University of Glasgow | School of Engineering

Centre for Medical & Industrial Ultrasonics (C-MIU) Laboratory 3
Room 391
James Watt South Building

CODE OF PRACTICE

The adoption and practice of good safety procedures are of paramount importance both for the health and safety of fellow workers and for the integrity of the fabric of the C-MIU laboratory.

Note: No latex products are to be brought into the laboratory

1. No work may be carried out in C-MIU Lab 3, Room 391, James Watt South building without the prior permission of Professor Margaret Lucas, Professor Sandy Cochran and Dr Xuan Li (Lab Guardian).
2. Online risk assessments must be completed for specific tasks, or use of specific items, and approved by your supervisor, the appropriate responsible person(s) (see list below) and Dr Xuan Li, BEFORE ANY WORK COMMENCES. Such work may involve high voltage, use of a laser, use of some chemicals or biological material.

   https://risks.eng.gla.ac.uk/

3. New staff and students should also make themselves aware of safety procedures and of the location of safety equipment in the lab.

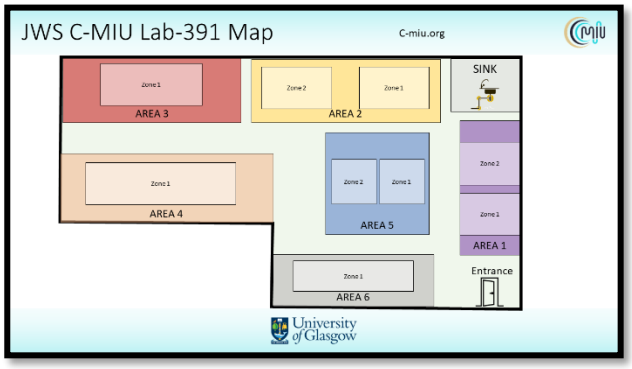
   These are:

   Emergency telephone number: **4444**
   Fire Extinguisher (at entrance to the corridor, hanging on the wall to the left when you leave the lab)
   First Aid kits (JWS Level 3: Janitors box, Level 4: Tuck lab)
   Ear protection (Hanging inside the main lab door)
   Laser safety spectacles (Hanging inside the lab, by the door)
   Emergency exit (through James Watt North building main entrance)

1. Work outwith standard office hours and weekend working requires the permission of your supervisor. If permitted, the out-of-hours working book located in the foyer of the JWS building must be signed (on arrival **and** departure). It is recommended to download the Safety Zone App. The SafeZone App is **very useful** for every member of staff and student at the UofG as it is monitored 24 hours a day by the Campus Security team, safeguarding the safety and security of our staff and students throughout their time at UofG. Please either click here to download on your phone or QR code shared in image below.

4. Various lasers are used in this lab. DO NOT ENTER THE LAB when the LASER IN USE sign is illuminated.
5. All new lasers, and users of lasers and high-power light sources in the School should register with John Nelson and watch the laser safety video owned by the University (on DVD and kept by John Nelson – Paul Prentice also has a DVD). The laser-safety video should be made available to new users of lasers within 1 week of the user reporting to the laser-safety officer. The new user will then complete the University's laser user registration form. Records of all laser users are held by the University Radiation Protection Service. Existing users of lasers should view the video at least every 5 years to maintain awareness of developing safety issues and best practice.
6. Ear protection and laser safety goggles must always be used, when appropriate.
7. Considerations for codes of practice and risk assessment for the James Watt School of Engineering can be found here: (https://www.gla.ac.uk/schools/engineering/informationforstaff/safety/)

James Watt building South Level 3: Floorplan



Area management floorplan

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GENERAL LAB PRACTICE

8. To minimise trip hazards, extension cables should be plugged into 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. Leads and plugs should ONLY be used on the allocated item of equipment and should NOT be switched between equipment
    iii. The gain on power amplifiers should be set to zero when not in use.
9. Electrical connectors between different devices or equipment should be safe. If in doubt speak with electrical technicians (Rm 619).
10. If you are unsure how to correctly use an item of equipment, seek assistance from an appropriate responsible person(s) (see list below).
11. The fridges in the lab are used to store tissue samples, perishable ultrasound phantoms and contrast agents and therefore should only be used for this intended use. Do not store food/drink in the lab fridges.
12. If outside clothing or bags etc are brought into the lab they should be hung on the hook stand by the main entrance.
13. Food and drink are not permitted in the lab.
14. Once experimental work has been completed and the experimental setup is no longer required, the experimental area should be cleared in preparation for another researcher/experiment. The following practices should be followed after the completion of experimental work;
    i. Equipment should be placed in an appropriate location ensuring its safety, minimising potential damage and allowing other researchers access to it.
    ii. The experimental area, if required, should be wiped or cleaned. This is NOT the responsibility of the cleaner.
15. Laboratory doors should remain locked at all times to ensure security.
16. If it is necessary to move equipment to another lab, permission is required from your supervisor and, if necessary, seek assistance.
17. If equipment breaks down or is not working, report the fault to your supervisor immediately.
18. A fault with the fabric of the room, such as a lighting failure, should be reported through Maintenance Request found on the Estates and Buildings webpage, http://www.gla.ac.uk/services/estates/.
19. All non-contaminated broken glassware, slides and coverslips must be disposed of in the sharps bins provided.

Laser work

20. If you plan to use any laser equipment you must first consult John Nelson and Paul Prentice to receive appropriate training on how to safely use that device. Goggles are provided for your safety, use them at all times whilst you operate any laser. General guidelines on using lasers can be found at; http://www.gla.ac.uk/schools/engineering/studentstaff/safety/.

21. The laser blocking blind over the window must be closed during the use of any laser, within the enclosure.
22. Three laser vibrometers are located in the lab (two Class II lasers, and a Class IIIb laser).
    i. When any laser vibrometer is in use, the **LASER IN USE** sign outside the main lab door must be illuminated, and all lab doors must remain closed.
    ii. Lasers should never be directed at any entrance to, or window of, the lab.

Biological work

19. If you are doing experiments with biological tissues, then you will need to have appropriate training before starting this work.
20. All waste products must be placed in the Biological Waste containers in Lab 324 which are taken to Life Sciences periodically for safe destruction.

Specific named items and responsible persons

21. The following people are responsible for specific equipment in the lab. No work should be undertaken using these items of equipment before training and approval has been obtained from the relevant person(s).

i.	Power Amplifier,	Xuan Li, xuan.li@glasgow.ac.uk
ii.	Laser vibrometers	Xuan Li, xuan.li@glasgow.ac.uk
iii.	Impedance Analyser	Yuchen Liu, 2629614L@student.gla.ac.uk
iv.	3D Printer	Jack Stevenson, 2629614L@student.gla.ac.uk
v.	Software	Jack Stevenson, 2629614L@student.gla.ac.uk