



Module Handbook

[Modules are available to students coming on the following incoming programmes:
non-European exchange; European exchange; full-year fee-paying study abroad]

Incoming Students

Academic year 2025/2026

Physics

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A: THE DEPARTMENT

The Department of Physics is based in the Rochester Building and the adjoining Ogden Centre for Fundamental Physics, on the Science campus. This is near the corner of South Road and Stockton Road. It is conveniently located, close to all the newer "Hill" Colleges (Grey, Collingwood, St Mary's, Trevelyan, Van Mildert, St Aidan's, Josephine Butler and South College) and within a walking distance from the other colleges. Teaching is mostly via lecture courses, lab sessions and projects, as is typical for physics degrees throughout the world. Durham physics admits around 180 students a year, meaning that some of the classes are quite large; however, Physics students also have activities in smaller groups, e.g., example classes or workshops, and the final year project is supervised in one to one meetings.

A1: Exchange Coordinator (Incoming Students)

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B: DEGREE PROGRAMMES OFFERED

The Department offers the following degrees:

- BSc Physics (3 years)
- MPhys in Physics, Theoretical Physics, or Physics and Astronomy (4 years)

B1: Degree Structure

All degrees at Durham have a modular structure, consisting of the equivalent of six modules (in total, 120 Durham credits, amounting to 60 ECTS) each year. Modules are usually studied over all three terms of the teaching year. All modules are examined or assessed in the year in which they are taught: at the end of the first year there are preliminary examinations, and the final degree class is determined by the examinations taken in the second, third, and (in the case of the MPhys degrees) fourth year. The modules taken are closely prescribed, and certain extra modules are compulsory for the Theoretical Physics and the Physics and Astronomy options.

C: REQUIREMENTS AND RESTRICTIONS

This section contains important information for setting up your academic programme at Durham University. Please read through this section carefully before considering your modules and filling in the Learning Agreement!

C1: General

Choice of Modules

IMPORTANT NOTE FOR STUDENTS: PLEASE READ BEFORE COMPLETING YOUR LEARNING AGREEMENT

At Durham University European agreements are signed by individual university departments and are not university-wide agreements. This means that, in general, students will have to choose modules (courses) within the Durham University department through which the European agreement with their home university has been signed (students should check with the Exchange Coordinator in their university if they are not sure which department this is). Modules offered by other departments are subject to availability and can only be taken with prior consent from the relevant department. *Incoming students must take at least 50% of their modules in the host department and can take modules outside in no more than two additional departments.* Certain restrictions may also apply to courses in some departments and students need to follow the advice below carefully before completing their application form.

Please clearly indicate the modules you wish to take in the application form for approval by the respective department(s). Before completing your application form, it is very important that you read carefully the relevant departmental section(s) of the Module Handbook to check which modules are available to you and any restrictions which may apply. It is imperative that a properly completed application form is submitted. Only complete applications can be processed.

Section *D: Module Details* provides a list of modules available for European students in the department where the agreement has been established (receiving department) as well as a list of modules available for students coming in through other departments (external departments). Please choose from these modules only!

To find out about the details for each module (teaching methods and contact hours, prerequisite academic background, method of assessment, content, etc) please refer to the Faculty Handbook online, under <http://www.dur.ac.uk/faculty.handbook/>.

C2: Departmental Requirements and Restrictions

Exchange students should provide information on what they have already studied and been examined on in their home institution, which is as clear and complete as

possible. This will streamline the process of deciding whether your module choices are appropriate for your level. However, it is also extremely important that before making their module choices, students discuss their module choices with the Exchange Coordinator at their home institution, to evaluate whether the modules that have been selected are of appropriate level, considering modules prerequisites.

D: MODULE DETAILS

Up-to-date details of modules available for the current academic year are available from the Faculty Handbook online under <http://www.dur.ac.uk/faculty.handbook/>. Some courses included in the handbook may not be available in the coming academic year, if in doubt, please contact the department's Exchange Coordinator.

D1: Modules available to all incoming European Exchange Programme students coming on a departmental link

Modules available for exchange students are listed below. (There are very few restrictions, which are usually for logistical reasons.)

YEAR 1

| MODULE CODE | MODULE TITLE | ECTS |
|--------------------|-----------------------------|-------------|
| PHYS1122 | FOUNDATIONS OF PHYSICS 1 | 20 |
| PHYS1101 | DISCOVERY SKILLS IN PHYSICS | 10 |
| PHYS1081 | INTRODUCTION TO ASTRONOMY | 10 |

YEAR 2

| MODULE CODE | MODULE TITLE | ECTS |
|--------------------|-------------------------------------|-------------|
| PHYS2581 | FOUNDATIONS OF PHYSICS 2A | 10 |
| PHYS2591 | FOUNDATIONS OF PHYSICS 2B | 10 |
| PHYS2611 | MATHEMATICAL METHODS IN PHYSICS | 10 |
| PHYS2621 | STARS AND GALAXIES | 10 |
| PHYS2631 | THEORETICAL PHYSICS 2 | 10 |
| PHYS2641 | LABORATORY SKILLS AND ELECTRONICS * | 10 |
| PHYS2651 | PHYSICS IN SOCIETY | 10 |

* Permission to take Laboratory Skills and Electronics must be arranged in advance with the Department Exchange Coordinator.

YEAR 3

| MODULE CODE | MODULE TITLE | ECTS |
|--------------------|---------------------|-------------|
|--------------------|---------------------|-------------|

| | | |
|----------|-------------------------------------|----|
| PHYS3621 | FOUNDATIONS OF PHYSICS 3A | 10 |
| PHYS3631 | FOUNDATIONS OF PHYSICS 3B | 10 |
| PHYS3601 | ADVANCED LABORATORY* | 10 |
| PHYS3591 | MATHEMATICS WORKSHOP | 10 |
| PHYS3561 | COMPUTING PROJECT | 10 |
| PHYS3711 | CONDENSED MATTER PHYSICS 3 | 10 |
| PHYS3651 | PLANETS AND COSMOLOGY 3 | 10 |
| PHYS3661 | THEORETICAL PHYSICS 3 | 10 |
| PHYS3581 | TEAM PROJECT | 10 |
| PHYS3721 | MODERN ATOMIC AND OPTICAL PHYSICS 3 | 10 |

* Permission to take advanced Laboratory must be arranged in advance with the Department Exchange Coordinator.

YEAR 4

| MODULE CODE | MODULE TITLE | ECTS |
|--------------------|-----------------------------------|-------------|
| PHYS4213 | PROJECT * | 30 |
| PHYS4121 | ATOMS, LASERS AND QUBITS | 10 |
| PHYS4141 | ADVANCED THEORETICAL PHYSICS | 10 |
| PHYS4151 | ADVANCED CONDENSED MATTER PHYSICS | 10 |
| PHYS4161 | ADVANCED ASTROPHYSICS | 10 |
| PHYS4181 | PARTICLE THEORY | 10 |
| PHYS4201 | THEORETICAL ASTROPHYSICS | 10 |

* Permission to take this module must be arranged in advance with the Department Exchange Coordinator

There may also be the possibility of enrolling in postgraduate courses, including those given within the MSc degree in Particles, Strings and Cosmology (<https://search.durham.ac.uk/s/search.html?query=%21showall&f.Level%7ClevelName=Postgraduate&f.Tabbed+Facet%7Cdurham-courses=Courses&collection=durham-search>)

Please enquire with the Department Exchange Coordinator if interested.

D2: Modules available to all incoming European Exchange Programme students coming on an external link (through a different department)

Modules open to students coming through a different department are the same as for students coming on a departmental link. However, laboratory, tutorial or project-based modules will generally not be available. Interested students should contact the physics exchanges coordinator (f.m.b.dias@durham.ac.uk) for advice.