

Teaching Guidance for Physics & Astronomy Staff

Teaching and Learning in the School of Physics & Astronomy

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This course is intended for members of staff who have recently joined the teaching team in the School of Physics & Astronomy. It will provide guidance on what you could be asked to do, and the regulations that govern teaching at the University of Glasgow. It will also provide examples of how the main components of teaching – delivering lectures, running small group tutorials and demonstrating in laboratory classes – operate, and give examples of methods and approaches you could adopt.

This course will NOT tell you specifically how to deliver your teaching. The best method for your teach is something you will need to discover for yourself; it will give you examples that you can try for yourself, and outline the broader goals of our teaching that you need to operate within.

The course is divided into two main topics, which will be covered across 4 lecture sessions:

PART 1: The “WHATS” – what you could be asked to do, what the rules are and so on

PART 2: The “HOWS” – examples of best practice and general advice on how to deliver your teaching, along with a summary of the key University policies that must inform your approaches

PART 2A: Lectures

PART 2B: Small group tutorials

PART 2C: Laboratory demonstrating, providing feedback and self-reflection

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PART 1

1.1 Receiving your teaching allocation

The teaching duties of staff are assigned by the School’s Registrar – currently David Miller. This is done (ideally) in June or July, but can run on to August. To find the details of your teaching allocation you need to access the School’s Database via the School’s website <https://www.gla.ac.uk/school/physics>; click on “Info for Staff” then “Staff Database”.

To access the Database you need a GUPHYS log in – this is NOT the same as your GUID.

Once you have reached the Database you can find your teaching allocation by clicking on “Administer my data entry” and then “Teaching Allocation”. Your teaching will be divided into different types (e.g. “Non-Honours Undergraduate Lecture” or “Non-Honours Supervisions”); you’ll also be able to see your previous year’s allocations (if you have any).

1.2 Teaching timetable

The “teaching year” at the University of Glasgow is built around two Semesters; the dates for year 2022-23 are shown in Figure 1.

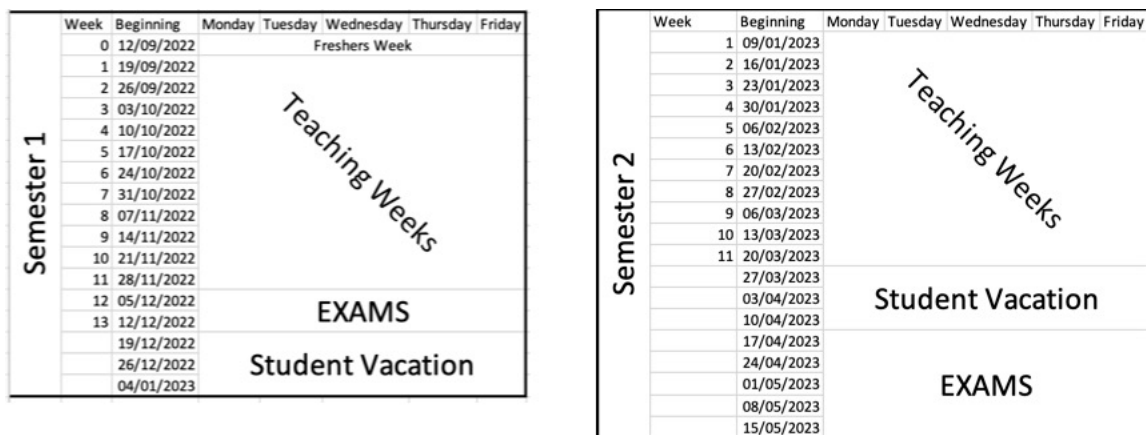


Figure 1: Teaching semesters

Teaching takes place over 11 weeks in each semester, with exam periods following on from that.

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1.2.1 Typical teaching times

Lectures: Physics 1 – daily at 0900 and 1300

 Astronomy 1 – daily at 1000

 Exploring the Cosmos 1 – daily at 1300

 Physics 2 – daily at 1200

 Astronomy 2 – daily at 1100

 Physics 3/4/5 – Daily at 0900, 1000, 1100

 Astronomy 3/4/5 – Mon/Wed/Fri at 1400, 1500, 1600

Laboratories: Levels 1 and 2 - ~1400-1700

 Levels 3/4/5 – 1100-1700

Tutorials: Depends ...

1.3 Lecture courses

1.3.1 Length of a lecture

Lectures are the main delivery method of content for the majority of the courses in the School of Physics & Astronomy. They can be scheduled any time between 0900 and 1800, Monday to Friday, throughout both teaching semesters.

The official lecture “hour” runs for 50 minutes, from xx05 to xx55. It is ESSENTIAL that you do not exceed this 50-minute period, as students often have lectures in consecutive hours, and they need the 10-minute gap to get from one lecture hall to another. (This can involve having to move from one end of the campus to another!).

1.3.2 Typical administration structure for a lecture course

In level 1 and 2 each lecture course will have a Class Head (sometimes referred to as a Course Coordinator) and a Deputy. They will also have a dedicated Lab Head and Deputy.

There will also be a teaching technician, and all courses are assisted by the School's Teaching Support Team.

In levels 3, 4 and 5 there are separate Class Heads for Physics 3 and Physics 4/5; in Astronomy there is one Head for 3/4/5. The Lab Classes at this level are individual courses with their own leads. There are again dedicated teaching technicians and assistance from the Teaching Support Team.

Who, specifically, to contact in relation to your own teaching allocation will be explained to you by the relevant Class Head. This brings us to a key message about this course ... whilst this course aims to give you overall guidance and advice, there is a lot of course-specific guidance, so it is essential to remember the following ...

The
CLASS AND LAB HEADS
are the
MOST IMPORTANT PEOPLE
for you to contact with
ANY QUESTIONS
you have about your course/allocations!

1.3.3 Length of a lecture course

There is a lot of variation here, but typically lecture courses in levels 1 and 2 are around 8 or 9 lectures, concentrated into half a semester. In the Honours years – levels 3, 4 and 5 – courses are longer. In Physics they are typically 18 lectures long, running twice a week through Semester 1 or 2; in Astronomy they are typically 27 lectures long, running in Semester 1 or 2, or across both.

Note: In Levels 1 and 2, lecture courses are structured as “modules” within over-arching courses. (e.g. “Dynamics & Relativity 1” is part of Physics 1 – known officially as PHYS1001). In the honours years, lecture courses are split into individual components, but administered in a manner similar to level 1 and 2. (e.g. “Thermal Physics” is PHYS4030 officially, but forms part of “Physics 3”.)

1.3.4 Content of a lecture course

The content of all lecture courses is pre-determined – you should NOT make major changes to what you plan to teach without first speaking to your Class Head. Each course has a Course Guide which contains the Intended Learning Outcomes for the course.

Usually when you take over a lecture course you will inherit a set of resources (notes, PowerPoints, example sheets etc) from the previous lecturer. These can form the basis of your delivery in year 1.

HOW you deliver your lecture course is up to you, though there are some basics you are expected to provide, which we’ll come back to.

1.3.5 Lecture venue facilities

The rooms that you will deliver your lectures in are assigned centrally by the University – you could be teaching anywhere on campus.

All lecture theatres contain (usually) a functioning desktop computer attached to one or two overhead projectors. Rooms also (usually) have writing surfaces of some form, and a visualiser. There will also be facilities to connect your own device (e.g. laptop, iPad) to the projectors if you prefer.

You can get an idea of what your lecture venue will look like, and what facilities it has, at <https://www.gla.ac.uk/myglasgow/estates/timetabling/roomphotos>

The University also provides on-line maps to help you find your way around at

<https://www.gla.ac.uk/explore/maps>

1.3.6 How should I deliver my lectures?

The School does not insist on any one particular teaching delivery method for lectures.

Rather, we want to make sure that all lecturers are free to deliver their material in a way that best suits them. We also believe that it is important that students learn to learn from a range of teaching methods. We will look at some examples of methods you can try in PART 2, but here we will go over the basic minimum level of provision that is required.

Anything that you teach which could be examined MUST be made available electronically on your course's Moodle site (we'll come back to Moodle). This can mean putting up copies of any PowerPoints you use, or handouts, or notes. It does not matter exactly what you put up, so long as anything that could appear in an assessment can be accessed somewhere.

Notes do not, in theory, have to be typed. However, digital accessibility rules mean that there are some things you should consider – again, more later – and these are easiest to address if your notes are typed electronically.

Recording of lectures is encouraged – and again we'll come back to this in PART 2.

1.3.7 Other lecture-course-related responsibilities

If you deliver a lecture course you will also play a role in the assessment of that course:

- Setting exam and resit exam questions (and providing detailed worked solutions)
- Setting class test questions (and providing detailed worked solutions)
- Setting/choosing revision questions

You will normally be expected to mark the above too.

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Exam and class test questions usually contribute to students' overall course grades. As such they will go through a vetting process. These vary between courses, but broadly ...

Levels 1 and 2:

- Checked by Class Head
- Checked by School's Internal Checker
- Returned to setter for adjustments/comments
- Checked by School's External Checker
- Returned to setter for final adjustments/comments

Levels 3, 4 and 5:

- Checked by Course Moderator
- Returned to setter for adjustments/comments
- Checked by School's External Checker
- Returned to setter for final adjustments/comments

Revision questions are usually for formative assessment – i.e. they do not contribute to the overall grades. They do not need to go through formal checking processes. You will likely inherit suitable questions from your predecessor or be able to choose them from a course textbook.

1.4 Laboratories

The majority of the School's courses include some form of practical class, usually in the forms of labs. The length and frequency of these labs varies from course to course. In level 1 and 2, typically the labs are three hours long, running 1400-1700 each day. Students attend one per week in Physics, less often in Astronomy. In level 3, labs are six hours long, running on Tuesdays and Thursdays, 1100-1700, in Semester 1 or 2. Students attend all sessions. In levels 4 and 5, projects replace labs.

Labs are typically staffed by academic members of staff – usually in charge of a team of demonstrators made up of RAs and PhD students. The duties expected of specific lab teams is VERY course specific ...

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Broadly, though, demonstrators are expected to offer advice to students in the lab, assist in the training of new demonstrators, mark lab work and mark lab reports.

1.5 Small group tutorials

Small group teaching – often in the form of “Supervision sessions” – are run in levels 2 and above. The frequency and format of these sessions varies from class to class, so again remember the Box Out message above. Broadly, individual supervisors will be assigned one or more groups of around 6 students. Your role is to help students revise the material they are meeting in their lectures – your goal is not to teach new material, rather help them process what they’ve already seen. The sessions are usually one hour long, at times organised by the Supervisor.

You may also be asked to help with class tutorials – these are usually scheduled within the normal lecture timetable – and again your Class Head will give you the specifics.

1.6 Moodle

Moodle is a virtual learning environment; every Physics & Astronomy course has its own dedicated site. Your class head will enrol you on to this when you join a course. In its most basic form, it can be used as a repository for files, and a means to communicate with students. It can also be used for making assessment submissions, setting tests and revision exercises, and more.

1.7 Summary

- Lectures – run for 50 minutes
- Labs – run for ~3 hours per session in non-Honours; ~5-6 hours per session in Honours
- Tutorials – run for an hour
- Lecture assignments are (normally) accompanied by a requirement to provide exam questions
- Lab assignments are (normally) accompanied by a requirement to mark lab books and reports.
- Tutorials/Supervision sessions accompanied by a need to provide formative assessment.