



MSci Astrophysics (F510)
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

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|-------------------------------------|--------------------------------------|
| Awarding institution | Royal Holloway, University of London |
| Accreditation(s) (where applicable) | Institute of Physics (IOP) |
| Standard length of degree | Four years |

The Msci Astrophysics is accredited by the Institute of Physics (IoP). Successful completion of this programme fully meets the educational requirement for becoming a Chartered Physicist. Students must pass PH4100 Major Project.

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 | | | | | | |
|------------------------------|---------------------|------------------|-----------------------|----------------|------------|---------|
| | Methods of teaching | | Methods of assessment | | | |
| Course unit name | Contact hours | Self-study hours | Written exam | Practical exam | Coursework | Credits |
| Mathematics for Scientists 1 | 69 | 81 | 80% | 0 | 20% | 15 |
| Mathematics for Scientists 2 | 69 | 81 | 80% | 0 | 20% | 15 |
| Scientific Skills 1 | 71 | 79 | 0 | 0 | 100% | 15 |
| Scientific Skills 2 | 72 | 78 | 0 | 0 | 100% | 15 |
| Classical Mechanics | 39 | 111 | 80% | 0 | 20% | 15 |
| Fields and Waves | 39 | 111 | 80% | 0 | 20% | 15 |
| Classical Matter | 39 | 111 | 80% | 0 | 20% | 15 |
| Physics of the Universe | 39 | 111 | 80% | 0 | 20% | 15 |
| Year 2 | | | | | | |
| | Methods of teaching | | Methods of assessment | | | |
| Course unit name | Contact hours | Self-study hours | Written exam | Practical exam | Coursework | Credits |
| Mathematical Methods | 61 | 89 | 80% | 0 | 20% | 15 |
| Scientific Computing Skills | 82 | 68 | 0 | 0 | 100% | 15 |
| Quantum Mechanics | 50 | 100 | 90% | 0 | 10% | 15 |

| | | | | | | |
|--|---------------------|------------------|-----------------------|----------------|------------|---------|
| Optics | 56 | 94 | 70% | 0 | 30% | 15 |
| Electromagnetism | 47 | 103 | 80% | 0 | 20% | 15 |
| Atomic and Nuclear Physics | 56 | 94 | 70% | 0 | 30% | 15 |
| Classical and Statistical Thermodynamics | 46 | 104 | 60% | 0 | 40% | 15 |
| Astronomy | 47 | 103 | 70% | 0 | 30% | 15 |
| Year 3 | | | | | | |
| | Methods of teaching | | Methods of assessment | | | |
| Course unit name | Contact hours | Self-study hours | Written exam | Practical exam | Coursework | Credits |
| The Solid State | 47 | 103 | 70% | 0 | 30% | 15 |
| Scientific Skills for MSci | 68 | 82 | 0 | 15% | 85% | 15 |
| Quantum Theory | 29 | 121 | 90% | 0 | 10% | 15 |
| Particle Physics | 35 | 115 | 90% | 0 | 10% | 15 |
| General Relativity and Cosmology | 29 | 121 | 90% | 0 | 10% | 15 |
| Stellar Astrophysics | 35 | 115 | 90% | 0 | 10% | 15 |
| Particle Astrophysics | 29 | 121 | 90% | 0 | 10% | 15 |
| Year 4 | | | | | | |
| | Methods of teaching | | Methods of assessment | | | |
| Course unit name | Contact hours | Self-study hours | Written exam | Practical exam | Coursework | Credits |
| Major Project | 202 | 98 | 0 | 20% | 80% | 30 |
| Research Review | 13 | 137 | 0 | 20% | 80% | 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 selection 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 | Year 4 |
|--------|--------|--------------------------------|---------------------------------|
| None | None | Planetary Geology & Geophysics | Stellar Structure and Evolution |
| | | Energy | Statistical Data Analysis |
| | | Further Mathematical Methods | Cosmology |

| | | | |
|--|--|-------------------------------------|--------------|
| | | C++ and Object Oriented Programming | Solar System |
|--|--|-------------------------------------|--------------|

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.

In the fourth year you will benefit from a wide choice of modules, including those offered by other University of London Colleges (King’s College, Queen Mary and University College).

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.

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.