

LOUGHBOROUGH UNIVERSITY

REGULATIONS FOR THE HONOURS DEGREE PROGRAMMES IN PHYSICS WITH COSMOLOGY

These programme regulations refer to the conduct of the programme in the Session 2010/2011 and should be read in conjunction with University Regulation XX and the relevant Module Specifications. Notice of change will be given by the Department responsible for the programme.

1 STRUCTURE

- 1.1** Administrative responsibility for the programmes rests with the Department of Physics.
- 1.2** The programmes lead to the degree of BSc.
- 1.3** The duration of the programmes is a) 6 semesters full-time or b) an 8 semester sandwich programme. Students on the sandwich programme are required to spend the year following Part B either (i) on an approved course of study at a University abroad or (ii) undertaking professional training respectively leading to the award of the Diploma in International Studies (D Intl S) or of the Diploma in Industrial Studies (DIS) or in accordance with Senate Regulation XI.

2 CONTENT

2.1 Part A - Introductory Modules

2.1.1 Semester 1

- (i) COMPULSORY MODULES (total modular weight 60)

Code	Title	Modular Weight
MAA108	Mathematics for Physics 1	10
PHA101	Mechanics	10
PHA102	Electricity & Magnetism	10
PHA170	Astronomy	10
PHA181	Physics Laboratory 1	10
PHA190	Information Skills	10

- (ii) OPTIONAL MODULES (none)

2.1.2 Semester 2

(i) COMPULSORY MODULES (total modular weight 60)

Code	Title	Modular Weight
MAA208	Mathematics for Physics 2	10
PHA201	Atomic & Thermal Physics	10
PHA202	Light	10
PHA203	Astronomy 2	10
PHA282	Physics Laboratory 2	10
PHA290	Computing	10

There are no optional modules in Semester 2

2.2 Part B - Degree Modules

2.2.1 Semester 1

(i) COMPULSORY MODULES (total modular weight 60)

Code	Title	Modular Weight
PHB180	Physics Laboratory 3	10
PHB110	Solid State Physics	10
PHB101	Waves	10
PHB106	Nuclear Physics	10
PHB102	Astrophysics 1	10
MAB108	Mathematics for Physics 3	10

(ii) OPTIONAL MODULES

None

2.2.2 Semester 2

(i) COMPULSORY MODULES (total modular weight 60)

Code	Title	Modular Weight
PHB203	Thermal Physics	10
PHB201	Fields	10
MAB208	Maths for Physics 4	10
PHB280	Electrical Measurements Laboratory	10
PHB204	Astrophysics 2	10
PHB202	Quantum Mechanics 1	10

(ii) OPTIONAL MODULES

None

2.3 Part I

Candidates on the four year full-time programme must undertake an approved course of study at a University abroad. Candidates on the four year sandwich programme must undertake professional training.

2.4 Part C - Degree Modules

2.4.1 Semester 1

(i) COMPULSORY MODULES

Code	Title	Modular Weight
PHC188	Project	30
<i>(continued in semester 2)</i>		
PHD102	Cosmology 1	10
PHC112	Quantum Physics	20

(ii) OPTIONAL MODULES

Code	Title	Modular Weight
PHC108	Modern Optics	10
PHC118	Electromagnetism	10
PHC120	Thin Films & Surface Physics	10
PHC130	Fundamentals of Quantum Information	10
PHC214	Condensed Matter Physics (Continues in Semester 2)	10 of 20
PHD105	Classical Mechanics	10
MAC196	Special Relativity	10
MAC150	Inviscid Fluid Mechanics	10

2.4.2 Semester 2

(i) COMPULSORY MODULES

Code	Title	Modular Weight
PHC201	Cosmology 2	10
PHD205	Elementary Particle Physics	10
PHC188	Project <i>(continued from semester 1)</i>	

(ii) OPTIONAL MODULES

Code	Title	Modular Weight
PHC213	Statistical and Low Temperature Physics	20
PHC214	Condensed Matter Physics (Continued from Semester 1)	10 of 20
PHD230	Quantum Computing	10
DSC010	Studies in Science and Maths. Education	10

In Part C candidates must choose optional modules from those listed above of total weight 40 to make up a total modular weight of 120.

2.5 Total Modular Weighting per Semester

Students normally study modules with a total weight of 60 in each semester. In this context, the modular weight of the project PHC3XX is assumed to be split 10:20 over the two semesters. However, students may be allowed to study modules up to a total weight of 70 in a semester, 120 in a Part, subject to the consent of the Head of Department.

3 ASSESSMENT

3.1 *Criteria for Progression and Degree Award*

Candidates must achieve the minimum credit requirements set out in Regulation XX in order to progress through the programmes and qualify for the award of the degree.

In order to progress from Part A to Part B, candidates must obtain a mark of at least 30% in all modules.

3.2 *Relative Weighting of Parts of the Programmes for the Purpose of the Final Degree Classification*

Candidates' final degree classification will be determined on the basis of their performance in degree level Module Assessments in Parts B and C in accordance with the scheme set out in Regulation XX. The average percentage marks for each Part will be combined in the ratio

$$\text{Part B: Part C} = 40:60$$

to determine the overall percentage mark for the Programme (the Percentage Mark).

3.3 *Re-assessment*

Provision will be made in accordance with Regulation XX for candidates who have the right of re-assessment in Parts A and B of the programme to undergo re-assessment in the University's special assessment period.