Programme Regulations: 2021/22

Programme Titles:
Degree of Master of Engineering with Honours in Engineering - UCAS Code: H104

- ***With specialism in Civil Engineering – Code 1559U***
- ***With specialism in Civil Engineering with Placement Year – Code 1560U***

- ***With specialism in Electrical and Electronic Engineering - Code: 1561U***
- ***With specialism in Electrical and Electronic Engineering with Placement Year - Code: 1562U***

- ***With specialism in Mechanical Engineering - 1563U***
- ***With specialism in Mechanical Engineering with Placement Year – Code 1564U***

- ***Bachelor of Engineering (Exit award only) Code - 1565U***

(all Foundation Year – UCAS Code: H101)

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 professional body accreditation of the degree programme.

(vi) All modules are delivered in Linear mode unless stated otherwise.

(vii) At the end of Stage 1 a student may, with the permission of the appropriate Degree Programme Director, transfer to one of the programmes in the following single disciplines:
Civil Engineering; Electrical and Electronic Engineering; Mechanical Engineering.

(viii) Programme transfers for Tier 4 students may be restricted by current Tier 4 rules. Please refer to the Visa Team for advice.

(ix) BEng (Hons) in General Engineering is offered at either at the end of Stage 3 or Stage 4 as an exit award only.

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 the 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 Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
ENG1001	Engineering Mathematics I	20	10	10	4	Core	
ENG1002	Design and Professional Skills I	30	10	20	4		
ENG1003	Electrical and Magnetic Systems	15	15		4		
ENG1004	Electronics and Sensors	10		10	4		
ENG1005	Thermofluid Mechanics	15	5	10	4		
ENG1006	Properties & Behaviour of Engineering Materials	15	15		4		
ENG1007	Mechanics I	15	5	10	4		

3. Stage 2

(a) All candidates shall take the following 80 credits:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
ENG2012	Engineering Mathematics II	20	10	10	5	Core	
ENG2013	Design and Professional Skills II	30	20	10	5	Core	
ENG2014	Digital and Smart Systems	10	10		5		
ENG2015	Mechanics II	20	10	10	5		

(b) All candidates shall take 40 credits of modules appropriate to their chosen specialism (i-iii):

(i) Specialism in Civil Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
ENG2016	Geotechnics	10		10	5		
ENG2017	Hydraulics	10		10	5		
ENG2018	Design of Building Elements	10		10	5		
ENG2019	Engineering Surveying	10		10	5		

(ii) Specialism in Electrical & Electronic Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
ENG2020	Electrical Engineering II (EE)	20		20	5		
ENG2021	Electronic Engineering	20		20	5		

(iii) Specialism in Mechanical Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
ENG2022	Materials II	10		10	5		
ENG2017	Hydraulics	10		10	5		
ENG2023	Thermodynamics	10		10	5		
ENG2024	Electrical Engineering II (Mech)	10		10	5		

(c) Candidates wishing to progress on a Master of Engineering programme are normally required to pass Stage 2 with an average mark of at least 55% at the first attempt in every module. Candidates who fail to satisfy the criterion will leave the programme at the end of Stage 3, with an appropriate award.

4. Stage 3

(a) All candidates shall take the following 40 credits:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
ENG3099	General Engineering Inter-disciplinary Design Project	40	10	30	6	Core	

(b) All candidates shall take the following 80 credits depending on specialism (i-iii).

(i) Specialism in Civil Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
ARC3020	Introduction to architecture	10		10	6		
CEG3002	Construction management	10	10		6		
CEG3003	Engineering ethics and sustainability	10		10	6		
CEG3201	Geotechnical design	10	10		6		
CEG3302	Structural analysis 2	10	10		6		
CEG3305	Computational Engineering Analysis	20	10	10	6		
CEG3310	Design of building systems	10	10		6		

(ii) Specialism in Electrical and Electronic Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
EEE3001	Linear Controller Design and State Space Analysis	10	10		6		
EEE3002	Electrical Machines	10	10		6		
EEE3003	Introduction to the Basics of Modern Power Electronics	10	10		6		
EEE3007	Design and Test of Digital Systems	10	10		6		
EEE3008	Industrial Automation and Robotics	10	10		6		
EEE3011	Electric Drives	10		10	6		
EEE3016	Photonics	10		10	6		
EEE3018	Digital Control Systems	10		10	6		

(iii) Specialism in Mechanical Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
MEC3023	Computational Modelling	20	10	10	6		
MEC3024	Instrumentation & Drive Systems	20	10	10	6		
MEC3025	Structural Optimisation & Crashworthiness	20	10	10	6		
MEC3026	Materials Degradation & Component Life	20	10	10	6		

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

(c) Candidates wishing to progress on to a Master of Engineering programme are normally required to pass Stage 3 with an average mark of at least 50% at the first attempt in every module. Students who fail to satisfy this criterion will be considered for an appropriate exit award.

5. Year 4 (Placement Year/Year in Industry)

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 or a year in industry 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*	*Type*	*Mode*
NCL3000	Careers Service Placement Year Module	120	60	60	6		

6. Stage 4

(a) All candidates shall take the following 60 credits:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
ENG8090	General Engineering Team Project	60	20	40	7	Core	

(b) All candidates shall take 60 credits depending on specialism (i-iii).

(i) Specialism in Civil Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CEG8003	Public policy: infrastructure and climate change.	10	10		7		Block
CEG8205	Soil modelling and numerical methods	10		10	7		Block
CEG8304	Structural reliability	10	10		7		Block
CEG8306	Engineering mechanics of composites	10	10		7		Block
CEG8309	Finite element analysis in structural mechanics	20		20	7		Block

(ii) Specialism in Electrical and Electronic Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
EEE8100	Software Tools for Digital System Design	10		10	7		
EEE8102	Design of Electrical Machines & Drives	10		10	7		

EEE8134	Distributed Control Systems	20	20		7		
EEE8135	Renewable Energy Systems and Smart Grids	20	20		7		

(iii) Specialism in Mechanical Engineering

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*	*Mode*
CME8055	Energy Sources & Storage	20	20		7		
MEC8055	Manufacturing, Materials & Processes	20	20		7		
MEC8029	Design of Mechanical Power Transmissions	20		20	7		

7. Assessment methods

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

8. Degree title

Following successful completion of the programme, students will graduate with one of the following degrees depending on their specialism:

- MEng (Hons) in General Engineering with a specialism in Civil Engineering;
- MEng (Hons) in Engineering with a specialism in Civil Engineering;
- MEng (Hons) in General Engineering with a specialism in Electrical and Electronic Engineering;
- MEng (Hons) in Engineering with a specialism in Electrical and Electronic Engineering;
- MEng (Hons) in General Engineering with a specialism in Mechanical Engineering.
- MEng (Hons) in Engineering with a specialism in Mechanical Engineering with Placement Year.

9. Degree classification

For the MEng programme, candidates will be assessed for degree classification on the basis of all the modules taken at Stages 2, 3 and 4 with the weighting of the stages being 1:2:3 respectively.

For the BEng exit qualification, 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 1:2 respectively.