

SAFETY IN LABORATORIES

Policy Supported:	OCCUPATIONAL SAFETY AND HEALTH POLICY
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Officer Responsible:	DIRECTOR, EDUSAFE
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PROCEDURES:

1. Exceptions

Laboratories not included in the definition provided below, for example, computer laboratories.

2. Definitions

Laboratory *means any building or portion of a building used, or intended to be used, for any practical scientific work, which may be hazardous, including research or the teaching of sciences or the Arts. Such work may involve the use of chemicals, flammable liquids, pathogens, other harmful substances, harmful radiation, or processes including electrical or mechanical work, which would be hazardous unless carried out in a specifically designed area. The laboratory area includes support areas such as instrument and preparation areas, laboratory offices, and laboratory stores (AS2243.1-1990)*

3. Implementation Strategies

The University acknowledges its responsibility to protect the safety and health of staff, students, contractors and visitors in laboratories and undertakes to comply, as far as is practicable, with the provisions of Australian Standard 2243 – Safety in Laboratories. The University also commits to minimising the risks associated with laboratory activities in providing a safe and healthy environment for all staff, students, contractors and visitors.

4. Procedures

4.1 Management Responsibilities

Heads of Schools have an overall responsibility for ensuring that occupational health and safety standards and practices are implemented and maintained in laboratories by their respective supervisory staff.

To achieve compliance, Heads of Schools should:

- ensure that students receive the appropriate information, instruction and training necessary for them to perform work safely;
- ensure that all students receive an induction that includes information pertaining to emergency response procedures and personnel;
- ensure that local occupational health and safety procedures are developed, documented and issued to students as appropriate;
- ensure that the facilities and equipment provided for students are safe and suitable for the types of work to be carried out;
- ensure that adequate financial provisions are made for occupational health and safety equipment and materials and the maintenance of occupational health and safety standards;
- ensure that hazard identification and risk assessment procedures are developed, documented and maintained for the use, handling, storage, transport and disposal of equipment, materials and substances and that appropriate risk controls are implemented and maintained.

4.2 Staff Responsibilities

Staff in charge of practical classes or teaching in laboratories should:

- ensure that students receive the appropriate information, instruction and supervision necessary for them to carry out the work safely;
- ensure that they are aware of their responsibilities with regard to the health and safety of the students and other staff members undertaking the practical classes;
- arrange for students to be warned about particular hazards, and how to avoid, eliminate or minimise them;
- ensure that safe working practices are developed and maintained at all times by the staff and students undertaking the practical classes;
- ensure that students under their control use safety equipment provided in a correct manner;
- actively practice, and develop in the students, proper attitudes towards health and safety matters;
- ensure that a suitably qualified and/or experienced person is present in the practical class at all times;
- ensure that risk assessments of all practical classes is undertaken, and that these risk assessments are reviewed before new procedures and equipment are introduced into practical classes;
- ensure that all incidents and 'near miss' incidents that occur are reported on the University Hazard & Incident Report form.

4.3 Student Responsibilities

Each student must take reasonable care of their own health and safety and the health and safety of others by:

- taking action to avoid, eliminate or minimise hazards of which they are aware;
- complying with all occupational health and safety instructions, policies, and procedures including departmental safety manuals;
- making proper use of all safety devices and personal protective equipment;
- complying with the instructions given by emergency response personnel such as emergency wardens and first aiders;

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- seeking information or advice where necessary before carrying out new or unfamiliar work;
- maintaining dress standards appropriate for the work being done. Appropriate protective clothing and footwear must be worn at all times;
- not consuming or storing food and drink in laboratory areas;
- being familiar with emergency and evacuation procedures and the location of emergency equipment;
- reporting all incidents, hazards and 'near miss' incidents on the University Hazard & Incident Report form.

4.4 Contractor Responsibilities

All contractors must consult with their '*Responsible Officer*' (refer *Contractor Safety Handbook and Policy*), laboratory managers and other relevant personnel prior to commencing work in University laboratories to ensure that the area is rendered safe to undertake the work that they are contracted to perform.

4.5 General Safety Requirements

All personnel entering, working or studying in a laboratory must:

- maintain the minimum quantity of hazardous substances at all times;
- consider and manage the risks to themselves and others working in the laboratory;
- wear appropriate enclosed footwear with a non-slip sole;
- wear appropriate protective clothing as specified by the Laboratory Manager, Lecturer or Tutor (this may include a Laboratory Coat);
- use and maintain any other personal protective equipment as required by safe work practices (eg. safety glasses) and in accordance with the Policy on [Personal Protective Equipment](#);
- know the emergency procedures for the facility;
- ensure access and egress for fire exits and emergency equipment are kept free of obstruction at all times;
- not run in the laboratory or the corridors leading to them;
- always exercise care when opening and closing doors
- food is not stored or consumed in the laboratory;
- not undertake unauthorised experiments;
- maintain work areas in a clean state to reduce the risk of exposure to hazardous substances and slip and trip hazards;
- ensure all spills are cleaned up immediately;
- not pipette by mouth

The use of mobile phones in laboratories is strictly prohibited except in circumstances where it does not pose a risk to the user or others as demonstrated by the risk assessment undertaken.

Staff or students that know they are pregnant or are trying to fall pregnant must advise their lecturer or tutor immediately to ensure that any relevant risks can be managed appropriately.

4.6 Management of Hazardous Substances

All hazardous substances must be managed in accordance with the requirements of relevant legislation including the Occupational Safety and Health Act WA 1984 and Regulations 1996; the Gene Technology Act 2000; and Radiation Safety Act.

The following University policy also applies:

- [Management of Hazardous Chemicals and other Substances](#)
- [Infectious Materials Handling Policy](#)
- [Disposal of Sharps and Sharps Injury Policy](#)
- [Personal Protective Equipment](#)
- [Working in Isolation](#)

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Further information and assistance can be sought from the [EduSafe Website](#) and the [Institutional BioSafety Committee Website](#) as required

4.7 Risk Assessment

A risk assessment of each laboratory or project that involves practices, procedures, equipment or substances that could harm the health and safety of students or staff should be carried out before the conduct of the laboratory class. Risk assessments should be undertaken in consultation with the departmental/area safety and health representative and or laboratory manager and the risk assessment of the laboratory class or project should be reviewed whenever new procedures and equipment are introduced. The risk assessment should also be freely available to staff and students undertaking the class or project. Teaching staff must be familiar with the risk assessment before laboratory activities commence.

The Safety in Research Risk Assessment process available on the web at www.edusafe.edu.au can serve as a guide to completing this task.

4.8 Training

4.8.1 Undergraduate Students

Health and safety concepts should be integrated in all practical classes. To achieve this aim, staff in charge of practical classes should adopt the following recommendations that are appropriate to their particular course.

Introductory Lecture

At the beginning of each subject with a practical class component, students should be introduced to the guidelines necessary to conduct the practical classes safely. A short introductory talk should be scheduled before practical work commences at the beginning of **each semester**. The talk should include:

- a general introduction to the topic of health and safety outlining the departmental/area safety policy;
- a summary of health and safety responsibilities with respect to students and staff;
- policies and procedures relevant to the course of laboratory classes;
- emergency procedures in the laboratory;
- introductions to personnel who assist with emergency, first aid and safety procedures;
- procedures for the reporting of incidents and 'near miss' incidents which occur in practical classes.

Pre-practical talks

Before **each** class that includes procedures or substances that may pose some degree of risk to students, specific issues relating to health and safety in that laboratory class should be brought to the attention of students by the lecturer, demonstrator-in-charge or the technical coordinator. It may be possible to discuss the risks likely to be encountered in a series of practical classes if the risks associated with all classes in the series are similar. The safety issues discussed should include:

- an outline of the risks involved in the laboratory class and the procedures to follow to minimise those risks;
- the appropriate personal protective equipment to be worn;
- training in the correct use of equipment and apparatus;
- waste disposal procedures.

Students should be encouraged to report any medical conditions or allergies that could put them at risk during the conduct of the class to the staff in charge.

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4.8.2 Honours and Post-graduate students

In addition to the relevant responsibilities under this policy and information provided in Undergraduate Students requirements, all honours and post-graduate students must attend the General Safety Awareness module and relevant other modules provided in the Safety in Science series each semester

4.9 Safety in Research and Fieldwork

All staff and students undertaking research at the University or on fieldwork must comply with the relevant provisions of the Safety in Research Policy and Fieldwork Safety Policy available at www.edusafe.edu.au.

4.10 Working Alone

Staff and students are not generally permitted to work alone in laboratories. Where there is no other reasonable alternative staff students are permitted to work alone in strict accordance with the provisions of the [Working in Isolation policy](#).

REVISION HISTORY:

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