

**School of Engineering
University of Glasgow**

**Laser and Biomass Laboratories
Rooms 433A, 449 and 450
James Watt South building**

CODE OF PRACTICE

The adoption and practice of good safety procedures is of paramount importance both for the health of fellow workers and for the integrity of the fabric of the Laser and Biomass Laboratories.

1. No work may be carried out in the Laser and Biomass Laboratories, Rooms 420, 450 or 451, James Watt South building without the prior permission of Dr Ian Watson.
2. No work may be carried out until all necessary safety documentation has been read, understood and an email sent to ian.watson@glasgow.ac.uk acknowledging this and with SAFETY DOCUMENTATION in the subject heading. New staff and students should also make themselves aware of the location of safety equipment in the laboratories and the nearest fire exit.

These are:

Telephone for emergency calls is in 449.

Emergency telephone number: **4444**

Fire Extinguisher

First Aid kit (JWS Level 2: Workshop, Level 3: Janitors box, Level 4: Tuck lab)

Ear protection is available if needed.

Laser safety spectacles are near the laser intended for their use or in the safety cabinet in room 451. Please return to the safety cabinet after use.

Emergency exit (down the half flight of stairs nearest the laboratory and take the side door or through the main door in the foyer.

3. Work out with the 9am to 5pm working day requires the permission of Dr Ian Watson. If permitted, the "Late working book" located in the foyer of the JWS building must be signed.
4. Ear protection and laser safety spectacles should always be used when appropriate.

Use of lab equipment

5. To minimise trip hazards, extension cables should be plugged in to the closest available socket.
 - i. Once equipment is not in use, it should be turned off and any extension cables used should be tidied to a suitable location.

- ii. Be particularly careful of experiments involving water and electricity. Ensure that the extension cables are safely placed away from any possible water spillage.
6. Electrical connectors between different devices or equipment should be safe. If in doubt speak with electrical technicians (Rm 619).
7. If you plan to use any laser equipment you must first consult Dr Ian Watson and receive appropriate training on how to safely use that device. When lasers are in use, the warning sign on the entrance door to the laboratory must be illuminated and all doors must remain closed during the experiments. General guidelines on using lasers can be found at <http://www.gla.ac.uk/schools/engineering/studentstaff/safety/>.
8. In room 450 there is a laser marking system. Various He-Ne lasers are also available for experiments, these must be securely fastened, to optical breadboards for example, before their use. Goggles are provided for your safety, use them at all times whilst you operate any laser.
9. In room 455 there are two lasers. A large power CO₂ laser and KrF laser. Other lasers may be operational in these laboratories so you need to seek advice before entering any laboratory. If you plan to use lasers in any of these these laboratories you first need to consult Dr Ian Watson for guidance and training. Goggles are provided for your safety, use them at all times whilst you operate any laser.
10. If you are unsure how to correctly use an item of equipment, do not risk damaging it or yourself. Ask an appropriate person for assistance.
11. If you are doing work that requires a risk assessment then please complete a Risk Assessment form before starting the work. Such work may involve high voltage or extraordinary use of a laser or use of some chemicals or microorganisms.

Biological Work

12. If you are doing experiments in microbiology related areas then you will need to have appropriate training before completing this work.
13. All culture work must be carried out in the laminar flow cabinet.
14. All waste products from culture work i.e. plastic petri dishes, pipettes and glassware must be placed in the Biological Waste containers which are taken to Life Sciences periodically for safe destruction.
15. Any bacterial or algal spillage must be treated with bleach, mopped up with paper towels and treated with alcohol. Waste paper must be put into the Biological Hazardous Waste containers.
16. NEVER mouth pipette, use the pipettes provided.
17. Anyone working with microorganisms must follow the guidelines set out in COSHH forms.

General lab points

18. If coats or bags etc are brought into the laboratory they should be safely placed in the vestibule laboratory, room 449.
19. Food and drink are not permitted in the any of the laboratories.
20. Once experimental work has been completed and the experimental setup is no longer required, the experimental area should be cleared in preparation for another experiment, consult Dr Watson for advice. In general, the following practices should be followed after the completion of experimental work:
 - i. Equipment should be placed in an appropriate location for its safe keeping, minimising potential damage and allowing other researchers access to it.
 - ii. The experimental area, if required, should be wiped or cleaned using appropriate cleaning materials depending on your experiments. This may involve disinfectants.
21. Laboratory doors should remain locked at all times to ensure security.
22. If equipment is required to leave the laboratory, permission is required from Dr Ian Watson.
23. If equipment breaks down or is not working, report the fault to Dr Ian Watson immediately.