



## Department of Physics and Astronomy

### Code of Safe Practice for Undergraduate Students

#### Introduction

This guide applies to all undergraduates while they are within the Department of Physics and Astronomy, (including the Observatory at Acre Road), whether this be for the purpose of lecture, demonstration, laboratory work, project work or any other activity. The object of the guide is to ensure the safety of all by maintaining the highest standards in relations to the Health and Safety at Work Act, 1974.

Under the Act it is the duty of the University to provide, as far as it is reasonably practicable, working conditions which are safe and without risks to health and safety and it is the duty of students to co-operate by taking reasonable care for the health and safety of themselves and those associated with them.

Enquiries and suggestions on health and safety matters from undergraduates are welcomed and should, in the first instance, be addressed to the member of staff in charge of the class. Any member of the Departmental Safety Committee may also be approached.

It is a Departmental requirement that all undergraduates must sign a statement that they have read the following safety rules and that they will abide by them.

#### Guidance

##### 1) *General*

1. A Safety Handbook, issued by the University Safety Committee is available in all teaching laboratories and in other places. Protective clothing, goggles and disposable gloves must be worn when handling irritant chemicals.
2. The location of emergency exits must be noted.
3. Know in advance how an electrical experiment can be made "dead" in an emergency.
4. In laboratories the electrical supplies at the main switch must not on any account be switched on without the permission of the Laboratory Head, demonstrator or the technician responsible for the equipment in the area.
5. Faulty equipment must be reported immediately to the Laboratory Head, demonstrator or technician. Removal of outer casings etc from apparatus which would expose high voltages is expressly forbidden.

6. At the end of each laboratory period where mains operated equipment has been used, power should be switched off at the bench sockets. When switching off computers ensure that work has been saved before switching off.
7. In laboratories, coats etc must be hung on the hooks provided and not placed on benches or hung on gas taps.

## 2) **Fire**

1. Fire alarm switches, which operate sirens, are installed on the landings of the main staircases of the Old and New Buildings. It should be noted that the sirens will continue to sound during the whole period of an emergency (unless switched off by a responsible officer). No one may enter the building while the siren is sounding.
2. When the siren sounds students must evacuate the building in an orderly manner as instructed by the Lecturer or other person in charge of the class. Lifts must not be used during the evacuation.
3. Students should assemble outside the building as instructed by the Lecturer or other person in charge of the class in order that a check on numbers may be carried out.
4. The fire sirens are regularly tested by the Departmental Fire Officer. Fire drills will be announced and carried out each session during working hours.

## 3) **Safety Signs**

Safety signs displayed in the Department will comply with the following Code.

	<b>Type</b>	<b>Meaning</b>	<b>Example</b>
i)	Red (circular)	complete prohibition	No smoking etc
ii)	Yellow (triangular, edged in black)	cautionary, danger present	Radiation hazard etc
iii)	Green (rectangular)	safe condition	Exit, first aid etc
iv)	Blue (circular)	cautionary, specific action must be taken	safety glasses to be worn etc.

## 4) **Accidents**

First-aid boxes are available in various places in the Department to deal with minor accidents. Any accidents or incidents must be reported immediately to the Lecturer or other person in charge of the class who will, where necessary, arrange for first-aid treatment.

## 5) **Lasers**

Laboratory experiments are limited to Class 3A lasers, i.e. lasers emitting in the range from 400 - 700 nm within a maximum power output of 5mW. Protection of the eye is afforded by aversion responses including the blink reflex, but direct beam viewing with optical aids may be hazardous.

Lasers and beam stops must not be removed from their optical benches. If chairs are present they should be placed in a properly screened location, ensuring that the line of sight is above or below the laser beam.

Where a student is involved in a project in research areas where Class 3B lasers or higher are involved, a discussion between the project supervisor and the laser safety officer is essential.



A Code of Practice for such projects has been set up and the student is required to sign a form acknowledging that the student has read and understood the safety rules, and will abide by them.

#### 6) ***Radioactive Sources***

Radioactive sources must be signed out by each individual student and returned to the safe at the end of each laboratory period. The technician in charge of the teaching laboratory must check at the end of each laboratory period that all sources have been returned to their proper storage areas in the source safe and will also check the contents of the safe against the inventory of sources held. Students must obey the code of practice for handling radioactive material, as instructed in each class.

#### 7) ***Project Work***

Before starting on a project the potential hazards must be discussed with the project supervisor. A plan for safe working must be agreed and written out on the Safe Working Form which will be issued. This should then be signed by both student and supervisor and returned to the Projects Coordinator.

Students are only allowed to carry out machining or other mechanical workshop operations after they have been properly instructed on safe working practice and only if a second person trained in these procedures is also present.

#### 8) ***Working Outwith Normal Hours***

Students must not make use of the teaching laboratories outwith normal laboratory periods without the full approval of the Laboratory Head who will arrange appropriate supervision.

Project students must not make use of laboratory or research areas outwith normal hours without the specific approval of their project supervisor.

#### 9) ***Smoking***

The University of Glasgow has a No Smoking policy and smoking is not allowed in any area inside the building.

*When you have read this document please complete and return attached slip to your Laboratory Head*

**January 2006**

**CSPUS/2006**

# Department of Physics and Astronomy

## Code of Safe Practice for Undergraduate Students

*I acknowledge receipt of the Code of Safe Practice for Undergraduate Students and agree to take the precautions and abide by the safe working practices described therein.*

Name .....  
(Block Capitals)

Class.....

Signed .....

Date.....