Student Visa students may be restricted. Please refer to the Visa Team for advice.
- (vii) Programme coded 1623U is a non-accredited Honours degree title and is awarded where a candidate only meets the requirements of the University's Taught Programme Regulations and Examination Conventions.

1. Stage 1

All candidates shall take the following compulsory modules:

| Code | Descriptive title | Total Credits | Credits Sem 1 | Credits Sem 2 | Level |
|---------|---|------------------|------------------|------------------|-------|
| ENG1001 | Engineering Mathematics I | 20 | 10 | 10 | 4 |
| ENG1003 | Electrical and Magnetic Systems | 15 | 10 | 5 | 4 |
| ENG1004 | Electronics & Sensors | 10 | | 10 | 4 |
| ENG1005 | Thermofluid Mechanics | 15 | 5 | 10 | 4 |
| ENG1006 | Properties and Behaviour of Engineering | 15 | 15 | | 4 |
| | Materials | | | | |
| ENG1007 | Mechanics I | 15 | 5 | 10 | 4 |
| ENG1008 | Introduction to Programming Languages (C, | 15 | 7 | 8 | 4 |
| | Matlab and Python) | | | | |
| ENG1009 | Sustainable Design, Creativity and | 15 | 7 | 8 | 4 |
| | Professionalism | | | | |

2. Stage 2

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

| Code | Descriptive title | Total Credits | Credits Sem 1 | Credits Sem 2 | Level |
|---------|---------------------------------|------------------|------------------|------------------|-------|
| EEE2008 | Project and Professional Issues | 20 | | 20 | 5 |

| EEE2009 | Signals and Communications | 20 | 20 | | 5 |
|---------|--|----|----|----|---|
| EEE2014 | Semiconductor Devices and Analogue | 20 | 20 | | 5 |
| | Electronics | | | | |
| EEE2021 | Computer Programming and Organisation | 20 | 10 | 10 | 5 |
| ENG2025 | Digital Electronics | 10 | | 10 | 5 |
| ENG2026 | Automatic Control Systems | 10 | | 10 | 5 |
| ENG2029 | AC Electrical Power and Conversion | 10 | | 10 | 5 |
| ENG2031 | Mathematical Modelling and Statistical | 10 | | 10 | 5 |
| | Methods for Engineering | | | | |

3. Year 3 (Placement Year)

(i) <u>Careers Placement</u>

On completion of Stage 2 and before entering Stage 3, candidates may as part of their studies for the degree spend a year in a placement with an approved organisation. Permission to undertake a placement is subject to the approval of the Degree Programme Director. Students who are required to re-sit their Stage 3 assessment must delay the start of their placement until they have done so. Students who fail Stage 3 may not complete a placement year.

| Code | Descriptive title | Total Credits | Credits Sem 1 | Credits Sem 2 | Level |
|---------|---------------------------------------|------------------|------------------|------------------|-------|
| NCL3000 | Careers Service Placement Year Module | 120 | 60 | 60 | 6 |

(ii) <u>International Study Year</u>

On completion of Stage 2 and before entering Stage 3, candidates may as part of their studies for the degree spend a year abroad at an appropriate exchange partner institution. Permission to undertake a year abroad is subject to the approval of the Degree Programme Director. Students who are required to re-sit their Stage 2 assessment must delay the start of their placement until they have done so. Students who fail Stage 2 may not complete a year abroad.

| Code | Descriptive title | Total Credits | | Credits Sem 2 | Credits Sem 3 | Level | Туре | Mode |
|---------|--------------------------|------------------|----|------------------|------------------|-------|------|------|
| ISY3000 | International Study Year | 120 | 60 | 60 | 0 | 6 | | |

4. Stage 3

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

| (4) | | | | | | | |
|---------|---|---------------|-------|---------|-------|--|--|
| Code | Descriptive title | Total Credits | | Credits | Level | | |
| | | Credits | Sem 1 | Sem 2 | | | |
| EEE3094 | Individual Project and Technical Report | 30 | 10 | 20 | 6 | | |
| ENG2032 | Business and Law for Engineers | 10 | 10 | | 5 | | |
| EEE3024 | Industrial Automation & Control Systems | 20 | 10 | 10 | 5 | | |

- (b) (i) All candidates shall take three of the following options:
 - (ii) Student may opt to follow a recommended pathway as indicated below

| Code | Descriptive title | Total | Credits | Credits | Level | Pathway * |
|---------|---|---------|---------|---------|-------|-----------|
| | | Credits | Sem 1 | Sem 2 | | |
| EEE3023 | Digital Communication Systems | 20 | 10 | 10 | 6 | Micro & |
| | | | | | | Comms |
| EEE3025 | Power Electronics – Design & Applications | 20 | 10 | 10 | 6 | EP |
| EEE3026 | Electronic Devices and Semiconductor | 20 | 10 | 10 | 6 | Micro |
| | Technology | | | | | |
| EEE3027 | Integrated Circuit Design and Embedded | 20 | 10 | 10 | 6 | Micro & |
| | System | | | | | Comms |
| EEE3028 | Electrical Machines and Drives | 20 | 10 | 10 | 6 | EP |
| EEE3029 | Net-Zero Energy Networks | 20 | 10 | 10 | 6 | EP |
| EEE3030 | Signal Processing and Machine Learning | 20 | 10 | 10 | 6 | Comms |

5. Assessment Methods

Details of the assessment pattern in each module are explained in the module outline. To satisfy IET accreditation requirements, a module comprising two assessment modes (coursework and examination) that assess different learning outcomes and each mode contributes more than 30% to the overall module mark, can only be passed if neither assessment mode is awarded a mark that is no more than 10% below the normal module pass mark.

6. Compensation and Condonement

For students entering the programme** in 2021/22 onwards, the Engineering Council's policy on compensation and condonement will apply to marks awarded for modules at all stages, to satisfy accreditation requirements. To be awarded an accredited honours degree, only a maximum of 30 credits can be compensated over the duration of the degree programme, where the final mark is up to 5 percentage points below the pass mark***. Core modules cannot be compensated. Individual projects and group projects worth more than 20 credits cannot be compensated.

There is no condonement of modules delivering Accreditation of Higher Education Programmes (AHEP) learning outcomes.

Any student not satisfying the accreditation requirements, but satisfying the University's Degree and Assessment regulations, will have the opportunity to be awarded a non-accredited honours degree with its classification based on the overall final stage averages beyond stage one.

- **Note that for Electrical & Electronic Engineering programmes, the above text on compensation and condonement has been applicable for students who started stage one from 2018/19.
- ***Note that for IET-accredited Electrical and Electronic Engineering degree programmes, a module comprising assessed components worth at least 30% of the overall module mark can only be passed if the overall module mark achieved is at least the pass mark and none of those assessed components have a mark that is more than 10 marks below the pass mark.

7. Degree classification

Candidates will be assessed for the degree classification on the basis of all the modules taken at Stages 2, 3

and 4 with the weightings of the stages being 1:3:3 for Stage 2, Stage 3 and Stage 4 respectively.

Pathway*

Micro – Micrelectronics Comms – Communications EP – Electrical Power