Field work risk assessments

Guidance for staff and students

Department of Geography
Royal Holloway University of London

Introduction – What is a risk assessment?

A risk assessment must be carried out by the majority of staff/students planning a project. The only exception is those researchers carrying out computer related research from their home or usual College address.

A risk assessment is a careful examination of what could cause harm to people whilst taking part in a project, it aims to identify whether enough precautions, or 'control measures', are in place, or whether further action is required to minimize, or eliminate, the level of risk identified. The ultimate aim is to prevent accidents and illness.

This guide has been produced to help staff and students understand what information needs to be considered and included when writing a risk assessment. Reading through this guide will hopefully enable you to carry out your own risk assessment for any project you are planning.

The type of hazards identified, and the level of risk they present, will vary depending on the project undertaken but regardless of risk level all workers must show that they have considered the potential hazards they may face and ways to reduce the associated level of risk.

Introduction – Definitions

HAZARD: A hazard is anything that may cause harm. Consider a hole in the ground as an example.

RISK: The risk can be considered as the combination of the likelihood of something happening and the severity of the outcome. Using our example what is the likelihood of someone falling down the hole and being injured? The level of risk will depend on a number of things such as the size of the hole, or its location. The level of risk can, however, be reduced by using control measures.

CONTROL MEASURE: A control measure is something that will reduce the level of risk. It can be an action you need to take or a physical item. The obvious action would be to fill in the hole and eliminate the risk altogether but this may not be able to be done straight away. We must use other control measures in the interim including putting up barriers, lighting the area, using warning signs and diversions, etc. By putting these control measures in place the severity may remain the same but the likelihood of someone falling is significantly reduced. Another control measure might involve temporarily covering the hole. In this instance, although the hazard has not been removed entirely, both the severity and likelihood of an accident occurring have been reduced.

The risk assessment form

- A meeting should be held between the fieldworker and their supervisor to discuss and complete the risk assessment. The information provided by the forms is intended to enable the risks to be assessed fully by the individual, their supervisor and the departmental health and safety co-ordinator (HSC).

- There are 2 parts to the risk assessment (Annex 1 and Annex 2). Both must be filled out electronically and they should be submitted together as one document. It is important that you keep a copy for future reference or amendment.

- Provide as much detail as possible – remember that some people reading your assessment may not be familiar with your plans.

- Fieldwork can not take place until risk assessments have been received and approved by the HSC. Risk assessments should be handed in to the HSC at least two weeks before the start of the project to allow time for amendments if required.

Annex 1 :

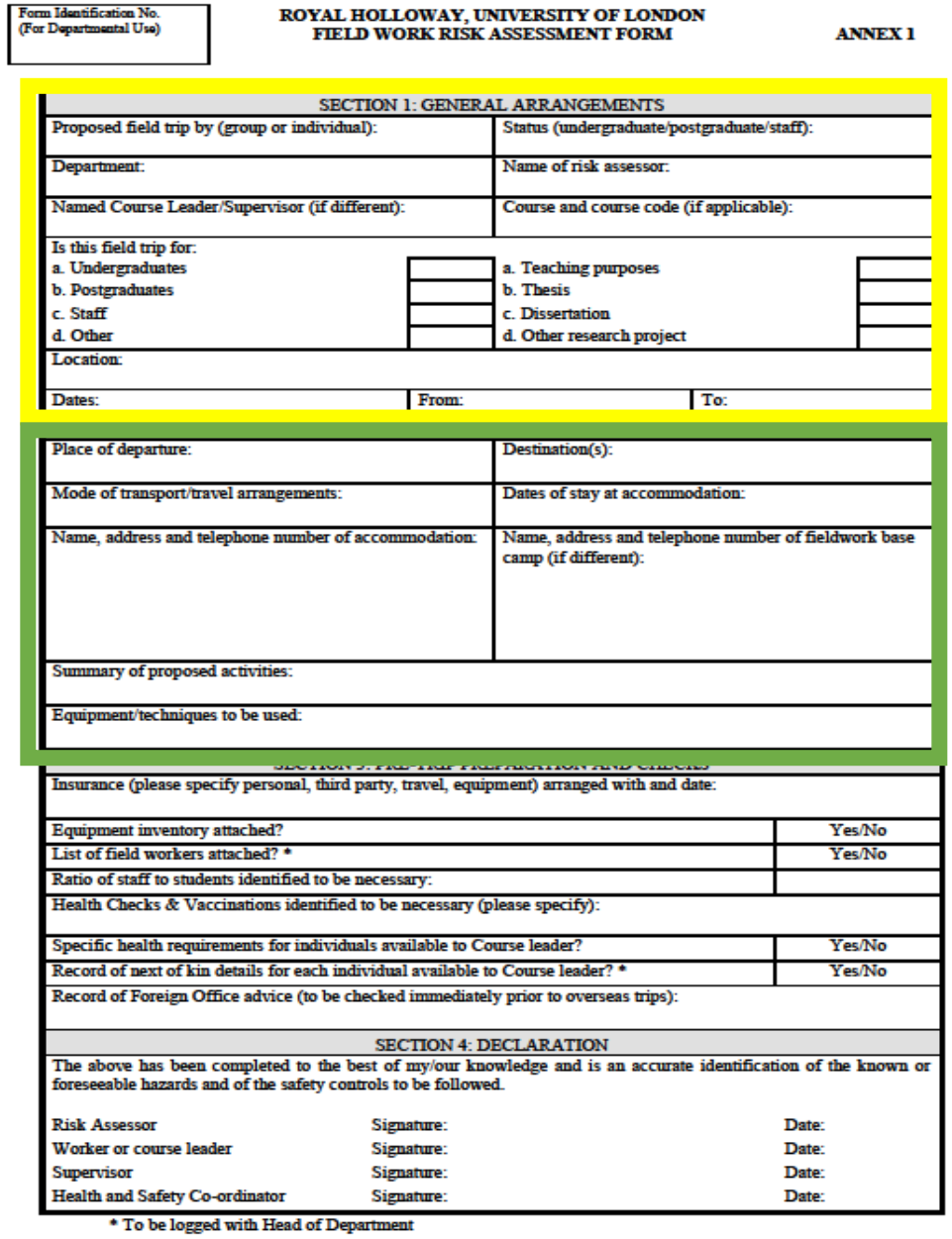
Annex 1 is for detailing the logistics of your field trip e.g. who, where, when etc.

Section 1 – General Arrangements:

- Fill out all boxes.
- ‘Proposed field trip by’ – add your name
- ‘Name of risk assessor’ – this should be you and your supervisor.
- ‘Location’ – list all locations you plan to visit

Section 2 – Detailed itinerary

- If doing field work in more than one location add details for all sites.
- The ‘fieldwork base camp’ will be the location you are carrying out your field work. If this is an outdoor location with no address you should add your mobile number.
- In the summary of proposed activities box add a sentence to explain your planned research activities. There is no need to include detailed methodology here.
- List the equipment you intend to use.



Form Identification No. (For Departmental Use)

ROYAL HOLLOWAY, UNIVERSITY OF LONDON
FIELD WORK RISK ASSESSMENT FORM **ANNEX 1**

SECTION 1: GENERAL ARRANGEMENTS

Proposed field trip by (group or individual):	Status (undergraduate/postgraduate/staff):
Department:	Name of risk assessor:
Named Course Leader/Supervisor (if different):	Course and course code (if applicable):

Is this field trip for:			
a. Undergraduates		a. Teaching purposes	
b. Postgraduates		b. Thesis	
c. Staff		c. Dissertation	
d. Other		d. Other research project	

Location:

Dates:	From:	To:

Place of departure:	Destination(s):
Mode of transport/travel arrangements:	Dates of stay at accommodation:
Name, address and telephone number of accommodation:	Name, address and telephone number of fieldwork base camp (if different):

Summary of proposed activities:

Equipment/techniques to be used:

Insurance (please specify personal, third party, travel, equipment) arranged with and date:

Equipment inventory attached?	Yes/No
List of field workers attached? *	Yes/No
Ratio of staff to students identified to be necessary:	

Health Checks & Vaccinations identified to be necessary (please specify):

Specific health requirements for individuals available to Course leader?	Yes/No
Record of next of kin details for each individual available to Course leader? *	Yes/No

Record of Foreign Office advice (to be checked immediately prior to overseas trips):

SECTION 4: DECLARATION

The above has been completed to the best of my/our knowledge and is an accurate identification of the known or foreseeable hazards and of the safety controls to be followed.

Risk Assessor	Signature:	Date:
Worker or course leader	Signature:	Date:
Supervisor	Signature:	Date:
Health and Safety Co-ordinator	Signature:	Date:

* To be logged with Head of Department

Annex 1 :

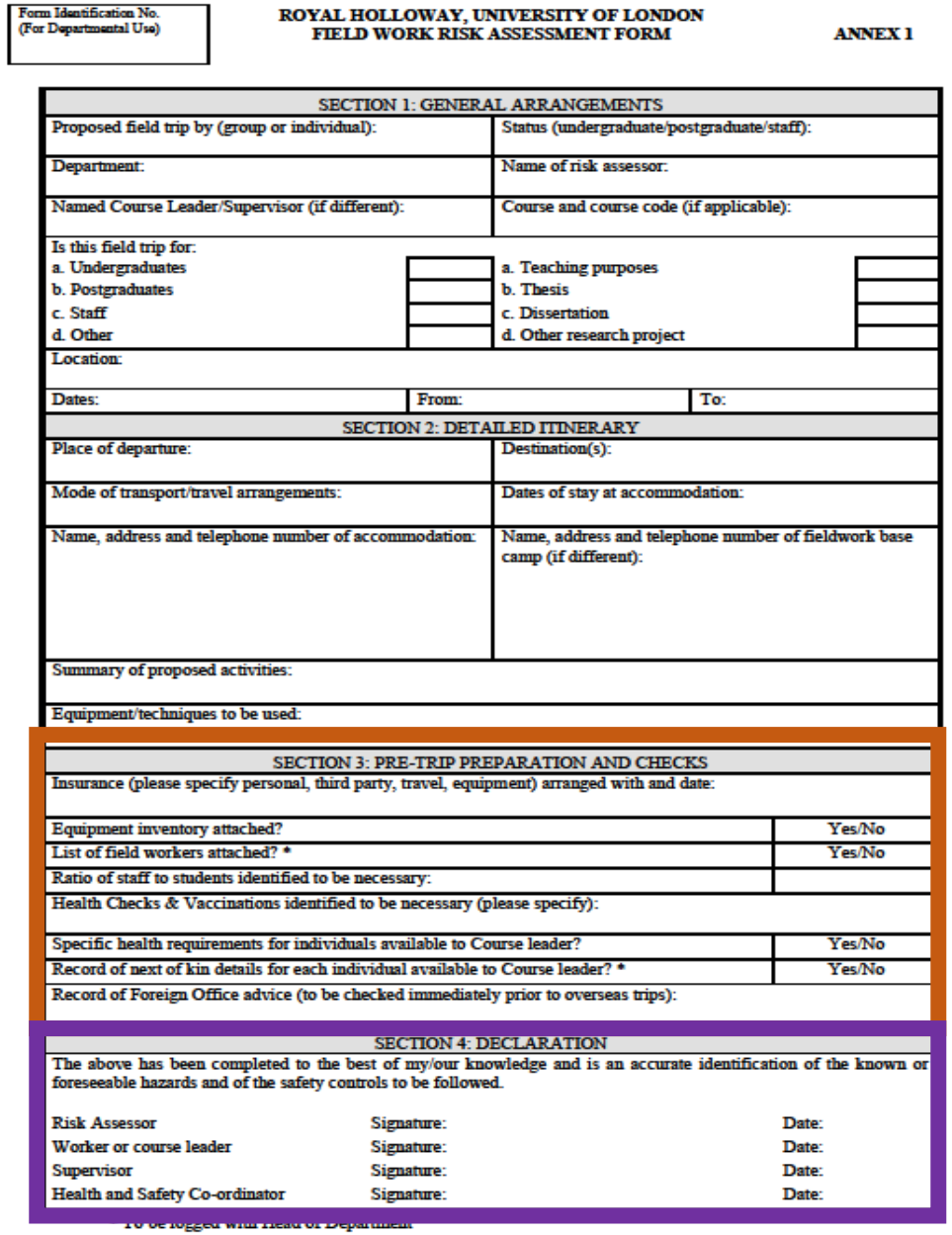
Section 3 – Pre-trip preparation and checks:

Not all of these will apply to every risk assessment. Delete the 'Yes/No' options as appropriate or replace with a 'n/a'.

- 'Insurance' – details of your insurance are required if you are travelling abroad
- 'Equipment inventory' – if you have listed your equipment in section 2 answer 'yes'. If your equipment list is large it can be attached as a separate document.
- 'List of fieldworkers' is only relevant to group field trips.
- 'Ratio of staff to students' is only applicable to staff-led trips.
- List any vaccinations required if working abroad
- 'Specific health requirements' and 'record of next of kin' are only relevant to group field trips.
- 'Record of Foreign Office advice' should be included if travel outside of Europe or the USA is planned.

Section 4 – Declaration:

- The form must be signed by you as the risk assessor
- Your supervisor must also sign before it is submitted.
- The Health and Safety Co-ordinator will sign on approval of the assessment. If not approved the H&S co-ordinator will return the form with comments/questions and request re-submission.



Form Identification No. (For Departmental Use)

ROYAL HOLLOWAY, UNIVERSITY OF LONDON
FIELD WORK RISK ASSESSMENT FORM **ANNEX 1**

SECTION 1: GENERAL ARRANGEMENTS

Proposed field trip by (group or individual):	Status (undergraduate/postgraduate/staff):
Department:	Name of risk assessor:
Named Course Leader/Supervisor (if different):	Course and course code (if applicable):

Is this field trip for:

a. Undergraduates		a. Teaching purposes	
b. Postgraduates		b. Thesis	
c. Staff		c. Dissertation	
d. Other		d. Other research project	

Location:

Dates:	From:	To:

SECTION 2: DETAILED ITINERARY

Place of departure:	Destination(s):
Mode of transport/travel arrangements:	Dates of stay at accommodation:
Name, address and telephone number of accommodation:	Name, address and telephone number of fieldwork base camp (if different):

Summary of proposed activities:

Equipment/techniques to be used:

SECTION 3: PRE-TRIP PREPARATION AND CHECKS

Insurance (please specify personal, third party, travel, equipment) arranged with and date:

Equipment inventory attached?	Yes/No
List of field workers attached? *	Yes/No
Ratio of staff to students identified to be necessary:	

Health Checks & Vaccinations identified to be necessary (please specify):

Specific health requirements for individuals available to Course leader?	Yes/No
Record of next of kin details for each individual available to Course leader? *	Yes/No

Record of Foreign Office advice (to be checked immediately prior to overseas trips):

SECTION 4: DECLARATION

The above has been completed to the best of my/our knowledge and is an accurate identification of the known or foreseeable hazards and of the safety controls to be followed.

Risk Assessor	Signature:	Date:
Worker or course leader	Signature:	Date:
Supervisor	Signature:	Date:
Health and Safety Co-ordinator	Signature:	Date:

To be logged with Head of Department

Annex 2:

ROYAL HOLLOWAY, UNIVERSITY OF LONDON: FIELDWORK RISK ASSESSMENT FORM

Name of Person Undertaking Assessment		Date Conducted	Field trip / Field work being undertaken					
Ref No	Hazard under review	No & Description of Staff/Students/ Others Involved	Existing Controls	Assessed Level of Risk			Further Action Required	By (Date) + Review Date
				L	M	H		
Physical Hazards (e.g. extreme weather, mountains and cliffs, quarries, excavations, marshes and quicksand, fresh or seawater, etc)*								
Biological Hazards (e.g. poisonous animals or plants, aggressive animals, soil (tetanus), freshwater where rats may be endemic (leptospirosis or Weil's disease), dense vegetation (where Lyme disease from sheep ticks could be endemic), insects, hygiene, etc)*								
Chemical Hazards (e.g. pesticides, dusts, contaminated soils, chemicals brought on the site, biological fixatives, etc)*								
Man-made Hazards (e.g. electrical equipment, machinery, transport and vehicles, insecure buildings, slurry and silage pits, power and pipelines, military property)*								
Personal Safety (e.g. lone working, night working, attack on person or property, cultural differences, poor communication/remoteness etc)*								
Environmental Hazards (e.g. pollution, rubbish, disturbance of eco-system, etc)*								
Other Hazards (please specify)*								

* Specify precisely which apply

Annex 2

Annex 2 details identified hazards and their associated level of risk. In order to complete Annex 2 you should think about the following :

- Where? - what kind of environment will you be working in?
- Who? - will it involve others?
- How? - what equipment will you need to use?
  - how will you get there?
- When? - what time of year/day will you be working?

Consider these locations and the hazards they present

How does the level of risk change due to:

Number of field workers?
Familiarity with location?
Weather?
Season?

Annex 2 explained

At the very top of Annex 2 there are 3 columns:

Name of person undertaking risk assessment	Date conducted	Field trip/Field work to be undertaken
Enter your name and your supervisor's name if the assessment has been discussed with them	Enter the date the risk assessment was written	Give a brief description of the field work its location

The rest of Annex 2 is split into 7 columns:

Ref No	Hazard under review	No & Description of personnel involved	Existing controls	Assessed level of risk	Further action required	By (Date) + Review Date
Number each hazard identified e.g. 1	Describe each hazard and the problems it could lead to egg wet/windy weather could lead to exposure/ hypothermia/ other illness	How many people will be at risk? Will anyone be helping you? Will it involve members of the public? E.g. 1 student, 1 staff, up to 10 members of the public	What is in place to reduce the risk identified? E.g. will have appropriate water-proof clothing	Tick the relevant box to indicate whether the risk level is low, medium or high bearing in mind your existing controls. See next slide for further info.	Does anything extra need to be done before or during the field trip to reduce the risk level? E.g. check the weather forecast daily / buy water-proof clothing	This is only relevant if you have identified further actions? When must they be completed by?

Assessing the level of risk

To establish the level of risk (*Low*, *Medium* or *High*) associated with each hazard you must consider the frequency of an occurrence taking place, and the likely severity of the consequences. Take into account the number of people who may be involved and the existing control measures you already have in place.

STEP 1 – Hazard rating

Establish the frequency and severity of each of your hazards using the 2 lists below.

Probable Frequency
1 = Zero to Very Low
2 = Very unlikely
3 = Unlikely
4 = Likely
5 = Very likely
6 = Almost certain

Severity
1 = No Injury or Illness
2 = Minor Injury or Illness
3 = 'Lost Time' Injury or Illness
4 = 'Over 3 Day' Injury or Illness
5 = Major Injury or Illness
6 = Fatality, Disabling Injury/Illness

Then, using table 1 below multiply your estimated 'Probable Frequency' rating by your estimated 'Severity' rating to derive your hazard rating.

	SEVERITY					
FREQUENCY	6	5	4	3	2	1
6	36	30	24	18	12	6
5	30	25	20	15	10	2
4	24	20	16	12	8	4
3	18	15	12	9	6	3
2	12	10	8	6	4	2
1	6	5	4	3	2	1

STEP 2 – Level of risk

Using the hazard rating you arrived at using table 1 now refer to table 2 (below). Your Hazard Rating will fall within one of the six bands in column 1. From the appropriate hazard rating band, read across the table to establish the level of risk you are dealing with, i.e. *LOW*, *MEDIUM* or *HIGH*.

Hazard rating	Level of risk
0-5	LOW
6-11	
12-17	MEDIUM
18-23	
24-29	HIGH
30-36	

Any hazards calculated to be medium or high risk require the addition of further control measures until they become low risk.

Hazard identification

For all field work there are numerous hazards to consider.

The following pages list common hazards that are relevant to a range of field work scenarios. Not all will apply to everyone but you need to think about which ones could impact you.

These examples are by no means exhaustive and are meant for guidance. In discussion with your supervisor you should consider any further hazards that may be applicable to the field work you are planning. Perhaps, although relevant to your fieldwork, you need to consider alternative control measures to those suggested here due to the location you are working in, or the people you are working with.

Physical hazards

Hazard	Control measures
Tides – risk of becoming trapped or washed out to sea	Consult tide tables, plan work so that you work on a falling tide
Weather conditions (wet, cold, hot, dry) – risk of exposure, dehydration, exhaustion etc.	Consult weather forecast before setting out each day, allow flexibility for rescheduling if necessary, wear appropriate clothing, be prepared for changing weather conditions, ensure you have plenty of food and water, consult maps to identify places of shelter when necessary, use sun block
Cliffs/Quarries – risk of rock falls, cliff collapse	When working below a cliff face wear a safety helmet, do not climb, do not approach the edge of a cliff face, do not work at cliff faces or on cliff tops in very wet/windy weather
Uneven/slippery terrain – risk of slips, trips and falls	Wear good boots with ankle support, working after dusk not permitted
Mudflats and estuaries – risk of sinking and twisted ankles	Avoid crossing active channels, work on a falling tide, do not enter fast flowing water, do not enter water above knee height
Working at altitude – risk of altitude sickness	Keep hydrated, ensure acclimatisation period is included in schedule, seek specialist advice before travel

Biological hazards

Hazard	Control measures
Soils – risk of contamination from bacteria	Wear gloves when in contact with soils, wash hands before eating/drinking, do not enter fields with DEFRA notices on them even if given permission by the land owner.
Wild/farm animals – risk of being attacked by aggressive animals	Do not approach animals, avoid passing through fields with livestock if possible, if necessary pass through fields quickly and avoid walking near the animals
Poisonous plants – risk of skin disorder or illness	Wear long trousers and sleeves
Water borne diseases – risk of infection and illness	Wear gloves when collecting water samples, do not drink untreated water, wash hands before eating or drinking, drink only boiled/filtered or bottled water.
Ticks – risk of Lyme disease, tick bite fever	Wear long trousers and sleeves, check skin for ticks each evening, to remove a tick use a tick removal tool or fine-pointed tweezers if available, if symptoms occur seek medical attention
Biting insects – risk of transmission of disease e.g. malaria, yellow fever	Use insect repellent, keep covered, avoid work at dawn and dusk when insects are most active, if appropriate take anti-malarial tablets, carry anti-histamine in case of bites

Chemical hazards

Hazard	Control measures
Pesticides – risk of illness	Wear gloves when in contact with soils, wash hands before eating/drinking
Contaminated soil – risk of illness	Wear gloves when in contact with soils, wash hands before eating/drinking, keep any open wounds covered
Air pollution – risk of damage to lungs	Wear face mask in highly polluted areas, check that others involved do not suffer with breathing difficulties e.g. asthma
Crop-spraying – risk of ingestion	Seek information from land owners as to whether crop-spraying has occurred recently, avoid pools or puddles which may contain residual chemicals
Use of chemicals in laboratory	Use all chemicals in a fume cupboard, read all relevant CoSHH forms before commencing work, use relevant Personal Protective Equipment, receive training from Technical staff
Water pollution – risk of illness and build up of toxic chemicals	Wear gloves when sampling water, do not drink water from unknown sources

Man-made hazards

Hazard	Control measures
Abandoned/insecure buildings – risk of building collapse,	Do not enter buildings unless told it is safe to do so by appropriate person, wear hard hats and hi-viz waistcoat,
Traffic – risk of road accident	Obey rules of the road, cross roads at designated locations where possible, if working beside major roads wear bright clothing or a hi-visibility waistcoat
Machinery/equipment – risk of injury	Receive full training from relevant member of staff before using any machinery, follow established procedures
Discarded rubbish – risk of cuts to skin and infection	Wear shoes at all times, wear gloves if coming into contact with litter/waste
Agricultural land – ploughed fields and drainage ditches increase the risk of trips and sprains	Use existing bridges to get across ditches
Protective fences e.g. electrified or barbed – risk of injury	Do not work close to fences, if close work is required avoid working with your back to the fence to reduce the risk of backing into it. Do not jump over fences – use gates or stiles.

Personal safety

Hazard	Control measures
Lone working – risk of personal attack	Work in public areas, have mobile phone on at all times, do not enter unfamiliar areas alone, do not carry more money than needed, leave details of your itinerary with a friend or family member, carry a personal alarm
Remoteness – risk of poor communication	Leave schedule with responsible person, no lone working permitted
Cultural differences – risk of offending others	Plan interview questions before going into the field, if offence is caused remove self from situation, respect local customs, dress appropriately
Medical conditions/disabilities	Ensure adequate medication is carried, know your limitations and stop work if necessary, let someone know of your medical condition before embarking on fieldwork, carry a first aid kit
Public unrest/Military action	If unrest breaks out leave the area, if travelling abroad consult Foreign Office advice
Unfamiliar locations- risk of getting lost	Study maps of the area before setting out, carry mobile phone at all times, let someone know where you are going and what time you plan to be back.

Environmental hazards (note that environmental hazards include risks from the environment to the individual but also risks to the environment as a result of your actions)

Hazard	Control measures
Working near roads for long periods of time – risk of damage to lungs	Wear a face mask, take regular breaks away from polluted areas
Disturbance of ecosystem	Where possible follow existing paths, take all rubbish home
Rusting/Sharp items of litter	Always wear shoes when walking in a riverbed, wear gloves if handling discarded litter
Risk of absorption of contaminants through skin	Wear gloves if handling plants etc. growing near the roadside, cover any open cuts
Forest fires – risk of destruction of environment	Do not smoke in dry forests, keep glass equipment covered in high temperatures

Laboratory hazards

Hazard	Control measures
Use of samples/chemicals – risk of contamination and reduced hygiene	Wear lab coat and nitrile gloves, wash hands after all lab work, mobile phone not to be used in labs, wear closed in shoes and long trousers to cover legs and feet, no food or drink in the lab.
Lone working	Get permission from Lab Manager before any lab work is carried out, all lab work to be carried out between 9am-4.50pm.
Broken glass/sharps – risk of cuts	Clear up all broken glass, dispose of broken glass in appropriate waste container, inform lab manager of any breakages.
Use of chemicals – potential for chemical burns/fume inhalation	Follow all instructions given by Lab Technician and guidance given on CoSHH forms, wear recommended personal protective equipment as required, label all containers, adhere to written procedures, work in fume hood where required.
Water – risk of slips	Clear up any spilt water immediately, inform other lab users if floor is wet, do not leave taps running, use deionised water units with care.
Use of hotplates, ovens, furnaces – risk of burns	Follow instructions given by Lab Technician, use appropriate heat proof gloves and/or tongs.
Prolonged use of microscopes/ computers – risk of eye strain and/or back ache	Take regular breaks, adjust seat to comfortable height.

Other hazards

Hazard	Control measures
Working in other establishments	Check establishments have their own safety guidelines in place (they should be able to provide you with their own risk assessments), follow all instructions given by establishment
Manual handling – risk of injury to back	Bend at the knees when lifting items, hold items close to the body, seek proper training in manual handling techniques, do not carry equipment further than is necessary, seek help from another person
Working in other people's homes	Do not enter the house if the appropriate person is not available, leave the house immediately if anybody becomes aggressive/argumentative
Trespassing	Get written permission from landowner/relevant authority before entering site
Noise – risk of damage to ears	Wear ear protectors,
Change of schedule due to unexpected events	Extra days available if plans need to change, flexibility built into trip plan to allow for required changes

Example:

Name of Person Undertaking Assessment	Date Conducted	Field trip / Field work being undertaken
Claire Mayers	14 July 2016	Vegetation survey in Windsor Great Park, August 2016

Ref No	Hazard under review	No & Description of Staff/Students/ Others Involved	Existing Controls	Assessed Level of Risk			Further Action Required	By (Date) + Review Date
				L	M	H		
Physical Hazards (e.g. extreme weather, mountains and cliffs, quarries, excavations, marshes and quicksand, fresh or seawater, etc.)*								
1	Hot weather – risk of dehydration, sun burn and sunstroke	1 student, 1 family member	Apply high factor sun cream at regular intervals, work in the shade during hottest part of the day, wear a hat, carry sufficient drinking water.	x				
2	Heavy rain – ground may become slippery and lead to injury	1 student, 1 family member	Check local forecast and change plans if bad weather predicted. Flexibility built into schedule.	x			Check weather forecast before departure	1 Aug – 30 Aug 16
3	Uneven ground – risk of tripping, twisting ankles/knees	1 student, 1 family member	Wear appropriate footwear with ankle support	x				
Biological Hazards (e.g. poisonous animals or plants, aggressive animals, soil (tetanus), freshwater where rats may be endemic (leptospirosis or Weil's disease), dense vegetation (where Lyme disease from sheep ticks could be endemic), insects, hygiene, etc.)*								
4	Poisonous plants – risk of skin irritation, upset stomach	1 student, 1 family member	Wear gloves when handling plants,	x			Purchase book / carry out internet research on poisonous plants found in Windsor Great Park	31 July 2016
Chemical Hazards (e.g. pesticides, dusts, contaminated soils, chemicals brought on the site, biological fixatives, etc.)*								
-								
Man-made Hazards (e.g. electrical equipment, machinery, transport and vehicles, insecure buildings, slurry and silage pits, power and pipelines, military property)*								
-								
Personal Safety (e.g. lone working, night working, attack on person or property, cultural differences, poor communication/remoteness etc.)*								
-								
Environmental Hazards (e.g. pollution, rubbish, disturbance of eco-system, etc.)*								
5	Damage to local environment	1 student, 1 family member	Take all litter home, avoid treading on sensitive areas	x				
Other Hazards (please specify)*								
-								