



University
of Glasgow

SCHOOL OF ENGINEERING

Rankine Building Teaching & Project LAB 605

CODE OF PRACTICE

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Teaching and Project Labs Code of Practice for Rankine 605

Lab Guardian: Calum Cossar, Lecturer
Lab Technician: Peter Miller, EEE Technician

Introduction

EEE Teaching Lab 605

The lab caters for a maximum of around 50 students split into 2 Lab groups and 20 Project students, but not generally at the same time. Benches are equipped with custom lab experiments, oscilloscopes, multi-meters, signal generators and bench power supplies. There are also around 15 desks each with a PC.

It is used for undergraduate experiments where students under the supervision of academics and demonstrators work on custom laboratory experiments supporting a number of undergraduate and postgraduate courses. The PC's are also used for student team projects.

Labs are timetabled with a technician being allocated. The room has a coded door lock so undergraduate use out of timetabled lab sessions has to be arranged with relevant academic and technical staff.

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The range of undergraduate and postgraduate teaching courses supported in this lab are as follows:

- Electrical Power Engineering 3
- Power Electronics 2
- Power Systems 4/M
- Microscopy & Optics 3
- Engineering Skills 1
- Engineering in Biology 2
- Electromagnetic Compatibility 3
- Optical Comms 5

In addition some students in Design Special Project 5 use the PC area as a 'base' for their team projects.

Access to Laboratory Equipment and Processes

This laboratory has a coded door lock and as such normal access is restricted to timetabled laboratory sessions. Any access to the lab outwith these times has to be arranged with the relevant academic and technical staff.

There is no weekend or out of hours working in these labs.

All Equipment within any of the labs is the property of the School of Engineering, EEE Department and is administered by the assigned Lab Technician. Other than normal operation the equipment should not be handled or moved by students without first being advised by the Lab Technician or Lab Guardian.

Health and Safety Information

Students must work in accordance with the printed and oral information provided by the class supervisor. Any safety information specific to the activity of the class must be highlighted.

There is health and safety information provided in the room including:

- Student's Safety Handbook
- Safety with Electricity - The Electricity at Work Regulations 1989 handbook
- Posters instructing in electric shock risk and resuscitation methods
- Sign requiring that only equipment with a current PAT test label may be used



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- Notices prohibiting eating and drinking are displayed
- There are coat hanger rails provided for Student's personal jackets. Bags etc. should be left beside the jackets or underneath benches. This is to reduce amount of bulky items around teaching and project benches to minimise trip and fall hazards to people who need to move around when the class is in progress.
- Storage facilities materials is available for long-term projects using the room.

Lab Rules

Health and Safety is the responsibility of all users when working in the labs.

The overall safety arrangements of the labs fall under the responsibility of the Lab Guardian, supported by electronic technicians. The Lab Guardian is responsible for development and implementation of safety policies and procedures. The lab guardian for lab 605 is Calum Cossar.

The following rules must be adhered to by all:

- 1) While working in the main lab area of 605 all occupants should ensure safe storage of their personal belongings in the coat hanger and locker area. No personal jackets should be brought into the main teaching areas and any rucksacks / bags should be placed under the benches to prevent potential trip hazards to users.
- 2) No food or drink is permitted in the teaching labs at any time. Break areas and breakout rooms are provided in the building and students are encouraged to use these.
- 3) Benches must not be over populated to ensure adequate working space is available for all students.
- 4) Equipment is the responsibility of the Lab technician and should not be moved from the allocated benches without prior agreement and permission of the technicians.
- 5) All workbenches must be kept tidy, it is the user's responsibility to ensure the areas are cleared of any components, wire clippings and tools at the end of their working session in preparation for the next user.
- 6) No work is permitted that would expose the user to any dangerous voltages or currents i.e. 240V Mains AC , any projects or development work related to this should be brought to the attention of the Lab Technician or the Lab Guardian.
- 7) Only equipment that has passed a valid PAT is permitted to be used within the labs, any external equipment brought in by users must be brought to the attention of the Lab Technician to be checked.
- 8) All School of Engineering equipment is periodically PAT and should have a valid sticker stating date of testing, any equipment considered to be out of date **MUST** be brought to the attention of the Lab Technician.
- 9) Any breaches of the rules should be brought to the Lab Technicians attention.

Fire safety

In the event of a fire or the fire alarm sounding, lab users must leave the building by the nearest escape route. There are two CO₂ fire extinguishers (suitable for use on Electrical fires) located in the room. These should only be used by trained users if it is safe to do so. The Safety and Environmental Protection Service provide online fire awareness courses.

First aid and emergency procedures

A First Aid box and Eye Wash facilities are available in the room. A notice displaying a list of First Aiders in the building is beside the passenger lift on each floor. A telephone is provided in the corner of the room by the printer/copier with a note of appropriate numbers to call in the event of an emergency.

Incident reporting and investigation

All accidents/near miss incidents arising within the laboratory or any aspect of laboratory activities must be reported immediately to any member of the academic or technical services staff who must complete an Incident Report Form.

Procedures for highlighting safety concerns

Any concerns about safety within the laboratory should in the first instance be raised with the Lab Technician or a member of the Technical and Academic staff in the area. In the unlikely event that highlighted safety concerns are still not acted upon to the user's satisfaction, he or she is entitled to write to the Department Safety Director or Co-ordinator who will decide whether further action is needed and will ensure that any recommendations are implemented.



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COVID-19 Special Measures

As part of the School of Engineering the Electronics Teaching labs are governed by the University of Glasgow overall policies that apply to physical distancing and cleaning measures to be in place as a result of the 2020_COVID-19 Pandemic.

1. A physical distancing of minimum 2 metres will be adhered to at all times
2. The maximum class size will be 25, should the space allows to accommodate it
3. Physical Distancing signage will be placed in all teaching and circulation spaces
4. A facilitated physical distancing system for entering and exiting each teaching area will be in operation. All students and staff should wear face coverings when in circulation areas and when entering or leaving teaching rooms.
5. Face coverings or Visors will be made available to staff and students.
6. The Universities' risk based Enhanced Cleaning regime will be in place
7. Additional sanitising products will be made available in each teaching space to allow additional discretionary cleaning by students or staff
8. A record of attendance will be retained for 21 days for each teaching activity. This record will only be used for the purposes of the Scottish Government Test & Protect programme following a positive diagnosis of coronavirus amongst attendees.
9. Specific Covid-19 risk assessments need to be in place for each teaching modules to reflect specific cleaning measures and physical distancing (i.e. max. occupancy, physical setup) relevant for teaching activities to take place. These will be prepared by individual academics who are responsible for the teaching modules to be delivered in these labs.

COVID19 References

- University of Glasgow COVID19 protocols: [UofG covid19-protocols](#)
- School of Engineering COVID19 protocols : [covid19-protocols](#)
- Teaching Lab Risk Assessments: both <https://webapps.eng.gla.ac.uk/tools/risk/view.php?action=listmulti> (VPN needed) and [Teaching Lab Risk Assessments](#)
- Project Lab Risk Assessments: both <https://webapps.eng.gla.ac.uk/tools/risk/view.php?action=listmulti> (VPN needed) and [Teaching Lab Risk Assessments](#)



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Document Revision Control Sheet

Author	Date	Comment	Revision
Calum Cossar	August 2020	Document based on COP for Rankine 709 712B	1.0
Calum Cossar	August 2020	Updated after suggested modifications from Bruce Robertson	1.1