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.

MSci Earth Sciences (F644)

1. This programme is available at Durham City, in a full-time mode of study.
2. Candidates should choose one of the following Routes through Level 1 to Level 3:

   Geology Route

   Environmental Route

   Geophysics Route

   Geoscience Route

3. Geology Route Levels 1 - 3

Level 1 (Certificate)

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

		Credit value
Earth Materials	GEOL1021	20
Field Studies	GEOL1051	20
Understanding Earth Sciences	GEOL1101	20
Environment and Resources Ψ	GEOL1111	20
Geoinformatics Ψ	GEOL1131	20

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

List A:		**Credit value**
Mathematical Methods in Geosciences Φ	GEOL1061	20
Further Mathematics for Geoscientists	GEOL1081	20
Modules up to the value of 20 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		20

Level 2 (Diploma)

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

		Credit value
Structural Geology and Tectonics	GEOL2011	20
Palaeoecology and Sedimentology	GEOL2031	20
Fieldwork (Geological)	GEOL2191	20
Igneous and Metamorphic Geochemistry and Petrology	GEOL2231	20

7. Candidates shall also study and be assessed in modules to the value of 40 credits from List B:

List B:		**Credit value**
Geophysical Methods for Geoscientists	GEOL2081	20
Hydrology and Climate	GEOL2171	20
Modelling Earth Processes	GEOL2251	20
Modules up to the value of 20 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		20

Level 3 (Degree)

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

		Credit value
Dissertation	GEOL3022	40

9. Candidates shall also study and be assessed in modules to the value of 80 credits from List C:

List C:		Credit value
Petrology, Geochemistry and Global Tectonics Ψ	GEOL3011	20
Geological Evolution and Petroleum Systems of the British Isles	GEOL3031	20
Environmental Geochemistry	GEOL3041	20
Volcanology and Magmatism Ψ	GEOL3051	20
Deformation Processes in the Lithosphere	GEOL3091	20
Earth Structure and Dynamics	GEOL3151	20
Advanced Geophysics	GEOL3221	20
Earth System and Climate Ψ	GEOL3231	20
Earth Sciences into Schools	GEOL3251	20
Environmental Management Ψ	GEOL3281	20
Modules up to the value of 20 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		20

10. Environmental Route Levels 1 - 3

Level 1 (Certificate)

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

		Credit value
Earth Materials	GEOL1021	20
Field Studies	GEOL1051	20
Understanding Earth Sciences	GEOL1101	20
Environment and Resources	GEOL1111	20
Geoinformatics Ψ	GEOL1131	20

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

List A:		Credit value
Mathematical Methods in Geosciences Φ	GEOL1061	20
Further Mathematics for Geoscientists	GEOL1081	20
Modules up to the value of 20 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		20

Level 2 (Diploma)

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

		Credit value
Palaeoecology and Sedimentology	GEOL2031	20
Hydrology and Climate	GEOL2171	20
Fieldwork (Environmental)	GEOL2201	20

14. Candidates shall also study and be assessed in modules to the value of 40 credits from List B:

List B:		Credit value
Structural Geology and Tectonics	GEOL2011	20
Geophysical Methods for Geoscientists Ψ	GEOL2081	20
Igneous and Metamorphic Geochemistry and Petrology	GEOL2231	20
Modelling Earth Processes	GEOL2251	20
Modules up to the value of 20 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		20

Level 3 (Degree)

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

		Credit value
Dissertation	GEOL3022	40
Environmental Geochemistry	GEOL3041	20
Environmental Management	GEOL3281	20

16. Candidates shall also study and be assessed in modules to the value of 40 credits from List C:

List C:		**Credit value**
Geological Evolution and Petroleum Systems of the British Isles	GEOL3031	20
Volcanology and Magmatism	GEOL3051	20
Deformation Processes in the Lithosphere	GEOL3091	20
Earth Structure and Dynamics	GEOL3151	20
Advanced Geophysics	GEOL3221	20
Earth System and Climate	GEOL3231	20
Earth Sciences into Schools	GEOL3251	20
Modules up to the value of 20 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		20

17. Geophysics Route Levels 1 - 3

Level 1 (Certificate)

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

		Credit value
Earth Materials	GEOL1021	20
Field Studies	GEOL1051	20
Further Mathematics for Geoscientists	GEOL1081	20
Environment and Resources	GEOL1111	20
Understanding Earth Sciences	GEOL1101	20
Geoinformatics Ψ	GEOL1131	20

Level 2 (Diploma)

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

		Credit value
Structural Geology and Tectonics	GEOL2011	20
Geophysical Methods for Geoscientists	GEOL2081	20
Fieldwork (Geophysical)	GEOL2241	20
Geophysical Data Applications	GEOL2291	20

20. Candidates shall also study and be assessed in modules to the value of 40 credits from List A:

List A:		**Credit value**
Palaeoecology and Sedimentology Ψ	GEOL2031	20
Hydrology and Climate	GEOL2171	20
Igneous and Metamorphic Geochemistry and Petrology Ψ	GEOL2231	20
Modelling Earth Processes	GEOL2251	20
Modules up to the value of 20 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		20

Level 3 (Degree)

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

		Credit value
Dissertation	GEOL3022	40
Earth Structure and Dynamics	GEOL3151	20
Advanced Geophysics	GEOL3221	20

22. Candidates shall also study and be assessed in modules to the value of 40 credits from List B:

List B:		**Credit value**
Petrology, Geochemistry and Global Tectonics	GEOL3011	20
Geological Evolution and Petroleum Systems of the British Isles	GEOL3031	20
Environmental Geochemistry	GEOL3041	20
Volcanology and Magmatism	GEOL3051	20
Deformation Processes in the Lithosphere	GEOL3091	20
Earth System and Climate	GEOL3231	20
Earth Sciences into Schools	GEOL3251	20
Environmental Management	GEOL3281	20
Modules up to the value of 20 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		20

23. Geoscience Route Levels 1 - 3

Level 1 (Certificate)

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

		Credit value
Earth Materials	GEOL1021	20
Understanding Earth Sciences	GEOL1101	20

25. Candidates shall study and be assessed in modules to the value of 80 credits from List A:

List A:		**Credit value**
Field Studies	GEOL1051	20
Mathematical Methods in Geosciences	GEOL1061	20
Further Mathematics for Geoscientists	GEOL1081	20
Environment and Resources	GEOL1111	20
Geoinformatics Ψ	GEOL1131	20
Modules up to the value of 40 credits offered by any other Boards of Studies (including up to 20 credits of appropriate language modules offered by the University's Centre for Foreign Language Study).		

Level 2 (Diploma)

26. Candidates shall study and be assessed in modules to the value of 120 credits from List B:

List B:		**Credit value**
Structural Geology and Tectonics	GEOL2011	20
Palaeoecology and Sedimentology	GEOL2031	20
Geophysical Methods for Geoscientists	GEOL2081	20
Hydrology and Climate	GEOL2171	20
Fieldwork (Geological)	GEOL2191	20
Fieldwork (Environmental)	GEOL2201	20
Igneous and Metamorphic Geochemistry and Petrology	GEOL2231	20
Fieldwork (Geophysical)	GEOL2241	20
Modelling Earth Processes	GEOL2251	20
Geophysical Data Applications	GEOL2291	20
Modules up to the value of 40 credits offered by any other Boards of Studies (including up to 20 credits of appropriate language modules offered by the University's Centre for Foreign Language Study).		

Level 3 (Degree)

27. Candidates shall study and be assessed in the following module:

		Credit value
Dissertation	GEOL3022	40

28. Candidates shall also study and be assessed in modules to the value of 80 credits from List C:

List C:		Credit value
Petrology, Geochemistry and Global Tectonics	GEOL3011	20
Geological Evolution and Petroleum Systems of the British Isles	GEOL3031	20
Environmental Geochemistry	GEOL3041	20
Volcanology and Magmatism	GEOL3051	20
Deformation Processes in the Lithosphere	GEOL3091	20
Earth Structure and Dynamics	GEOL3151	20
Advanced Geophysics	GEOL3221	20
Earth System and Climate	GEOL3231	20
Earth Sciences into Schools	GEOL3251	20
Environmental Management	GEOL3281	20
Modules up to the value of 40 credits offered by any other Boards of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study).		40

All Routes

Level 4 (Degree)

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

		Credit value
Research Project Ψ	GEOL4053	60

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

List F:		Credit value
Frontiers in Earth Science	GEOL4061	20
Earth Science Field Seminar Ψ	GEOL4081	20
Earth Sciences into Industry	GEOL4091	20
Petroleum Geoscience IV	GEOL4101	20
Environmental Geochemistry IV	GEOL4111	20
Deformation Processes in the Lithosphere IV	GEOL4121	20
Advanced Geophysics IV	GEOL4131	20
Earth System and Climate IV	GEOL4141	20
Earth Structure and Dynamics IV	GEOL4161	20
Palaeobiology IV	GEOL4171	20

Assessment, progression and award

31. At Level 1 students are required to attend a residential field course that is usually held in the Easter vacation.

32. At Levels 2 and 3 students are required to attend a field course if specified as part of a module.

33. Students are required to take modules marked with a Φ if they do not have AS-Level Mathematics at Grade B or above.

34. All modules marked with a Ψ must be taken by students who wish to study for a degree accredited by the Geological Society. At Level 3 students can choose either GEOL3011, GEOL3051 or GEOL3281 to gain accreditation.

35. Students who have AS-Level Mathematics at Grade B or above are not entitled to take GEOL1061.

36. Students who fail to achieve the standard required under the Core Regulations for progression to Level 3 of the MSci Geoscience but who achieve the standard required for progression to Level 3 of a Bachelors programme may progress to Level 3 of the BSc Geology (for students who have taken the Geology route) or BSc Environmental Geosciences (for students who have taken the Environmental Geosciences route) or BSc Geophysics with Geology (for students who have taken the Geophysics with Geology route) at either Honours or Ordinary level in accordance with the Core Regulations.

37. A student who is qualified to progress from Level 2 to Level 3 of the MSci Geoscience but wishes to transfer to Level 3 of the BSc in Geology (for students who have taken the Geology route) or

BSc Environmental Geosciences (for students who have taken the Environmental Geosciences route) or BSc Geophysics with Geology (for students who have taken the Geophysics with Geology route) shall be permitted to do so.

38. 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 Geology (for students who have taken the Geology route) or BSc Environmental Geosciences (for students who have taken the Environmental Geosciences route) or BSc Geophysics with Geology (for students who have taken the Geophysics with Geology route) at either Honours or Ordinary level in accordance with the Core Regulations for the award of a Bachelors degree.

39. Students whose achievement at the end of Level 4 does not qualify them to be awarded the degree of MSci Geoscience may be awarded the degree of BSc Geology (for students who have taken the Geology route) or BSc Environmental Geosciences (for students who have taken the Environmental Geosciences route) or BSc Geophysics with Geology (for students who have taken the Geophysics with Geology route) with Honours in accordance with the Core Regulations for the award of a Bachelors degree.

Professional accreditation

40. This programme is accredited by the Geological Society for a period of six years with effect from March 2016, subject to students choosing modules to constitute an approved pathway as indicated above.