

EQUIPMENT

All students taking Plant Sciences or Environmental Sciences modules should acquire dissection kits for laboratory work: these must include a fine forceps (blunt forceps are of little use); also a couple of mounted needles.

All field courses will require:

- Weatherproof clothing (protection against soaking and/or chilling may be required at any season!)
- Stout footwear (suitable for both rough and wet terrain - mountaineering boots are the most generally suitable, but rubber boots may be preferred for wet lowlands).
- Handlens (x 10 or x 8 are the most generally useful; x 15 or x 20 are valuable for finer details, e.g. for bryophytes).
- Notebook (waterproof is recommended).
- Relevant plant identification books.

FINANCE

The Department makes every effort to keep down expenditure on field courses. However, it is necessary that students should budget appropriately. For information on financial assistance, contact: Senior Tutor's Office, No. 27, College or your tutor.

Note:

Students receiving local authority grants may be eligible for local authority support. Letters confirming attendance on courses can be obtained from the Head of Department.

Please note:

If cheques from Local Authorities are not received before the start of the Field Course, students will be required to pay the full amount and will be refunded this amount on receipt of cheques from Local Authorities. You are therefore advised to apply to your local Authority for funding well in advance of the Field Trips.

SAFETY

LABORATORY AND FIELDWORK SAFETY

Legal Background

The University must exercise a "duty of care" to employees and those they supervise. This duty of care is recognised in both criminal and civil law. There is also a duty on everybody to take reasonable care for their own safety and the safety of those around them.

The Laboratory

In formal laboratory exercises you will be under supervision in a controlled environment where all reasonable safety precautions have been considered and all hazards identified. For that reason laboratory safety is reasonably taken care of provided you follow the instructions of those in control of the laboratory. However, you have a duty of care for yourselves and those who may be affected by your actions. This means that your behaviour in the laboratory must be such that you

do nothing to place either yourself or other laboratory users at risk. There is only so much we can do and you have a legal obligation to follow instructions, look out for yourself and do nothing to put either yourself or others at risk.

Instrumentation in a laboratory is one area where this can be a problem. If you have never used an instrument before you will not know the potential danger it may pose. Do not interfere with any piece of equipment. You may muddle through with it but you might also cause injury to yourself or others. The staff, both academic and technical, along with the demonstrators, are available to instruct you so always ask to be taken through the use and dangers of any piece of equipment which you have to use.

Fieldwork

Fieldwork is defined as any practical work carried out in the field by staff or students of the University for the purpose of teaching and/or research. By definition it occurs in places which are not under the control of the University, but where the University is responsible for the safety of its staff and students.

Please note:

Voluntary and Leisure activities are excluded.

Outside of Voluntary and Leisure activities, the Head of Discipline has overall responsibility for health and safety in their area. They are required to ensure that the risk assessment of the fieldwork is made and to ensure that a safe system of work has been established for all staff and students. This duty is frequently delegated to the member of staff organising the fieldwork. The Head of Discipline must ensure that the fieldwork meets the safety criteria of the School, and that accidents are reported and investigated. There is a Department Safety Officer, who is responsible for day to day safety matters.

There is a duty on the fieldwork participants to take reasonable care for their own safety and the safety of those affected by them.

Some staff and students may be unable to carry out certain types of fieldwork due to any number of physical or medical conditions and early identification of such problems is essential.

There are a number of forms that must be completed before Laboratory or Fieldwork is begun. Please note that it is compulsory for each student to fill these forms in prior to beginning fieldwork. The forms must be returned to Discipline Safety Officer.

Relevant and suitable protective equipment must be worn. Participants must dress appropriately especially in cold and wet conditions. When the activity involves the use of boats other than registered ferries appropriate life jackets must be worn.

The School of Natural Science has prepared a detailed set of instructions relating to field-work. These will be issued prior to the first field course.

FIRE

Fire Prevention

Copies of the College General Fire Notice are displayed in the Department. Familiarise yourself with the instructions in case of fire. Individuals are responsible for checking the fire precautions in their own work areas. Any defect or potential fire hazards should be reported to the building Fire Warden

Note the position of fire extinguishers in your working area. Familiarise yourself with the operating sequence for each extinguisher. It is a criminal offence to misuse a fire extinguisher.

Before leaving offices or laboratories:-

- ensure that all litter bins do not contain any smouldering materials.
- do not leave litterbins under or near to any combustible items e.g. desks, tables, shelving etc.
- close all filing cabinets and presses.
- switch off and unplug electrical equipment not in use.

In Case of Fire

There is a fire alarm system in the buildings controlled by Botany. If the alarm bells ring or someone shouts 'fire', all persons in the building *must* exit as rapidly as possible and assemble at the east end of the rugby pitch.

For emergency exit from the Luce Hall laboratories, unlock the exit doors using keys stored behind glass in a key box beside the doors.

At the assembly point organise yourselves into laboratory or functional groups and the senior person present must take a roll-call. Missing persons must be reported immediately so that a search can be instituted quickly.

If possible, before exiting from the building, turn off all bunsens, electrical equipment etc.,

CLOSE ALL WINDOWS AND DOORS IN YOUR LABORATORY AND IMMEDIATE WORK AREAS.

If possible inform the *Front Gate Security Officer*, **emergency no. ext: 1999** or the **24 hour security no. ext: 1317**, who will call the fire brigade. Then inform the *Chief Steward*, **ext: 1144**. There is an emergency phone on the ground floor of the Botany Building for this purpose. Warn firemen of possible missing persons and potential hazards in the area of the fire – hazardous chemicals, pathogens, gas cylinders, etc.

BOMBS/HOAX BOMB CALLS/BOMB WARNINGS

Keep and eye out for suspicious packages at all times. If one is observed report it to the Chief Technician or another staff member. If a bomb is thought to be in the building, procedures essentially follow those employed in the case of fire except that report is made to College authorities on **ext: 1999/1317** (Front Gate Security Officer & 24 hour Security) who will call the Gardai.

FIRST AID

First Aid boxes are placed in every laboratory. These boxes contain a range of dressings and bandages for treatment of minor cuts and burns. Placed on top of each box there should be an eye-wash bottle containing Optrex solution. *DO NOT USE AN ITEM WITHOUT SUBSEQUENTLY INFORMING A TECHNICIAN*. This ensures the incident is recorded and the items used are replaced. A list of trained First Aiders is displayed on each first aid cabinet.

REPORT ANY DEFICIENCY OF THE ITEMS IN OR ON THE BOX TO THE CHIEF TECHNICIAN.

All accidents *must* be reported to the Safety Officer and entered in the accident book which is kept in the Chief Technician's office. An accident report form will be completed. Dangerous occurrences must also be reported on the appropriate form.

In the event of serious accident or medical emergency, quickly report it to the Chief Technician (Main Building) or the senior person present and call the Front Gate Security Officer ext:1999/1317 or call the *ambulance service* at **no. 999** or **6778221** (Tara Street) if necessary. In the event of eye injuries, the victim should be taken *directly* to the Royal Victoria Eye & Ear Hospital, Adelaide Road. *During office hours medical assistance can be obtained from the Student Health Service* ext: **1556/1591**.

In cases involving poisoning call the Poisons Information Centre, *Beaumont Hospital* **no. 837 9964/ 837 9966** or contact the *Pharmacology Department* ext: **1563**.

Familiarise yourself with the standard first aid procedures to be followed in the event of acid and alkali contact with the body, reagent ingestion, cuts, electrical shock, burns, etc. *Refer to the safety wall charts in the laboratories.*

In the field, all staff and demonstrators carry an individual first aid kit. Departmental vehicles carry a more extensive kit. Report all field injuries or illness immediately to the leader of the field trip. You must always adhere to the instructions and directions of the field-leader.

Health and safety issues for laboratory and field projects must be discussed in detail with supervisors.