Name of Policy	**Fieldwork Safety Policy**
Description of Policy	
❑ New Policy	❑ Revision
Description of Revision	

Human Resources Directorate

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1. Preamble

The following policy focuses on establishing a climate in which safety of personnel has primacy and in which staff and students know the policies, procedures and guidelines to help create safe practices.

This policy attempts to provide a framework in which it is customary and normal that all possible precautions have been taken and all proper responsibilities met.

(i) Personal safety must, ultimately, be a personal responsibility. Complacency and inattention, lack of preparation or lack of training will all cause problems. No amount of regulation will replace personal vigilance. Although personal safety is a personal responsibility, this does not relieve supervisors of their duty of care to ensure that students and staff are instructed about hazards likely to be encountered during fieldwork and how to deal with them. Nor does it relieve anyone of responsibilities to maintain procedures, equipment and facilities so that they are safe.

(ii) Infrastructure and institutional support for fieldwork is an issue that the Faculties must address in order to achieve the climate of care required by this policy. Equipment to ensure safety in the field and safety equipment for laboratories are essential to such a climate of care.

(iii) Where students are undertaking study or work at schools, hospitals or other agencies for their course, the relevant school/hospital/agency is responsible for the health, safety and well-being of all individuals on their premises. Students and/or staff should ensure that they are aware of relevant policies and procedures in the school/hospital/agency in which they are undertaking study and/or supervision. In addition, students and/or staff must ensure that they comply with the relevant child protection legislation including, where applicable, approval to work with children.

(iv) All students undertaking fieldwork must collect a Field Trip Information sheet from the School office before their first field trip and complete a Fieldwork Party Registration Form for each field trip thereafter.

2. Definitions

Fieldwork is any work, study or research authorised by the University and done by staff, postgraduate or undergraduate students or authorised volunteers at sites that are not a regular campus of the University.

Fieldwork does not normally include brief trips away from the normal workplace. It is mostly carried out in rural or remote areas. It does not include activities such as distance education, student exchange programs, documentary research or similar activities or travel to and from conferences.

Remote Fieldwork is fieldwork in areas where it would be difficult to summon help and/or where emergency assistance would be an hour or more away without a vehicle. This includes work on rivers, inland waterways, estuaries and the ocean, and work in off-road areas.

Personnel involved includes members of staff (academic and general), postgraduate and undergraduate students and, in some cases, subject to authorisation and approval by the relevant Head of School, voluntary workers.

3. General Guidelines

Fieldwork is a professional activity, requiring professionalism in its planning. This policy provides a framework for planning fieldwork activities and training staff and students.

3.1 Size of Groups:

The following maximum staff to student ratios will apply:

Activity	Staff to Student Ratio
For fieldwork in remote or potentially risky locations (e.g. coastal work, diving, contaminated sites, steep slopes, near cliffs)	1:15
For fieldwork with lower potential risk (e.g. waste disposal site tours, guided factory tours, urban hydrology investigations)	1:25

These maximum staff to student ratios must be adhered to at all times.

3.2 Planning and Assessment of Risk

All fieldwork must be planned in advance, including assessment of the possible risks. The management of risks is essentially a four-step process:

1. identifying the risks: i.e. those things which are likely to cause injury to a person, or which may result in damage to property and/or equipment;
2. assessing their likelihood and potential consequences;
3. controlling them;
4. monitoring and reviewing the effectiveness of the risk control measures and improving them as needed.

The staff member leading the trip (or the staff member supervising the students involved if there are no staff participating) is responsible for ensuring that adequate advance planning and assessment of risks is done. The same assessment of risk should be used whether the trip involves a large number of students, a small group of students, or a party of two or three experienced people traveling to a remote area.

Checklists of possible risks and how to identify them are helpful, and Schools are urged to produce, review and update them for specific locations in which field work is undertaken. Examples of typical risks include extremes of weather (exposure to sun, heat, cold, etc.), use of hazardous substances or harmful biological agents; driving vehicles; SCUBA diving; and use of boats, vehicles etc.

Issues to be considered in assessment and reduction of risk during fieldwork include:

- the chain of command for the group, which should be determined explicitly in advance to minimise confusion in the event of accidents or other untoward circumstances;
- the number of people in the group (a minimum of two is required) and their experience with fieldwork of the type being done;
- the nature of the work and the area where it is being done, including its remoteness, terrain, likely weather conditions (including possible weather

extremes), possibility of encountering dangerous animals, plants or people, bush fires, flooding etc;

- the methods and availability of transport and assistance in case of breakdown or accident;
- the availability of reliable channels of communication;
- inclusion in the party of people who have training in first aid and provision of adequate portable first aid kits;
- the need for special protective clothing, screening, equipment;
- the use of dangerous chemicals, explosives, mechanical equipment, electrical equipment or harmful biological agents in the work being done;
- work in or near water;
- working at heights or below the ground;
- generation of hazardous wastes;
- timing and length of travel;
- adequacy of water and other provisions such as food, fuel, shelter, etc;
- the fitness, health and competencies of the people in the group (e.g. knowing medical conditions, swimming ability, and so on assists in deciding whether risks are acceptable or not, and in planning alternatives).

Suitable maps must be available for routes to and from the fieldwork site and of the fieldwork area, including information about relevant support services.

Schools are responsible for the maintenance and storage of registration forms. Supervisors must ensure that relevant forms have been completed, signed, dated and lodged with the School office. These forms must ensure that both staff and students are aware of the risks associated with fieldwork activities, and that they are informed of the procedures in place to ensure the safety, well-being and health of any participants.

3.3 Safety and First Aid

Groups doing fieldwork must have adequate first aid training and supplies, as appropriate to the type of work and the hazards that may be encountered, and the size of the field trip party. Precautions must be taken to minimise the potential for accidents of any kind, but if accidents do occur it is essential to be able to manage them by having made appropriate preparations. All academic staff who supervise fieldwork must have current first aid certification at "senior" level as the minimum standard. On any supervised field trip a trained academic staff member must be designated as a “first aid officer”.

Recommended contents of first aid kits are listed in the ACU First Aid Policy. Where appropriate, portable survival kits are necessary and should be made available. Note that standard type C vehicle kits are almost certainly inadequate for fieldwork and Schools will need to develop their own kits to suit their specific needs. These kits must be kept fully equipped and be checked before each field trip.

3.4 Communication

Reliable means of communication are essential for all fieldwork. Acceptable communications devices will vary according to the circumstances and, in some cases (e.g. boating), there are statutory requirements. It is essential that if an accident/incident occurs, assistance can be summoned and emergency services notified. Mobile phones are one convenient form of communication, but they are not suitable for all circumstances or areas. In some cases, satellite phones or portable two-way radios may be appropriate.

It is also necessary for contacts not involved in the work to be able to alert others to take action whenever regular contact breaks down and there is evidence that something has gone wrong. The person or persons nominated to be the contact must be competent. The School Fieldwork Safety Officer should be provided with details of the nominated contact person or persons.

Global Positioning Systems (GPS) should be used in boats and land vehicles used for remote fieldwork.

3.5 Use of Vehicles

Only licensed and appropriately trained drivers should be in charge of field vehicles. The Head of School should ensure that there is a system in place for checking for appropriate and current driving licenses, placing restrictions on use of vehicles (e.g. for untrained or inexperienced persons), and giving express permission for vehicle use. It is a requirement that the School to have guidelines on use and limitations of vehicles. Diesel vehicles are recommended for reasons of greater fuel safety, particularly for off-road use.

Only registered vehicles are to be used. Vehicles used for field trips must be well-maintained according to the manufacturer's service specifications and equipped with adequate spare parts and tools, according to the area and length of trip. Care must be taken when loading vehicles to maintain as low a centre of gravity as possible and to secure items adequately in the cabin. Vehicles must be driven with caution and attention to prevailing road and weather conditions. Only vehicles designed and/or equipped for the purpose should be taken off sealed roads.

The vehicle must be selected for the type of terrain likely to be encountered. Drivers must be familiar with the vehicle before setting out on the trip. Drivers intending to use four wheel drive (4WD) vehicles must have received training in 4WD or be able to demonstrate experience in driving such vehicles. Drivers must be familiar with routine maintenance procedures such as checking oil, water, tyre pressure, coolant and battery, and changing tyres. Drivers must also be aware of the fuel capacity and range of the vehicle.

Prior to setting out on the trip, the driver must check the vehicle to ensure it has been adequately maintained and has all the necessary tools, spare parts and special equipment for the trip. A check must be made to ensure that the luggage is secure.

Rest stops and fuel stops must be used to check that the vehicle is operating normally with respect to tyre pressure, engine leaks, etc, and that the luggage remains secured. Every day, before setting out, the oil, water, fuel, battery fluid, coolant, brake fluid and tyre pressures, must be checked and ensure controls are working properly.

Driving times and distances must be planned to prevent fatigue. Usually a driver must not drive for more than about 2 hours before changing over or taking a short break that incorporates some light physical activity such as walking. A maximum of around 650 km per day and/or a maximum of seven hours driving/teaching must be the norm, although greater distances may be safely covered, depending on road, traffic and weather conditions, and the number and experience of available drivers. Driving at night is more hazardous than during daytime (because of reduced visibility, biorhythm, and level of stimulation) and must be minimised.

Drivers must always heed applicable road rules, including those pertaining to consumption of alcohol. Driving must always be done at safe and legal speeds. Safe speeds depend upon the road and weather conditions, experience of the driver, time of day, alertness of the driver and the vehicle itself. Unfamiliarity with the road or conditions and the presence of nocturnal animals contribute to driving hazards.

Occupants must wear seat belts when traveling in vehicles. Luggage must always be securely stowed. Netting or solid barriers between the boot and cabin protect occupants from loose objects, which may be propelled through the cabin if the vehicle stops suddenly and, therefore, must be used.

For field trips involving large numbers of students traveling by bus or coach, the coach company or its representatives may impose its/their own rules to ensure safety and comfort for all passengers. The field trip leader must ensure that everyone obeys them.

The legal requirements limiting consumption of alcohol by vehicle operators and prohibiting alcohol consumption by people less than 18 years of age apply as minimal standards of the University. The fieldwork leader may apply more stringent standards if these are considered warranted by his or her assessment of the fieldwork task, e.g. if it involves hazardous environment or practices, inexperienced personnel, etc.

3.6 Use of Boats

In a School where boats are used, the School Fieldwork Safety Officer and/or senior academic staff members involved must be familiar with relevant maritime legislation (applicable in the state or territory), at least one copy of which must be held somewhere accessible in the School. Boating field trips must comply with the requirements of maritime legislation. Personnel in charge of boats are responsible for ensuring they have the appropriate licences and that any appropriate boat registrations are obtained.

Boats must be used in accordance with the relevant state/territory requirements. Boats capable of 10 knots or more must be registered. Boats must be well-maintained and equipped with adequate spare parts and tools, according to the area worked and the length of the trip. Care must be taken when loading boats. The maximum capacity that the boat can carry must be displayed on the boat and must not be exceeded. Boats must contain adequate safety devices such as distress flares, personal flotation devices, etc. All persons in boats must wear flotation devices. Only boats designed and equipped for the purpose may be taken out to the open sea. A radio transceiver is required for vessels going more than 2 nautical miles offshore.

Only licensed and appropriately trained personnel may be in charge of boats. Boats must be driven with caution and attention to prevailing conditions. Navigation skills may also be required. Only those personnel necessary and trained for the fieldwork may be carried in boats. Personnel other than employees and enrolled students of the University must have authorization from the relevant Head of School to travel in boats. No one may go out boating alone. The minimum size of a boating field work party is two and at least one must be a competent swimmer.

Before setting out on boating trips, tidal movements and prevailing and predicted weather conditions must be checked. Boat trips must not be undertaken in poor weather (e.g. in high winds, on rough seas) or when poor weather is predicted over the period of the planned trip. Even when good weather is predicted, changing weather must be anticipated in planning the trip.

Prior to setting out, the vessel must be checked for safety equipment, personal flotation devices, oars or paddles, fully charged batteries, correct fuel mix, spare plugs, cotter pins, anchor and small bucket for bailing.

3.7 Use of Other Specialized Equipment

Many types of fieldwork require use of specialist equipment. In all cases, the School Fieldwork Safety Officer or equivalent must ensure that proper maintenance of equipment is done, that personnel are trained properly in use of the equipment and that all parts, tools and manuals for the operation of the equipment are available for the trip.

3.8 SCUBA Diving

Diving can only be authorized when it is done in accordance with the relevant Australian Standards and other established safe practices. The relevant Australian Standards is AS/NZ4005, *Training and Certification of Recreational Divers.* No diving may be done - even to "help with a student's project" - unless these standards are met. Students must be certified as recreational SCUBA divers and comply with the Australian Standard for recreational diving.

These guidelines apply to all SCUBA diving activities. Lack of compliance is forbidden.

All diving work must be planned in advance to ensure the requirements of the diving codes can be met. All diving work must be carried out under the supervision of experienced and qualified divers who are medically fit to dive. The plan should include the location of the dive, the number of days planned at the site, maximum depth and duration of dives, people involved and their tasks, air supply required, emergency procedures and equipment, decompression schedules if required, consideration of the hazards above and below the surface, including currents of 0.5 knots or more, the residual inert gas status of the divers, and which boat is to be used. A copy of the plan must be lodged within the School concerned before leaving for the dive. All members of a dive team must have the opportunity to discuss the plan prior to leaving for the dive. Everyone in the team must be familiar with the plans and procedures.

For SCUBA diving, teams of at least two must always be used. Team members must maintain visual contact and be ready to render assistance to each other.

Following the dive, the Dive Supervisor and/or boat handler must report on the dive and any problems encountered, including problems with equipment.

The Dive Supervisor has the responsibility of ensuring that all involved are fully familiar with the dive plan, have adequate experience and training and are medically fit for the dive. The Dive Supervisor is also personally responsible for ensuring the equipment and vessel(s) are adequate and properly maintained.

All divers must hold a certificate of diving competency and an annually updated medical fitness certificate. All divers must maintain a log book which records the above information, in addition to actual dives. This must be kept for at least 7 years after the last entry.

Every diver must have the minimum dive equipment as set out AS/NZS 2299.1:1999 - *Australian /New Zealand Standard: Occupational Diving Operations - Part 1: Standard operational practice.*

If diving takes place from a boat, unless the boat is anchored no more than 250 m from the shore, the boat must be occupied by a boat handler who is familiar with diving hand signals and first aid. The boat handler must keep records of the entries and exits from the water and will assist in recovery of divers and equipment from the water. The boat handler must keep a look out for surfacing divers.

The boat handler must not act as a standby diver or diver's attendant while the boat is underway.

Standby diver and diver's attendant shall be provided for in accordance with AS/NZS 2299.1:1999 - *Australian /New Zealand Standard: Occupational Diving Operations - Part 1: Standard operational practice.*

3.9 Coastal and Estuarine Work

When planning coastal and estuarine work, information about tides, currents, weather and other factors affecting safety must be considered. Work on rock-platforms can be particularly hazardous and adequate precautions must be taken to prevent members of a group being swept from rocks or injured by unexpected waves. Training, experience of team-leaders and adequate personnel to ensure continuous vigilance are required. Supervisors must ensure that appropriate clothing, including footwear, is worn by all personnel (this is particularly important if someone has to go to the aid of someone else who is in difficulty). Persons sampling in flowing water, where waders are required, must also wear flotation devices.

3.10 Terrestrial Fieldwork

Precautions required for terrestrial fieldwork vary according to the type of environment and likely weather conditions, including possible weather extremes which may be encountered. Rainforest, desert or mountain environments present different hazards. The School must develop guidelines and codes of practice for each type of terrestrial fieldwork it conducts. Staff and students must receive training to ensure that all members of a particular fieldwork party know the guidelines/codes of practice relevant to the environment being visited.

4. Equipment and Communications

4.1 Equipment

Safety equipment used in fieldwork must be inspected and/or tested prior to the trip to ensure that it is in good working order, with fully charged batteries and sufficient fuel and that all appropriate parts, tools and manuals are available.

4.2 Special Safety Equipment

Depending on the type of work, the area to be visited and the likely weather conditions, special safety equipment may be required. This will include personal protective clothing such as coveralls, proper footwear or boots, sunglasses, insect repellent, sunscreen, sunhats, wetsuits, gloves, respirators or personal flotation equipment. Appropriate clothing and other precautions can help prevent snake and spider bites.

The nominated supervisor must ensure that the equipment and material required has been carefully prepared and made available, and that all personnel involved know how to use it. If anyone in the group has specific medical conditions requiring medication, or has allergies to anything they may encounter during the work, the supervisor must be informed. The first aid officer must be made familiar with relevant treatment for the condition.

4.3 Communications Equipment

Training and licensing are required for use of certain types of radios. Where these are the main form of communication, all members of a fieldwork group must be trained and licensed in their use. School Fieldwork Safety Officers or other appropriate staff must be familiar with the license requirements for the use of radios. Information about the requirements should be kept in the School concerned.

If mobile 'phones and/or Personal Locator Beacons (PLBs) are to be used, all members of a fieldwork group must be appropriately trained in there use. Battery power for communication equipment must be sufficient to last beyond the expected duration of the field trip.

4.4 Contacts and Continuity of Contact

No trip may take place without there being properly informed and competent designated contacts both within the field trip party and at the University base.

Before setting out on field trips, the schedules and methods for maintaining contact with the University and/or other contacts must be arranged and understood by everyone involved. Contacts at the University and elsewhere must be informed about the location of the trip, the expected duration of work, how to contact those on the field trip, the planned time of return and at what time subsequent to this an alarm will be raised. (See Fieldwork Hazard Assessment and Control Form).

For long trips, arrangements must be made to make contact on a regular basis, such as daily, or at some other regular interval if daily contact is impractical. The frequency of the regular contacts will depend on the length of the trip and where it is, how many people are involved and what sort of communication is actually available.

If a scheduled contact is not made, the contact at the University or home must be able to raise the alarm. If plans change, members of the fieldwork party must alert their designated contacts to prevent false alarms and waste of time.

Before any trip, contacts and members of the fieldwork group must have agreed how an alarm would be given under any worst case scenario (e.g. if the boat sinks, a vehicle catches fire) when the planned means of communication is no longer available. If it is appropriate to organize alternative means of communication, this must then be done.

4.5 Personnel and Contacts

Contacts at the University (the preferred contact point), at home and/or at locations near to the fieldwork must be notified of the intended route(s), timing and number of people involved in the work, etc., so that they can provide the information and help to direct search and rescue attempts. Maps and plans showing the locations of work must be lodged with appropriate members of staff and the contact person for each trip.

Anyone designated as the contact person for a particular fieldwork trip must be aware of all details of the proposed trip and know exactly what is required in the way of schedules for contact, the timing and method of raising alarms if contact is not made, the circumstances of the work and the registration numbers of vehicles and/or boats. The place(s) where boats are to be launched should be documented for each trip so that the contact can find them quickly if required.

If mobile 'phones or radios are used, the details (numbers, call-signs) must be notified to the designated contact before the trip.

No designated contact may pass on the responsibility simply by leaving a message for someone else to take over - if something changes, the new contact must be told personally and all the relevant information provided so that there is no break in the continuity of contact. The fieldwork party must also be informed of the change of contact person

5. Safety Officers

5.1 Primary Role

Heads of Schools in which laboratory work and/or fieldwork are being done must appoint a suitably senior member of staff to act as Safety Officer. The primary role of the Safety Officer is to provide co-ordination and assistance to staff and students doing laboratory work and/or fieldwork to ensure that the work is done as safely as possible. Safety Officers will assist fieldworkers in the planning, assessment of risk and training for proposed field-trips.

5.2 Actions and Responsibilities

The Head of School will ensure that supervisors of fieldwork and/or the School Fieldwork Safety Officer are fully supported in taking all actions necessary to create a climate of care for safety during fieldwork. The role of the School Fieldwork Safety Officer must include (among any other relevant things):

- reviewing, for the Head of School, all aspects of safety in laboratory and/or fieldwork;
- being up-to-date on relevant University policies, guidelines and fieldwork safety procedures;
- advising on training needs and training of staff and students doing fieldwork;
- checking that safety equipment is maintained and serviced and that equipment is adequately available for the activities being planned;
- advising the Head of School on the adequacy of commitment to safety of staff and students;
- organising requirements for auditing; and,
- reporting incidents to the Head of School

6. Reporting Incidents

The University's Accident/Incident Report Form will be used for reporting incidents. In addition to the normal process for Accident/Incident reporting, the Head of School and/or School Fieldwork Safety Officer must also receive a copy of the relevant Accident/Incident Report Form.

All incidents, unexpected hazards, accidents and injuries must be reported as soon as possible to the relevant Head of School. If injuries occur or there are mechanical breakdowns or accidents which affect completion of the work, safe return of staff or students, or endanger life, these must be reported verbally as soon as possible to the contacts at the University or home. Less serious events must be reported to the School Fieldwork Safety Officer on return to the School.

All incidents, hazards, injuries and breakdowns must be investigated by the person leading the fieldwork and the other people involved to determine the causes and any actions that may be taken to prevent a recurrence of the incident.

When an event occurs which affects work or future work, a debriefing must be held soon after the return of the fieldwork party, in accordance with procedures developed by the School. The debriefing must cover issues such as the adequacy of the planning, risk assessment and preparation for the trip, any incidents that occurred, how they were managed, and any lessons learned that could benefit future trips by members of the School concerned or any other School. Records of the debriefings must be retained in the School and be available when it is audited.

7. Policy Review

The University may make changes to this policy and procedures from time to time to improve the effectiveness of its operation. In this regard, any staff member who wishes to make any comments about this Policy may forward their suggestions to the Director, Human Resources.

8. Further Assistance

Any staff member who requires assistance in understanding this Policy should first consult their nominated supervisor who is responsible for the implementation and operation of these arrangements in their work area. Should further advice be needed, they should contact the Human Resources Consultant responsible for their campus.