MCom Fieldwork Information

for

Students and Supervisors
FOREWORD

This document is solely for the purpose of ad-hoc visits to supplement the knowledge of a student during the completion of an MCom related course.

It is not designed for regular fieldwork activities where specialised hazards, that are out of the ordinary for an FCE student’s university day, may be experienced.

It is not designed to be read in isolation. If students or UNSW employees wish to supplement this information they should refer to the UNSW Risk Management Unit website.

UNSW encourages all staff, students and others to regard accident prevention and safe working as a collective and individual responsibility.

The conduct of every person working on UNSW projects is expected to be such that it minimises the risks which may endanger the health and safety of that individual or other persons.

UNSW requires that all authorised persons undertaking fieldwork operate within the various legal requirements and adopt fieldwork safety guidelines.
CONTENTS
1 DEFINITIONS .......................................................... 5
2 APPLICABLE LEGISLATION and UNSW Guidelines....................... 6
3 ACCOUNTABILITY AND RESPONSIBILITY ....................................... 6
  3.1 UNSW Executive .......................................................... 6
  3.2 Deans and Divisional Unit Executive ...................................... 6
  3.3 Heads of Schools, Research Centres or Administrative Units
      (abbreviated henceforth to Head of Work Unit) ....................... 6
  3.4 Fieldwork Leaders ...................................................... 7
  3.5 Vehicle Drivers .......................................................... 8
  3.6 Fieldwork Participants .................................................. 8
  3.7 Volunteers ............................................................... 9
4 ADMINISTRATIVE PROCEDURES FOR FIELDWORK .................... 9
  4.1 Fieldwork Approval and Notification .................................... 9
  4.2 Nomination of Fieldwork leader ........................................ 10
  4.3 Assessment of risks associated with the fieldwork trip .............. 10
  4.4 Volunteers .............................................................. 10
  4.5 Notification of contact “In Case of Emergency” ....................... 10
  4.6 Notification of changes to proposed fieldwork .................... 10
  4.7 Notification of return from fieldwork ................................ 10
  4.9 Safety Briefing for fieldwork participants............................ 11
5 Risk Management ................................................................ 11
  5.1 Risk Control ................................................................... 12
    5.1.1 Eliminate the hazard .................................................. 12
    5.1.2 Minimise the risk from the hazard .............................. 12
    5.1.3 Administrative controls ............................................. 12
6 SUPERVISION .................................................................... 12
  6.1 Supervision of Under/postgraduate Student Groups ................ 12
  6.2 Supervision of Honours and Postgraduates ......................... 12
7 VEHICLE USE ............................................................... 13
  7.1 Authority to drive vehicles ............................................. 13
  7.2 Use of Private Vehicles ................................................ 13
  7.3 Maintenance, preparation and vehicle checks ....................... 13
  7.4 Time and distance restraints on driving .............................. 14
  7.5 Motorcycles/Trail Bikes ................................................. 14
  7.6 Towing .......................................................................... 14
8 PERSONAL SAFETY CONSIDERATIONS .................................. 14
  8.1 Minimum Party Size ..................................................... 14
  8.2 Navigation Equipment .................................................. 15
  8.3 Maintaining communication ............................................ 15
  8.4 Clothing/Footwear ....................................................... 15
  8.5 Personal Protective Equipment (PPE) ................................. 16
  8.6 Food provisions .......................................................... 16
  8.7 Manual Handling ........................................................ 16
  8.8 Electrical Safety .......................................................... 17
  8.9 Additional Vehicle Spares for Remote Locations ................. 17
  8.10 Medical status of persons in the field ............................... 17
  8.11 Weather Evaluation .................................................... 17
  8.12 Fire Risks ............................................................... 17
10 Hazards and Accidents .......................................................... 18
10.1 Personal Injury

10.2 First Aid Kit

10.3 Trained First Aiders

10.4 Trauma and Counselling

10.5 Accident and Hazard Reporting

11 ACKNOWLEDGEMENTS
1 DEFINITIONS

Fieldwork is any work, study or research authorised by UNSW and conducted by staff, postgraduate student(s), under-graduate student(s) and volunteers at a site other than the Kensington, Randwick, Manly Vale, Little Bay, or Paddington campuses or the Bankstown flight training facility.

Note: Where staff are working on a permanent basis at a remote field station (eg. Fowler’s Gap), this is taken to be their normal place of work. Such permanently employed staff are not deemed to be engaging in fieldwork activity.

Remote Fieldwork is defined both in terms of distance and inaccessibility and is that which entails:

- Working more than 5km from a town, farmhouse or other facility with telephone or radio communications (even if personal communications equipment, eg. mobile phone, is carried);
- Working off-road in areas where very little traffic is likely or where hills, dense timber or other topographic features would make it difficult to summon help, or if medical and other emergency support would be an hour or more away without a vehicle;
- Any work in rivers, on river banks, inland waterways, estuarine and oceanic work sites.

Airborne operations are not normally considered to be Remote Fieldwork activities, although they often extend some distance from towns etc. Safety of airborne operations is covered by Commonwealth legislation and regulations, and only a brief summary of relevant documentation is included in this manual.

Supervisor, in relation to field activities, is the person who has the authority to influence or direct the actions of students or employees involved in the activity. For students this is generally regarded as the academic for whom the student is undertaking fieldwork. The supervisor may not necessarily be present on all fieldtrips.

Leader in relation to field activities, is either the supervisor of the group conducting the Fieldwork or a specifically designated person authorised by the Head of School/Unit to lead the field trip. This person is chosen by virtue of their skills, knowledge and experience in the particular field operation.

Volunteer is a ‘pre-recognised’ person willing to participate in the Fieldwork activities who is offering their time and services for no remuneration. They are obliged to follow any directions issued by the Fieldwork leader in the same way as UNSW participants.
2 APPLICABLE LEGISLATION and UNSW Guidelines

- NSW Occupational Health and Safety Act 2000
- NSW Occupational Health and Safety Regulation 2001
- Civil Aviation (Carriers Liability) Act 1967
- Flight Operations Manual (approved by the Civil Aviation Safety Authority)
- Maritime Services Act 1935
- Prevention of Environmental Operations (POEO) 1999
- National Occupational Health and Safety Commission (NOHSC)
- Australian Standards
- UNSW Internal Policies / Guidelines:
  - UNSW OHS Responsibility and Accountability
  - UNSW Diving Safety Manual
  - UNSW Hazardous Substances policy and program
  - UNSW Bio-safety policy and program
  - UNSW Plant safety policy and program
  - UNSW Working alone guidelines (currently being worked on)
  - UNSW Hazard and Incident Reporting procedure

In addition, all licensing and permit requirements, as applicable to the Fieldwork activity, must be met.

3 ACCOUNTABILITY AND RESPONSIBILITY

3.1 UNSW Executive

is responsible for:
(a) provision of a learning and work environment, including for fieldwork, that is safe and without risks to the health of all members of the UNSW community and visitors and the general public;

(b) ensuring that the Executive and Deans are held accountable for the health and safety performance for their areas of responsibility;

(c) the allocation of adequate resources to enable fieldwork activities to be undertaken without risk to health and safety and to meet legislative responsibilities.

3.2 Deans and Divisional Unit Executive

are responsible for:
(a) ensuring that the schools, research centres and divisional units are held accountable for the occupational health and safety of all Fieldwork participants;

(b) ensuring that adequate resources are allocated to the schools, research centres and divisional units under their control who engage in Fieldwork activity.

3.3 Heads of Schools, Research Centres or Administrative Units

(abbreviated henceforth to Head of Work Unit)

are responsible for ensuring that:
(a) the occupational health and safety implications of a proposed Fieldwork activity are considered at the planning stages;

(b) any risks associated with the activity are identified and assessed by the supervisor responsible and that the measures used to control such risks are effective and adequate;
(c) staff and students receive the appropriate information and instruction, and the necessary supervision to safely perform their work or studies respectively;

(d) adequate resources are available for safety equipment and materials;

(e) appropriate licences and permits applicable for the trip have been sighted;

(f) where off-road driving is required that the designated driver has undertaken an accredited offroad driving course or has demonstrated competence to the satisfaction of the Head of the unit (it is preferable to have undertaken the off road driving course);

(g) the requirements related to Fieldwork notification and approval and vehicles booking/log system are known, documented and followed by all Fieldwork participants.

3.4 Fieldwork Leaders
are responsible for ensuring that:
(a) risks associated with the proposed Fieldwork activity are identified and assessed at the planning stage and that appropriate control measures are put in place to eliminate or minimise such risks;

(b) the Fieldwork activity for which they are responsible, is conducted in such a way so as to safeguard the occupational health and safety of other staff, students, volunteers etc. in their charge with minimal risk to either the participants, the community or the environment;

(c) the fieldwork environment remains one free of discrimination, harassment or vilification.

(d) staff, students and volunteers are instructed in safe and healthy working procedures, warned about any relevant hazards, and advised how to avoid, eliminate or minimise risks from such hazards;

(e) good housekeeping standards are maintained whilst on the Fieldwork to safeguard the health and safety of the participants as well as to respect the environment;

(f) if required to use any safety equipment and personal protective equipment provided on site, all staff and students under their control use the safety equipment and personal protective equipment provided, in a correct manner as instructed by the relevant responsible site contact person;

(g) all accidents, incidents and near misses are reported and investigated using the appropriate UNSW forms (where circumstances dictate the external reporting of incidents/accidents to Workcover, such reporting is carried out with the assistance of RMU);

(h) if requiring first aid and emergency equipment, that it is provided and is adequate and properly maintained and checked prior to each Fieldwork activity;

(i) there is a suitable number of trained first aiders on the fieldtrip, if the trip is assessed as more than a negligible risk;
3.5 Vehicle Drivers
If there are any UNSW nominated Vehicle Drivers. They are responsible for:

a) safety check and maintenance of vehicle before, during and after the trip and;

b) maintaining vehicle log books
For more information, check out the NRMA website

c) obtaining as much information as possible about the conditions that are likely to be encountered during the trip and making provision for them;

3.6 Fieldwork Participants
are responsible for:
(a) adopting a responsible attitude whilst on the fieldtrip,

(b) reading any notices produced relating to the field activity, attending any briefing sessions and returning any forms to the staff member in charge;

(c) seeking instruction if they are unsure of something they are required to do;

(d) not operating equipment they are unfamiliar with;

(e) complying with instructions and directions issued by their supervisor and Fieldwork leader;

(f) taking action to avoid, eliminate or minimise risks;

(g) avoiding, as far as possible, exposure to venomous animals and plants likely to cause allergic reactions. If there is risk of exposure, steps should be taken to minimise risk (e.g., wear appropriate clothing, apply insect repellant, carry appropriate treatment for hay fever and other allergic reactions);

(h) ensuring that adequate protection from sun and cold weather is carried and used. This includes hat, sunglasses, lip screen and sun screen for UV protection, adequate warm clothing, rainproof or windproof jacket where appropriate and a change of clothing if there is a likelihood of becoming wet;

(i) carrying sufficient water, minor medical necessities (headache tablets, bandaids) and minor emergency food (e.g., chocolate bar) as supervisors suggest;

(j) making proper use of all safety devices and personal protective equipment;

(k) reporting any unsafe conditions or hazards;

(l) not wilfully placing at risk the health and safety of any person on the fieldtrip or any member of the public by their acts or omissions;

(m) seeking information or advice regarding hazards and procedures where necessary before carrying out new or unfamiliar work;

(n) being familiar with emergency and evacuation procedures and the location of first aid kits, personnel and emergency equipment, and if appropriately trained, using the emergency equipment;
(o) ensuring that where fieldwork is conducted outside the Sydney metropolitan area, an appropriate UNSW Authority to Travel is completed and submitted to the School Administrative Officer. ‘Standing order type’ Authority to travel may be obtained for regular routine fieldtrips at the beginning of the year, issued by the Head of the work unit. For a group of under/postgraduates being taken on a fieldtrip by their supervisor the authority to travel can be completed by the supervisor on behalf of the students.

(p) informing the fieldtrip leader of any medical condition or prescription drugs etc. that may impact on their ability to take part in the fieldwork activity.

(q) not consuming, or being under the influence of, alcohol or non-prescription drugs during working session;

(r) complying with instructions and directions issued through relevant policies on the Risk Management and OH&S website, as well as the UNSW code of conduct.

(s) treating all other field participants and members of the public with courtesy and respect.

3.7 Volunteers
are responsible for:
(a) submitting contact details and reason for attending the fieldwork trip, and submitting it to the Head of unit;

(b) abiding by all other responsibilities as outlined for fieldtrip participants above;

(c) understanding the insurance implications of their engagement in the fieldwork activity (contact the Risk Management Unit (RMU) on 9385 1980).

4 ADMINISTRATIVE PROCEDURES FOR FIELDWORK

4.1 Fieldwork Approval and Notification
Fieldwork must have the prior approved of the Head of the school/centre or administrative unit.

Staff and students need to complete a MCom Fieldwork Plan Notification and submit it to their Supervisor or Head of work unit during the planning stage. This form will contain the following information:
- proposed itinerary for the fieldwork;
- estimated times of arrival and departure;
- estimated time in the field;
- exact location of the Fieldwork;
- the number and names of all participants (including any volunteers);
- communication arrangements;
- identification of special dietary or medical needs.

The completed risk assessment section of the MCom Fieldwork Plan Notification must be completed and submitted to the Head of work unit for approval. It is understood that exact details are often planned as the trip progresses and only generalisations can be submitted before the commencement of the trip.

Variation of an itinerary whilst in the field shall be communicated to the supervisor as soon as practicable, especially when it involves a variation in location and/or return times or dates.
Fieldwork conducted outside the Sydney metropolitan area requires an appropriate UNSW Authority to Travel to be completed for each participant and submitted to the School Administrative Officer. This does not apply to a group of under/postgraduates being taken on fieldtrip activity by their fieldwork supervisor. In this instance the supervisor would complete the authority to travel for the group.

4.2 Nomination of Fieldwork leader
For fieldwork activity organised as part of course-work and involving undergraduates, the academic in charge will be the fieldwork leader. For postgraduates and occasionally honours students, the Head of the work unit may nominate a fieldwork leader to lead the group. The attributes and responsibilities of fieldwork leader have already been discussed in sections 1 and 3.4 respectively.

4.3 Assessment of risks associated with the fieldwork trip
Risk assessments need to be conducted prior to the fieldtrip activity so that any potential hazards can be identified at the planning stage and enable control measures to be put in place in advance to safeguard the health and safety of all participants, the community and the environment. See Section 5 ‘Risk Management’.

4.4 Volunteers
If volunteers are involved then they must notify the Head of the work unit, in writing for approval, with their contact details and reason for attending the fieldwork. All volunteers should familiarise themselves with any notices produced relating to the field activity and attend any briefing sessions for the Fieldwork. Reference should be made to the UNSW’s Travel Policy.

4.5 Notification of contact “In Case of Emergency”
Prior to a field trip, the staff member in charge must be aware of the location of (either via MyUNSW and/or ensure that the student’s immediate local contact is in their mobile phones under the name: ‘ICE’, or alternatively via a submitted list), of all participants’ next of kin and their contact details, to the school/unit office. This should be retained for the duration of the fieldwork. If an extended or high risk fieldwork trip, a separate completed list MUST be completed and submitted to the school/unit office. The fieldtrip leader should also retain a copy and take it along on the fieldtrip.

4.6 Notification of changes to proposed fieldwork
During a field activity, a specified contact person at UNSW must be notified as soon as possible of any changes to the original proposed itinerary or schedule, including changes of dates, location or number of personnel attending the field activity. If the changes will cause a flow-on effect to the existing risk assessment, and a revised risk assessment must be prepared.

4.7 Notification of return from fieldwork
Participants must notify a specified contact person (e.g., their supervisor) on return from field activity. If a staff member or student fails to return from a field activity at the pre-arranged time and has not notified a change in arrangements, the specified contact person is responsible for notifying a School representative (e.g., the Head of the work unit).

The School representative is responsible for notifying:
- emergency services as applicable;
- next of kin of the student.

Human resources will notify the next of kin for a staff member, except in out of hours when the Head of the work unit will contact relatives.
4.8 Licensing

4.8.1 Motor Vehicles
All drivers of vehicles must have a current vehicle licence that covers the vehicle type being used for the field operation, such as 4-wheel drive, bus etc. See also Section 7 – Vehicle Use.

4.8.2 Boats and Vessels
All drivers of water vehicles in NSW, that are mechanically propelled and are capable of 10 (ten) knots or more, must have a current boating licence issued by the Waterways Authority of NSW. Drivers of vessels in other states must abide by local qualifications.

4.8.3 Divers
Divers shall be trained to a minimum level of “Open Water Diver” as described in the UNSW Diving Safety Manual and have a current diving certificate.

4.9 Safety Briefing for fieldwork participants
It is essential that the staff and students participating in a field activity are aware of any information pertinent to safety on this trip. A safety briefing may be required to ensure this. Without exception, this information (or the briefing) must be disseminated before the commencement of the field activity, preferably in the last class before the visit. It should be given by the staff member in charge of the field activity. It should always be accompanied by written safety procedures. This can be references to the UNSW policies and Guidelines found on the UNSW website.

The safety briefing should include, as a minimum:
- the identified hazards of the fieldwork and precautions to be taken to minimise risks to those hazards (as identified in the risk assessment see section 5);
- discussion of safety equipment required for the various activities that are to be carried out;
- minimum dress requirements;
- requirements to follow all regulatory and advisory signage and traffic regulations;
- requirements to follow all explicit directives from UNSW staff members in charge, site controllers and transport operators (e.g., bus drivers);
- introductions to the first aider(s) attending the activity;
- emergency procedures;
- hazard and incident reporting procedures.

The safety briefing/information should also include the responsibilities of fieldwork participants during the recreational aspects of the fieldtrip ie the participants must be held accountable for their own behaviour in the period when the actual ‘work’ element of the activity has ceased for the day. The disciplinary procedures for failing to maintain conduct in accordance with the UNSW Student Misconduct - Rules should be referenced.

5 Risk Management

The staff members in charge of fieldwork activities or fieldwork leaders are responsible for ensuring that potential hazards are identified prior to departure so that adequate control measures can be put in place to eliminate or minimise risks from these hazards. The risk assessment form (page 2 of the Fieldwork Plan Notification) should be lodged with the Head of the work unit.
5.1 Risk Control
Where a risk to health and safety has been identified, controls must be introduced to eliminate or minimise the risk. The ‘hierarchy of controls’ principle should be used, as follows:
Level 1 - Eliminate the hazard
Level 2 - Minimise the risk
Level 3 – Use administrative controls and personal protective equipment (PPE) as required.
In many cases a combination of controls will be necessary to reduce a risk to an acceptable level which ensures the health and safety of participants.

5.1.1 Eliminate the hazard
The best way to eliminate the risk is to completely remove the hazard. In terms of fieldwork activity there may be a choice of venue to accommodate the activity but one of the choices may have higher risks associated with it. By choosing a different venue it may be possible to eliminate the risk.

5.1.2 Minimise the risk from the hazard
If a hazard cannot be eliminated, methods to reduce the risk include:
Substitution or Modification:

5.1.3 Administrative controls
Administrative controls should be seen as ‘back-up’ controls. Administrative controls include using safe work practices at all times to minimise exposure to a hazard and hence minimise the risk.
No matter what other control measures are implemented, safe work practices are essential, and personal protective equipment may be advisable, depending on the hazard. Administrative controls should not be relied on as a primary risk control measure until the options to eliminate or minimise the risk have been exhausted.

6 SUPERVISION

6.1 Supervision of Under/postgraduate Student Groups
When planning a field activity, the staff member in charge should determine an appropriate staff/student ratio. This ratio will depend on the type of activities being undertaken and the risk assessment for the activity. Two staff members are highly recommended where the fieldtrip is in remote areas.
Staff in charge of a field activity are to provide students with:
- access to a copy of these Fieldwork Guidelines with an explanation of their implications.
- an information sheet specific for the field activity detailing organisational arrangements (including information about travel, first aid, catering, names of field supervisors), practical requisites for the activity (e.g., clothing, sun screen, insect repellent, sunglasses, footwear, weatherproof coat, water bottle) and rules relating to alcohol, tobacco and other drugs.
- Access to safety information and/or a safety briefing. The safety briefing is held at the planning phase – see section 4.9. The briefing is an educational exercise aimed at making students and staff aware of potentially dangerous situations. It should be conducted in such a way that participating students and staff appreciate the need to follow the correct safety procedures.

6.2 Supervision of Honours and Postgraduates
If they have sufficient experience, postgraduate and honours students need not be closely supervised during fieldwork, but generally should not conduct fieldwork alone. If it is not possible for a member of staff to accompany them on the fieldtrip, then a colleague should accompany them. If the risk is low and it is not practicable for anybody to accompany the postgraduate, then a locally approved Buddy system must be in place and signed off on by the academic in charge or the Head of the work unit. The supervisor of the honours student or the class/course director must complete all relevant documentation and forward a copy of the risk assessment to the School Safety Officer, or equivalent, before fieldwork is commenced. It is recommended that where there is a mixed group of both male and female students that there is both a male and female supervisor present on the fieldtrip.

7 VEHICLE USE

Reference should be made to the UNSW Administration manual related to vehicle use at the following web address:
http://www.facilities.unsw.edu.au/Campus/Client/fleet.htm

7.1 Authority to drive vehicles
Provided that he or she has the appropriate class of NSW licence and has permission from the Head of the work unit, a staff member, a Postgraduate, an Honours student, or a volunteer may drive a university vehicle. The Head of the unit can also make a decision on whether or not an undergraduate is allowed to drive university vehicles (provided they have a NSW licence).

7.2 Use of Private Vehicles
Private vehicles should only be used as a last resort. The staff member approving the use of private vehicles must ensure that drivers are made aware of the following:
- there may be special requirements, e.g., off-road driving;
- UNSW’s requirements related to the insurance of private vehicles responsibility for the roadworthiness of the vehicle lies with the owner of the vehicle.

7.3 Maintenance, preparation and vehicle checks
Note: Smoking, the consumption of alcohol and the use of non-prescription drugs are not allowed in university vehicles. Persons who are using prescription drugs that could impair driving performance should refrain from driving.
The vehicle should be selected to suit the type of work and terrain that is to be encountered during the trip. Before the start of a journey, all drivers should be familiar with the vehicle’s operation and its equipment, including:
- details of all the vehicle's basic controls and their use;
- its limitations and its capabilities;
- spare tyre, jack, tyre pressure gauge, tools and emergency parts
- the fuel-limited range of the vehicle;
- all details of routine maintenance - how to check fuel, oil, coolant, brake fluid, battery, tyre pressure, clutch fluid and power steering fluid, and how to change a tyre;
- efficient, safe and legal loading methods;
- specialty vehicle equipment, such as shovel, axe, winches, etc.
Before a journey, the driver(s) should check that the vehicle has been mechanically maintained and that the luggage and equipment are firmly secured. About one hour
into the journey the luggage and equipment should be checked again to see if they have settled and are still secure. At each fuel or rest stop during the journey, a quick check of the vehicle should be carried out noting: tyre pressures; luggage still secure; brake fluid; etc. During travel, check the engine temperature gauge periodically to forewarn against engine overheating. Each morning the fuel, oil, coolant, battery fluid, brake fluid, clutch fluid, power steering fluid, tyre pressures, lights and controls should all be checked.

7.4 Time and distance restraints on driving
In preparing and approving field trip plans, researchers (including students), and supervisors (or the Head of the work unit) should ensure that there are adequate rest regimes incorporated into the travelling plans. There should be no need to exceed the maximum driving period suggested unless there is an emergency or extenuating circumstances. Drivers have a greater risk of accident if driving follows an arduous day. For this reason drivers should be well rested before journeying. It is recommended that a driving stint be no longer than two hours before either a change of driver or a half an hour rest period occurs (incorporating some light activity e.g., walking). Approximately 650 km should be set as the maximum distance any group travels by car in any one day. This usually equates to about 8 hours of driving at a safe (and legal) speed. A safe speed relates to many things, including the driver's experience and his/her possible fatigue, the type of road and its condition, the time of day, the weather, and the capabilities of the vehicle itself. Night driving is much more hazardous than driving during the day. This can be due to driver fatigue, driver stress due to driving on unfamiliar roads and in unfamiliar conditions, and the movements of nocturnal animals. If travel must continue at night, speed should be reduced to suit the circumstances.

7.5 Motorcycles/Trail Bikes
The use of motorcycles by the inexperienced should not be allowed until such persons have developed the skills required. An approved helmet, that fits well, gloves and solid footwear must be worn whilst riding. Experience has shown that wearing long pants and solid shirt/jacket reduces painful gravel rash and scarring.

7.6 Towing
Towing should not be attempted by anyone who has not undertaken a recognised vehicle towing training course unless they can demonstrate towing competency to the Head of the work unit. Vehicle Recovery: In attempting any recovery or repair, a new, possibly very severe, risk may exist and the recovery should proceed with caution and only if the personnel involved have sufficient experience and knowledge for the task. (Recovery is an item included in the Advanced 4x4 driving courses). Otherwise the NRMA or emergency services should be contacted. All UNSW vehicles are covered by the NRMA.

8 PERSONAL SAFETY CONSIDERATIONS

8.1 Minimum Party Size
Normally, when doing fieldwork, persons should avoid working alone. If an accident occurs and there are two (or more) persons present, one person is then available to attend the victim while the other is available to notify emergency services.
If there is a need to work alone because of some special circumstances and the risk assessment deems the activity low risk, the Head of the work unit may grant permission for lone working. In order to grant this permission, the Head of the work unit must be fully informed of the nature of the work and its location and satisfied that there are adequate provisions and controls in place, including communication arrangements. (Examples of low risk activity which may be deemed suitable for lone working by the Head of the unit, include students interviewing in an public urban environment in daylight or a student collecting small sand samples from above the waterline on Sydney beaches). Other examples where a UNSW staff member or student may not need to be accompanied might include site visits to commercial or government sites where the person will be under supervision by the host organisation whilst on the premises eg. visiting a sewage treatment plant.

8.2 Navigation Equipment
The level of risk and the remoteness of the location will determine the sophistication of the navigation equipment needed. Where fieldtrips are conducted in easily accessible locations having distinct landmarks a local map is all that may be required. When the use of a map is no longer enough, an orientation compass will also be required eg. in bush or desert. Training also needs to be provided to ensure people are familiar with the use of additional navigation equipment, if required.

8.3 Maintaining communication
Depending upon the size of the field party and the remoteness of the field site, communication channels should be determined between the students, the relevant UNSW school, and emergency services. Mobile phone communication is assumed. If this is not a accessible method then communication methods must be listed and lodged with the relevant school.

8.4 Clothing/Footwear
It is the responsibility of individual participants to ensure that adequate protection from light, cold, heat and adverse weather is carried and used. This includes:

- hat, sunglasses, lipscreen and sun screen, for protection against ultra violet radiation;
- waders, preferably with a boot-like sole pattern, or wetsuit for aquatic field activities;
- rain/windproof jacket where appropriate. A change of clothing should be carried if a person is likely to become wet. Care should be taken when wearing waders in aquatic situations. If there is uneven or boggy terrain, or conditions of fast or deep flowing water the waders can fill up with water and increase the likelihood of the wearer sinking or being able to rise. With chest high waders the chest belt must be securely fastened before entering the water.
- For immersion in water - thick-soled sport shoes (e.g., runners) or wet-suit boots;
- For wet conditions - gumboots or boots;
- For work sites - solid boots (steel-capped toes);
- For other situations - thick-soled sports shoes as a minimum.

Loose, baggy clothing and ties are dangerous around machinery as they can become entangled.
Well fitting and secured clothing, that covers the torso, must be worn in these situations. Long hair and jewellery can become entangled in machinery with dangerous results. Hair should be tucked into caps or hairnets and jewellery should be removed.
Long sleeves and trousers should be worn when there is a risk of abrasion, being scratched from low-lying shrubbery, snake or insect bite or sunburn.
In cold, wet and windy conditions, cotton clothing may not provide sufficient protection to maintain body warmth, particularly when wet. Wool or polarfleece is recommended, together with thermal underwear to prevent hypothermia.

8.5 Personal Protective Equipment (PPE)
The staff member in charge of the field activity must ensure that the risk assessment identifies all the PPE that will be required for the fieldtrip and that participants are aware that field activity will not take place unless the essential safety equipment is produced (e.g., safety glasses, hats). The host environment shall be responsible for providing PPE. Training in the use of safety equipment should be given before the field activity commences. Safety equipment should also be checked beforehand to ensure that it fits correctly.
The wearing of specialised safety equipment will be required in many field situations. Examples are as follows:

- safety vests - brightly coloured vests with reflective surfaces - should be worn in all situations when visibility is a safety issue (e.g., anywhere near roads or traffic, or moving machinery), regardless of ambient light conditions;
- hard hats - should be worn in all situations where risk of head injury is present (e.g., falling objects, low headroom, construction sites);
- safety glasses or goggles - should be worn whenever there is a risk of eye injury;
- hearing protection - should be used whenever there is a risk of noise-related injury;
- respiratory protection - should be used where necessary (e.g., if there is potential exposure to asbestos or other dust or fumes. (Note: detailed risk assessment will be required if toxic or asphyxiating gases could be present. The risk control measures should begin with eliminating the hazard and trying to avoid having to enter the area. Wearing self contained breathing apparatus should only be used as a last resort);
- Personal protective equipment against bushfires where the risk assessment has identified that there is bushfire potential in the proposed area.

Safety equipment should be:
- of approved design (i.e., meets Australian Standards as a minimum);
- of suitable quality for the conditions to be encountered in the field;
- inspected and maintained regularly.
The staff member in charge of the field activity should ensure that these conditions are met. Advice can be sought from the UNSW Risk Management Unit.

8.6 Food provisions
Food provisions should be suitable for the conditions and duration of the fieldtrip and should include adequate supplies in case of emergency or extended duration.

8.7 Manual Handling
If manual handling is identified as a hazard during the risk assessment process, reference should be made to the UNSW policy on manual handling and the precautions to eliminate injury followed as outlined in that document.
8.8 Electrical Safety
All portable electrical equipment to be used in the field should have been inspected and tagged in the last three months in accordance with AS 3760. All field equipment must incorporate a portable residual circuit device (RCD).

8.9 Additional Vehicle Spares for Remote Locations
Emergency equipment will depend on the form of transport, location and nature of the fieldwork. The equipment could include spare fan belt, spare radiator hoses, roll of PVC tape, spare wheel, hand winch, spark plugs, spare fuel (if deemed necessary and after consideration of the additional fire risk hazard), jack and operating handle, tyre pump (foot type), bucket for bailing, flotation devices, emergency distress flares and drinking water.

8.10 Medical status of persons in the field
Anyone who participates in fieldwork should be reasonably fit and have no existing medical condition which could reasonably be expected to give rise to a life threatening situation. For some, the question of medical fitness will not be resolved simply by a diagnosis (eg, asthma, epilepsy) but by consideration of the interaction between the nature/severity of the condition and the circumstances of the field trip. Medical problems, and their possible consequences in relation to the location to be visited, should be highlighted at the pre-trip briefing. Any person with a medical condition that may affect his or her performance on a field trip should discuss the matter in confidence with their supervisor. It may be necessary in some cases to refer the question to the person's medical practitioner.

Staff and students with particular medical conditions that would not be evident in the case of an accident (e.g., allergy to penicillin) should wear 'medical alert' bracelets or pendants.

Adequate supplies of any prescribed medication(s) required for the duration of the field activity must be carried. Approximately 1.5 - 2 times the normal supplies should be packed in case return from the field activity is delayed. This is the responsibility of the person requiring the medication.

Exposure to venomous animals, insects that can spread diseases, such as Ross River or Barmah Forest Virus, and plants likely to cause allergic reactions should be avoided, as far as possible.

Participants should be informed if there is a risk of exposure and should take steps to minimise risk (e.g., wear appropriate clothing, apply insect repellant, carry antihistamine drugs).

Vaccinations against tetanus are highly recommended for all participants in field activities.

8.11 Weather Evaluation
The weather can be a critical safety factor on a field trip. The weather, or any possible change in weather conditions, must be taken into account in planning a field trip. For example, boats should not be used in poor weather conditions or if poor weather is forecast. Recent heavy rain will affect river water levels. Fog can reduce visibility for driving vehicles or boats. The weather also plays a part in the estimation of travelling times, the actual time spent "outdoors" before hypothermia or hyperthermia is experienced, and the time taken to complete work.

8.12 Fire Risks
Fire in a vehicle or vessel is a possibility and every person should be prepared for such an event. All participants should know where the extinguisher is located and how to use it. Extinguishers that are suspect or have been used must be referred to the school/unit safety representative for recharging or replacement.

Bush fires are an ever present risk in the Australian bush. To prevent starting a bush fire, all fires must be extinguished properly, no smouldering embers must be left and smokers must be very careful when disposing of butts. All fire restrictions and bans must be observed. Spark emitting power tools must be used with caution in the open to prevent fire ignition. The fieldwork leader should check for fire alerts/restrictions. If caught in a bushfire with no means of escape, find a place with little or no combustible material and wrap yourself in a woollen or a textured fibreglass blanket or, if these are unavailable, as many layers of protective clothing as possible. Ensure that all of the head and face is covered. You will need a wet cloth over your nose, mouth and eyes when there is dense smoke. Saturate any item of clothing with water, even urine, to do the job. The Rural fire service for the area can be contacted to provide additional information.

10 Hazards and Accidents

10.1 Personal Injury

If in any doubt call an ambulance.

In the event of personal injury the first action to be taken is to ensure the victim is stabilised and made medically comfortable. Then, if the severity of the injury warrants, contact emergency services (Police & Ambulance) giving the number injured, the nature of injuries, nature of accident and the exact location and/or meeting point. At the accident site, other precautions must be carried out, e.g., smothering any fire(s), removing persons and ignition points from flammable liquid spills. As soon as emergency services have attended the accident, the University and next of kin are to be notified (Supervisor or Head of the work unit). Upon returning to the University, a full written report is to be submitted to the Head of the work unit and the Risk Management Unit (see 10.5).

10.2 First Aid Kit

When working in the field, a first aid kit should be part of the supplies. When travelling via a vehicle, the first aid kit may be quite substantial. What is required when on foot or in the field, however, should be limited to that necessary for reasonably foreseeable circumstances. The kit must be durable (case and packing) as it may have to survive and remain sterile in adverse conditions. The Unit first aid officers can provide information on first aid techniques. There are three types of first aid kits available: a Type A, Type B and Type C kit and the risk assessment should determine the type which should be taken on the fieldtrip. The OHS Regulation 2001 specifies the minimum contents for each of the three types of first aid kits. The St. John’s ambulance website provides more detail and pictures of the types of first aid kits available.

On returning from a field trip, the staff member in charge must advise the first aid coordinator if kits have been used in order to ensure that they are replenished.

10.3 Trained First Aiders

The risk assessment should be used to determine the number of first aiders that should be present on a trip excursion. For fieldwork activities in the metropolitan area, it is desirable to have at least one trained first aider on board. All field trip parties to non-urban areas, e.g., bush, outback or ocean, should include as many first aiders as practicable and these should be trained to at least Level 2 (Basic First
Aid) with additional appropriate modules. Commonsense, using the risk assessment for as a guide, is useful to determine the need for more than 1 first aider. For example, the risk assessment for a group of 35 students visiting the Botanical Gardens would be unlikely to require 3 first aiders and in this instance, 1 first aider may be sufficient. A field trip on a hired bus (which would carry its own trained first aider and first aid kit) going to a meeting or factory where they would have their own first aid policies and people may only require 1 first aider in the group.

10.4 Trauma and Counselling
All staff and students should be aware that a UNSW counselling service exists for any student who has witnessed or been involved in a traumatic incident. Full details are available from the following website:
http://www.counselling.unsw.edu.au/index.htm
The University has an external Employee Assistance Program for staff to access trauma counselling.

10.5 Accident and Hazard Reporting
Before commencement of fieldwork, the staff member in charge/fieldtrip leader must be familiar with the UNSW policy on the reporting of Hazards or Incidents, Work Related Incidents or Illnesses, and Accident Investigations.
An incident report form must be completed for all accidents, no matter how minor. The supervisor of the group or the staff member in charge of the field activity must undertake an investigation of an incident and assist with the completion of the relevant report forms. A copy of completed forms must be submitted to the local OHS committee/representative and the Risk Management Unit as soon as possible after return from the field activity. The presence of any disturbing or suspicious people at study sites should be reported to the supervisor who is responsible for contacting the police if necessary.

11 ACKNOWLEDGEMENTS
UNSW School of Biological, Earth and Environmental Sciences Fieldwork Guidelines
UNSW Risk Management Unit