Programme Regulations: 2024/25

Programme Titles:

Degree of Master of Engineering with Honours in Automation and Control with Industrial Project - UCAS Code: H661

Degree of Master of Engineering with Honours in Automation and Control with Industrial Project with Placement Year (Year 4) - Code: 1193U

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)   All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.
(vi)   Programme transfers for Tier 4 students may be restricted by current Tier 4 rules. Please refer to the Visa Team for advice.

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 Materials	15	15		4
ENG1007	Mechanics I	15	5	10	4
ENG1008	Introduction to Programming Languages (C, Matlab and Python)	15	7	8	4
ENG1009	Sustainable Design, Creativity and Professionalism	15	7	8	4

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 Electronics	20	20		5
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				

(b)   To progress to Stage 3 of this degree programme, candidates are required to obtain an average over all modules taken at Stage 2 of at least 55 at the first attempt.

3.   Stage 3

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

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level
EEE3024	Industrial Automation and Control Systems	20	10	10	6
EEE3028	Electrical Machines and Drives	20	10	10	6
EEE3094	Individual Project and Technical Report	30	10	20	6
ENG2032	Business and Law for Engineers	10	5	5	5

(b)   All candidates shall take 30 credits of optional modules normally selected from the following list:

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

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

4.   Year 4 (Placement Year – 1193U Only)

On completion of Stage 3 and before entering Stage 4, 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	Career Service Placement Year Module	120	60	60	6

5.   Stage 4

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

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level
EEE8111	Engineering Study Project	10	10		7
EEE8113	Group Design Project	30		30	7
EEE8114	Industrial Project	40	40		7

(b)   All candidates shall take the following specialist module:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Mode
EEE8151	Distributed Control Systems	20		20	7	Block

(c)   All candidates shall take a 20 credit optional module from the table below:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Mode
EEE8088	Reconfigurable Hardware Design	20		20	7	Block
EEE8116	Bioelectronics	20		20	7	Block
EEE8124	Low Power VLSI Design	20		20	7	Block
EEE8155	Designing sustainable electric propulsion and generation systems	20		20	7	Block

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 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.