### Physics and Philosophy Information Sheet for entry in 2016

Physics and Philosophy is a demanding and rewarding course, combining the most rigorous and fundamental subjects in the arts and the sciences. It seeks understanding of the nature of reality and of our knowledge of it. There are strong links between physics and philosophy, and the stimulus for each discipline lies in part in the other.



### Physics and Philosophy at Oxford

Oxford has one of the largest physics departments in the UK, with an outstanding and broad research programme. The expertise in the department ensures the curriculum is updated in the light of developments in research.

The Philosophy Faculty is the largest in the UK, and one of the most prestigious in the world. The large number of students reading Philosophy leads to a diverse and lively philosophical community.

The Oxford research group in Philosophy of Physics is extremely active, with interests in classical space-time theories, foundations of classical statistical mechanics, quantum mechanics, quantum field theory and quantum gravity.

#### **New MMathPhys Fourth Year**

From 2015/16, the Physics and Mathematics Departments in Oxford will jointly offer a new integrated masters level course in Mathematical and Theoretical Physics. Physics and Philosophy students will be able to apply for transfer to a fourth year studying entirely mathematical and theoretical physics, completing the degree with an MMathPhys. The course features research-level training in Particle Physics, Condensed Matter Physics, Astrophysics, Plasma Physics and Continuous Media. Read more about this fourth year at <a href="mailto:mmathphys.physics.ox.ac.uk">mmathphys.physics.ox.ac.uk</a>.

## A typical weekly timetable

Your work is divided between tutorials and classes (two or three a week), lectures (about eight weekly) and private study. Private study (reading for and writing essays, completing problem sets) will take up the majority of your working time.

## 1st year

#### **Courses**

### **Physics**

- Mechanics and special relativity
- Differential equations and linear algebra
- Calculus and waves

## Philosophy

- Elements of deductive logic
- General philosophy

#### Assessment

First University examinations: Three written papers in Physics; Two written papers in Philosophy

### 2nd year

### **Courses**

#### **Physics**

- Thermal physics
- Electromagnetism
- Quantum physics
- Mathematical methods
- Physics practicals

#### Philosophy

- Early Modern philosophy or Knowledge and reality
- Philosophy of special relativity

### Assessment

Final University examinations, Part A: Three papers in Physics; satisfactory lab work

### 3rd year

#### **Courses**

One elective paper in either Physics or Philosophy

#### **Physics**

A choice of three (or five if the elective paper is in Physics) of the following subjects:

- Classical mechanics
- Flows, fluctuations and complexity
- Symmetry and relativity
- Quantum, atomic and molecular physics
- Sub-atomic physics
- General relativity and cosmology
- Condensed-matter physics

### Philosophy

- Philosophy of science option
- Philosophy of quantum mechanics
- Choice of Philosophy option (if the elective paper is in philosophy)

### Assessment

Final University examinations, Part B: Three or four written papers in Philosophy; One or two written papers and one short paper in Physics

## 4th year

### **Courses**

Three units chosen in any combination from the lists for Physics and Philosophy. Advanced philosophy of physics is an option.

### **Assessment**

Final University examinations, Part C: A mix (three in all) of written papers and essays, or thesis (in Philosophy), or project (in Physics)

The University will seek to deliver each course in accordance with the descriptions set out above. However, there may be situations in which it is desirable or necessary for the University to make changes in course provision, either before or after registration. For further information, please see the University's Terms and Conditions.

**Fees** 

These annual fees are for full-time students who begin this undergraduate course here in 2016.

Fee Status	Tuition fee	College fee	Total annual fees
Home/EU	£9,000	£0	£9,000
Islands	£9,000	£0	£9,000
(Channel Islands			
& Isle of Man)			
Overseas	£16,280	£7,135	£23,415

Information about how much fees and other costs may increase is set out in the University's Terms and Conditions.

### **Living Costs**

Your living costs will vary significantly dependent on your lifestyle. These are estimated to be between £970 and £1,433 per month in 2016-17. Undergraduate courses usually consist of three terms of eight weeks each, but as a guide you may wish to budget over a nine-month period to ensure you also have sufficient funds during the holidays to meet essential costs.

## Living costs breakdown

	Per month		Total for 9 months	
	Lower range	Upper range	Lower range	Upper range
Food	£265	£298	£2,384	£2,673
Accommodation (including utilities)	£469	£667	£4,221	£6,002
Personal items	£119	£244	£1,073	£2,187
Social activities	£60	£107	£539	£960
Study costs	£36	£73	£314	£661

Other	£19	£44	£197	£410
Total	£970	£1,433	£8,727	£12,894

# 18 November 2015