



**BSc Mathematics and Physics (GF13)  
September 2018 intake**

The purpose of this information sheet is to provide prospective students and applicants with further information about the nature of this degree, in order to help you decide if it is the right choice for you. Should you have any further questions, contact information is provided at the end of the flyer.

**Section 1 – degree programme structure**

Awarding institution	Royal Holloway, University of London
Accreditation(s) (where applicable)	Conditionally accredited by the Institute of Physics (IOP)
Standard length of degree	Three years

The BSc Mathematics and Physics is conditionally accredited by the Institute of Physics (IoP). Should the programme be fully accredited by the IoP later in 2017, successful completion of the BSc Mathematics and Physics will enable students to partially meet the educational requirement for becoming a Chartered Physicist.

The following table summarises the compulsory modules, which Royal Holloway refers to as mandatory course units, offered on this degree programme each year:

Year 1						
Course unit name	Methods of teaching		Methods of assessment			Credits
	Contact hours	Self-study hours	Written exam	Practical exam	Coursework	
Mathematics: Calculus	46.55	103.	90%	0	10%	15
Mathematics: Functions of Several Variables	43.5	106.5	90%	0	10%	15
Mathematics: Number Systems	43.5	106.5	90%	0	10%	15
Mathematics: Matrix Algebra	43.5	106.5	90%	0	10%	15
Physics: Scientific Skills 1	60	90	0	6%	94%	15
Physics: Classical Mechanics	34.5	115.5	80%	0	20%	15
Physics: Classical Matter	34.5	115.5	80%	0	20%	15
Physics: Physics of the Universe	34.5	115.5	80%	0	20%	15

Year 2						
Course unit name	Methods of teaching		Methods of assessment			Credits
	Contact hours	Self-study hours	Written exam	Practical exam	Coursework	
Mathematics: Vector Analysis And Fluids	33	117	100%	0	0	15
Mathematics: Differential Equations & Fourier Analysis	33	117	100%	0	0	15
Physics: Scientific Computing Skills	82.5	67.5	0	0	100%	15
Physics: Quantum Mechanics	34.5	115.5	90%	0	10%	15
Physics: Classical and Statistical Thermodynamics	40.5	109.5	60%	0	40%	15
Physics: The Solid State	52.5	97.5	70%	0	30%	15
Year 3						
Course unit name	Methods of teaching		Methods of assessment			Credits
	Contact hours	Self-study hours	Written exam	Practical exam	Coursework	
Physics: Optics	50.5	99.5	70%	0	30%	15
Physics: Atomic and Nuclear Physics	48	102	70%	0	30%	15
Physics: Experimental/Theoretical Project	93	57	0	15%	85%	15
Physics: Electromagnetic Theory	34.5	115.5	80%	0	20%	15

In addition to these mandatory course units, there will be a number of optional course units available during the course of your degree. The following table lists a number of optional course units that are likely to be available. Please note that although the College will keep changes to a minimum, new units may be offered or existing units may be withdrawn, for example, in response to a change in staff. You will be informed if any significant changes need to be made.

Year 1	Year 2	Year 3
None	Mathematics: Rings and Factorisation	Mathematics: Mathematics Project
	Mathematics: Groups and Group Actions	Mathematics: Mathematics In The Classroom
	Mathematics: Further Linear Algebra and Mods	Mathematics: Number Theory

	Mathematics: Statistical Methods	Mathematics: Computational Number Theory
	Mathematics: Probability	Mathematics: Complexity Theory
	Mathematics: Graphs and Optimisation	Mathematics: Principles of Algorithm Design

As part of your degree programme you will be required to attend weekly tutorials in the first and second year as well as the courses listed on this document.

### Section 2 – degree programme costs

H/EU tuition fee 2018/19*	£9,250
Overseas tuition fee 2018/19**	£18,900
Other essential costs***	£55

\*The fees shown are for the 2017/18 academic year and are for reference purposes only. Current information available (October 2017) means that we expect the tuition fee for UK and EU undergraduates starting their degrees in 2018 to be £9,250. The UK Government has also announced that EU students starting an undergraduate or postgraduate taught degree in 2018/19 will pay the same level of fee as a UK student for the duration of their degree.

\*\* Fees for international students may increase year-on-year in line with the rate of inflation. Royal Holloway's policy is that any increases in fees will not exceed 5% for continuing students.

There is a different tuition fee for a year spent abroad or working in industry. For further information on tuition fees please see [Royal Holloway's Terms & Conditions](#).

\*\*\*These estimated costs relate to studying this particular degree programme at Royal Holloway. General costs such as accommodation, food, books and other learning materials and printing etc., have not been included, but further information is available on our website.

### Section 3 – useful vocabulary

We understand some of the terminology used in this document may be new to you, and may differ from that used by other universities. To help with this, we have provided a brief description for some of the most important terminology:

*Degree programme* – Also referred to as 'degree course' or simply 'course', these terms refer to the qualification you will be awarded upon successful completion of your studies.

*Course unit* – Also referred to as 'module', this refers to the individual units you will study each year to complete your degree programme. Undergraduate degrees at Royal Holloway comprise four full units, or a combination of full and half units, to the value of 120 credits per year. Mandatory course units must be taken by every student on the relevant degree programme. Some of these mandatory course units must be passed for progression or a particular degree title. On some degree programmes a certain number of optional course units must be passed for a particular degree title.



*H/EU* – Different categories of students pay different levels of tuition fees. H/EU stands for students with Home or European Union fee status.

*Overseas* – Non-EU students are liable to pay the overseas rate of tuition fees, and are sometimes also referred to as international students.

#### **Section 4 – contact information**

If you have any further questions, you can contact the Admissions team by email at [study@royalholloway.ac.uk](mailto:study@royalholloway.ac.uk).

Please note that this information is final at the time of publication (12/10/2017) and supersedes any previous information provided in publications or on Royal Holloway's website.