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 Natural Sciences (FGC0)

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

2. All module selections must be approved by the Deputy Head of Faculty (Natural Sciences) and be compatible in the timetable.

3. At Levels 1 and 2 students take modules from at least two and no more than four subjects, to a maximum of 80 credits per subject. The selection must include at least one subject in which Level 4 modules are available.

4. At Level 3 students take modules from at least two and no more than three subjects to a maximum of 80 credits per subject. The selection may include up to 40 credits from outside the list of modules that make up the Natural Sciences programme and must include at least one subject in which Level 4 modules are available.

5. At Level 4 students take modules from at least one and no more than three subjects to a maximum of 120 credits per subject and to include a research project to the value of at least 40 credits.

6. Within the Natural Sciences programme certain combinations of modules will be known as Joint Honours degrees. Students who follow these combinations of modules will be awarded a specific title for their degree.

7. Students who follow an approved Joint Honours degree will be awarded an MSci in A and B within the Natural Sciences programme, where A and B are replaced by the approved subject titles. Normally each subject will have a single subject title.

8. In order to qualify for the degree MSci in A and B within the Natural Sciences programme, students in Levels 2, 3 and 4 normally study modules from two subjects. Students must select not less than 160 and not more than 200 credits from each of the two subjects during the second, third and fourth levels of the programme.

9. The degree certificate issued to successful students who have not taken an MSci Joint Honours degree shall list all subjects in which they have taken at least 40 credits during the final three levels of the programme.

10. The MSci in Natural Sciences allows students to take modules from two or more subjects in a four year programme. The range of subjects is limited. Students are allowed to take modules from a single subject in the final year if they have the appropriate prerequisites.

11. The following MSci Joint Honours degrees are available:

MSci Biology and Chemistry (FGC0)

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

Level 1 (Certificate)

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

		Credit value
Genetics	BIOL1111	20
Molecular Basis of Life	BIOL1071	20
Core Chemistry 1A	CHEM1012	40

14. Candidates shall also study and be assessed in modules to the value of 40 credits from those offered by any board of studies.

15. Candidates wishing to study for an accredited degree must study and be assessed in the following module:

		Credit value
Core Chemistry 1B	CHEM1022	40

Level 2 (Diploma)

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

		Credit value
Core Chemistry 2	CHEM2012	40
Structure and Reactivity in Organic Chemistry	CHEM2031	20
Biochemistry	BIOL2381	20
Animal Physiology	BIOL2351	20
Plant Physiology	BIOL2401	20

Level 3 (Degree)

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

		Credit value
Bioactive Chemistry 3	CHEM3211	20
Biological Chemistry	CHEM2051	20
Advanced Organic Chemistry	CHEM3031	20
Molecular Biology	BIOL2371	20
Biotechnology	BIOL3511	20
Stress and Response to the Environment	BIOL3491	20

Level 4 (Degree)

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

		Credit value
Research Skills	CHEM4081	20
Bioactive Chemistry 4	CHEM4211	20
Biomolecular Analysis	BIOL4011	20

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

List A:		**Credit value**
EITHER		
(Bioactive Chemistry Research Project	CHEM4272	40
AND Biochemistry Research Project (S))	BIOL4031	20
OR		
(Bioactive Chemistry Research Project	CHEM4271	20
AND Biochemistry Research Project (D))	BIOL4022	40

MSci Biology and Physics (FGC0)

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

Level 1 (Certificate)

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

		Credit value
Genetics	BIOL1111	20
Cells, Tissues and Systems	BIOL1081	20
Foundations of Physics 1	PHYS1122	40

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

List B:		**Credit value**
Core Mathematics A	MATH1012	40
Single Mathematics A	MATH1561	20

Single Mathematics B	MATH1571	20

Level 2 (Diploma)

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

		Credit value
Development	BIOL2361	20
Cell Structure and Function	BIOL2341	20
Molecular Biology	BIOL2371	20
Foundations of Physics 2A	PHYS2581	20
Mathematical Methods in Physics	PHYS2611	20
Discovery Skills in Physics	PHYS1011	20

Level 3 (Degree)

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

		Credit value
Cell Architecture	BIOL3481	20
Genes and Development	BIOL3521	20
Stem Cells and Tissue Engineering	BIOL3531	20
Laboratory Skills and Electronics	PHYS2641	20
Foundations of Physics 3	PHYS3522	40

Level 4 (Degree)

EITHER

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

		Credit value
Project	PHYS4213	60
Biological Imaging	BIOL4**1	20
Biophysical Research Project (S)	BIOL4**1	20

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

List C:		**Credit value**
Theoretical Physics 4	PHYS4191	20
Atomic and Optical Physics	PHYS4121	20

OR

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

		Credit value
Biological Imaging	BIOL4**1	20
Biophysical Research Project (S)	BIOL4**3	60
Theoretical Physics 4	PHYS4191	20
Atomic and Optical Physics	PHYS4121	20

MSci Chemistry and Mathematics(FGC0)

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

Level 1 (Certificate)

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

		Credit value
Core Chemistry 1A	CHEM1012	40
Core Mathematics A	MATH1012	40
Core Mathematics B1	MATH1051	20

Core Mathematics B2	MATH1041	20

Level 2 (Diploma)

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

		Credit value
Core Chemistry 2	CHEM2012	40
Properties of Molecules	CHEM2041	20
Complex Analysis II	MATH2011	20
Analysis of Many Variables II	MATH2031	20
Mathematical Physics II	MATH2071	20

Level 3 (Degree)

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

		Credit value
Chemical Physics 3	CHEM3411	20
Computational Chemistry	CHEM2061	20
Molecules and their Interactions	CHEM3041	20
Electromagnetism III	MATH3181	20
Quantum Mechanics III	MATH3111	20

32. Candidates shall also study and be assessed in Level 2 or Level 3 modules to the value of 20 credits from those offered by the Department of Mathematical Sciences .

Level 4 (Degree)

EITHER

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

		Credit value
Chemistry Research Project	CHEM4073	60
Research Skills	CHEM4081	20

34. Candidates shall also study and be assessed in modules to the value of 40 credits from those offered by the Department of Mathematical Sciences:

OR

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

		Credit value
Chemical Physics 4	CHEM4411	20
Project IV	MATH4072	40

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

List D:		**Credit value**
Chemistry of Materials	CHEM4451	20
Computational Chemical Physics 4	CHEM4471	20

37. Candidates shall also study and be assessed in modules to the value of 40 credits from those offered by the Department of Mathematical Sciences:

MSci Chemistry and Physics (FGC0)

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

Level 1 (Certificate)

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

		Credit value
Core Chemistry 1A	CHEM1012	40
Foundations of Physics 1	PHYS1122	40

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

List E:		**Credit value**
Core Mathematics A	MATH1012	40
Single Mathematics A	MATH1561	20
Single Mathematics B	MATH1571	20

Level 2 (Diploma)

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

		Credit value
Core Chemistry 2	CHEM2012	40
Properties of Molecules	CHEM2041	20
Foundations of Physics 2A	PHYS2581	20
Mathematical Methods in Physics	PHYS2611	20
Discovery Skills in Physics	PHYS1011	20

Level 3 (Degree)

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

		Credit value
Chemical Physics 3	CHEM3411	20
Computational Chemistry	CHEM2061	20
Molecules and their Interactions	CHEM3041	20
Foundations of Physics 3	PHYS3522	40
Laboratory Skills and Electronics	PHYS2641	20

Level 4 (Degree)

EITHER

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

		Credit value
Project	PHYS4213	60
Chemical Physics 4	CHEM4411	20

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

List F:		**Credit value**
Chemistry of Materials	CHEM4451	20
Computational Chemical Physics 4	CHEM4471	20

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

List G:		**Credit value**
Atomic and Optical Physics	PHYS4121	20
Theoretical Physics 4	PHYS4191	20

OR

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

		Credit value

Chemistry Research Project	CHEM4073	60
Research Skills	CHEM4081	20
Atomic and Optical Physics	PHYS4121	20

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

List H:		**Credit value**
Theoretical Physics 4	PHYS4191	20
Chemical Physics 4	CHEM4411	20
Computational Chemical Physics 4	CHEM4471	20

MSci Mathematics and Physics (FGC0)

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

Level 1 (Certificate)

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

		Credit value
Foundations of Physics 1	PHYS1122	40
Core Mathematics A	MATH1012	40
Core Mathematics B1	MATH1051	20

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

List I:		**Credit value**
Core Mathematics B2	MATH1041	20
Discovery Skills in Physics	PHYS1011	20

Level 2 (Diploma)

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

		Credit value
Analysis in Many Variables II	MATH2031	20
Complex Analysis II	MATH2011	20
Foundations of Physics 2A	PHYS2581	20
Foundations of Physics 2B	PHYS2591	20

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

List J:		**Credit value**
Laboratory Skills and Electronics	PHYS2641	20
Discovery Skills in Physics (if not taken previously)	PHYS1011	20

53. Candidates shall also study and be assessed in Level 2 modules to the value of 20 credits from those offered by the Department of Mathematical Sciences.

Level 3 (Degree)

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

		Credit value
Foundations of Physics 3	PHYS3522	40
Laboratory Skills and Electronics (if not taken previously)	PHYS2641	20

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

List K:		**Credit value**
Theoretical Physics	PHYS3551	20
Stars and Galaxies	PHYS2621	20

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

List L1 (2012-2013):		**Credit value**
Elliptic Functions III	MATH3221	20
Solitons III	MATH3231	20
Statistical Mechanics III	MATH3351	20

List L2 (2011-2012):		**Credit value**
Algebraic Geometry III	MATH3321	20
Analysis III	MATH3011	20
Continuum Mechanics III	MATH3101	20
General Relativity III	MATH3331	20

List L3:		**Credit value**
Differential Geometry III	MATH3021	20
Dynamical Systems III	MATH3091	20
Electromagnetism III	MATH3181	20
Mathematical Biology III	MATH3171	20
Mathematical Finance III	MATH3301	20
Mathematical Teaching III	MATH3121	20
Operations Research III	MATH3141	20
Partial Differential Equations III	MATH3291	20
Topology III	MATH3281	20

Level 4 (Degree)

57. Candidates shall study and be assessed in modules to the value of 40 or 60 credits from List M:

List M:		**Credit value**
Mathematics Project	MATH4072	40
Project	PHYS4213	60

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

List N1 (2012-2013):		**Credit value**
Elliptic Functions IV	MATH4151	20
Solitons IV	MATH4121	20
Statistical Mechanics IV	MATH4231	20

List N2 (2011-2012):		**Credit value**
Algebraic Geometry IV	MATH4011	20
Analysis IV	MATH4201	20
Continuum Mechanics IV	MATH4081	20
General Relativity IV	MATH4051	20

List N3:		**Credit value**
Advanced Quantum Theory IV	MATH4061	20
Algebraic Topology IV	MATH4161	20
Mathematical Finance IV	MATH4181	20
Riemannian Geometry IV	MATH4171	20

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

List O:		**Credit value**
Advanced Condensed Matter Physics	PHYS4151	20
Advanced Theoretical Physics	PHYS4141	20
Particle Theory	PHYS4181	20
Theoretical Astronomy	PHYS4201	20
Atomic and Optical Physics	PHYS4121	20
Astrophysics 4	PHYS4131	20
Condensed Matter Physics 4	PHYS4111	20
Theoretical Physics 4	PHYS4191	20

Assessment, progression and award

60. Students whose achievement at the end of Level 2 does not qualify them to proceed to Level 3 of their Joint Honours degree MSci A and B in Natural Sciences but who achieve the standard required for progression to Level 3 of a Bachelors programme may progress to Level 3 of an appropriate programme within the BSc Natural Sciences programme in the Honours or Ordinary stream in accordance with the Core Regulations.

61. A student who is qualified to progress from Level 2 to Level 3 of their Joint Honours MSci A and B degree but wishes to transfer to Level 3 of an appropriate degree within the BSc Natural Sciences programme shall be permitted to do so.

62. Students whose achievement at the end of Level 3 does not qualify them to proceed to Level 4 of their Joint Honours degree MSci A and B in Natural Sciences may be awarded an appropriate degree within the BSc Natural Sciences programme at either Honours or Ordinary level in accordance with the Core Regulations for the award of a Bachelors degree.

63. Students whose achievement at the end of Level 4 does not qualify them to be awarded their Joint Honours degree MSci A and B in Natural Sciences may be awarded an appropriate degree within the BSc Natural Sciences programme with Honours in accordance with the Core Regulations for the award of a Bachelors degree.

64. MSci Mathematics and Physics: Laboratory Skills and Electronics (PHYS2591) must be taken in either Level 2 or Level 3.

65. MSci Mathematics and Physics: either Theoretical Physics (PHYS3551) must be taken in Level 3 or Theoretical Physics 4 (PHYS4191) must be taken in Level 4.

Professional accreditation

66. MSci Biology and Chemistry: This programme is accredited by the Royal Society of Chemistry for students entering Level 1 up to and including October 2013 as satisfying the academic requirements for the award of Chartered Chemist (CChem) for holders of first or second class honours degrees.

67. MSci Chemistry and Physics: This programme is accredited by the Institute of Physics for five years from February 2009.

68. MSci Mathematics and Physics: This programme is accredited by the Institute of Physics for five years from February 2009.