**School of Natural Sciences**

**Trinity College Dublin**



**School Safety Manual for Fieldwork**

**Contents PAGE**

Protocol 2

Definition of Fieldwork 3

Legal Background 4

Insurance and TCD Travel Insurance Programme 5

Rules of Safety for Fieldwork 7

Risk Assessment Requirements 8

Fieldwork Risk Assessment and Checklists 10

Supervision 21

Training 22

Transport 23

Equipment 24

Protective Clothing 25

Sampling 26

Security / Leisure Time 27

Catering / Hygiene 28

Health Matters 29

Emergencies / Dangerous Substances 30

Extremes of Climate 31

Extreme Environments 32

Working in and around water 32

Reporting Incidents and Accidents 35

Fieldwork Risk Assessment and Control Measures 36

Risk Assessment Completion Form 41

Lone-working Risk Assessment 42

Forms to be completed by All Fieldworkers 62

**Appendix**

Simplified Checklists 68

Small Boat Checklist 73

Float Plan 74

Accident Report Form 75

Copy of Risk Assessment Form 77

**PROTOCOL**

Any person undertaking fieldwork whether, Staff, Postgraduate Student or Undergraduate Student, must firstly consider the proposed fieldwork and students must discuss the proposed fieldwork with his/her Academic Supervisor and have their consent prior to undertaking any work. Similarly, the relevant Academic Supervisor should agree upon any associated laboratory work, before being undertaken. Students must read this handbook prior to undertaking fieldwork. It has been designed for the safety of all personnel associated with the fieldwork. All persons have a legal responsibility to take due care and safe practices must be adhered to at all times. If any questions or issues arise and the student cannot contact their Academic Supervisor please contact the Head of Discipline or the Discipline Safety Officer.

Further information may be obtained from **NatSciHandS@tcd.ie**

Terence P Dunne

School Safety Officer (2008-14)

Updated by Alison Boyce

School Safety Officer (2014-date)

**DEFINITION OF FIELDWORK**

Fieldwork is defined as any practical work carried out by staff or students of the University for the purpose of teaching and / or research in places which are not under University control, but where the University is responsible for the safety of its staff and students and those exposed to their activities.

The following activities could be considered as examples of fieldwork from the School of Natural Sciences. Surveying, sampling in all disciplines on land, in water and in air, etc.

The risks involved in voluntary and leisure activities are not included in the document on Fieldwork Safety. However, staff and students on residential fieldtrips should be aware of the particular risks inherent in spending recreational time in unfamiliar locations, particularly bars and clubs, and in travelling to and from those locations and in their place of temporary residence. All residential fieldtrips are advised to take necessary precautions during their recreational time, and students must keep staff on the fieldtrip informed of their plans.

**LEGAL BACKGROUND**

Universities must exercise “duty of care” to employees and to those they supervise and this duty is recognised in both criminal and civil law. There is also the moral duty that a supervisor has towards the pupil. It is the responsibility of the governing body of the University through its officers to ensure that statutory requirements are met and that appropriate standards are applied.

Heads of Discipline have overall responsibility for health and safety in their Disciplines and are required to make a suitable and sufficient assessment of the risks to the health and safety of staff and students, and to the risks to the health and safety of persons not in the University’s employment, arising out of or in connection with the work being undertaken.

It is therefore the responsibility of the Head of Disciplines to ensure that the risk assessment for all fieldwork is made and to ensure that a safe system of work has been established for all staff and students. The School of Natural Sciences has Risk Assessment Forms, which must be filled out by fieldtrip leaders and signed by Heads of Discipline or someone assigned by him/her. (Copy enclosed in this handbook).

Frequently the Head of Disciplines will delegate this duty to the member of staff organizing the fieldwork. In such circumstances the Head of Disciplines must be satisfied the person to whom they have delegated has the competence to lead and sufficient awareness of the legal situation to those under their supervision. The Head of Disciplines must ensure that the fieldwork meets the safety criteria of the Disciplines and that all accidents are reported and investigated.

Some staff and students may be unable to carry out certain types of fieldwork due to physical, psychological or cultural considerations and early identification of such matters is essential.

It is compulsory to have the forms supplied filled in by each participant.

The Head of Disciplines must ensure that workers are adequately trained and adequately informed.

There is also a duty on the fieldwork participants to take reasonable care for their own safety and that of those affected by their work. They must also notify those in authority of any issue they do not clearly understand.

**INSURANCE**

Staff and Students of Trinity College Dublin on authorized College business, are covered by the College’s Liability Insurance. This provides cover for any liability that College incurs as a result of negligence on the College’s part.  It is not a no-fault compensation fund nor does it cover medical/repatriation as a result of illness or accident that is not the College’s fault.  If a staff member of student is injured during the course of their work and they felt this was due to negligence on the part of the College, they would need to make a claim to the College which would be assessed and a decision taken on the veracity of that claim taking all factors into account. The cover is not restricted to T.C.D. campus only, subject otherwise to the usual terms, conditions and exceptions. This policy applies to laboratory work, fieldwork and placements with external bodies.

**Trinity College Travel Insurance Policy**

Information and Travel forms available from the Estates and Facilities at: https://www.tcd.ie/estatesandfacilities/shared-admin-and-support/insurance/

**Background**

Trinity College Dublin has a business travel Insurance Scheme with AIG

**Policy No:** HGC66736

**Persons Insured**

Any person (excluding students other than Postgraduates) over the age of 17 authorised by the College to travel on College business (including incidental holiday travel if in the same country as business destination). Excluding persons on long-term secondment. This insurance does not cover Undergraduate Students working on course related work. It is recommended that Undergraduate Students travelling abroad for placements, fieldtrips or course related fieldwork ensure they are covered by a separate travel insurance policy as the College’s Liability Policy does not cover all eventualities. Information at:

https://www.tcd.ie/estatesandfacilities/shared-admin-and-support/insurance/

**Maximum duration of any one trip no longer than six months.**

**Journeys Covered**

Any journey undertaken by an insured person on official business of Trinity College Dublin which commences during the period of insurance and involves travel that starts and finishes in Ireland.

**War and Terrorism Exclusion**

This policy excludes cover for certain areas of unrest. Please refer to the College Travel Insurance Webpage, staff link above, for such exclusions.

**Staff and students are asked to download and check the Department of Foreign Affairs website**

**Cover Requirement**

Cover is only operative provided the journey is authorised by your Head of School/Administrative Area and a travel insurance form has been completed and returned to the Estates and Facilities Department, West Chapel, prior to the commencement of the journey. This may be done on-line or a hard copy may be printed out and returned to the Estates and Facilities Department, West Chapel, College. This is subject also to the adherence of the protocol advised under the Areas of Unrest detailed at: <https://www.tcd.ie/estatesandfacilities/shared-admin-and-support/insurance/>

And

https://www.dfa.ie/travel/travel-advice/

**Claims**

A claim under the policy should be notified immediately to insurance@tcd.ie or to the Estates and Facilities Department, West Chapel, College. In the event of property loss, the local police should be notified, and a statement obtained from them that the matter is noted and will be investigated. Luggage loss, in the custody of an airline, must be reported to the airline and a report obtained from them. All reports, medical certificates, receipts and proof of travel must be retained to support any claim.

**Lifeline Plus Assist Emergency Medical Assistance**

Tel: +44 124 362 1053

First Assist operates 24 hours a day 365 days year. As well as medical assistance the First Assist Travellers Helpline will provide the following assistance:

* Advice on replacement of lost or stolen tickets, passport or travel documents
* Assistance in liaison with carrier on location of lost luggage items
* Emergency message relay to family or business associate where normal channels fail
* Referral to Embassy or Consulate where legal consultation is needed
* Multi-lingual assistance co-ordinators speaking more than 15 languages
* A network of doctors and nurses throughout the world.

**N.B. The services of the Lifeline Plus Assist Helpline are to provide advice and assistance only - there is no insurance cover in connection with these services.**

 **RULES OF SAFETY FOR FIELDWORK**

1. The Heads of Discipline must ensure that before any activity is undertaken a suitable and sufficient assessment of the hazards involved is made and safe systems of work are devised based on recommendations of this document.

2. Supervision of people undertaking activities must be adequate. All groups must have a leader whose authority and responsibilities are clear to everyone.

3. Independent activities may only take place if a thorough risk assessment has been made and clear safe guidelines have been laid down.

4. Itineraries of all trips must be left with a responsible person. Contact must be maintained on a planned basis.

5. Leaders and participants in activities must be suitably qualified and experienced. No one should have to undertake tasks beyond their competence and abilities.

6. Adequate precautions must be taken to protect participants from the hazards of the environment, and fieldwork activities should cause minimum harm to the environment.

7. Local safety rules of the owners of sites visited must be observed.

8. Fire risk must be kept to a minimum.

9. Adequate protective clothing must be worn, with the clothing being suitable for the environment in which the work is being carried out. If there is any doubt as to what clothing is necessary for particular fieldwork, advice should be sought from a reliable and qualified source.

10. Contingency plans for dealing with emergencies must be made and appropriate medical and first aid cover must be arranged. If any members of a fieldtrip group have particular needs (medical, cultural, personal, etc.), they must inform the leader prior to taking part on the fieldwork, as the leader will need to assess the situation in regard to the individual concerned.

11. Equipment used on fieldwork must be suitable for its intended use. It must be well maintained and in a safe condition.

12. Any dangerous substances or items must be handled, stored, transported and disposed of in a safe manner according to transport law.

13. Reasonable standards of personal hygiene must be maintained at all times, and all catering must be in carried out in a hygienic manner.

14. All fieldwork, whether from a particular discipline or of a Student Society, must be adequately insured through the University.

15. Any vehicles used for fieldwork must be well maintained and be driven only by qualified and insured drivers.

FIELDWORK RISK ASSESSMENT

Before any activity is undertaken, no matter how simple, the organisers and leaders must make a thorough assessment of the likely risks involved. The assessment of risk by definition calls for a thorough systematic consideration of all aspects of the work. Expert advice must be sought where necessary. The more elaborate and potentially hazardous the fieldwork the more extensive this assessment should be. Risk Assessment of work activities is a legal requirement. The risk assessment procedure for fieldwork should be geared to the perceived level of risk and should run parallel to the planning procedure.

The following factors should be considered when assessing the risks for fieldwork from the School of Natural Sciences

1. What experience and qualifications have the leaders and participants, and is the staff student ratio 1:10 or less? If not, the risk assessment must state why.

2. Which potentially hazardous activities will be undertaken e.g. diving, lifting, caving, rock climbing, etc?

3. Is the environment hostile? Hostilities may take the form of environmental surroundings, natural or built, the nature and number of people in the surrounding area, prevailing cultural norms or expectations, the prevailing weather/climate/terrain of a region, etc.

4. What likely climatic conditions, bad weather alternatives and escape routes are likely to be encountered?

5. What is the likelihood of encountering dangerous animals, plants, substances, etc.?

6. What protective clothing, safety-wear and other equipment is necessary?

7. Are there medical call out and emergency services available and are procedures and provision adequate for emergency equipment and its use, and are there suitable lines of communications in the case of accident?

8. What mode of transport and associated hazards will be used and which choice of route is viable?

9. Which possible interpersonal difficulties, including communications and language difficulties could be encountered?

10. Is security an issue? Protections for field work participants, their equipment, belongings and cultural considerations

11. What relevant safety legislation is there?

12. Is Insurance cover and liability suited to the field work site and risks?

**PLANNING FOR FIELDWORK**

The Head of Disciplines or deputy and the Fieldtrip Leader are responsible for planning the fieldtrip at broad and detailed levels. Following the Risk Assessment it should be possible to reduce risk to an acceptable level. A safe system of work must be devised in the light of the assessment and discussed and agreed with the Heads of Discipline and the Safety Officer. This should be clear, brief and specific. All participants on the fieldwork must be familiar with the safe system of work. Participants must be informed and permitted to ask for clarifications at pre-fieldwork information sessions.

The discipline must be aware of the activities of the fieldwork groups. A work plan and proposed journey and timetable should be deposited in the discipline and updated as necessary.

If in the work site is remote or of high hazard, the appropriate authority must be notified e.g. the coastguard, mountain rescue, cave rescue, etc. Independent workers, although not recommended, must notify the appropriate persons on a daily basis.

Communications must always be maintained on a planned basis and a search undertaken if people do not check in.

If an activity requires an absence of more than 24 hours, participants should keep the following information on their person;

1. Name and address. (Term time address for students if appropriate)

2. Name and address of next of kin in case of emergency.

3. Name and address of G.P.

All relevant information such as contact names, phone numbers etc. should also be kept in the Discipline.

RISK ASSESSMENT FORM TO BE FILLED IN BY FIELDTRIP LEADER

PRIOR TO ANY FIELDWORK

THIS MUST BE SIGNED OFF BY

 HEAD OF DISCIPLINE

# OR A DEPUTY

FIELDWORK RISK ASSESSMENT

Fieldwork should never involve a significant risk to your safety or the safety of others. One should always seek to identify any significant risks that might be associated with planned activities before considering: first, how these risks might be eliminated; second, if the risks cannot be eliminated completely and the precautions that can be taken to ensure an acceptable level of safety is maintained.

Assessments of risk should be suitable and sufficient rather than elaborate and minutely detailed. When identifying and evaluating risks and appropriate precautions you should base your assessment on what a well-informed person would consider reasonable.

What hazards or risks are associated with the activities you intend to undertake?

Almost all activities involve some degree of risk. You should consider particularly those risks that:

* are specific to the planned activity

e.g. are associated with working in and around rivers

* can be reasonably foreseen e.g. sunset times
* are likely to have serious consequences

e.g. result in injury

* may be accentuated by any physical conditions, cultural practices, etc. that one might need to consider at the time of fieldwork.

One should also give some thought to the possible ethical implications of the fieldwork. Sometimes research can have serious consequences for the groups or individuals in the study..

What hazards or risks are associated with the location(s) being worked and the time at which you are carrying out fieldwork?

* Some activities may be effectively risk free in some locations but potentially dangerous in others.

For example, it is reasonable to anticipate that conducting an interview in the head office of a large company will be relatively safe whereas conducting interviews in other situations may involve a higher degree of risk.

Similarly, some activities may involve an unacceptable degree of risk simply because they are taking place in remote and isolated locations.

* Some risks vary according to the time of the fieldwork. For example, working at night often involves a higher risk than the same work carried out during the day.

What precautions will be taken to mitigate risk?

* Can the risk be totally eliminated?
* If the risk cannot be totally eliminated, can one ensure an acceptable level of safety?

If neither of the above conditions is met, you should not undertake the activity concerned.

#####

##### CHECKLISTS

##### The following flowchart details the process leading up to completion of the Risk Assessment form. Checklists are a preliminary step in determining the hazards that may occur during your planned fieldtrip. Control measures to mitigate risks are available in the Risk Assessment section, pp 34-38

Prior to undertaking any field trip, tick the relevant boxes and look in detail at the risks, consider and implement control measures. Only then may you complete the Risk Assessment form (page 39), which must be handed to the Head of Discipline, along with the coversheet.

Less detailed checklists (without descriptions) are available in the Appendix.

Checklist Cover Sheet

Risks inherent in site

Checklist 2

Risks inherent in work

Checklist 3

Organisation of work

Checklist 4

Conduct of work

Checklist 5

Feasibility

Checklist 1

Proceed to Risk Assessment form

**Cover Sheet**

### Field Trip Leaders

……………………………

……………………………

…………………………….

…………………………….

Field Trip Location and Brief Description

……………………………………………………………..

…………………………………………………………….

…………………………………………………………….

Dates From……………….. To………………………..

**CHECKLIST 1 FEASIBILITY OF FIELDTRIP**

**ACCESS** Travel Arrangements. Ensure everyone knows dates and details. Ask participants to provide details of any specific requirements. Allow plenty of time to make suitable bookings for travel and accommodation. ****

Permission to work on site. Ensure prior permission for access to

private property has been obtained. 

Provision for participants with particular needs e.g. ability, gender, culture as above. Provide requirements where necessary.

Availability of assistance. Get emergency phone numbers for locality

in advance of any fieldwork. 

Accommodation. Ensure all accommodation is satisfactory and safe. Consider whether dormitories, single rooms, tents and hygiene facilities will suit specific needs. 

Insurance. Get travel insurance where needed. 

**FITNESS** Pre expedition training should be undertaken when necessary. See Health Questionnaire below. 

**TRAINING** Ensure some or all participants on any field-trip are adequately

trained in particular areas as required.

Navigation 

 First aid and use of PPE 

 Languages 

 Interpersonal skills 

 Hygiene / health education 

 Specific skills e.g. diving, caving. **See Checklist 3** 

**HEALTH** Health questionnaire must be filled in by students prior work 

 Medical / dental checkup where necessary. 

 Vaccinations when applicable to area or work. 

First aid kits must be taken on all fieldwork and are maintained and available

from the DSO or (Chief) Technical Officers. 

Personal care kits containing hygiene products must be taken and participants informed of their location 

**STAFFING** Staff / UG student ratio should not exceed a ratio of 1:10 

 Competence of leaders. Leaders should be safety trained 

Appointment of deputies. Only suitable and competent people

can be appointed leaders/ deputies. 

# CHECKLIST 2 RISKS INHERENT IN SITE

**PHYSICAL HAZARDS** Leaders should make participants aware of the

following possible hazards. All precautions including

weather forecasts should be taken into account.

Extreme weather 

 Mountains and cliffs 

 Caves, mines and quarries 

 Beaches and seashore  Sea, lakes and rivers 

 Forests  Roadside 

 Urban areas 

**BIOLOGICAL HAZARDS** Leaders should make participants aware of potential

hazards in this area.

Animals 

 Plants 

 Pathogenic micro-organisms 

**CHEMICAL HAZARDS** Leaders should make participants aware of potential

hazards in this area.

Agrochemical and pesticides 

 Dusts 

 Chemicals on site 

**MECHANICAL HAZARDS** Leaders should make participants aware of potential

hazards in this area.

Machinery and vehicles 

 Power lines and pipes 

 Electrical equipment 

 Insecure buildings 

 Slurry and silage pits 

 Attack on the person or property 

**ENVIRONMENTAL HAZARDS** Leaders should make participants aware of

 potential hazards in this area.

Pollution 

 Disturbance to Eco-system 

 Waste minimization 

## HEALTH HAZARDS Where applicable any of these hazards relevant to the particular fieldwork should be brought to the attention of the participants.

 Dehydration 

 Insect Bites (Mosquito) 

 Animal Bites 

 Sunburn 

 Allergies to local factors 

 Lyme’s / Weil’s diseases 

 Food-poisoning 

 Excess alcohol 

 Misuse of listed substances 

 Impure water

Lack of toilet facilities 

**ACCOMMODATION** Every participant should treat the accommodation with respect and take other people into consideration. Participants should be made aware of potential hazards in the accommodation as per list below.

Stairs 

 Balconies 

 Misuse of Lifts 

 Correct use of swimming pools 

 Communal toilets or bathrooms 

# SOCIAL / RECREATIONAL

# HAZARDS Participants must be made aware that there

# are hazards associated with recreational/social

 pursuits.

 Swimming 

 Alcohol Excess 

 Illegal Substance Abuse 

 Stay within capabilities 

 Local cultural norms 

# CHECKLIST 3 RISKS INHERENT IN WORK

**TRAINING** Ensure some or all participants on any field trip are adequately trained in particular areas as required.

Navigation, map reading and compass work 

Driving 

 Survival / rescue 

 First aid 

 Specialist training e.g. Conduct on boats 

 Advanced driving 

 Diving 

 Caving 

 Rock climbing 

 Hill walking 

 Ladders and scaffolding 

 Other 

**PERSONAL** The following should be brought to the attention of the participants.

Risk of attack and risk to specific groups; gender, ability etc.

 Communication as routine 

 Communication in emergency (Emergency phone numbers)

 General Road Safety 

# CHECKLIST 4 ORGANISATION OF FIELDWORK

#### To avoid risks co-ordinator or S.O. must take note of the following

**PRE-PLANNING** Travel documents. Valid passport, visa, insurance 

 Note of next of kin and GP 

Note of particular medical conditions, food allergies, allergies 

 Note cultural, religious, gender considerations 

 Appropriate authorities informed 

**CATERING** Provision of food 

 Who will prepare food 

 Hygiene 

 Portable and potable water supply 

Food preparation (separation of food categories) and storage 

 Fuel for cooking 

**THE GROUP** Leader (experience / competence) 

 Chain of command 

 Staff / student ratio 

 **Interpersonal relationships** 

 Max. / Min. size of group 

 Responsibilities for aspects of work 

 Accommodation arrangements 

**THE INDIVIDUAL** Avoid lone worker situations 

 Adequate and suitable clothing 

 Individually trained and fit 

 Physical abilities 

 Cultural considerations 

 Gender considerations 

**EQUIPMENT**  Fit for purpose 

 Used properly 

 Well-maintained 

 Repairable on site 

# CHECKLIST 5 CONDUCT OF FIELDWORK

#### To avoid risks take note of the following

 **CONDITIONS** Weather forecast 

 (Local) Local knowledge 

 Farming practices 

 Itinerary and return times 

**TRANSPORT** Appropriately licensed drivers/vehicle 

 Correctly maintained 

 Correctly loaded 

 Appropriate spares 

 Seat belts 

 Fuel 

**THE GROUP**  Roll call 

 Correctly equipped 

 Not overloaded 

 First aid kit 

 Personal Care Kits 

 Survival aids (satellite phone, buoyancy aids, throw ropes, flares) 

 Group size and supervision 

**WORKING** Avoid lone worker 

**PRACTICES** Communications 

 “Buddy ” system or lookouts 

 Safe working systems 

 Permit to work 

 Worker trained and fit 

 Time to be spent working

 Comfort stops, breaks and meal times to be

provided to entire group 

**EMERGENCIES** All participants should be made aware of procedures in an emergency including taking note of the following.

Communications including emergency numbers 

 Protection of remaining group 

 Chain of command 

 Trained personnel 

 Evacuation 

 Recovery of casualties 

Detailed information on checklist items:

SUPERVISION

Fieldwork and outdoor activities cannot normally be as well supervised as other work so considerable responsibility lies with the leaders and organisers, who in turn are responsible to the Head of Discipline, to ensure that adequate supervision is given. If sub-groups are formed there should be a chosen leader for each group.

It should be clearly understood by all fieldworkers that they are in a work situation and are acting under supervision.

It is the duty of the fieldworker to ensure access to sites is legal. If work takes place off public land the permission of the owner must be obtained.

Supervision levels for fieldwork will vary. An undergraduate student group will require more supervision than a postgraduate group, but the leader must ensure that the supervision given is adequate to the situation at hand.

**There are three levels of supervision applicable to the fieldworker.**

1**. Fully Supervised Courses**

These are usually of low hazards and safe environments and of short durations. Staff closely supervise these, and the students do not work independently nor are they intentionally exposed to hazards. In the case of UG courses the student / staff ratio should be about 10:1. As many of the students participating in such courses may be inexperienced, safety instruction should be an integral part of the work, and the students should be made aware of any local rules applying to sites etc. Taught PG courses may exercise a more relaxed student to staff ratio provided the risk assessment allows it.

2. Field Expeditions

These may be prolonged and in environments which are remote and potentially hazardous. Participants are normally experienced and trained. Where participants are inexperienced, have specific cultural, gender or age (e.g. under 18) requirements, the risk assessment must reflect all factors.

There must be a leader whose authority is clearly defined and understood by all and who is trained in the appropriate skills. A deputy must be appointed in case of injury to the leader. Particular care must be exercised in places where climate is likely to be extreme and where terrain is dangerous or social environments may be hostile to certain genders, race, cultures or creeds.

**INDEPENDENT ACTIVITY (THE LONE WORKER)**

It may be necessary for some activities to be undertaken alone, although this practice should be discouraged. Lone working should only be allowed after consideration of the risks, taking into account the remoteness of the area, the nature of the work and the experience of the person concerned. The students should always be made aware that they are under supervision and that their supervisor has overall responsibility for their safety. Some activities such as caving, diving and rock climbing should never be undertaken alone.

If undergraduates are expected to work alone the Discipline must lay down clear guidelines on the scope of the activities, which may be undertaken, the type of terrain that is suitable for the fieldwork, the experience and training required, and the safety and supervisory arrangements. They should have effective communications means at all times. (Lone Working Risk Assessment pp. 40-49.

**TRAINING**

The skills required for outdoor fieldwork are varied and it is important that all concerned are adequately trained before or during the activity. Nobody must be asked to assess tasks beyond their competence or confidence or physical ability. It is vital that leaders have adequate training and experience.

Experience for fieldwork in Natural Sciences could include training in the following;

1. Survival.

2. Life saving, mountain-rescue, first aid, resuscitation, etc.

3. Avoidance of health hazards and handling dangerous substances.

4. Fire safety.

5. Physical fitness.

6. Lifting and carrying.

7. Navigation and map reading.

8. Care and maintenance of equipment.

9. Driving vehicles, handling boats, swimming, riding, hill walking, caving, and diving.

10. Use of protective clothing.

11. Communications. (Radio, satellite phone)

12. Collecting specimens.

13. Catering and hygiene.

######

###### TRANSPORT

Walkers / Hikers

Conducting a group of walkers / hikers may require considerable vigilance on the part of the leader, especially if the terrain is rough and the walkers are inexperienced.

The following points must be borne in mind and participants informed in advance of fieldwork.

1. The itineraries must be planned carefully and adequate time allowed to accomplish objectives whilst allowing for adequate breaks in suitable facilities

2. Walkers / hikers must be appropriately dressed. Particular attention should be given to footwear and weather resistant clothing.

3. Adequate equipment must be carried e.g. torches, first aid and care kits, emergency food supply, maps, whistles, bivouac bags, etc. Leaders must ensure participants are trained and have the knowledge and ability to use the equipment.

4. Adequate supplies of food and drink must be taken, and regular breaks for food and rest must also be scheduled.

5. The loads being carried must be matched to the physical ability of the participants.

6. Vigilance must be maintained for stragglers and those in difficulties. An experienced person should take the rear position.

7. Great care must be taken when crossing dangerous terrain especially in times of poor visibility.

8. Anyone walking along roads at night should wear reflective clothing and carry a rear light.

9. Accurate weather forecasts should be obtained where possible prior to any fieldwork.

**MOTORISED VEHICLES**

These are often necessary for fieldwork and the risks of accidents and breakdowns must be minimized.

The following should be noted

1. Only qualified drivers can drive and only if adequately insured to do so.

2. Nobody whose faculties are impaired to a dangerous extent by fatigue, injury, illness, alcohol or drugs may drive.

3. Vehicles must not be driven in a careless fashion.

4. Vehicles must be maintained in a safe reliable condition.

5. Seat belts must be worn where legally required and appropriate.

6. Loads must be secure and not excessive or dangerously distributed.

7. If dangerous substances are carried they must be safely packed and have warning signs displayed in and on the vehicle e.g. diving equipment

**BOATS**

Where boats are used in fieldwork, lifejackets or buoyancy aids must be worn at all times. The leaders must be suitably qualified and everyone must be able to swim (at least 50 m under normal conditions). Clothing should be appropriate. The boat should be suitable for requirements and not overloaded. The party aboard should have adequate equipment e.g. tool kit, flares, etc. The leader should know the area, know the tides and local conditions, and listen to the weather forecasts. All should be familiar with rescue procedures and provided with emergency phone numbers

**PUBLIC TRANSPORT**

All staff and students must conduct themselves in a safe manner so as not to endanger themselves or other people. They must comply with the rules and regulations of the carrier, and dangerous items should not be carried.

**EQUIPMENT**

1. All equipment for fieldwork must be selected for its suitability and safety and must adhere to appropriate standards.

2. All equipment should be thoroughly checked and tested by competent persons prior to use and special tests should be arranged in the case of diving bottles, etc.

3. Items essential for survival should be duplicated and carried by different members of the group.

1. Equipment should be operated in a safe manner, by trained persons with safety guards used, where appropriate. People using tools should be trained to do so.

5. Equipment, which has become contaminated by any source, must be decontaminated before use or before storage e.g. zebra mussel

6. Damaged equipment must be repaired or replaced and should not be used if it creates a potential hazard.

**ELECTRICAL EQUIPMENT**

1. Equipment must have accessible and identifiable means of isolation.

2. Equipment must be mechanically and reliably sound, and live terminals should be insulated.

3. All batteries should be insulated.

4. Any damaged cables must be replaced or repaired immediately.

5. Equipment should not be operated in damp or wet conditions, unless designed for such use.

6. Plugs, sockets, extension leads, etc. must comply with set standards.

7. Mains equipment used out of doors should be protected by earth leakage or circuit breakers and where possible operated at a reduced voltage of 110 volts.

**PROTECTIVE CLOTHING**

Adequate and relevant protective clothing, which is in good condition, must be worn on fieldwork. After use it should be removed, stored, cleaned and repaired or discarded as appropriate. If contaminated it should be decontaminated or discarded and never worn in clean areas or near food or drink.

**Points to be noted with regards to protective clothing on Fieldwork**

1. Leaders should ensure that participants are appropriately dressed especially in cold and wet conditions and trained in use of PPE.

2. High visibility outer clothing should be worn at all times, unless it will effect research e.g. animal behaviour

3. Safety helmets and goggles, which are available from the disciplines, must be worn if there is a possibility of a risk to the head or eyes by the nature of the fieldwork being undertaken.

4. Respiratory protection must be worn if there is a possibility of risk from dangerous fumes.

5. Ear protectors must be worn if there is a risk to hearing. Care should be taken in this area when using drilling equipment.

6. Gloves must be worn if there is a possibility of injury to hands and they must be appropriate to the job in hand.

7. Safety shoes should be worn if there is a danger to feet as in the case of lifting heavy items. When the fieldwork includes large elements of walking / hiking appropriate footwear should be compulsory, and all other footwear should reflect the type of fieldwork in hand e.g. rock climbing dictates that a certain type of footwear is used, etc.

8. Plastic or rubber aprons and boots must be worn where the fieldwork so dictates e.g. where there is splashing of certain chemicals etc.

9. People working in boats must always wear lifejackets or bouyancy aids, which are manufactured and tested to an acceptable standard.

10. For specific types of fieldwork relevant protective clothing is worn that it is to the acceptable standards e.g. work gloves with secateurs, dark glasses in bright sunshine

**SAMPLING**

Before starting activities, the surroundings should be examined carefully and hazards noted. Particular care should be taken where there is danger from avalanches, falling rocks or other objects, caves, mines, derelict buildings, trenches, military ranges, overhead power supplies, traffic, marshy or boggy ground, quicksand, tides, fire, flood, volcanic activity, dangerous animals, extreme climatic conditions, volatile political situations, dangerous persons etc.

The following are worthy of note when sampling

1. Protective clothing must be worn as appropriate.

2. If necessary, safety ropes and harnesses must be used.

3. Mudflats, estuaries etc. can be dangerous areas for workers and local knowledge is required. Currents, tides and wave conditions must be assessed.

4. Where necessary lookouts must be posted and information fed to the group.

5. When diving underwater, observations must be made by trained personnel, and the buddy system used, where appropriate. Safe boats and equipment must always be used.

6. Any climbing must be by trained persons only.

7. When working on public or private roads adequate signs and warning must be given to traffic.

8. Scaffolds, photographic towers and ladders must be of sound construction and regularly checked. They must be secured properly prior to use.

9. Excavations must be well planned in advance and protected against collapse and inspected regularly. Sites should be cordoned off and appropriate warning signs displayed.

10. Great care should be taken when visiting derelict buildings and ruins.

11. Quarries and mines present multiple hazards e.g. unstable rock faces, concealed shafts. Appropriate local rules must be adhered to.

12. Contact with potentially dangerous plants and animals should be avoided.

13. Precautions against extremes of heat and cold should be taken and up to date weather reports obtained and shelter provided if necessary.

14. Control of sources of ignition is always necessary.

15. All relevant equipment including maps, compasses, first aid kit etc. should be in the possession of the group and checked prior to undertaking any fieldwork.

16. A communications system should be set up as appropriate.

**SECURITY**

Theft, vandalism and crime can be a problem in both remote and urban areas. Hazards to workers especially lone workers must be considered. The local situation in an area should be evaluated and preventative measures to assist the fieldworker could include:

1. Pre-visits and checks of the area, and its surroundings.

2. Working in a minimum of pairs in earshot of each other. Some cultural requirements may demand single sex pairs or groups. Will some genders be at higher risk.

3. Security locks, anti-theft devices and alarms on vehicles and stores etc.

4. Radios and phones to use on fieldwork.

5. Training in interpersonal skills. Knowledge of local, social norms.

6. Introduction of a monitoring and reporting systems, supervision

**LEISURE TIME**

The potential for accidents to occur during leisure time is considerable. Participants may wander off without any information as to where they are going or they may partake in dangerous activities. The abuse of alcohol can lead to dangerous pranks and can provoke aggression, etc. Participants on fieldwork must be made aware of the standards of behaviour that are expected of them. It should be remembered that all participants on a fieldtrip will be viewed as representatives of the College and as such should act accordingly. Students should be issued with a written code of behaviour before the fieldtrip begins reminding them of their responsibilities and stipulating the penalties to be imposed by the College for unacceptable behaviour. Warnings about behaviour and dangerous activities should be recorded with the ultimate sanction that the Head of Discipline or Supervisor may send the student home for this type of unacceptable behaviour.

**CATERING AND HYGIENE**

Organisers must aim to provide members with a wholesome, balanced diet. Food must be prepared in a hygienic manner with attention to allergies and religious practices.

Points worth noting in regards to catering and hygiene on fieldwork are

1. If going abroad a check should be made on possible foods that could cause problems. All fruit and vegetables should be washed and peeled prior to eating.

2. Drinking water should be carried at all times, especially in hot climates and in inaccessible places.

3. Hands should be cleaned prior to eating and handling food.

4. People in the group with skin, nose, throat or intestinal trouble should not prepare food.

5. All cuts and sores should have waterproof dressings on them prior to handling and eating food.

6. People preparing food should be clean, as should their clothing, and smoking, coughing and sneezing over food should be avoided.

7. All food preparation areas and utensils should be kept clean and the food itself must be clean, covered and kept at the relevant temperature. (Cool below 5˚C and piping hot at 70˚C+)

8. Food should never be cooked one day for consumption on the next.

9. A balanced diet should be provided with adequate protein, mineral salts and vitamins.

10. Waste food must be disposed of carefully and quickly.

11. If stoves have to be used they must be safe, well maintained and clean. Care must be taken with gas cylinders. Care must also be taken to avoid burns and scalds.

12. Toilets must be maintained in a clean and hygienic condition and segregated where necessary

**HEALTH MATTERS**

Organisers and leaders of fieldwork must give consideration to the maintenance of the health of participants in fieldwork. Where necessary the advice of professionals should be sought e.g. doctor or College Health Service.

Completion of the Health Declaration Form is mandatory before commencement of fieldwork: http://www.naturalscience.tcd.ie/healthsafety/

All participants should be reasonably fit, as fieldwork can be more demanding than normal work.

Anyone with a known condition such as diabetes, epilepsy, pregnant, post-partum etc. should notify the leader prior to fieldwork, as health monitoring must be considered. Every effort must be made to include students with a condition on fieldwork but it may be necessary to excuse such students for safety reasons, e.g broken leg on mountain sites

Participants must be instructed in likely health hazards with particular attention being given to

1. Physical hazards of the environment e.g. hypothermia, nitrogen narcosis, sunburn, etc.

2. Chemical hazards.

3. Avoidance of infection from pathogenic organisms.

4. Dangerous animals and plants.

5. Avoidance of food poisoning.

6. Basic personal hygiene.

7. Care of feet.

8. Safe use of repellants.

For fieldwork abroad the leader should check on immunization and ensure that all participants are covered prior to departure. (N.B. Tetanus)

If areas of remoteness are being visited outside of Ireland it is advisable to have a dental check prior to departure.

In the event of illness in the field, prompt attention must be given. Sometimes trivial injuries become serious if not treated. Symptoms of illness or injury must also be watched for by the leader or designated Safety Officer.and reported by fieldworkers to group leader or first aider.

**EMERGENCIES**

Expedition leaders must compile details of relevant emergency services. Bearing in mind the likely hazards of the environment and the type of work being undertaken, reasonable foreseeable emergency plans should be made. The leader has a duty to see that an accident does not lead to further accidents and he must withdraw the students to safety in such a situation. The leader also has a duty to attend to the injured person and to send for medical assistance.

**Emergency situations on fieldwork should cause the following to be considered**:

1. A means of summoning aid. (Radiophone)

2. Provision of emergency equipment. (First-aid kit, etc.)

3. Provision of first aid and medical assistance.

4. Evacuation procedures when a casualty occurs.

5. Decontamination of casualty and equipment if necessary.

6. Liaison with police and rescue team.

7. Reporting of accidents procedure when back at the University.

tcd.ie/estatesandfacilities/assets/doc/AccidentReportForm Nov 2019.doc

**Leaders must be aware of their duties and responsibilities under the Health, Safety and Welfare at Work Act of 2005.**

**THE USE OF DANGEROUS SUBSTANCES**

On fieldwork such substances should be handled with the same degree of care and safety as in the laboratory. Risk assessments should be made and emergency procedures looked at in case of accident. The mode of transportation should also be taken into consideration.

**EXTREMES OF CLIMATE**

In areas of extreme climate breaks must be scheduled and all workers informed. Changes in weather may increase frequency of rest-stops.

COLD URTICARIA

This consists of itching, rhinitis and skin oedema caused by exposure to cold in some individuals. It can be treated with antihistamines.

FROSTBITE

This is tissue necrosis caused by freezing the extremities (particularly the feet) and subsequent thawing. Severe cases may require amputation. The cornea may also freeze in high wind chill situations.

HYPOTHERMIA (EXPOSURE)

This is reduced body temperature leading to coma and death, if not arrested. It is accelerated by immersion in water or by windy conditions. Adequate protective clothing must be worn and travel should not be attempted in high wind chill situations.

HEAT EXHAUSTION

This can cause prostration resulting from a rise in body temperature to 39˚C - 41˚C in hot conditions, and is often accompanied by dehydration. Symptoms include dizziness, nausea and headache. Rises in body temperature above 43˚C may result in the more serious condition of heat stroke where there may be cramps, pulmonary oedema and malfunction of the other organs. These conditions may be precipitated by vigorous exercise particularly in unacclimatised persons. Controlled cooling and re-hydration are treatment methods. Some cultural and gendered standards may determine permitted clothing. In such cases light or less clothing may not be acceptable.

TRENCH FOOT

This occurs due to prolonged immersion in water and is exacerbated by poor diet and restrictive clothes. The symptoms include numbness, itching, leg cramp, swelling, blisters, ulceration and possibly gangrene.

**EXTREME ENVIRONMENTS**

ALTITUDE SICKNESS

A number of conditions can result from exposure to altitudes greater than 8000ft.Serious conditions include high pulmonary oedema, encephalopathy, Venus thrombosis or pulmonary embolism as well as other disabling but non-fatal problems such as acute mountain sickness and high-altitude deterioration. Adequate acclimatisation is essential.

DECOMPRESSION SICKNESS

This can result from inadequate decompression drills by divers. It is caused by gas bubbles in the blood and tissues causing joint pains, fatigue, chokes as well as neurological and cutaneous symptoms.

NITROGEN NARCOSIS

This is known as rapture of the deep and is defined as euphoria resulting from breathing compressed air at depths of 30M (100ft.) of seawater or greater. Substitution of helium for nitrogen in breathing systems eliminates this problem.

**WORKING IN AND AROUND WATER**

When working in or around water specific precautions must be taken. Casualties are often experienced field workers but the volatile nature of water and its environments can create unforeseen problems.

1. Before any trip on or near water undertake a risk assessment to establish the associated risks. No work should be undertaken if there is any risk to your safety or that of others. If a watercraft is being used, discuss the planned activity with the skipper and always be aware that drowning can occur in relatively shallow water.

2. Be familiar with the area and check water levels and tidal effects before any trip. Water clarity, floating debris and eddies should be taken into account.

3. Check the weather forecast and don’t take any chances. Be aware that adverse weather conditions can impede your ability to assess tidal conditions. Wind is highly significant as it affects the condition of water and the buoyancy of floating items and can also contribute to hypothermia.

4. Choose a safe access to the site with no erosion of riverbanks.

5. Wear appropriate high visibility protective clothing depending on task and time of year, the weather and the sea conditions. Always wear suitable life jackets on or near water and try to stay warm and dry. Always wear appropriate footwear and headgear if necessary.

6. Never work alone near or on water and always employ a “Buddy System”.

7. Unless required for work, never wade into swift water and never work in flooded streams, weirs or caves. Tides, currents, temperature, underwater obstructions and depth of mud are all potential hazards that must be assessed prior to any work being undertaken.

8. Be familiar with rescue techniques and carry a first aid kit as well as throw bags when near rivers.

9. Be aware of the dangers associated with sinkholes, slippery surfaces silt and treacherous areas when working within streams.

10. Be aware of contaminants in water often caused by floodwaters, which can possibly carry Hepatitis, Gastro Enteritis or Weil’s disease. There is always a risk of infection in these circumstances and all precautions should be taken to minimize these risks.

11. If working from riverbanks or on a bridge be aware of passing traffic and pedestrians. Always maintain safe hand and foot holds while checking if the structure or bank can hold the weight to be used on it.

12. When wearing waders be aware of water height and avoid wading above the top of waders.

13. Watch for animals and never cross private property without first seeking permission.

14. If using a watercraft be aware of safety and condition, only leave a boat in conditions where it is safe to do so. Ensure there are a set of oars, anchor, neatly coiled rope, safety line and bailer on-board.

15. Ask if staff require specific training before any tasks are undertaken on or near water.

16. Check all equipment is functioning and its suitability for use.

17. Check if assistance is available in an emergency situation.

18. A safe means of communication with fellow workers is essential.

19. An ability to swim at least 50m, fully clothed, when on or near water is advisable.

20. Never permit smoking on boats or near fuel tanks and carry fuel in appropriate containers.

21. No equipment needing a power supply or having internal voltage greater than 50 volts AC or DC should be used on small boats.

22. A boat float plan should be lodged with a responsible person on shore before operating a small boat. It should include planned departure and return times, site of operation, P.I. on board, name of those on board, communication and safety equipment on board.

 ***\* If work or research requires sub aqua diving, the person or people involved should be fully trained and certified with an appropriate body and should only undertake the work when permission has been granted, by Head of Discipline and Safety Officer and then only after stringent checks have been undertaken.***

***Please check HAS website for up-to-date legislation:***

***http://www.hsa.ie/eng/Your\_Industry/Diving/The\_Law/Legislation/***

**When using a hire boat ensure**:

* The skipper has formal qualifications.
* The vessel is licensed to carry passengers if required.
* There is Public Liability Insurance.
* The vessel is well maintained and seaworthy including appropriate navigational lights and distress flares.
* Sufficient fuel is on-board for the journey.
* Everyone is wearing suitable life jackets.
* Radio and communications equipment is on-board.
* There are fire extinguishers on-board.
* The emergency procedures are explained to all.
* Toilet facilities or comfort breaks are scheduled into the boat trip

**When using a small boat:**

* Assess weather and sea conditions including tidal and bottom conditions.
* Inspect the boat and equipment before the trip.
* Inform passengers of emergency procedures and any hazards.
* Inform passengers of the location of emergency equipment.
* Inform passengers of trip length and break-times
* Always file a float plan with a responsible person on land and check in on return.
* Always carry floatation devices, fire extinguisher and distress signal.
* The following are essential; Anchor and sufficient chain, bailer, oars, first aid kit,
* Communication device, extra fuel, water, tool kit, sun protection, light, GPS.
* If the boat is to be used for diving special COPs for scuba activities should be consulted.
* When operating RIBs as boats, occupants should wear a PDF/lifejacket in addition to their wet/dry suit. The weight of persons and equipment on board must not jeopardize safety. The operator of the RIB must wear an engine kill cord when under way.

**Boat checklist and Float Plan available in Appendix.**

**REPORTING INCIDENTS AND ACCIDENTS**

All accidents or dangerous incidences must be reported immediately to the Chief Technical Officer (or Safety Officer) and an incident/accident form completed. The details of which will be used to notify the College Safety Office via the IprotectU website. Witness’ particulars will be included in the report, therefore permission must be obtained in advance.

Accident Report Form available at:

<https://www.tcd.ie/estatesandfacilities/health-and-safety/Accident-Reporting/>

IprotectU: https://iprotectu.tcd.ie/dashboard

or see Appendix page 75.

FIELDWORK

RISK ASSESSMENT EXERCISE

PRIOR TO ANY FIELDWORK

CONTROL MEASURES SHOULD BE CONSIDERED AND APPROPRIATE ACTION TAKEN

You may then complete the Risk Assessment form and submit to your Head of Discipline.

Using your checklists consider the appropriate control measures listed below and implement to mitigate risks.

|  |  |  |  |
| --- | --- | --- | --- |
| **Location** | **Hazard** | **R. A.** | **Control Measures** |
|   | Lack of Supervision | Medium | 1:10 Ratio for low risk activities with undergraduate students. |
|   |   |   | Minimum of two Staff members for deputising reasons. Ratio to vary with hazard. |
|   | Lack of Training | High | Students to receive all relevant information. Staff to be trained to appropriate level / qualifications |
|   |  |   | to include survival, communication and navigational techniques. |
|   | Lack of Competency | High | Field Supervisors to have relevant qualifications, experience,  |
|   |  |   | knowledge of terrain, recent history, preparation and all other |
|   |  |   | skills as appropriate. |
|   | Lack of Preparation | High | All fieldworkers should be adequately prepared with relevant |
|   |  |   | clothing, footwear, training and information etc. |
|   | Lack of communication in the field | Medium | A suitable method of communication should be adopted |
|   |  |   | varying with the type of hazard and from voice to mobile phone. |
|   | Lack of contingency planning | Medium | Ensure relevant emergency equipment available; 1st aid kits, care kits |
|   |  |   | rations, stretchers, tents, means of summoning aid, evacuation |
|   |  |   | procedures, liaison with local police, emergency services, treatment |
|   |  |   | facilities including decontamination etc. |
|   | Lone working (see page 40) | High | This should be discouraged as far as possible, but allowed if all |
|   |  |   | reasonable precautions have been taken and the risk factor is |
|   |  |   | acceptably low. **A separate risk assessment must be carried out**. No Lone |
|   |  |   | Working in confined spaces, or with fumigations, diving or |
|   |  |   | hazardous experiments. N.B. lone working R.A. |
|   | Lack of training of | High | All field supervisors should be trained in fire fighting, 1st aid, |
|   | Supervisors |   | survival and rescue techniques. Awareness of local social practices. Activities near water require |
|   |  |   | swimming skills. On particularly remote or hazardous trips all |
|   |  |   | participants may have to be trained in basic field survival skills. |
|   | Fieldwork expeditions | Medium | Itineraries should be carefully planned with adequate time to |
|   |  |   | achieve objectives. Supervisor should exercise vigilance at all times. |
|   |  |   | Care should be taken in any hostile environment and weather forecasts checked. |
|   | Exposure during Fieldwork | High | Contingencies for sudden changes in weather should be planned |
|   | Expeditions |  | for with spare clothing etc. Wear reflective strips or hi-vis vests if walking on |
|   |   |  | roads during darkness. |
|   | Lack of suitable transport | Medium | Vehicles used must be adequate for the task. No overloading of vehicles with passengers or equipment.Adequate backup |
|   |   |   | should be available if required. Appropriate spares and fuel must |
|   |   |   | be carried. Transport must be maintained in a safe manner by a  |
|   |   |   | competent person. Drivers should be medically fit and hold current  |
|   |   |   | relevant licenses. |
|   | Lack of suitable transport | Medium | All local rules governing transport and conduct should be observed |
|   |   |   | Local rules of the road should be adhered to as should good |
|   |   |   | driving practice. Vehicles must be roadworthy. |
|   | Faulty Survival or Emergency | High | All equipment used or taken as spares or backup to be checked |
|   | Equipment |   | by a competent person prior to trip. All equipment standards to  |
|   |   |   | be adhered to. All necessary spares should be taken. |
|   | Faulty Equipment | High | Equipment lost or damaged should be replaced as soon as |
|   |   |   | possible. All equipment should be checked and calibrated as |
|   |   |   | necessary. Outdoor electrical equipment to be 110V or earth |
|   |   |   | leakage protected. All fire alarms should be regularly inspected |
|   |   |   | and licenses checked. |
|   | Lack of Personal Protective | High | Compliance with safety regulations is imperative at all times. |
|   | Equipment |   | Safety helmets, eye protection, ear defenders and respiratory |
|   |  |   | masks as well as weatherproof clothing and footwear must be |
|   |  |   | worn as necessary. |
|   | Lack of Personal Protective | High | In remote areas and areas with traffic wearing high visibility |
|   | Equipment |   | clothing is recommended. For water activities wear wet-suits and |
|   |   |   | life jackets as appropriate. Climbing harnesses and safety shoes |
|   |   |   | should be worn as necessary. |
|   | Hazardous Substances  | High | Carry out a risk assessment of substances and conditions. |
|   |  encountered |   |   |
|   | Excavations & Boreholes | High | Inspection by competent person prior to work is vital. |
|   | Fieldwork Expeditions | High | Prior to trip the fieldwork supervisor should make observations |
|   |   |   | on climate, dangerous areas, terrain, and overhead power lines,  |
|   |   |   | tides, and confined spaces, dangerous persons etc. |
|   | Fieldwork Expeditions | High | Swift currents, high winds, traffic, mines/bombs, and venomous |
|   |   |  | lively or aggressive animals should be assessed. Infectious |
|   |   |  | diseases and associated hazards should also be assessed. Check |
|   |   |  | on the provision of appropriate clothing, maps, compasses, tide- |
|   |   |   | tables, 1st aid and care kits and medical equipment prior to trip. |
|   | Fieldwork Expeditions | High | Medical fitness of all fieldtrip participants should be assessed. |
|   |   |   | Provision of safety equipment, rescue and emergency equipment  |
|   |   |   | means of communication is vital on any trip, control of ignition |
|   |   |   | sources and information on likely return time are important. |
|   | Theft & Vandalism | Medium | Pre-visit appointments, visiting in pairs, security of vehicles and |
|   |   |   | anti theft devices as well as personal alarms should be viewed. |
|   |   |   | Monitoring and reporting systems must be developed and fieldworkers informed |
|   | Health Hazards | High | Risk assessment of water supply, food handling and personal |
|   |   |   | hygiene are vital. Declaration on medical problems and associated |
|   |   |   | treatments are vital as is a general education on rescue and emergency care. |
|   | Health Hazards | Low | Risk Assessment on snow blindness, dehydration, sunburn, |
|   |   |   | Altitude-sickness, nitrogen narcosis, Leptospirosis, Lyme Disease, |
|   |   |   | hazardous animals and plants, insects and microbes may be  |
|   |   |   | necessary in some situations. |
|   | Scuba Diving | High | If undertaking scuba diving as part of research the participant |
|   |   |   | must hold an internationally recognized diving qualification  |
|   |   |   | (I.e. BSAC, PADI, CFT, CMAS…) at a level of The World Under- |
|   |   |   | Water Federation (CMAS), two star diver or above (i.e. BSAC Sports |
|   |   |   | Diver). They must be in possession of a current Qualification  |
|   |   |   | record (with attendant insurance) and a medical certificate of |
|   |   |   | fitness to dive. The participant should through their CMAS  |
|   |   |   | equivalent training courses, be aware of the dangers inherent in |
|   |   |   | scuba diving. The participant must only dive following the details |
|   |   |   | laid down by the diving organization to which they belong (dive |
|   |   |   | only in 'Buddy Pairs', diving with a suitably qualified 'buddy', and |
|   |   |   | noting depth restrictions. Participants should be able to use |
|   |   |   | decompression tables and should only use equipment of a |
|   |   |   | good standard). It is recommended that diving only be carried  |
|   |   |   | out with a buddy using a regulator that has an octopus fitted |
|   |   |   | (spare second stage). |
|   |   |   | The participant must realize the importance of following safety  |
|   |   |   | regulations laid down by their diving training and must also make  |
|   |   |   | themselves aware of local problems they may encounter(i.e. |
|   |   |   | the availability of medical assistance, recompression chamber |
|   |   |   | availability.)  |
|   |   |   |   |
|  |  |  |  |



GUIDELINES

AND

RISK ASSESSMENT FOR LONE WORKING

**University Lone Working Policy**

Trinity College Dublin, the University of Dublin has a duty to all staff and students that may have cause to be working alone, under the Safety Regulations, which state that:

*Without prejudice to the generality of section 19 of the Act, an employer shall, in identifying hazards and assessing risks under that section, take account of particular risks, if any, affecting employees working alone at the place of work or working in isolation at remote locations;*

to ensure they have a safe and healthy working environment. It is the policy of the University to comply with this legislation and any guidance made under this legislation and to conform, as far as is reasonably practicable, to best practice.

Trinity College Dublin further recognises that some staff and students are required to work alone while others choose to do so. In order to comply with the University Lone Working Policy appropriate measures must be put in place to provide safe systems of work and a safe environment for those who work alone, by the School, Unit or Discipline.

This policy on Lone Working will apply to all staff, visiting academics, students engaged in university work and contractors employed by the University while working in the University’s buildings, facilities and vehicles, to all staff and students working in buildings and facilities provided by other organisations and to those working in the community, on site visits and field trips. It equally applies to staff and students who are working abroad on College business or who are on work-based learning placements/internships that are part of their course in the University.

The College acknowledges that the risk will vary depending on the nature of the work that is being carried out whilst working alone. General office-based activities or ‘paperwork’ type activities are generally classified as being low to medium risk and are acceptable under normal conditions and can be covered through the local area safety statement.

The majority of laboratory work, maintenance works, workshop activities, fieldwork in remote areas, handling of hazardous (biological, chemical, radioactive) agents, etc. are likely to be medium to high risk activities and must not be undertaken without completion of a Lone Worker Risk Assessment. The college also acknowledges that there are also some activities that must not be carried out alone, and that some activities (low risk fieldwork or research) may also fall into a lower risk category too.

Heads of Units/Schools or Discipline and other responsible persons must ensure that this policy and associated guidance is fully complied with. A Unit may introduce local rules and policies that impose other arrangements relating to lone working provided that the minimum requirements of this policy are met.

All staff and students who carry out lone working must take care of their own safety and comply with all other university policies, local rules and procedures. Failure to comply with the policy will be considered a disciplinary issue and may result in any privilege to lone working being withdrawn.

This policy will be reviewed on an annual basis to ensure its adequacy and to assess its performance.

Approved by the Board of College on 24/06/2020 Trinity College Lone Working Policy 1.0

**Guidance to the University Lone Working Policy**

**1.0 INTRODUCTION**

The principal purpose of this Policy is to ensure a safe and healthy working environment for all lone workers (staff and students) in Trinity College, Dublin by developing a continuum of responses that ensure an environment where staff, students and visitors are safe.

Under the Safety, Health and Welfare at Work (General Application) Regulations, 2007, Regulation 2(3) states that:

2 (3) Without prejudice to the generality of section 19 of the Act, an employer shall, in identifying hazards and assessing risks under that section, take account of particular risks, if any, affecting employees working alone at the place of work or working in isolation at remote locations.

In addition, the Policy requires the University to reduce, so far as is reasonably practicable, all reasonably foreseeable risks associated with Lone Working and to detail arrangements to achieve this reduction in line with legislative requirements. The main hazards that are generally associated with lone working are exposure to violence and poor access to emergency assistance.

In the University context there are many examples of lone working both during normal working hours and outside of normal hours. These might include

* • Persons working alone within a laboratory or workshop;
* • Persons working alone in a remote office, reception or classroom;
* • Staff carrying out field work alone
* • Unaccompanied home visitors
* • Cleaners
* • Manual staff such as Electricians, Plant Operators and Drivers;
* • Security staff.

**2.0 SCOPE**

The Policy on Lone Working will apply to all staff, visiting academics, students engaged in university work and contractors employed by the University while working in the University’s buildings, facilities and vehicles, to all staff and students working in buildings and facilities provided by other organisations and to those working in the community, on site visits and field trips. It equally applies to staff and students who are working abroad on College business or who are on work-based learning placements/internships that are part of their course in the University.

**3.0 DEFINITIONS**

* Lone Workers are those who work by themselves without close or direct supervision or without direct or close contact with a colleague. In reality this means working in an environment in which, if rendered incapacitated or unconscious, a person cannot reasonably expect to be found within 15 minutes. The main hazard in lone working is that in the event of an accident that incapacitates them, a person will not be able to contact or summon help.
* It **does not** include the chance or occasional occurrence of being on one’s own at work. For example, in every workplace there is somebody who arrives first and somebody who leaves last, or an individual may need to go to an unoccupied storeroom etc.
* An individual who has either visual or audible communication with another employee **is not** considered as working alone.

Trinity College Lone Working Policy 1.0

* Lone working is not restricted to out-of-hours working but can occur at any

time especially during fieldwork (i.e. study that consists of practical activities that are done away from your school or place of work)

**4.0 PROCEDURES**

* The overall Policy is to keep to a minimum the number of lone workers

within college. Where lone working occurs, it is the responsibility of the Head of School/Unit /Discipline to ensure that staff and students comply with this policy and risk assessments are carried out for particular tasks and activities

* The assessment may be documented as part of a project risk assessment, as

school local rules or documented in the local safety statement.

* The Lone Working Risk Categorisation Chart (Appendix 1) can be used to

 help identify the level of risk and ensure appropriate control measures put in place. This document provides guidance for such categorisation. Where Category B or D is selected i.e. in the case of isolated fieldwork or remote-working, additional location related assessments, ie travel assessments or teleworking assessments must be also completed.

* A checklist to assist in the identification of potential hazards is available in

Appendix 2.

* A Unit may introduce local rules and policies that impose other

arrangements relating to lone working provided that the minimum requirements of this policy are met.

* All staff and those students identified as Lone Workers should familiarize

themselves with the contents of this Policy and the associated procedures.

* Employees have a duty of care to themselves and to others in relation to

Health and Safety and must comply with any processes/control measures that have been provided by their school/unit/discipline for their safety. Questions should be directed to their relevant supervisors.

* Each Head of School / Head of Area must ensure that there are procedures

in place for lone working (including out-of-hours access) and the associated supplementary documents such as risk assessments.

* It is recommended that undergraduate students should never be engaged in

lone working, i.e. are not be permitted out-of-hours access to buildings other than designated 24-hr facilities or with direct supervision.

* The risk assessments should include general risks associated with the

building (such as reduced heating, unlit corridors etc.) or the environment in which it is carried out in (e.g. in the community) and specific risks associated with the task.

* Lone working in the field or in the community is permitted only if the risk

assessment shows that the risk is low and all that controls indicated by the risk assessment are implemented.

* Every lone working procedure or assessment must include a clear

designation of responsibilities for enforcing the procedure, and any training requirements

* Types of hazards that may be of a concern to lone working are detailed in

Appendix 3, and examples of possible control measures are available in Appendix 4.

* Appendix 5 details examples of the lone working assessment process.

Any queries on this policy and its guidance notes can be sent to safetyoffice@tcd.ie

**APPENDIX 1**

**LONE WORKING RISK CATEGORISATION CHART**



**Risk Categories**

|  |  |
| --- | --- |
| **Risk Categories Risk Category A** Low risk activities e.g. office work, teaching preparation, or non-hazardous laboratory work, carried out on campus  | Low Risk, can be included in Safety Statement, with additional control measures mentioned in Appendix 4  |
| **Risk Category B** Lower risk activities e.g. non-isolated fieldwork, office-based work, carried out off campus either in Ireland or abroad  | Low-Medium depending on location of work, may require additional location related assessments; travel assessment; teleworking assessment  |
| **Risk Category C** Lab-based or research type activities which depending on the risks associated with the work may require detailed assessments and procedures put in place  | Medium-High, detailed procedures, assessments and control measures required  |
| **Risk Category D** As Risk Category C but due to a different location (i.e. unavailbility of Campus Emergency Procedures)  | Medium-High, detailed procedures, assessments and control measures required, depending on location of work, may require additional location related assessments; travel assessment; teleworking assessment  |

**APPENDIX 2. AN EXAMPLE OF A LONE WORKING HAZARD ASSESSMENT CHECKLIST**

**To assist in completing the risk assessment**

|  |  |  |
| --- | --- | --- |
| Hazard  | Y/N  | Controls/further action  |
| The Nature of the Work |   |   |
| Is it appropriate for the worker to be alone whilst carrying out particular work activities (eg a buddy should be on hand when working with most hazardous materials) |   |   |
| Is there adequate information and instruction for the worker to be able to work alone safely? |   |   |
| Are there hazards associated with the machinery, tools and equipment that may be used? |   |   |
| high risk activity (e.g. work at heights, with electricity, with hazardous substances or work with hazardous equipment, such as chainsaws or lathes) |   |   |
| Is fatigue likely to increase risk (e.g. with long hours driving a vehicle or operating machinery)? |   |   |
| Is there risk of attack by an animal? (dogs during home visits) |   |   |
| Is the worker likely to be exposed to extremes of temperature? |   |   |
| Is the lone worker more at risk due to their gender, age or inexperience? |   |   |
|   |   |   |
|   |   |   |
| The Location of the work |   |   |
| If the worker is working inside a locked building, will emergency services be able to gain access if the worker is unable to let them in |   |   |
| If the worker is working inside a building, is there a system for emergency services to locate them (e.g. sign-in book) if the worker is unable to communicate with them directly |   |   |
| Is lighting at entrances and exits to buildings and parking areas adequate? |   |   |
| Are security measures adequate, including alarm maintenance and testing scheduling, video or patrols? |   |   |
| Is the work in a remote location? |   |   |
| Is the work in a location which increases the risk of violence to workers (e.g. from people affected by drugs or alcohol or in a location with a high incidence of crime)? |   |   |
| Does the form of transport increase the risk (e.g. public transport in a remote or dangerous area) |   |   |
| Are there risks associated with the environment in which the work is carried out (e.g. water bodies, remote locations, poor phone coverage, attack by people?) |   |   |
|   |   |   |
|   |   |   |
| First Aid and Emergencies |   |   |
| Is first aid equipment available for immediate treatment |   |   |
| Are there means of raising an alarm in the event of an emergency |   |   |
| Are there arrangements for a response to an emergency |   |   |
|   |   |   |
|   |   |   |
| Communications |   |   |
| Does the worker have access to a communications system (e.g. mobile or satellite phones, alarm systems)? |   |   |
| Will the emergency communication or alarm system work properly in all situations |   |   |
| Are there procedures for regular contact with the worker who works alone? |   |   |
| Are there end-of-shift procedures for checking in with the worker |   |   |
| Are workers authorised to contact emergency services directly? |   |   |
| Is voice communication essential for the safety of the worker |   |   |
| Training and Information |   |   |
| Has the worker had training to prepare them for working alone and, where applicable, in remote locations |   |   |
| Does the worker speak English (or the local language if abroad) or is there anything that would interfere with his or her ability to communicate with someone in an emergency? |   |   |
| Are there procedures to ensure knowledge of workers’ whereabouts (e.g. clients’ addresses, expected arrival and return times)? |   |   |
| Are there procedures for incident reporting so that all workers are aware of local risks (e.g. clients’ history of violence)? |   |   |
|   |   |   |
|   |   |   |
| Other Hazards |   |   |
|   |   |   |
|   |   |   |

**APPENDIX 3: POTENTIAL HAZARDS AND ISSUES ASSOCIATED WITH LONE WORKING**

From: <https://www.hsa.ie/eng/Publications_and_Forms/Publications/Healthcare_Sector/Guidance_on_Lone_Working_in_the_Healthcare_Sector.pdf>

The hazards facing “Lone Workers” are the same as for other workers; however they may face increased or additional risk from:-

* Lack of Supervision / Training
* Working in remote areas
* Sudden Illness / emergencies
* Risks related to transport / driving
* Effects of social isolation
* Communication
* Work Equipment
* Violence and abuse (from members of the public and others)
* Theft / Intruders
* Fire

**What issues should the employer address when planning safe working arrangements for lone workers?**

When establishing safe working arrangements for lone workers, employers need to know the law and standards that may apply to their specific work activity. They must then assess if the requirements of that work activity can be met by people working alone. Issues that need to be addressed when planning such safe working arrangements are:

*1. Can the risks of the job be adequately controlled by one person?*

Lone workers should not be at more risk than other employees. This may require extra risk control measures. Precautions should take account of normal work and foreseeable emergencies, e.g. fire, equipment failure, illness and accidents. Employers should identify situations where people work alone and ask questions such as:

* Does the workplace present a special risk to the lone worker?
* Is there a safe way in and a way out for one person? Can any temporary access equipment that is necessary, such as portable ladders or trestles, be safely handled by one person?
* Can all the plant, substances and goods involved in the work be safely handled by one person? Consider whether the work involves lifting objects too large for one person or whether more than one person is needed to operate essential controls for the safe running of equipment.
* Is there a risk of violence?
* Are women especially at risk if they work alone?
* Are young workers especially at risk if they work alone?

*2. Is the person medically fit and suitable to work alone?*

Check that lone workers have no medical conditions which may make them unsuitable for working alone. Seek medical advice if necessary. Consider both routine work and foreseeable emergencies, which may impose additional physical and mental burdens on the individual.

*3. What training is required to ensure competency in safety matters?*

Training is particularly important where there is limited supervision to control, guide and help in situations of uncertainty. Training may be critical to avoid panic reactions in unusual situations. Lone workers need to be sufficiently experienced and to understand the risks and precautions fully. Employers should set the limits to what can and cannot be done while working alone. They should ensure employees are competent to deal with circumstances that are new, unusual or beyond the scope of training, e.g. when to stop work and seek advice from a supervisor and how to handle aggression.

*4. How will the person be supervised?*

Although lone workers cannot be subject to constant supervision, it is still an employer’s duty to ensure their safety and health at work. Supervision can help to ensure that employees understand the risks associated with their work and that the necessary safety precautions are carried out. Supervisors can also provide guidance in situations of uncertainty. Supervision of safety and health can often be carried out when checking the progress and quality of the work; it may take the form of periodic site visits combined with discussions in which health and safety issues are raised.

The extent of supervision required depends on the risks involved and the ability of the lone worker to identify and handle safety and health issues. Employees new to a job, undergoing training, doing a job which presents special risks, or dealing with new situations may need to be accompanied at first. The level of supervision required is a management decision, which should be based on the findings of risk assessment, i.e. the higher the risk, the greater the level of supervision required. It should not be left to individuals to decide whether they require assistance.

**APPENDIX 4: CONTROL MEASURES**

**WHAT CONTROL MEASURES COULD BE IMPLEMENTED TO MINIMISE THE RISK TO LONE WORKERS?**

The risk assessment should prescribe control measures to be implemented in order to eliminate/minimise the identified risks. Such control measures may include:

* communication is very important: mobile phone, telephone or radio
* controlled periodic checks
* Automatic warning devices, e.g. panic alarms, no movement alarms, automatic distress message systems, i.e. pre-recorded message sent if not actively cancelled by operative, etc.
* Instruction and training in proper procedures, e.g. code words for potentially violent situations when combined with mobile phone communication.
* use of Personal Protective Equipment (PPE)
* health surveillance
* first-aid kits and training
* implementing Standard Operating Procedures (SOP’s)
* locking and securing place of work
* implementing correct incident reporting procedures
* provision of counselling
* buddy system
* Location/locating systems, i.e. monitored system by App or Specific device
* Specific emergency procedures

The chart below details the relationship between the categories (Appendix 1) and control measures (Appendix 4) and guides one to the type of control measures that may be required or considered. **APPENDIX 4: CONTROL MEASURES**

**WHAT CONTROL MEASURES COULD BE IMPLEMENTED TO MINIMISE THE RISK TO LONE WORKERS?**

The risk assessment should prescribe control measures to be implemented in order to eliminate/minimise the identified risks. Such control measures may include:

* communication is very important: mobile phone, telephone or radio
* controlled periodic checks
* Automatic warning devices, e.g. panic alarms, no movement alarms, automatic distress message systems, i.e. pre-recorded message sent if not actively cancelled by operative, etc.
* Instruction and training in proper procedures, e.g. code words for potentially violent situations when combined with mobile phone communication.
* use of Personal Protective Equipment (PPE)
* health surveillance
* first-aid kits and training
* implementing Standard Operating Procedures (SOP’s)
* locking and securing place of work
* implementing correct incident reporting procedures
* provision of counselling
* buddy system
* Location/locating systems, i.e. monitored system by App or Specific device
* Specific emergency procedures

The chart below details the relationship between the categories (Appendix 1) and control measures (Appendix 4) and guides one to the type of control measures that may be required or considered.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Control Measures†** | **Category A** | **Category B** | **Category C** | **Category D** |
|   |   |   |   |   |
| Means of communication: mobile phone, telephone, radio | P | P | P | P |
| Controlled Periodic Checks |   |   | P | P |
| Automatic warning devices\*, e.g. panic alarms, man-down alarms, automatic distress message systems, i.e. pre-recorded message sent if not actively cancelled by operative, etc. | P | P | P | P |
| Use of Personal Protective Equipment (PPE) |   |   | P | P |
| Health Surveillance |   |   | P | P |
| First Aid Kits and First Aid Training |   |   | P | P |
| Implementing Standard Operating Procedures (SOP’s) |   |   | P | P |
| Locking and securing place of work |   |   | P | P |
| Instruction, Information and Training | P | P | P | P |
| Prohibition of Lone working? |   |   | P | P |
| Additional assessments based on location |   | P |   | P |

**† This would not be exhaustive and dependent on the work, individual, location**

\* Monitored system by App or Specific device

**APPENDIX 5. EXAMPLES OF THE LONE WORKING ASSESSMENT PROCESS**

N.B. Examples are simply illustrative, and are not designed to be exhaustive nor to suggest that superficially similar cases need the same control measures. These are dependent on the specific work, individual, and location involved.



Specifically, **Category A** would be assigned to those working in an office environment, possibly at weekends when less people are around. The protection of lone workers can be described in the local safety statement which may include the requirements:

1. To have a means of communication, i.e. a mobile phone or telephone to advise someone where they will be or to raise the alarm;

2. To use the Safezone App to check in when you arrive and check out when you leave. If necessary, you can use the alert buttons to raise an alert too; and

3. To provide instruction and Information on the process, how to use the App and how to raise an alarm in an emergency.



As for Category A, the same will apply but by virtue of the change in location, additional assessments in relation to your new location or travel will also be required and these may be used to include the information on working alone. In this case, these assessments can include the information specifically on protection while lone working, i.e.:

1. To have a means of communication, i.e. a mobile phone or telephone to advise someone where they will be or to raise the alarm;

2. To use the Safezone App to check in when you arrive and check out when you leave. If necessary, you can use the alert buttons to raise an alert too.

3. Provision of information on the process, how to use the App and how to raise an alarm in an emergency.

**CATEGORY C**





The risk assessment should prescribe control measures to be implemented in order to eliminate/minimise the identified risks. For this category the lone working checklist should be completed.

Such control measures may include:

* communication is very important: mobile phone, telephone or radio
* controlled periodic checks
* Automatic warning devices, e.g. panic alarms, no movement alarms, automatic distress message systems, i.e. pre-recorded message sent if not actively cancelled by operative, etc.
* first-aid kits and training
* implementing Standard Operating Procedures (SOP’s)
* locking and securing place of work
* implementing correct incident reporting procedures
* provision of counselling
* Location/locating systems, i.e. monitored system by App or Specific device
* Specific emergency procedures

Specifically, Category C suggests the following control measures are considered. These would not be exhaustive and dependent on the work, and the individual:

1. Means of communication: mobile phone, telephone, radio

2. Controlled Periodic Checks

3. Automatic warning devices\*, e.g. Safezone App, panic alarms, man-down alarms, automatic distress message systems, i.e. pre-recorded message sent if not actively cancelled by operative, etc.

4. Use of Personal Protective Equipment (PPE)

5. Health Surveillance

6. First Aid Kits and First Aid Training

7. Implementing Standard Operating Procedures (SOP’s)

8. Locking and securing place of work

9. Instruction, Information and Training

10. Prohibition of Lone working

**CATEGORY D**





The risk assessment should prescribe control measures to be implemented in order to eliminate/minimise the identified risks. For this category the lone working checklist should be completed.

Such control measures may include:

• communication is very important: mobile phone, telephone or radio

• controlled periodic checks

• Automatic warning devices, e.g. panic alarms, no movement alarms, automatic distress message systems, i.e. pre-recorded message sent if not actively cancelled by operative, etc.

• first-aid kits and training

• implementing Standard Operating Procedures (SOP’s)

 • locking and securing place of work

• implementing correct incident reporting procedures

• provision of counselling

• Location/locating systems, i.e. monitored system by App or Specific device

• Specific emergency procedures

Specifically, Category D suggests the following control measures are considered. These would not be exhaustive and dependent on the work, individual, and location:

1. Means of communication: mobile phone, telephone, radio

2. Controlled Periodic Checks

3. Automatic warning devices\*, e.g. Safezone App, panic alarms, man-down alarms, automatic distress message systems, i.e. pre-recorded message sent if not actively cancelled by operative, etc.

4. Use of Personal Protective Equipment (PPE)

5. Health Surveillance

6. First Aid Kits and First Aid Training

7. Implementing Standard Operating Procedures (SOP’s)

8. Locking and securing place of work

9. Instruction, Information and Training

10. Prohibition of Lone working

 FORMS TO BE FILLED IN

BY

ALL FIELDWORKERS (Staff and Students)

FORM TO BE SIGNED BY PARTICIPANTS PRIOR TO FIELDWORK

School of Natural Sciences

Trinity College

Dublin 2

IRELAND

TEL. 01-8962920

**FIELDTRIP NAME………………………………………………………...**

**FIELDTRIP LOCATION…………………………………………………..**

# DATE………………………… FROM …………………. TO……………………

I the undersigned fully understand the rules and regulations concerning safety laid down for this fieldtrip and I fully agree to abide by them. I am fully aware that I have a legal duty of care to myself, to my fellow participants and to those I come in contact with on the fieldtrip. I have read the School Fieldwork Safety Manual.

## PRINT NAME: ……………………………… SIGNATURE: ………………………………

STAFF/STUDENT NUMBER:……………………………………

**Contact Person in case of emergency.**

Name …………………………………………..

Address ………………………………………….

Phone Number ………………………………….

**School of Natural Sciences**

**Health Questionnaire for Lab and/or Field Work**

**Instructions:**

**If you answer ‘no’** to all questions in Part A of this form, please send it to your Safety Officer or field course leader. You will not need to complete Part B.

**If you answer ‘yes’ to any questions** in Part A, please give details in the box below and take this form along with Part B to the Student Health Service or your GP. The doctor will detail any specific control measures (e.g. medications) or accommodations (e.g. ramp access) you may require.

When the doctor has completed Part B please bring it to your Safety Officer or Course Director. Do not return Part A to your Safety Officer, this is now confidential.

**Fieldwork notes:** In the case of overnight field work courses please let your course leader know in advance if you have any dietary requirements. If you are working near soil or animals it is advisable that you have an up to date tetanus vaccination/booster.

**Your legal requirements:**

If you are aware that you are suffering from any disease or physical or mental impairment which, could cause you to expose yourself or another person to danger or risk of danger, you must have a registered medical practitioner complete Form B, who shall in turn notify your Safety Officer or Course Director. If you fail to notify the college, you may be excluded from completing your course.

**Part A - Questionnaire**

Name: Student No:

  *CAPITAL LETTERS*

Address:

 *Address at which you reside while attending College (e.g. Home, rented, etc.)*

Date of Birth: Male/Female:

Home Tel No: Mobile No:

Do you have any of the following medical conditions, or other ongoing issues, which might impact functionally your ability to safely undertake **laboratory or field work**?

|  |  |
| --- | --- |
| **MEDICAL CONDITION IMPACTING:** | **YES/NO** |
| Attention/concentration/memory |  |
| Balance/dexterity/mobility/speed |  |
| Behaviour /perception |  |
| Communication/hearing/speech/vision |  |
| Energy Levels /stamina/strength |  |
| Other (specify) |  |

If you have answered **YES** to any of the above, please give details, as well as details of any past and present treatment, below.

|  |
| --- |
|  |

*If you answered yes to any questions above please take this form, together with* ***Part A****, to your GP or the College Health Centre.*

**School of Natural Sciences**

**Health Questionnaire for Lab and/or Field Work**

**Part B (i)**

(To be completed by the student before submission to their GP or the College Health Centre)

Name: Student No:

 *BLOCK CAPITALS*

Address:

 *Address at which you reside while attending College (e.g. Home, Rented, etc.)*

Date of Birth: Male/Female:

Home Tel No: Mobile No:

Course for which you are registered:

 *(e.g. Earth Sciences, Botany etc.)*

**Part B (ii)**

(To be completed by the GP or the College Health Centre)

*Having reviewed the* ***Health Questionnaire*** *(Part A), submitted by the student, I can confirm:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *The student, named above, should be able to undertake all laboratory and field duties* | **YES** | *(tick)* | **NO** | *(tick)* |
| *Any specific control measures or accommodations necessary are outlined below:* |

Signed: Date:

 *GP/College Health Centre*

***Part B*** *of this form* ***ONLY*** *should be returned to the Discipline Safety Officer or Course Director*

#

**Appendix**

**Simplified Checklists:**

**CHECKLIST 1 (FEASIBILITY OF FIELDTRIP)**

**ACCESS** Travel Arrangements

 Permission to work on site

 Provision for disabled

 Availability of assistance

 Accommodation

 Insurance

**FITNESS** Pre expedition training

**TRAINING** Navigation

 First aid

 Languages

 Interpersonal skills

 Hygiene / health education

 Specific skills e.g. diving, caving, etc.

**HEALTH** Health questionnaire

 Medical / dental checkup

 Vaccinations

 First aid kit

**STAFFING** Staff / student ratio

 Competence of leaders

 Appointment of deputies

**CHECKLIST 2 RISKS INHERENT IN SITE**

**PHYSICAL HAZARDS** Extreme weather

 Mountains and cliffs

 Caves, mines and quarries

 Beaches and seashore

 Sea, lakes and rivers

 Forests

 Roadside

 Urban areas

**BIOLOGICAL HAZARDS** Animals

 Plants

 Pathogenic microorganisms

**CHEMICAL HAZARDS** Agrochemicals and pesticides

 Dusts

 Chemicals on site

**MAN MADE HAZARDS** Machinery and vehicles

 Power lines and pipes

 Electrical equipment

 Insecure buildings

 Slurry and silage pits

 Attack on the person or property

**ENVIRONMENTAL HAZARDS** Pollution

 Disturbance of eco-system

 Waste minimization

**CHECKLIST 3 RISKS INHERENT IN WORK**

**TRAINING** Navigation, map reading and compass work

 Survival / rescue

 First aid

 Specialist training e.g. conduct on boats,

 advanced driving,

 diving,

 caving,

 rock climbing,

 hill walking,

 ladders and scaffolding.

**PERSONAL SAFETY** Risk of attack

 Communication as routine

 Communication in emergency

**CHECKLIST 4 ORGANISATION OF FIELDWORK**

**PRE-PLANNING** Travel documents

 Note of next of kin and G.P.

 Note of particular medical problems

 Appropriate authorities informed

**CATERING** Provision of food

 Hygiene

 Portable water supply

 Food preparation and storage

 Fuel for cooking

**THE GROUP** Leader (experience / competence)

 Chain of command

 Staff / student ratio

 Interpersonal relationships

 Max. / Min. size of group

 Responsibilities for aspects of work

 Accommodation

**THE INDIVIDUAL** Avoid lone worker situations

 Adequate clothing

 Individually trained and fit

 Physical handicaps

**EQUIPMENT**  Fit for purpose

 Used properly

 Well maintained

 Repairable on site

###### CHECKLIST 5 CONDUCT OF FIELDWORK

**LOCAL CONDITIONS** Weather forecast

 Local knowledge

 Farming practices

 Itinerary and return times

**TRANSPORT** Appropriately licensed drivers/vehicle

 Correctly maintained

 Correctly loaded

 Appropriate spares

 Seat belts

 Fuel

**THE GROUP** Roll call

 Correctly equipped

 Not overloaded

 First aid kit

 Survival aids

 Group size and supervision

**WORKING PRACTICES** Avoid lone working

 Communications

 “Buddy ” system or lookouts

 Safe working systems

 Permit to work

 Worker trained and fit

 Time to be spent working

**EMERGENCIES** Communications

 Protection of remaining group

 Chain of command

 Trained personnel

 Evacuation

 Recovery of casualties

**SMALL BOAT SAFETY CHECKLIST**

**Prelaunch checks**

 Local bye laws/restriction ⧠

 Weather forecast/tides ⧠

 Knowledge of work area ⧠

 Boat/engine check ⧠

 3rd party insurance ⧠

**Boat equipment**

 Anchor and sufficient line and buoy ⧠

 Mooring lines and spare rope ⧠

 Shot Line ⧠

 Bailer/bucket ⧠

 Basic tool kit/ engine spares ⧠

**Navigation/Safety**

 Float Plan/ person ashore briefed ⧠

 Briefing of crew ⧠

 Compass ⧠

 GPS/Sounder ⧠

 Communication Device ⧠

 Personal Buoyancy aids ⧠

 Lights ⧠

**Engine& Fuel**

 Full fuel tank ⧠

 Spare fuel mixture / funnel ⧠

 Set of oars ⧠

 Engine kill cord/ spare ⧠

**Emergency equipment**

Means of signaling distress ⧠

 Fire extinguisher ⧠

 First aid kit ⧠

**Personal requirements**

 Approved floatation devices ⧠ Suitable clothing, non-slip shoes & glasses ⧠ Knowledge of safety requirements ⧠

 No drugs, alcohol or smoking on board ⧠

No overloading ⧠

 Competent trained skipper/crew ⧠

**School of Natural Sciences Trinity College Dublin**

**Float Plan**

**Departure date: Time: Return date: Time:**

**Departing From: Returning To:**

**Site Coordinates: Latest return time:**

Other travel notes:

**Weather Forecast: Source:**

**Tides: Skies:**

**Winds:**

**Current weather advice:**

**People on board**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Age | Gender | Phone Contact |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Accident/Incident Report Form

This form must be completed by the:

School/Department Head,

Chief Technical Officer,

Departmental Safety Officer

First Aider

Or by those who have used the first aid cabinet

Complete this form as soon as possible after any accident has occurred. This is a requirement under the College’s Employer & Public Liability policies.

In the case of staff injuries, the original form should be retained by the Department, and copies sent to (1) Departmental Safety Officer, (2) Mr. T. Merriman, West Chapel (Secretary to the College Safety Committee), and (3) Ms. P. Gray, West Chapel (for insurance purposes).

**Name:** ……………………………………………………………..

**Staff** £ **Student** £ **Other** £ Please specify ……....……………………………………..……..

**Date & Time of Alleged Accident:** ………………………………………………………………..

**Location and/or Laboratory:** …………………………………………………………………......

**Grade of Accident: Minor** £ **Moderate** £ **Severe** £

\*Minor = Onsite treatment; Moderate = First aid and referred for medical attention; Severe = Ambulance called.

**Brief Particulars:** ………………………………………………………………………………….

……………………………………………………………………………………………………….

**Nature of Injury:** ………………………………………………………………………………….

(If to limb or eye, state whether left or right) ………………………………………………………………………………..

# What action was taken to treat

**Or minimize injury or damage?** ………………………………………………………………….

………………………….……………………………………………………………………………

Patient sent to Student Health Service £ Patient referred to Medical Doctor £

Ambulance called £ Patient sent to hospital £

Next of kin informed £

In cases or moderate or severe accidents please state the names & addresses of any witnesses:

**(1)** …………………………………………………………………………………………………...

**(2)** …………………………………………………………………………………………………...

# Are you satisfied that an accident occurred

**At the time, date and place stated? Yes** £ **No** £

**Was the person authorized to be in that place,**

**at that time for the purpose of his/her work? Yes** £ **No** £

**What was the person doing at the time of the accident?** ………………………………………..

# Was this something authorized or permitted to be

**Done for the purpose of his/her work? Yes** £ **No** £

**To whom was the accident reported?**

College Health Service £ College Security £

Discipline Safety Officer £ Health and Safety Authority £

Other £ Please specify……………………….…….........………

**When was the accident first reported?** …………………………………………………………

**Other relevant information.**

**Signed:** …………………………………………………….. **Date:** ……………………………

Print Name: ………………………………………………… Ext No: …………………………

RISK ASSESSMENT FORM TO BE SIGNED IN BY

HEAD OF DISCIPLINE

OR

PERSON DELEGATED BY HEAD OF DISCIPLINE

**No field work may proceed without completion of the Risk Assessment**

