Programme Regulations: 2022/23

Programme Titles:

Degree of Bachelor of Engineering with Honours in Electronics and Computer Engineering - UCAS Code: H652 (with Foundation Year – UCAS Code: H604)

Degree of Bachelor of Engineering with Honours in Electronics and Computer Engineering with Placement Year - Code: 1190U

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 Electronics and Computer Engineering (H654) they may transfer to that programme at any time before the start of Stage 3.
- (vi) Programme transfers for Tier 4 students may be restricted by current Tier 4 rules. 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.

See also:

Stage 0 (Foundation Year) for all Degrees of Bachelor of Engineering with Honours and Master of Engineering with Honours

1. Stage 0

Candidates who do not meet the requirements for entry into Stage 1 may with approval of the Degree Programme Director commence this degree programme at Stage 0 and shall proceed under the regulations relating to Stage 0.

2. Stage 1

All candidates shall take the following compulsory modules:

| Code | Descriptive title | Total | Credits | Credits | Level |
|---------|-----------------------------------------------------|---------|---------|---------|-------|
| | | Credits | Sem 1 | Sem 2 | |
| CSC1036 | Programming Portfolio | 30 | | 30 | 4 |
| | | | | | |
| ENG1001 | Engineering Mathematics I | 20 | 10 | 10 | 4 |
| ENG1002 | Sustainable Design, Creativity, and Professionalism | 30 | 10 | 20 | 4 |
| ENG1003 | Electrical and Magnetic Systems | 15 | 15 | | 4 |
| ENG1004 | Electronics & Sensors | 10 | | 10 | 4 |
| ENG1006 | Properties and Behaviour of Engineering Materials | 15 | 15 | | 4 |

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3. Stage 2

All candidates shall take the following compulsory modules:

| Code | Descriptive title | Total | Credits | Credits | Level |
|---------|----------------------------------------|---------|---------|---------|-------|
| | | Credits | Sem 1 | Sem 2 | |
| CSC2031 | Security & Programming Paradigms | 20 | 20 | | 5 |
| CSC2032 | Algorithm Design & Analysis | 10 | 10 | | 5 |
| EEE2007 | Computer Systems and Microprocessors | 20 | 10 | 10 | 5 |
| EEE2008 | Project and Professional Issues | 20 | | 20 | 5 |
| EEE2009 | Signals and Communications | 20 | 20 | | 5 |
| ENG2025 | Digital Electronics | 10 | | 10 | 5 |
| EEE2016 | Analogue Electronics | 10 | 10 | | 5 |
| EEE2019 | Engineering Internet of Things Project | 10 | | 10 | 5 |

4. Year 3 (Placement Year)

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 2 assessment must delay the start of their placement until they have done so. Students who fail Stage 2 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 |

5. Stage 3

(a) All candidates shall take the following compulsory module(s):

| Code | Descriptive title | Total | Credits | Credits | Level |
|---------|-------------------------------------------|---------|---------|---------|-------|
| | | Credits | Sem 1 | Sem 2 | |
| CSC3121 | Distributed Systems | 10 | 10 | | 6 |
| EEE3022 | Introduction to Machine Learning | 10 | | 10 | 6 |
| ENG2001 | Accounting, Finance and Law for Engineers | 10 | 5 | 5 | 5 |

(b) All candidates shall take **one** of the following optional modules:

| Code | Descriptive title | Total | Credits | Credits | Level |
|---------|----------------------------------------|---------|---------|---------|-------|
| | | Credits | Sem 1 | Sem 2 | |
| EEE3095 | Individual Project and Technical Paper | 40 | 20 | 20 | 6 |
| EEE3096 | Individual Project and Technical Paper | 40 | 10 | 30 | 6 |
| EEE3097 | Individual Project and Technical Paper | 40 | 30 | 10 | 6 |

(c) All candidates must take optional modules from the following list so that the total number of credits is 120:

| Code | Descriptive title | Total | Credits | Credits | Level |
|----------|-------------------------------------------|---------|---------|---------|-------|
| | | Credits | Sem 1 | Sem 2 | |
| CSC3634+ | Fault Tolerant and Cyber-Physical Systems | 20 | 20 | | 6 |
| CSC3131 | Development and Operations of Systems | 20 | 20 | | 6 |

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| CSC3632+ | System and Network Security | 20 | 20 | | 6 |
|----------|------------------------------------------|----|----|----|---|
| EEE3001 | Linear Controller Design and State Space | 10 | 10 | | 6 |
| | Analysis | | | | |
| EEE3004 | Digital Signal Processing | 10 | 10 | | 6 |
| EEE3008 | Industrial Automation and PLCs | 10 | 10 | | 6 |
| EEE3009+ | Real Time and Embedded Systems | 10 | | 10 | 6 |
| EEE3013 | Image Processing and Machine Vision | 10 | | 10 | 6 |
| EEE3015 | Telecommunication Networks | 10 | | 10 | 6 |

+ Recommended modules

With the approval of the Degree Programme Director alternative optional modules to those listed above may be selected.

6. 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.

7. 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.

8. 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.

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