

# **Durham University Faculty Handbook Online**

Crodit value

Credit value

These programme regulations should be read in conjunction with the University's <u>core regulations for undergraduate programmes</u>, and the <u>marking and classification conventions for undergraduate programmes</u>.

# MEng General Engineering (H100), MEng General Engineering with a year abroad (H106), MEng General Engineering with a placement year (H108)

1. This programme is available at Durham City, in a full-time mode of study.

## Level 1 (Certificate)

2. Candidates shall study and be assessed in the following modules:

		Orcait value
Solid Mechanics and Structures 1 #	ENGI1091	20
Electromagnetism and Manufacture #	ENGI1131	20
Thermodynamics & Fluid Mechanics #	ENGI1111	20
Electronic Measurement #	ENGI1141	20
Mathematics for Engineers and Scientists #	<u>MATH1551</u>	20

3. Candidates shall also study and be assessed in modules to the value of 20 credits offered by any Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).

### Level 2 (Diploma)

**4.** Candidates shall study and be assessed in the following modules:

		Orcait value
Electronics	ENGI2181	20
Electrical Engineering	ENGI2191	20
Engineering Design ~	ENGI2201	20
Engineering Mathematics	ENGI2211	20
Solid Mechanics and Structures 2	ENGI2221	20
Thermodynamics and Fluid Mechanics	ENGI2231	20

### Year 3 (Year Abroad)

5. During the third year candidates shall study and be assessed in a university abroad under the ERASMUS programme or a similar exchange programme. Students who are considered by the subject Board of Examiners to have made satisfactory progress, judged by reference to each student's learning agreement, will continue to Level 3 of the MEng General Engineering with year abroad (H106) programme. Otherwise, they will transfer to the MEng General Engineering (H100) programme.

## Level 3 (Degree)

## **EITHER (Civil Engineering Route)**

**6.** Candidates shall study and be assessed in the following modules:

	Credit value
ENGI3311	20
ENGI3301	20
ENGI3341	20
ENGI3411	20
ENGI3401	20
ENGI3471	20
	ENGI3301 ENGI3341 ENGI3411 ENGI3401

## **OR (Electrical Engineering Route)**

7. Candidates shall study and be assessed in the following modules:

		Credit value
Control and Signal Processing 3	ENGI3391	20
Electrical Engineering 3	ENGI3371	20

Credit value

Thermodynamics and Fluid Mechanics 3 Engineering Design 3 ~#	ENGI3291 ENGI3351	20 20
Electronics and Communications 3 Power Semiconductor Devices	<u>ENGI3451</u> ENGI3481	20 20

## **OR (Electronic Engineering Route)**

**8.** Candidates shall study and be assessed in the following modules:

·		Credit value
Electronics and Communications 3	ENGI3451	20
Advanced Computer Systems & Digital Electronics 3	<b>ENGI3461</b>	20
Semiconductor Physics and Devices 3	<b>ENGI3331</b>	20
Control and Signal Processing 3	<b>ENGI3391</b>	20
Engineering Design 3 ~	<b>ENGI3351</b>	20
Electrical Engineering 3	ENGI3371	20

## **OR (Mechanical Engineering Route)**

9. Candidates shall study and be assessed in the following modules:

		Credit value
Control and Signal Processing 3	ENGI3391	20
Electrical Engineering 3	ENGI3371	20
Solid Mechanics 3	ENGI3411	20
Thermodynamics and Fluid Mechanics 3	ENGI3291	20
Engineering Design 3 ~	ENGI3351	20
Materials 3	ENGI3471	20

## Year 4 (Placement Year)

10. The industrial placement year offers the candidate the opportunity to gain insight into how to apply engineering knowledge in a business context and to help with employer engagement early in their recruitment pipeline. A placement year requires a minimum of forty (40) weeks of work. The placement begins in the summer following the completion of the penultimate year of study. The placement year is marked as pass / fail only based on a 4000 words report and evaluation of performance from the industrial partner organisation. The Engineering Department and it's industrial partners endeavour in providing as many placements as possible; but cannot guarantee these to all candidates. Alternatively, students may seek and propose placement opportunities for approval.

### Level 4 (Degree)

## **EITHER (Aeronautics)**

**11.** Candidates shall study and be assessed in the following modules:

•		Credit value
Aeromechanics	ENGI4231	20
Fluid Mechanics and Turbomachinery	ENGI4221	20
Solid Mechanics 4	ENGI4211	20

12. Candidates shall also study and be assessed in modules to the value of 60 credits from List A:

List A:		Credit value
MEng Research and Development Project ~	ENGI4093	60
MEng Technical Project ~	ENGI4112	40
Engineering into Schools	ENGI4321	20

#### OR (Civil Engineering)

13. Candidates shall study and be assessed in the following modules:

Candidates shall study and be assessed in the following modules:		Credit value
Solid Mechanics 4	ENGI4211	20
Structures, Highways and Construction Advanced Geotechnical Engineering and Hydrology	ENGI4141 ENGI4151	20 20
Advanced Section in car Engineering and Trydrology	LITOITIOI	20

14. Candidates shall also study and be assessed in modules to the value of 60 credits from List B:

List B:		Credit value
MEng Research and Development Project ~	ENGI4093	60
MEng Technical Project ~	ENGI4112	40
Engineering into Schools	ENGI4321	20

#### **OR (Electronic Engineering)**

**15.** Candidates shall study and be assessed in the following modules:

•	<b>G</b>	Credit value
DSP and Microwave Engineering	ENGI4251	20
Advanced Semiconductor Devices	<u>ENGI4131</u>	20
Communications Systems	ENGI4121	20

16. Candidates shall also study and be assessed in modules to the value of 60 credits from List C:

List C:		Credit value
MEng Research and Development Project ~	<b>ENGI4093</b>	60
MEng Technical Project ~	ENGI4112	40
Engineering into Schools	ENGI4321	20

#### **OR (Mechanical Engineering)**

17. Candidates shall study and be assessed in the following modules:

		Credit value
Solid Mechanics 4	ENGI4211	20
Fluid Mechanics and Turbomachinery	ENGI4221	20
Low Carbon Technologies	ENGI4281	20

18. Candidates shall also study and be assessed in modules to the value of 60 credits from List D:

List D:		Credit value
MEng Research and Development Project ~	ENGI4093	60
MEng Technical Project ~	<u>ENGI4112</u>	40
Engineering into Schools	ENGI4321	20

## **OR (New and Renewable Energy)**

**19.** Candidates shall study and be assessed in the following modules:

		Credit value
Energy Conversion and Delivery	ENGI4271	20
Low Carbon Technologies	ENGI4281	20
Solid Mechanics 4	ENGI4211	20

20. Candidates shall also study and be assessed in modules to the value of 60 credits from List E:

List E:		Credit value
MEng Research and Development Project ~	<b>ENGI4093</b>	60
MEng Technical Project ~	<b>ENGI4112</b>	40
Engineering into Schools	ENGI4321	20

#### Assessment, progression and award

- **21.** The Professional Applications in Engineering Course (PEAC) is compulsory for professional body accreditation of the degree. Therefore students who wish to progress to Level 3 of the MEng or the BEng in General Engineering are required to complete this course to a satisfactory standard.
- **22.** Modules marked with a ~ must be passed at 40% or above for the award of an honours degree. A mark of 30-39% cannot be compensated.
- **23.** Modules marked with a # must be passed at 40% or above in order to progress to the Ordinary degree at the next Level.

- **24.** Students who fail to achieve the standard required under the Core Regulations for progression to Level 3 of an MEng but who achieve the standard required for progression to Level 3 of a Bachelors programme may progress to Level 3 of the BEng in General Engineering in the Honours or Ordinary stream in accordance with the Core Regulations.
- **25.** A student who is qualified to progress from Level 2 to Level 3 of an MEng programme but wishes to transfer to Level 3 of the BEng in General Engineering shall be permitted to do so.
- **26.** Students whose achievement at the end of Level 3 does not qualify them to proceed to Level 4 may be awarded the degree of BSc Engineering at either Honours or Ordinary level in accordance with the Core Regulations for the award of a Bachelors degree.
- **27.** Students who successfully complete the Electronic Engineering route at Level 3 may register for the following specialism at Level 4: Electronic Engineering.
- **28.** Students who successfully complete the Electrical Engineering OR Mechanical Engineering route at Level 3 may register for the following specialisms at Level 4: Mechanical Engineering OR Aeronautics OR New and Renewable Energy.
- **29.** Students who successfully complete the Civil Engineering route at Level 3 may register for the following specialism at Level 4: Civil Engineering.
- **30.** A student whose achievement at the end of Level 4 does not qualify them to be awarded the degree of MEng may be awarded the degree of BSc Engineering at Honours level in accordance with the Core Regulations for the award of a Bachelors degree.

#### Year Abroad

- 31. Students admitted to the MEng General Engineering (H100) are able to apply to transfer to the MEng General Engineering with Year Abroad programme (H106). Students undertaking the MEng General Engineering with Year Abroad programme (H106) will undertake an approved exchange in an overseas university taking a course of study chosen in consultation with the departmental exchange coordinator or their academic adviser and the host institution.
- 32. Candidates wishing to transfer to the MEng General Engineering with Year Abroad (H106) must:
  - **a.** have successfully completed Level 1 of the MEng General Engineering (H100) and progressed to Level 2 of the honours or Ordinary programme; and
  - **b.** during the first term of Level 2 study, apply via the departmental exchange coordinator to the Board of Studies in the Department of Engineering.
  - **c.** to be admitted to the MEng General Engineering with Year Abroad (H106) and have their application approved by the Board of Studies; and
  - **d.** secure an exchange opportunity with an approved international partner institution of the University; and
  - **e.** successfully complete Level 2 of the MEng General Engineering (H100) programme so as to be eligible to progress to Level 3 of the MEng General Engineering (H100) Honours programme.
- 33. The marks achieved by the student during the period of study abroad will not contribute to the marks for degree classification. Students who the Board of Examiners for Engineering deem to have made satisfactory progress on the year abroad will continue to Level 3 of the MEng General Engineering with Year Abroad (H106) programme. Students who have not made satisfactory progress on the year abroad will not be permitted to continue on the MEng General Engineering with Year Abroad (H106) programme, but must instead proceed to Level 3 of the MEng General Engineering (H100) programme.
- **34.** Students who undertake a Year Abroad are not eligible to apply for the Placement Year programme.

#### **Placement Year**

**35.** Students admitted to the MEng General Engineering (H100) are able to apply to transfer to the MEng General Engineering with Placement programme (H108). Students undertaking the MEng General Engineering with Placement programme (H108) will need to seek approval of their

proposed industrial placement year activities in consultation with the departmental placement coordinator.

- 36. Candidates wishing to transfer to the MEng General Engineering with Placement (H108) must:
  - a. have successfully completed Level 2 of the MEng General Engineering (H100) and progressed to Level 3 of the honours or Ordinary programme; and
  - b. during the first term of Level 3 study, apply via the departmental placement coordinator to the Board of Studies in the Department of Engineering.
  - c. secure a placement with an industrial partner of their choice; and
  - d. to be admitted to the MEng General Engineering with Placement (H108) have their application & topic approved by the Board of Studies; and
  - e. successfully complete Level 3 of the MEng General Engineering (H100) programme so as to be eligible to progress to Level 4 of the MEng General Engineering (H100) Honours programme.
- 37. Students who the Board of Examiners for Engineering deem to have made satisfactory progress during the placement year will continue to Level 4 of the MEng General Engineering with Placement (H108) programme. Students who have not made satisfactory progress during the placement year will not be permitted to continue on the MEng General Engineering with Placement (H108) programme, but must instead proceed to Level 4 of the MEng General Engineering (H100) programme.
- **38.** Students who undertake a Placement Year are not eligible to apply for the Year Abroad programme.

#### **Professional accreditation**

- **39.** The MEng General Engineering (H100) and MEng General Engineering with a year abroad (H106) are accredited on behalf of the Engineering Council for the purposes of fully meeting the academic requirement for registration as a Chartered Engineer, depending on the specialism chosen in Level 4 as follows:
  - a. by the IET for students entering Level 1 up to and including October 2023 (Aeronautics, Electronic Engineering, Mechanical Engineering, New and Renewable Energy specialisms);
  - by the IMechE for students entering Level 1 up to and including October 2023 (Mechanical, Aeronautics, and New and Renewable Energy specialism);
  - c. by the JBM (ICE, IStructE, IHE, CIHT) for students entering Level 1 up to and including October 2023 (Civil Engineering specialism).
  - by the RAeS for students entering Level 1 up to and including October 2023 (Aeronautics specialism).
- **40.** The accrediting bodies may require students to pass individual assessment components within modules to evidence that they meet the learning outcomes associated with the academic requirements for registration.