

Programme Regulations: 2022/23

Programme Titles:

Degree of Bachelor of Engineering with Honours in Mechanical Engineering - UCAS Code H300 (with Foundation Year - UCAS Code: H304)

Degree of Bachelor of Engineering with Honours in Mechanical Engineering with Placement Year- Code 1170U

Degree of Bachelor of Engineering with Honours in Mechanical Engineering Science – Code 1643U*

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) *If a candidate meets the requirements for one of the Master of Engineering degrees in Mechanical Engineering they may transfer to that programme at any time before the start of the Semester 2 examination period in Stage 3.*
- (vii) *A student who has a Stage 2 average of at least 55% at the first attempt, and an equally-weighted combined Stage 2 and Stage 3 average of at least 60%, may be considered under the progression regulations from Stage 3 to Stage 4 of the appropriate MEng programme. Note that even if these conditions are satisfied it may still be necessary for the candidate to clear module failures in order to progress. Candidates who wish to be considered for such a transfer must inform the Degree Programme Director in writing before the start of the Stage 3 Semester 2 examination period.*
- (viii) *Programme transfers for Tier 4 students may be restricted by current Tier 4 rules. Please refer to the Visa Team for advice.*
- (ix) *All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.*
- (x) *Programme coded 1643U 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:

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> | <i>Type</i> |
|-------------|---|----------------------|----------------------|----------------------|--------------|-------------|
| ENG1001 | Engineering Mathematics I | 20 | 10 | 10 | 4 | Core |
| ENG1002 | Sustainable Design, Creativity, and Professionalism | 30 | 10 | 20 | 4 | |
| ENG1003 | Electrical and Magnetic Systems | 15 | 15 | | 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 | |

3. Stage 2

All candidates shall take the following compulsory modules:

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> | <i>Type</i> |
|-------------|--|----------------------|----------------------|----------------------|--------------|-------------|
| ENG2001 | Accounting, Finance and Law for Engineers | 10 | 5 | 5 | 5 | |
| ENG2011 | Engineering Mathematics II | 10 | 10 | | 5 | |
| ENG2015 | Mechanics II | 20 | 10 | 10 | 5 | |
| ENG2022 | Materials Science II | 10 | 10 | | 5 | |
| ENG2023 | Thermal Engineering | 10 | | 10 | 5 | |
| ENG2027 | Fluid Mechanics II | 10 | 10 | | 5 | |
| ENG2029 | AC Electrical Power and Conversion | 10 | | 10 | 5 | |
| ENG2031 | Mathematical Modelling & Statistical Methods for Engineering | 10 | | 10 | 5 | |
| MEC2007 | Design and Manufacturing II | 20 | 10 | 10 | 5 | |
| MEC2008 | Mechanical Engineering Professional Skills II | 10 | 5 | 5 | 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.

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> | <i>Type</i> |
|-------------|--------------------------------------|----------------------|----------------------|----------------------|--------------|-------------|
| NCL3000 | Career Service Placement Year Module | 120 | 60 | 60 | 6 | |

5. Stage 3

All candidates shall take the following compulsory modules:

| <i>Code</i> | <i>Descriptive title</i> | <i>Total Credits</i> | <i>Credits Sem 1</i> | <i>Credits Sem 2</i> | <i>Level</i> | <i>Type</i> |
|-------------|---|----------------------|----------------------|----------------------|--------------|-------------|
| MEC3027 | Introduction to Instrumentation and Drive Systems | 20 | 20 | | 6 | |
| MEC3028 | Computational Heat and Fluid Flow | 10 | 10 | | 6 | |
| MEC3029 | Advanced Mechanics & Structural Optimisation | 20 | 10 | 10 | 6 | |
| MEC3030 | Digital Manufacturing Processes and Systems | 20 | | 20 | 6 | |
| MEC3031 | Introduction to Biomedical Engineering | 10 | 10 | | 6 | |
| MEC3032 | Advanced Thermofluid Dynamics | 10 | | 10 | 6 | |
| MEC3098 | Final Year Dissertation capstone project | 30 | 5 | 25 | 6 | Core |

6. Assessment methods

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

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.

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 1:2 for Stage 2 and Stage 3 respectively.