

Part I lab leaders' notes

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Before term

Before the start of the term in which the experiment is first to be run, lab leaders should:

- Update the experiment handout, taking into account any suggestions for improvements that were made the last time the experiment was run (see 4. Lab Feedback below). Small improvements to handouts every year or so steadily increase the quality of the experiments.
- Update the risk assessment for the lab. As undergraduate students cannot currently access the [online risk assessment system](#) it would be good practice to place a PDF copy on your activities moodle page.
- If an experiment is new or has been subject to a major revision, arrange for labs to be tested by student volunteers to check that the length and content is appropriate. These volunteers can be paid, by prior arrangement with the Teaching Office.
- Liaise with the staff member in charge of coursework for IA or IB over the printing and distribution of the lab handout. New procedures this year are that these will normally be handed out at the start of each lab session, or at the first session for many of the larger coursework activities and projects. All handouts should be available on-line in advance of the labs, and normally before the start of term.
- Find suitable people to demonstrate, and where appropriate mark, your experiment. Part I labs normally use a mixture of established staff, teaching assistants, research students, and research assistants, where marking is for standard credit. Lab leaders however remain responsible for over-sight of fair marking.
- **Ensure that worker agreements are issued** for all demonstrators that will receive payment for demonstrating (see below)
- Check and update the specific Notes for Demonstrators for your experiment, and issue to the demonstrators with up-to-date handouts. Point them towards [Notes for Part I Demonstrators](#) for generic information.
- Hold a briefing / training session with demonstrators to run through the lab. It is also recommended that new demonstrators shadow an experienced demonstrator once or twice before the lab is handed over to them to run without support.
- Ensure that demonstrators know whether the theory which underpins a particular lab has been covered in lectures. This may be achieved by adding information about the relevant lectures and their timings to the lab handouts.
- Marksheets for Part [IA](#) and [IB](#) are available on line

NB. Demonstrators must treat all students equally – make sure that they are aware that they should guard against unconsciously providing different support to students based on their gender or race.

- Ensure Demonstrators know and apply the mark penalties for late arrival by students (as consistency within and between labs is important), and are also aware of the Allowances procedure:
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 and completing an [allowance form](#).

For long labs with separate individual reports:

- Check that the handout includes sufficient guidance to students on what is expected of them in writing the report (e.g. suggested headings, questions prompting what to cover). If possible, make changes to numerical values or other details in the experiment and write-up, to make it self-evident if students have copied from a student's report from a previous year.
- Ensure that the arrangements for marking provide approximately 7-8 minutes per student for marking/feedback (e.g. 15 minutes per lab group; half an hour for 4 students etc).
- Brief markers on how to mark the reports fairly and consistently. Students often complain that different markers on the same laboratory vary in the marks they award for similar work. Working from a simple marking scheme is recommended, with a list of key points to pick up in both technical content and presentation style. Note that the demonstrator role description covers marking submitted student work using "defined marking criteria where marking requires little or no interpretation".

Lab leaders are responsible for finding suitable research students and research assistants to make up a complete demonstrating and marking timetable. Direct approaches to colleagues or Subject Group email lists is recommended for identifying suitable RAs or research students.

During term

During the term, while the experiment is running, lab leaders should:

- From time to time, monitor the quality of performance of the demonstrators and markers. Ensure that they are punctual in attending at the start of the lab, answer students' questions correctly, and give their full attention to the lab at all times.
- Respond to any Fast Feedback messages received (see 4. Lab Feedback below).
- Respond to requests from students to rearrange their coursework, which may be permitted where there is good cause (summarised in *Guidelines for Rearranging Coursework*). You may delegate this task to a senior technician. Where this is approved you will be notified by the teaching office.
- Notify the [Teaching and Examinations Coordinator](#) of any changes that are made to the original demonstrating and marking duties. If a demonstrator has to miss a session, you should make appropriate arrangements for a substitute (where necessary), and inform the Teaching Office of your plan.
- Check that markers keep a look out for students that are cheating by copying laboratory reports from other students. If cheating is suspected, the relevant lab work should be confiscated and the matter referred to the relevant member of staff in charge of Part IA or IB coursework.
- Ensure that an appropriate record of marks is kept (for Part I labs, this is usually done by a senior laboratory technician). The lab leader is responsible for ensuring the system works efficiently and fairly.
- Make arrangements for all unestablished to claim their pay at the end of the term.

End of term

At the end of the period when the experiment is run, lab leaders should:

- Liaise with Chief Technicians, and send the marks to the overall Coordinator of Laboratory Experiments in Part IA or IB, as appropriate.
- Update the handover notes for the experiment, noting any weaknesses of the experiment or handout while things are fresh in your mind, and suggesting improvements to make before the experiment is run again.
- Check the hours claimed and sign completed payment forms for unestablished staff who have worked as demonstrators. You may delegate this task to a senior technician.

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

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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 normal 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.

The role descriptions for Directors of Reserch 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 engagment 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 seperate worker agreements even if related to the same module.

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