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

MEng General Engineering (H100), MEng General Engineering with Year Abroad (H106), MEng General Engineering with Placement Year (H108)

MEng Engineering (Civil) (H211), MEng Engineering (Civil) with Year Abroad (H212), MEng Engineering (Civil) with Placement Year (H213)

MEng Engineering (Mechanical) (H311), MEng Engineering (Mechanical) with Year Abroad (H312), MEng Engineering (Mechanical) with Placement Year (H313)

MEng Engineering (Aeronautical) (H411), MEng Engineering (Aeronautical) with Year Abroad (H412), MEng Engineering (Aeronautical) with Placement Year (H413)

MEng Engineering (Electrical) (H511), MEng Engineering (Electrical) with Year Abroad (H512), MEng Engineering (Electrical) with Placement Year (H513)

MEng Engineering (Electronic) (H711), MEng Engineering (Electronic) with Year Abroad (H712), MEng Engineering (Electronic) with Placement Year (H713)

MEng Engineering (Renewable Energy) (H811), MEng Engineering (Renewable Energy) with Year Abroad (H812), MEng Engineering (Renewable Energy) with Placement Year (H813)

MEng Engineering (Bioengineering) (H911), MEng Engineering (Bioengineering) with Year Abroad (H912), MEng Engineering (Bioengineering) with Placement Year (H913)

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:

		Credit value
Solid Mechanics and Structures 1 #	ENGI1091	20
Thermodynamics & Fluid Mechanics 1 #	ENGI1111	20
Electronic and Electrical Systems 1 #	ENGI1161	20
Engineering Practice 1 #	ENGI1171	20
Mathematics for Engineers and Scientists #	MATH1551	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:

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

Year 3 (Year Abroad)

5. During the third year candidates shall study and be assessed in a university abroad under the Turing scheme 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 a MEng with year abroad programme. Otherwise, they will transfer to a MEng programme without year abroad.

Level 3 (Degree)

EITHER (H211, H212, H213 Engineering (Civil) Programmes)

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

		Credit value
Structures, Civil Materials and Geomatics 3	ENGI3301	20
Geotechnics 3	ENGI3311	20
Environmental Engineering 3	ENGI3341	20
Civil Design 3 ~	ENGI3401	20
Solid Mechanics 3	ENGI3411	20
Materials 3	ENGI3471	20

OR (H311, H312, H313 Engineering (Mechanical) Programmes AND H811, H812, H813 Engineering (Renewable Energy) Programmes Route B) AND H911, H912, H913 Engineering (Bioengineering) Programmes

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

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

OR (H411, H412, H413 Engineering (Aeronautical) Programmes)

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

		Credit value
Thermodynamics and Fluid Mechanics 3	ENGI3291	20
Control and Signal Processing 3	ENGI3391	20
Solid Mechanics 3	ENGI3411	20
Materials 3	ENGI3471	20
Aeronautical Design 3	ENGI3501	20
Aircraft Performance 3	ENGI3511	20

OR (H511, H512, H513 Engineering (Electrical) Programmes AND H811, H812, H813 Engineering (Renewable Energy) Programmes Route A)

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

		Credit value
Thermodynamics and Fluid Mechanics 3	ENGI3291	20
Engineering Design 3 ~	ENGI3351	20
Electrical Engineering 3	ENGI3371	20
Control and Signal Processing 3	ENGI3391	20
Electronics and Communications 3	ENGI3451	20
Semiconductor Physics and Devices 3	ENGI3331	20

OR (H711, H712, H713 Engineering (Electronic) Programmes)

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

		Credit value
Semiconductor Physics and Devices 3	ENGI3331	20

Engineering Design 3 ~	ENGI3351	20
Electrical Engineering 3	ENGI3371	20
Control and Signal Processing 3	ENGI3391	20
Electronics and Communications 3	ENGI3451	20
Digital Electronics and Digital Signal Processing 3	ENGI3491	20

Year 4 (Placement Year)

11. 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 poster presentation and evaluation of performance from the industrial partner organisation. The Department of Engineering and its industrial partners endeavour to provide as many placements as possible but cannot guarantee these for all candidates. Alternatively, students may seek and propose placement opportunities for approval.

Level 4 (Degree)

EITHER (H211, H212, H213 Engineering (Civil) Programmes)

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

		Credit value
MEng Research and Development Project ~	ENGI4093	60
Advanced Geotechnical Engineering 4	ENGI4337	10
Planning and Net Zero 4	ENGI4347	10
Structural Design 4	ENGI4357	10
Structures 4	ENGI4377	10
Hydrology and Water Resources 4	ENGI4387	10

13. Candidates shall also study and be assessed in modules to the value of 10 credits from List A:

List A:		**Credit value**
Transportation Infrastructure Engineering 4	ENGI4367	10
Non-Linear Solid Mechanics 4	ENGI4397	10
Optimisation and Control for Artificial Intelligence 4	ENGI4577	10
Environmental Engineering 4	ENGI4597	10
Artificial Intelligence and Deep Learning 4	ENGI4607	10

OR (H311, H312, H313 Engineering (Mechanical) Programmes)

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

		Credit value
MEng Research and Development Project ~	ENGI4093	60
Non-Linear Solid Mechanics 4	ENGI4397	10
Fluid Mechanics 4	ENGI4427	10
Turbomachinery and Propulsion 4	ENGI4437	10
Renewable Energy Technologies 4	ENGI4447	10
Future Vehicles 4	ENGI4457	10

15. Candidates shall also study and be assessed in modules to the value of 10 credits from List B:

List B:		**Credit value**
Optimisation and Control for Artificial Intelligence 4	ENGI4577	10
Environmental Engineering 4	ENGI4597	10
Artificial Intelligence and Deep Learning 4	ENGI4607	10

OR (H411, H421, H413 Engineering (Aeronautical) Programmes)

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

		Credit value
MEng Research and Development Project ~	ENGI4093	60
Non-Linear Solid Mechanics 4	ENGI4397	10
Aircraft Structures 4	ENGI4407	10

Aeromechanics 4	ENGI4417	10
Fluid Mechanics 4	ENGI4427	10
Turbomachinery and Propulsion 4	ENGI4437	10

17. Candidates shall also study and be assessed in modules to the value of 10 credits from List C:

List C:		**Credit value**
Optimisation and Control for Artificial Intelligence 4	ENGI4577	10
Environmental Engineering 4	ENGI4597	10
Artificial Intelligence and Deep Learning 4	ENGI4607	10

OR (H511, H512, H513 Engineering (Electrical) Programmes)

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

		Credit value
MEng Research and Development Project ~	ENGI4093	60
Renewable Energy Technologies 4	ENGI4447	10
Future Vehicles 4	ENGI4457	10
Electrical Energy Conversion 4	ENGI4467	10
Power Electronics 4	ENGI4477	10
Smart Energy Networks 4	ENGI4487	10

19. Candidates shall also study and be assessed in modules to the value of 10 credits from List D:

List D:		**Credit value**
Optimisation and Control for Artificial Intelligence 4	ENGI4577	10
Environmental Engineering 4	ENGI4597	10
Artificial Intelligence and Deep Learning 4	ENGI4607	10

OR (H711, H712, H713 Engineering (Electronic) Programmes)

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

		Credit value
MEng Research and Development Project ~	ENGI4093	60
Radio and Digital Communications 4	ENGI4507	10
Communications Networks 4	ENGI4527	10
Advanced Electronics Measurement 4	ENGI4537	10
Advanced Electronics 4	ENGI4547	10
Photonics 4	ENGI4557	10

21. Candidates shall also study and be assessed in modules to the value of 10 credits from List E:

List E:		**Credit value**
Optimisation and Control for Artificial Intelligence 4	ENGI4577	10
Environmental Engineering 4	ENGI4597	10
Artificial Intelligence and Deep Learning 4	ENGI4607	10

OR (H811, H812, H813 Engineering (Renewable Energy) Programmes)

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

		Credit value
MEng Research and Development Project ~	ENGI4093	60
Renewable Energy Technologies 4	ENGI4447	10
Future Vehicles 4	ENGI4457	10
Electrical Energy Conversion 4	ENGI4467	10
Smart Energy Networks 4	ENGI4487	10
Decarbonisation of Heating and Cooling 4	ENGI4497	10

23. Candidates shall also study and be assessed in modules to the value of 10 credits from List F:

List F:		**Credit value**
Optimisation and Control for Artificial Intelligence 4	ENGI4577	10
Environmental Engineering 4	ENGI4597	10
Artificial Intelligence and Deep Learning 4	ENGI4607	10

OR (H911, H912, H913 Engineering (Bioengineering) Programmes)

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

		Credit value
MEng Research and Development Project ~	ENGI4093	60
Tissue Engineering	ENGI4647	10
Artificial Intelligence and Deep Learning 4	ENGI4607	10
Artificial Organs 4	ENGI4617	10
Biomechanics 4	ENGI4627	10
Physiological Fluid Mechanics 4	ENGI4637	10

25. Candidates shall also study and be assessed in modules to the value of 10 credits from List G:

List G:		**Credit value**
Optimisation and Control for Artificial Intelligence 4	ENGI4577	10
Environmental Engineering 4	ENGI4597	10
Non-Linear Solid Mechanics 4	ENGI4397	10

Assessment, progression and award

26. The Professional Engineering Applications Course (PEAC) is compulsory for professional body accreditation of the degree. Therefore, students who wish to progress to Level 3 of a MEng or BEng degree in Engineering are required to complete this course to a satisfactory standard.
27. Major individual and group-based project modules cannot be compensated. These are defined as ENGI 4093, ENGI 4112, ENGI 2201, ENGI 3401, ENGI 3351 and ENGI 3501.
28. All components of ENGI 1171 must be passed at 40% for the award of an honours degree. Students are permitted to resit a failed component with the component mark capped at the module pass mark.
29. The following module components must be passed at 40% for the award of an honours degree:

    a. ENGI 2231 “Professional Issues” coursework component; and;

    b. ENGI 3301 practical course component, ENGI 3371 practical course component or ENGI 3511 practical course component.
30. 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.
31. Modules marked with a # must be passed at 40% or above in order to progress to the next level of study.
32. No more than 30 credits of core engineering (ENGI) or mathematics (MATH) modules may be compensated for the award of an honours degree.
33. Students who fail to achieve the standard required under the Core Regulations for progression to Level 3 of a MEng but who achieve the standard required for progression to Level 3 of a Bachelor’s programme may progress to Level 3 of a BEng in accordance with the Core Regulations.
34. A student who is qualified to progress from Level 2 to Level 3 of a MEng programme but wishes to transfer to Level 3 of a BEng programme shall be permitted to do so.
35. 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 Bachelor’s degree.
36. Students who successfully complete Level 3 of a Mechanical Engineering programme may register for the following programmes at Level 4: Mechanical Engineering OR Aeronautical Engineering OR Renewable Energy OR Bioengineering.
37. Students who successfully complete Level 3 of an Electronic Engineering programme may register for the following programme at Level 4: Electronic Engineering.
38. Students who successfully complete Level 3 of an Electrical Engineering programme may register for the following programmes at Level 4: Electrical Engineering OR Renewable Energy.
39. Students who successfully complete Level 3 of a Civil Engineering programme may register for the following programme at Level 4: Civil Engineering.
40. Students who successfully complete Level 3 of a Renewable Energy Programme (Route A) may register for the following programmes at Level 4: Electrical Engineering OR Renewable Energy.

41. Students who successfully complete Level 3 of a Renewable Energy Programme (Route B) may register for the following programmes at Level 4: Aeronautical Engineering OR Mechanical Engineering OR Renewable Energy OR Bioengineering.

42. 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 Bachelor's degree.

Year Abroad

43. Students admitted to a MEng programme are able to apply to transfer to a MEng with Year Abroad programme. Students undertaking a MEng with Year Abroad programme 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.

44. Candidates wishing to transfer to a MEng with Year Abroad must:

    a. have successfully completed Level 1 of a MEng programme and progressed to Level 2 of the 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 to be admitted to a MEng with Year Abroad and have their application approved by the Board of Studies; and

    c. secure an exchange opportunity with an approved international partner institution of the University; and

    d. successfully complete Level 2 of a MEng programme so as to be eligible to progress to Level 3 of a MEng Honours programme.

45. 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 a MEng with Year Abroad programme. Students who have not made satisfactory progress on the year abroad will not be permitted to continue on a MEng with Year Abroad programme, but must instead proceed to Level 3 of a MEng programme without Year Abroad.

46. Students who undertake a Year Abroad are not eligible to apply for a Placement Year programme.

Placement Year

47. Students admitted to a MEng programme are able to apply to transfer to a MEng with Placement programme. Students undertaking a MEng with Placement programme will need to seek approval of their proposed industrial placement year activities in consultation with the departmental placement coordinator.

48. Candidates wishing to transfer to a MEng with Placement must:

    a. have successfully completed Level 2 of a MEng programme and progressed to Level 3 of the 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; and

    c. secure a placement with an industrial partner of their choice; and

    d. to be admitted to a MEng with Placement, have their application and topic approved by the Board of Studies; and

    e. successfully complete Level 3 of a MEng programme so as to be eligible to progress to Level 4 of a MEng Honours programme.

49. Candidates undertaking a Placement Year shall for the duration of the placement period be registered for the ENGI 3976 Engineering Placement Year module.

50. Students who the Board of Examiners for Engineering deem to have made satisfactory progress during the placement year will continue to Level 4 of a MEng with Placement programme. Students who have not made satisfactory progress during the placement year will not be permitted to continue on a MEng with Placement programme, but must instead proceed to Level 4 of a MEng programme without Placement.

51. Students who undertake a Placement Year are not eligible to apply for a Year Abroad programme.

Professional accreditation

52. Programmes 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 August 2029 (Aeronautical (H411, H412, H413), Electrical (H511, H512, H513), Electronic (H711, H712, H713), Mechanical (H311, H312, H313), and Renewable Energy (H811, H812, H813) programmes);
    b. by the IMechE for students entering Level 1 up to and including August 2029 (Mechanical (H311, H312, H313), Aeronautical (H411, H412, H413), Electrical (H511, H512, H513), Electronic (H711, H712, H713), Renewable Energy (H811, H812, H813) and Bioengineering (H911, H912, H913) programmes);
    c. by the JBM (ICE, IStructE, IHE, CIHT) for students entering Level 1 up to and including August 2029 (Civil (H211, H212, H213) programmes);
    d. by the RAeS for students entering Level 1 up to and including August 2029 (Aeronautical (H411, H412, H413) programmes).

53. 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.