

Part I demonstrators' notes

These notes are issued by the Teaching Office on behalf of the members of staff in overall charge of the first and second year laboratories.

Table of contents

- [Preparation](#)
- [Demonstrating and marking labs](#)
- [End of term](#)
- [Arranging payment for demonstrating](#)
- [Referring and supporting students with mental health and welfare issues](#)

Preparation

At least one week before the laboratory sessions start (often before the start of the term in which the experiment is first to be run), demonstrators should:

- Make sure that you have arranged via your Lab Leader for a Worker Agreement to be issued to you and that you have completed any required Right to Work checks. **If this is not done before you start work you will not be paid.** ([See details of the process below](#))
- Read the laboratory handouts and any specific notes for demonstrators for your experiments, and run through the experiments yourself. Some laboratories also have online resources supporting the lab – familiarise yourself with these too. The laboratory leader will see that you receive the necessary instruction if you are new to the experiment. New demonstrators should shadow an experienced demonstrator once or twice before the lab is handed over.
- Prepare carefully to give the introductory talk at the start of the lab. You should cover the major teaching points, make clear the objectives of the exercise, and refer to all safety matters. Make sure you can speak fluently and knowledgeably when instruction and discussion are required at different stages of the experiment and at the conclusion; and again for the sign-up sessions (if you are asked to mark long lab reports).

Demonstrating and marking labs

- On arrival, check that the students have their lab notebooks: they have been told to bring these to every lab. Hand out hard copy of lab instructions for most labs. Lab handouts are available on the web, and students are told to read these in advance of the lab.
- Apply mark penalties for late arrival consistently, as follows:
 1. Lab sessions begin at 5 minutes past the hour;
 2. Students arriving up to 10 minutes late (i.e. 15 minutes past the hour) will be penalised 1 mark for late arrival, but may be excluded entirely if the demonstrator deems it unsafe to allow them to join the activity;
 3. Students arriving more than 10 minutes late will be automatically excluded from laboratory experiments, and lose the associated credit. For other activities (Computing, Drawing, IEP etc) students may take part in the activity at the discretion of the demonstrator, but will be penalised for late arrival.
 4. Students who are penalised for late arrival or excluded due to circumstances beyond their control should be instructed to try and rearrange the coursework activity, or apply for recovery of marks if necessary via the [Allowances procedure](#).
- Demonstrators should aim to keep the activity lively throughout. Simplify any complexities in the handouts. Relate the work to practical applications, and to the lecture courses (given or to come). Question the students during the experiment in a way that presses them into thinking about what is happening. If you do a good job you will find that the students have enjoyed a worthwhile two hours. Do not leave your class unattended nor become involved with other work during the lab period. Keep to time!

- Be aware that you must treat all students equally, and should guard against unconsciously providing different support to students based on their gender or race.
- In short experiments, as appropriate, conclude with a final wrap-up session to consider the findings, conclusions and significance of the experiment. Aim for the students to leave the exercise with a clear learning outcome, particularly as labs are often out-of-step with the relevant lecture course.
- Short experiments are signed up by the demonstrator at the end of the 2-hour period. Two marks should be awarded for prompt attendance and satisfactory completion of the work. For absence or a grossly unsatisfactory performance the mark is zero. No mark other than two or zero should be awarded.
- Long experiments also conclude within the 2-hour period, but these experiments are written up by the students in their own time. Demonstrators should brief students on what is expected in the write-up (referring to instructions in the lab handout). Students will have been told that a time of about two and a half hours should be adequate for writing up an experiment.
- For long experiments, make it clear to students when and where the lab write-up is to be marked, or handed in. Arrangements vary from laboratory to laboratory, but in most cases students are required to sign up for a marking session (on paper or on-line). Sign-up sessions are normally within fifteen days (inclusive) from the date of the experiment. Special arrangements will need to be made when the booking sheet is full or the student is fully booked on the rota.
- For long experiment markers, the time spent at sign-up sessions should on average be 7-8 minutes per student, but it is common to see students in groups of 2 or 4. This is efficient in covering the main teaching points, but it is important to involve every student in the session – so provide some individual feedback on every report, and use questions around the group to test their understanding of the lab and to stimulate discussion. Be alert to any copying or cheating by students, and report any concerns to the lab leader. In some labs, numerical values are changed year-on-year, to provide evidence that students may be using reports from previous years.
- Credit for a long experiment is on the scale 0-6, with 4 marks for completion of the experiment and a *minimally acceptable* report, 5 marks for satisfactory work and 6 marks for very good work. A mark of less than 4 can be awarded if in the considered opinion of the marker the student has produced an inadequate piece of work. If no report is submitted, the mark is zero. Most students should produce satisfactory reports with perhaps 20% scoring 6 and very few scoring less than 4. Late submission of a report incurs a deduction of one mark for each week or part of a week that the report is late.
- For both long and short experiments, make sure that the marks, absences and penalties are accurately recorded in the lab marksheets (liaise with the senior technician, who is responsible for keeping these records). It is important for demonstrators to sign and date either the student's laboratory mark record sheet, or the laboratory notebook (for long experiments), or the laboratory instruction sheet (for short experiments) so that the student retains evidence of the experiment having been completed.

End of term

At the end of the period when you are demonstrating / marking, unestablished staff should complete and sign a payment claim form. The form must be checked and counter-signed by the lab leader or senior technician, before you submit it to the Teaching Office.

It is helpful to have a debrief with the lab leader (or at least to send them an email) offering any comments and feedback you may have on the students' experience in the lab, with any suggestions for improvement to the lab handout, or the timing / organisation of the lab sessions, or the technical content.

Arranging payment for demonstrating

Following advice from Central HR there are further changes to how casual teaching work is paid. Please refer to the relevant section. Please note that in all cases prior approval is required from the teaching office if payment is to be made.

PhD Students and other non-employees

This section does not apply to those employed by the University, this includes post-doctoral research associates

(RA, SRA, PRA, Director of Research etc), please see below for teaching related payments to staff in these categories.

The University has introduced a new computer-based system, known as the Cambridge Casual Worker System (**CCWS**) for arranging worker agreements and payment for casual work (demonstrating, marking etc.).

The following must happen before any work is done, otherwise payment cannot be made.

Please note that the replacement system for payments will be going live in January 2023 which will change how demonstrators register their details (they will need to add them themselves online) and will replace the current CAS1 and UPS2 forms.

Steps to follow (Lab leaders must complete step 1 in order for the potential worker to be able to complete steps 2 & 3):

1. Lab leaders (**not** demonstrators or the workers themselves) : Complete the [online form](#) as soon as an individual ('The Worker') has been invited to complete a task. The TO will need at least **5 days notice** to process requests. You should indicate the expected number of hours to be worked per week at this stage. The final number of hours claimed can of course vary by a modest amount (the TO should be consulted in advance of the work being done where a more than 25% greater number of hours is anticipated).
2. **A separate worker agreement is required for each distinct activity carried out by the worker.** As an example, one worker agreement could cover all demonstration work on 1A Lab 4 but if the demonstrator also covered a IIA module lab that would require a separate worker agreement.
3. Personal details and right-to-work evidence will be requested by the CCWS when an individual registers on the system. They will be invited to accept demonstrating assignments and then their worker agreements will be recorded electronically on CCWS.

If you have any doubts with regard to Right to Work queries, contact finance-CCWS@eng.cam.ac.uk

Demonstrators will normally be appointed as "Demonstrators" ([see role profile](#)) on £15.31 per hour (plus an entitlement to payment of £1.85 in lieu of holiday). Those with supervisory responsibility for other demonstrators may meet the specification in the "Senior Demonstrator" [role profile](#), consult the Director of Undergraduate Education if you wish to engage at Senior Demonstrator level. Senior Demonstrators are paid on £16.72 per hour (plus an entitlement to statutory holiday pay). These rates, which are reviewed annually are set by University HR and may be subject to change. The figures above are those for the academic year 2023/24.

The worker will be asked to upload a timesheet each week on CCWS. This will then be approved after reference to the lab leader/lab manager responsible for that activity. *Lab leaders should contact the teaching office before asking demonstrators to work significantly more hours than specified in the worker agreement request.*

It **is generally not possible** to retrospectively resolve the situation and pay demonstrators if a worker agreement is not in place before work commences. If you have any queries, please contact the [Teaching Office](#) in the first instance.

Employees, including PDRAs

With the exception of research staff the department does not normally make additional payments to employees who undertake teaching duties which are covered by their contract of employment. While research staff [role descriptions](#) encompass limited teaching activities, where a PDRA takes on teaching that is unrelated to their research project and their line manager confirms that the duties undertaken are in addition to those that they would normally be expected to discharge, then payment for this can be made in the form of overtime. These payments will be made at a rate consistent with those used for CCWS payments.

As with other teaching payments this must be arranged **in advance** with approval being sought from the teaching office. Please use this [online form](#) to request an RA, SRA or PRA is paid overtime for teaching. Please note that, as part of the process, the member of research staff's line manager will be requested to provide approval.

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Published on CUED undergraduate teaching site (<https://teaching.eng.cam.ac.uk>)

The role descriptions for Directors of Research encompass a wider range of potential teaching duties. The Deputy Head of Department should be consulted where it is proposed that a Director or Research is remunerated for teaching duties.

Part II Marking

If you wish to engage non-University Teaching Officers (UTOs) as Part II coursework markers the relevant Subject Group Chair must approve their engagement as markers and forward the names to the [Teaching Office](#) for adding to the [register of non-UTO approved markers](#). Any non-UTO markers not on the register will not be eligible for payment. Please note that the Demonstrator roles may not be appropriate as they only cover tasks involving "marking submitted student work using defined marking criteria". Seek advice from the Teaching Office well in advance regarding setting up worker agreements for Part II marking. A worker agreement cannot cover multiple roles - i.e. Part II demonstrating (demonstrator role) and Part II coursework marking (senior demonstrator role) require separate worker agreements even if related to the same module.

Referring and supporting students with mental health and welfare issues

All staff are strongly encouraged to familiarise themselves with:

- '[When to Refer](#)', a guide for helping student-facing staff to support and refer students effectively when welfare issues present themselves

The following e-learning package might also be of interest <http://learning.cwmt.org.uk/>. It is designed to give non-specialist staff the skills, knowledge and confidence to offer a first line of support to students who may have mental health issues.

Source URL (modified on 23-08-19): <https://teaching.eng.cam.ac.uk/content/part-i-demonstrators-notes-0>