



## Faculty of Health and Medicine

# STUDENT SAFETY HANDBOOK

This Student Safety Handbook or any updated version is valid for the entire duration of your association with the Faculty of Health and Medicine





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## SECTION 1

### INTRODUCTION

#### Safety Legislation

The Health and Safety at Work etc Act 1974 came into force on the 1st April 1975. This has extended the application of safety legislation to a wider range of employees, including teachers and others employed in the education service.

This act makes it clear that we all have a part to play in the health and safety at our place of work or study. It is the duty of all personnel and students to take reasonable steps to ensure the safety of themselves and anyone else who may be affected by what we do at work or in the course of our studies. Staff who supervise others have a responsibility for their subordinates and must set a good example. They are also responsible for the training of their subordinates so that hazards are understood and safety measures taken. The same relationship prevails between academic staff or demonstrators and the students they supervise for practical work.

The aim of this handbook is to promote safety awareness and draw attention to hazards most likely to occur. If you have chosen a science degree you are going to be subjected to hazardous areas which you will need to be prepared for, whether it is during a practical or a lecture. Every discipline will have its own risks and hazards. Providing you identify the possible hazards and means of overcoming them, realise that safety is a shared responsibility from everyone and not just from those who have the authority to enforce it, you have done all that is expected of you.

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This handbook is also available on the Student Notice board with the other handbooks in the Biology LUVLE Gateway <http://biol.lancs.ac.uk/bs/teaching/luvle.html>, and also on the VLE sites in CETAD and DHR

**Pages 1-7 applies to ALL Students, and 8-22 applies to Laboratory based students such as BLS.**

#### **EMERGENCY TELEPHONE NUMBERS**

In the event of an emergency on campus, use the following numbers from an internal

## First Aid

The following LEC/BLS personnel are trained in First Aid:

Building	Department	Room Number	Name	Tel No
Lancaster Environment Centre	LEC1	A28	Helen Quirk	92931
	LEC1	A18	Debbie Hurst	93133
	LEC1	B520	Brian Davison	93932
	LEC2	B59	Chris Jarvis	10213
	CEH	C42	Neil Mullinger	10231
	LEC3	A32	Marilyn Pooley	







## **External Teaching Venues**

External teaching venues may be used on occasions. Staff must satisfy themselves that health and safety practices are in place and that risks are identified and assessed based on the requirements of the group. You should be provided with a safety induction which will cover First Aid and Accident Reporting; Emergency Evacuation procedures and Fire Assembly Points. You should obey any site-specific safety requirements displayed and report any accidents to the venue Health & Safety representative, as well as your Lancaster University department representative.

## **Fieldwork which involves going out into the community and meeting people**

Fieldwork may include rural and urban areas, public open spaces, public buildings (libraries etc), and private commercial, industrial or domestic premises. Frequently such field work will involve no more risk than normal everyday life. However, all students and staff undertaking fieldwork in the Division of Health Research must explicitly sr, all acec 0.173-4(c)4()4( si

with explicit permission of a supervisor, project director, Area Safety officer or the Head of Division (as appropriate).

### Specific types of field work

In general terms fieldwork can be divided into four types, with different associated risks.

- 1) Observational fieldwork in public places. The general safety precautions outlined above should be sufficient.
- 2) Interviews conducted in public open spaces. The general safety precautions outlined above should normally be sufficient. Always ensure that you work in an open area in full view of other people.
- 3) Door to door interviews (not pre-arranged). These pose additional potential hazards and in addition to the general safety precautions the following guidelines should be adopted:
  - x Do not enter a house or other premises. Conduct all interviews on the doorstep in a situation where you can remove yourself rapidly if necessary.
  - x Do not interview late at night or during hours of darkness.
  - x Do not get tempted to become involved in any personal problems a respondent may relate to you or you inadvertently come across. If you feel that you encounter a situation where intervention is necessary immediately remove yourself and call the appropriate emergency services.
  - x Beware of dogs.
- 4) Pre-arranged interviews (or observations) with individuals in places of work and private dwellings. The general safety precautions should normally be sufficient but you should also adopt the following guidelines:
  - x Be aware of and obey any site-specific safety requirements in offices, factories, farms etc.
  - x Do not undel3(at)ca10(ne)3(fo)2(e)3(c)8 Tc 0 Tw 4.07 9.7d(-)Tj0.001 Tc 0.163 T310.31 0 1

## **Occupational Health arrangements for Lancaster Medical Students**

Students following the Liverpool Medical curriculum will receive special instructions on their Health clearance and immunisations prior to starting at Lancaster, via the Lancaster Medical School office. These will include a Health Questionnaire and covering letter, and the details are

**Ls**





COSHH Assessments must be carried out before any work is commenced involving potential chemical or microbiological hazards. The Regulations cover field work as well as lab work, and are not restricted to purely "chemical" or "microbiological" studies e.g. the use of a tracer in a dispersion experiment is covered by COSHH. If in any doubt as to what is covered seek advice.

COSHH Assessments for students are incorporated into practical and fieldwork schedules for normal coursework but must be discussed with supervisors in the case of project work. It is the legal duty of all members of the Faculty to make full and proper use of the control measures provided. You are also required to report any defects with the control measures (i.e. to the staff member in charge or to the Area Safety Officer). If you have any doubts about a reaction, substance or procedure, consult someone in the Faculty who has expertise in the area concerned.

No one must work alone on hazardous experiments unless assistance is within calling distance.

Emergency showers are clearly labelled on laboratory doors. In the case of severe bodily contamination with chemicals, use one of these drench showers, or safety stations (which are dual shower and Eye wash irrigation units) situated in:

A Floor – A19, A20, A27, A28  
All B Floor labs  
All C floor labs  
Faraday - B1 and B2

In less serious cases, wash thoroughly with tap water and, if necessary, soap. Remove contaminated clothing.

In the case of eye contamination, irrigate eye with water for at least 10 minutes using eye irrigation hose or sterile eye wash liquid. If necessary, gently prise eyelids open. Seek immediate medical advice

Experimental work performed by students on taught courses in a laboratory must be under the direct supervision of a member of staff.

Students are not permitted to handle gas cylinders and associated accessories, or dispense cryogenic liquids i.e. liquid nitrogen

No dissertation or project work can take place until a Risk Assessment has been carried out and categorised under the University regulations. Specific Health and Safety guidance will be given at the planning stage in conjunction with your supervisor.

Students are not permitted to handle Radio-isotopes, or UV sources, unless under strict supervision and a risk assessment has been carried out.

Students are not permitted to drive Divisional vehicles or minibuses, unless they are over 25 years of age and have received specific training to enable them to do so.

#### **Waste Disposal - As per the COSHH assessment**

The University has a specific policy on waste disposal. As a general rule dilute acids and bases can be washed down the fume cupboard sinks with plenty of flushing. Waste organic solvents **must not** be poured down the laboratory or fume cupboard sinks and should be put into the containers provided in each laboratory. Note that chlorinated hydrocarbon solvents should be placed in special separate containers. Permitted solid chemical waste can be disposed of in solid chemical waste bins. Broken glass bins are also available. Microbiological hazards including body fluids, sewage, sludge etc. must be autoclaved before disposal and requires special disposal procedures.

These rules shall apply to all laboratories designated as science laboratories by the Faculty Safety Committee.





## **RULES CONCERNING USE OF EQUIPMENT**

Experimental work performed by students using specific equipment and specialist apparatus must be under the direct supervision of a member of staff.

### **Specific Examples:**

#### **Ultraviolet Lamps (including hollow cathode lamps)**

Never look at an unscreened short wavelength (< 300 nm) UV source since the radiation can cause considerable corneal damage. This precaution should be observed even when using the small lamps which are used to examine TLC plates. Protective goggles are available when such lamps are used. Note, however that prolonged skin contact (only a few minutes in the case of high intensity lamps) can burn the skin.

#### **Gas Cylinders**

Gas cylinders are used extensively throughout the Faculty. Students should never touch them.

#### **Refrigerators, Incubators and Fume Cupboards**

All containers placed in refrigerators, incubators and fume cupboards must be stopper and labelled with owner's name, date and contents. Containers not meeting these requirements will be removed. Refrigerators in laboratories must not be used for storing food or drink. Fridges used for storing flammables must have a spark proof thermostat.

#### **Ovens**

Unventilated electric ovens and those with exposed heating elements must not be used for evaporation of organic solvents or drying deposits of crystals.

#### **Autoclaves**

The person designated for the training, and who has responsibility for the use of the autoclaves is Phil Nott.

Any person wishing to use an autoclave, MUST undergo instruction by Phil Nott, who will give you a copy of Standard Operating Procedures, and will complete a competency form to signify that you are able competent to use the autoclaves.

#### **Centrifuges**

Full training must be given before operating a centrifuge. The moF 3 Td(F) 0 Tw ae d(Fu)6(e)3( wi)4(l8( o)2



x Spillages, both small and large.

Decon and other detergents agents are NOT disinfectants and should not be used for disinfection purposes.

### **General Laboratory Disinfection**

Use 2% Trigene from concentrate to wash down benches, disinfect laboratory equipment (e.g. centrifuge buckets) and deep clean microbiological safety cabinets, fridges and freezers, and any other equipment. Due to its non corrosive properties Trigene can be used for all equipment.

All work surfaces should be disinfected routinely on a daily basis, before commencing and finishing work with 2% Trigene solution.

Contact time for normal use is 5 minutes on a clean surface, 10 – 15 minutes for heavily soiled surfaces.

### **Experimental Material**

As a general rule, plates should be collected in autoclave bags and autoclaved. Discarded liquid cultures should be made up to 5% Trigene.

Remember that, as with all disinfectants, over dilution will make Trigene ineffective. After treating for 1 hour, liquid material can be discarded to the drains. Disposable plastic ware should be disposed of as normal waste.

Small volumes of low risk human blood (and other body fluids) should also be made up to 10% dilution and treated for at least 30 minutes, before being discarded to the drains. Consult the Area Safety Officer first if you need to dispose of large volumes of blood.

Blood from high risk groups must be discarded via the clinical waste system - consult the Area Safety Officer.

### **EXPLOSIONS AND FIRE HAZARDS**

**Bench Fires:** Evacuation of persons must take the highest priority, but if the fire is very small inform a member of staff immediately.

Switch off the gas supply to the Bunsen burners and other heat sources e.g., furnaces. If liquid is burning in a container such as a beaker, it should be left to burn away or smothered with a fire blanket; and then a fire extinguisher may be used to complete extinction if necessary. Care should be taken when using an extinguisher. It is easy to spread the fire by knocking over the beaker; therefore the extinguisher should be directed away from the fire and then cautiously brought near it.

**Hair on Fire:** Smother with a damp cloth

**Clothing on Fire:** Push the casualty to the ground with the flames on top. Smother the flames by spreading a fire blanket on top of the flames.









## SECTION 2

### SPECIFIC INSTRUCTIONS FOR LABORATORY UNDERGRADUATE AND MASTERS PROJECTS AND DISSERTATIONS

#### Health and Safety Responsibilities of Supervisors towards Postgraduate and Undergraduate Students.

In 1989, the CVCP issued a note of guidance on responsibilities of supervisors following an accident in a laboratory. This guidance relates to task supervision for health and safety and is not directly concerned with academic supervision.

#### The guidance

Universities have a legal duty to provide such supervision as is necessary to ensure the health and safety of both postgraduate and undergraduate students. When dealing with postgraduate students, it is important to understand that relying solely upon a student's status or competence cannot discharge this duty.

Responsible staff must be able to demonstrate that they have exercised a supervisory role, within the systems of work and monitoring arrangements.

#### Risk Assessment and levels of supervision

No dissertation or project work can take place until a Risk Assessment has been carried out. Specific Health and Safety guidance will be given at the planning stage in conjunction with your supervisor. Full operating instruction will be given in the use of relevant laboratory equipment e.g. pipettes, centrifuges, autoclaves analytical instrumentation.

No work to be carried out in any laboratory without authorisation from the supervisor in charge.

### STUDENT PROJECTS

The project must be properly assessed and the supervisor must satisfy himself that safe working practices are in place and recorded by a written risk assessment, which must incorporate local rules as well as the health and safety regulations. Unless of course that the risk are not significant.

Any precautions, which may be necessary, are agreed between the supervisor and student and recorded. The supervisor to ensure that the student is following the agreed procedures carries out regular checka a3(s)6( )in /MCID 23 BDCIC Piccar2(uc)4(,0 MCID 2(c)4(ar234ui)s-3.9(y)4( )2.h0(as



