## Before filling in this risk assessment

As part of your University induction and regular training you should have taken a set of compulsory courses: https://www.stir.ac.uk/about/professional-services/estates-and-campus-services/safety-environment-and-continuity/safety/induction-courses/

The University has further information available on their health and safety pages: https://www.stir.ac.uk/about/professional-services/estates-and-campus-services/safety-environment-and-continuity/safety/

The sport science safety pages have more specific information: https://sportsciencesafety.stir.ac.uk/

## Local safety policy for Sport Science

The Faculty takes issues of health and safety and best practice for risk management very seriously. All research projects, including undergraduate dissertation research and postgraduate research should complete a risk assessment. All researchers should make themselves aware of the specific needs their research has for compliance with health and safety legislation. The division carries out Health and Safety inspections regularly to ensure a safe working environment. All staff, project students and visiting researchers should ensure that they have received up to date basic training in Health and Safety either through their supervisor or the laboratory manager. Staff are required to take a series of courses on arrival and at regular intervals. To undertake any applied research everyone must obtain a permit to work which you will be given as part of your laboratory induction and can be renewed on request.

## Who is responsible?

The operational responsibility for health and safety policy for Health Science and Sport lies with head of faculty Prof Jayne Donaldson. The Safety Officer, Dr Nidia Rodrigues Sanchez is responsible for coordination and communication of health and safety policy & procedures in the faculty. Academic staff are responsible for conducting risk assessments for all undergraduate and taught postgraduate activities both field and laboratory based. Academic supervisors and postgraduate students are responsible for conducting risk assessments for all research activities both field and laboratory based. Accident and incident reports should be directed the School Manager, Elizabeth Robertson. Radiation Protection Supervisors are; Gillian Dreczkowski and Chris Grigson. A list of first aid trained staff is provided on the door of each laboratory.

## Contacts

|  |  |  |
| --- | --- | --- |
| Emergency: Fire, First Aid, Ambulance | 2222 (internal phone) | 01786 46 7999 |
| Head of Faculty: Prof Jayne Donaldson | 7657 6281 | 01786 46 7657 6281 |
| Faculty Manager: Elizabeth Robertson | 7493 | 01786 46 7493 |
| Safety Adviser: Dr Nidia Rodrigues Sanchez | 6098 | 01786 46 6024 |
| Radiation protection supervisor: Gillian Dreczkowski: Cottrell room 3B144 | 6297 | 01786 46 6297 |
| Radiation protection supervisor: Chris Grigson: Pathfoot room C4 | 6469 | 01786 46 6469 |
| First Aiders: See signs on laboratory doors |  |  |
| Defibrillator: See signs in all laboratories |  |  |
| Building Defects | 2444 | 01786 46 2444 |
| University Safety Adviser | 7079 | 01786 46 7079 |
| University Fire Officer | 6147 | 01786 46 6147 |

When phoning in an emergency, be prepared to state the service you require, the extension from which you are calling, the location of the emergency, your name and any other relevant information.

## Equipment information

Manufacturers manuals and Safe operating procedures (SOPs) are available in the holders adjacent to equipment. Your supervisor may provide additional SOPs. Pay attention to pre use equipment checks.

This risk assessment form should be filled in with the guidance in the appendix then submitted to the faculty safety officer for approval in good time before work commences. Do not start work before the safety officer has approved the risk assessment and updated your induction record.

## Fieldwork and travel

The university follows the following guidance that covers travel and fieldwork: https://www.stir.ac.uk/media/stirling/services/estates-and-campus-services/documents/Safety-in-Fieldwork-Guide---Current-2018-.pdf

## Hazard categories

Ethical approval requires hazards to be ascribed to a category. Use the following categories when describing the hazards in the table on the next page. Mark each category clearly.

|  |  |
| --- | --- |
| **F1. Working in a dangerous area:** e.g. high crime area, area of civil/political unrest, psychiatric unit or prison. Check with the Foreign and Commonwealth Office Travel Website and with University Insurance Officer prior to travel overseas. Discuss risk assessment/control measures with the management of any institution involved or with local police/law enforcement.  - Take into account the possibility of psychological injury (trauma/PTSD and stress) as well as physical injury.  - Give contact details and measures to be taken in case of emergency. | Yes  No |
| **F2.** **Working in an isolated geographical area:** An isolated geographical area can include city parks, urban brownfield site as well as a remote hillside or a valley.  - Take into account physical isolation through distance, screening effect of shrubbery/woodland or lack of mobile phone signal, etc. rather than just distance from “civilisation”.  - Give contact details and measures in case of emergency. | Yes  No |
| **F3. Lone working:** Lone working can include unaccompanied visits to research subjects in their own home, etc., as well as working alone in the field. Working alone in an office environment with access to a phone is not usually categorised as “lone working”.  - Give contact details and measures in case of emergency | Yes  No |
| **F4.** **Working with equipment:** Please detail the risks associated with this  - Give the manufacturer and model  -Take into account how the equipment and users are affected by the location | Yes  No |
| **F5. Environmental hazards:** e.g. extremes of weather (temperature, wind speed, ice, etc.), rough terrain, animals, plants, earthquake, water quality, contaminated land, derelict/unstable buildings are examples of factors to be considered here. | Yes  No |
| **F6. Chemical & biological hazards:** e.g. laboratory and other chemicals and mixtures (eg, oils, acids, chemical wastes (pre-existing or generated during the project), detergents, crop spraying or fumigation, diseases (of humans, animals or plants).  - If this section is applicable, a full COSHH risk assessment will always be required. | Yes  No |
| **F8.** **Emotional risks:** e.g. sensitive research. This can include many areas that can be emotional triggers – research with or regarding children, animals, conflict (war, terrorism, holocaust studies, etc.), and natural disasters are examples.  - The predisposition of the individuals should always be taken into account as an individual’s emotional triggers depend very much upon that individual’s personal/family history. | Yes  No |

## Fieldwork and travel details

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Faculty / Service Area: | Faculty of Health Science and Sport | | Location: | |  | | |
| Description of work task / equipment /area being assessed: | | | | | | | |
|  | | | | | | | |
| Completed by: | |  | Date: | | |  | |
| Reviewed by (Line Manager): | |  | Date of next review: | | |  | |
| On site emergency contact | |  | | | | | |
| Number of people on site | |  | | | | | |
| Location of work | |  | | | | | |
| Date depart | |  | | Date return | | |  |
| First aid provision | |  | | | | | |
| Mode of transport | |  | | | | | |
| Drivers names and license numbers | |  | | | | | |
| Vehicle types and registration | |  | | | | | |
| Special requirements from persons responsible for site. e.g. Hard hat for construction site visit | |  | | | | | |

## Field work and travel checklist

|  |  |  |  |
| --- | --- | --- | --- |
| Do all involved understand their responsibilities? | YES / NO | Have all involved received the required training? | YES / NO |
| Are there risk assessment to cover all activities including travel? | YES / NO | Is there a COSSH risk assessment for any hazardous substances? | YES / NO |
| Have you filled in the itinerary section? | YES / NO | Is there adequate supervision / support? | YES / NO |
| Is there a list of contact details for all involved? | YES / NO | Are food and accommodation arrangements adequate? | YES / NO |
| Have vehicles been serviced and checked to be roadworthy? | YES / NO | Are the drivers qualified and hold a valid license? | YES / NO |
| Have the driving hours been assessed? | YES / NO | If driving a personal vehicle has your insurer been informed? | YES / NO |
| Have you filled in the travel route section? | YES / NO | How will you call for help in the field? | YES / NO |
| Is a well-stocked first aid kit available at all times? | YES / NO | Have all been given emergency contact numbers | YES / NO |
| Have all been trained to use the equipment? | YES / NO | Has all equipment been checked? | YES / NO |
| Do all have suitable clothing? | YES / NO | Are all aware of the personal safety issues of this journey? | YES / NO |
| Have you exchanged emergency procedures and risk assessments with the person responsible for the site? | YES / NO | Are adequate controls in place for lone working? | YES / NO |

## Risk assessment part 1 Travel

| **What are the hazards?** | **Hazard category** | **Who might be harmed and how?** | **What are you already doing to control the risks?** | | **\*Risk rating** | **What additional controls (if any) are required to reduce the risks?** | **\*Risk rating** | **Action by who?** | **Action by when?** | **Date of completion** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **The Driver** |  |  |  | |  |  |  |  |  |  |
| Inexperience  Unqualified  Inappropriate driving techniques |  | The driver  Passengers  Other road users  Pedestrians  Through:  Injury as a result of Contact with moving vehicle  Impact with vehicle interior  Restraint by vehicle safety systems | The driver has a valid driving license which has been checked the license number is recorded above  The driver has previous experience of driving this type of vehicle  Ongoing assessment carried out. Any changes in driving tasks are assessed. Re-assessment takes  place following an accident or near miss, investigation carried out to determine whether the driver’s  attitudes, skills or behaviour, or the  nature of the driving task or vehicle  contributed to the crash, and what  actions are necessary to prevent a  reoccurrence. | |  |  |  |  |  |  |
| Driving ability impaired due to alcohol/drugs | Anyone who is asked to drive as part of their job has been informed that they must not drive while under the  influence of alcohol or drugs. | |  |  |  |  |  |  |
| Health/Fitness issues – fitness to drive affected by medical conditions or ill health | Anybody who drives as part of their job is sufficiently fit and healthy to do so safely and not put themselves or  others at risk. Any reportable medical  conditions have been reported to the  DVLA (see The “At A Glance Guide to  the Current Medical Standards of  Fitness to Drive” at:  www.dvla.gov.uk/media/pdf/medical/  aagv1.pdf) and are on record with the faculty office.  All drivers comply with the minimum eyesight standard for driving | |  |  |  |  |  |  |
| Decreased driving ability due to distractions – eg talking on the phone | Drivers instructed to park up before using any devices unrelated to driving | |  |  |  |  |  |  |
| **The Journey** |  |  |  | |  |  |  |  |  |  |
| Unrealistic scheduling –  resulting in long journeys  & long driving hours  without adequate rest  breaks – leading to driver  tiredness & falling asleep  at wheel. |  | The driver  Passengers  Other road users  Pedestrians  Through:  Injury as a result of Contact with moving vehicle  Impact with vehicle interior  Restraint by vehicle safety systems  Adverse health effects due to stress and overwork | Use safer transport when possible, eg travel by train/plane Mini buses/coaches  Avoid long distance travel where possible by using remote  communications, eg telephone/  email/video conferencing  Guidelines are in place for maximum unbroken driving hours.  Journey scheduling allows sufficient time for drivers to take account of reasonably foreseeable weather and traffic conditions and to comply with speed limits. Schedules avoid night driving where possible.  Where staff need drive a long distance from their usual place of work or unit base to a work location and the journey is likely to take  more than 2 hours, consider travel the night before and stay overnight. | |  |  |  |  |  |  |
| Unsafe routes  Driver unfamiliar with area | When planning the journey take into  account road type, hazards such as road works, accident “black spots”, traffic densities, and high risk features, eg schools.  Drivers are given clear route directions.  A full risk assessment is carried out when anyone is required to drive abroad, and appropriate actions are put in place, eg use of local professional drivers or alternative forms of transport, or additional information and or training. In some countries, self driving may  be safer than using local drivers.  Staff should not be asked to drive immediately following a long flight where jet lag is an issue. Alternative arrangements such as pick up drivers/taxis, rest periods etc should be planned. | |  |  |  |  |  |  |
| Adverse weather conditions. | Driving in adverse weather conditions, eg fog, very high winds, ice, snow, flooding etc is actively discouraged.  Schedules and routes are rearranged where necessary.  Employees are never pressurised to complete journeys where weather conditions are exceptionally difficult. | |  |  |  |  |  |  |
| **The vehicle** |  |  |  | |  |  |  |  |  |  |
| Vehicle in poor condition  Mechanical failure of  Vehicle  Driver unfamiliar with  Vehicle  Vehicle not suitable for the  Activity |  | The driver  Passengers  Other road users  Pedestrians  Through:  Injury as a result of Contact with moving vehicle  Impact with vehicle interior  Restraint by vehicle safety systems  Musculosketal injuries from incorrect driving position or driving posture.  Driver/Passenger struck by movement of unsecured loads being carried in the vehicle | All vehicles must be adequately maintained in a safe and fit condition. They have a valid MOT (if over 3 years old) and adequate, valid insurance.  Adequate breakdown insurance avoids people being stranded in a remote location and reduces exposure to dangerous weather and the threat from others  If employees use their own vehicles for work purposes, the drivers will be insured for business use.  Drivers have been informed that they need to carry out basic vehicle safety checks before they begin their journey.  Drivers are given time to familiarise themselves with new vehicles. Information and training is provided where necessary.  Any goods and equipment to be carried in the vehicle are properly secured so that it doesn’t cause injury in the event of an accident, and  drivers aren’t distracted by loose objects moving around the car while driving.  Vehicles supplied for work purposes are provided with a first aid kit and a fire extinguisher. Staff who use their own vehicles, are encouraged to do the same.  Drivers have received information on the importance of maintaining good driving positions so as to avoid postural problems and back pain etc. | |  |  |  |  |  |  |
| What are the potential consequences of an incident? | | | | In the worst possible case death, but possibly injuries or ill health as a result of accident, long term effects of driving and manual handling**.** | | | | | | |

## Risk assessment Part 2 The work site and activity

| **What are the hazards?** | **Hazard category** | **Who might be harmed and how?** | **What are you already doing to control the risks?** | **\*Risk rating** | **What additional controls (if any) are required to reduce the risks?** | **\*Risk rating** | **Action by who?** | **Action by when?** | **Date of completion** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **The environment on site**  Weather  Terrain  Animals and plants  Chemicals / pollutants |  |  |  |  |  |  |  |  |  |
| **Other work occurring on site**  Machinery and vehicles |  |  |  |  |  |  |  |  |  |
| **Accommodation**  Inadequate  Insecure |  |  |  |  |  |  |  |  |  |
| **On site Human interaction**  Criminal activity  Intimidation and assault |  |  |  |  |  |  |  |  |  |
| **Lone working**  Unable to raise alarm  Loss of communication |  |  |  |  |  |  |  |  |  |
| **The equipment**  eg: Powerjog treadmill | F4 | Investigators participants   1. Overexertion leads to adverse health effects 2. Slips, trips and falls cause cuts bruises and abrasion   Nip points cause crushing and cuts | 1. RA01, RA02 2. Instruction, SOP 3. Inspection of belt covers |  | Monthly inspection and annual maintenance |  | Competent person | Continual |  |
| **The activity**  eg: Max testing |  |  |  |  |  |  |  |  |  |

## Risk assessment part 3 COSHH Hazards

Anything in category F.6 (Chemical and biological hazards) should go here

\*Details under relevant heading in appendix

Manufacturers COSHH data sheets are required for all chemical hazards and should be attached

| **The Substance**  **What are the hazards and \*classification?**  **\*Route of exposure** | **\*WEL**  **mg/m3** | **Who might be harmed and how?** | **What are you already doing to control the risks?** | **\*Risk rating** | **What additional controls (if any) are required to reduce the risks?** | **\*Risk rating** | **Action by who?** | **Action by when?** | **Date of completion** | **Health monitoring** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Miltons sterilising solution**  Irritant  Skin  Eyes |  | Investigators, Students  Skin irritation, Eye irritation | Provide Eye goggles, washing up gloves  Instruction on PPE during induction and in SOP  Instruction – In case of contact with eyes rinse immediately with plenty of water for least 5 minutes.    In case of contact with skin, wash affected area thoroughly with water. | 2 |  |  |  |  |  | No |

## Append supplier safety data sheets for all substances here:

## Travel route and itinerary

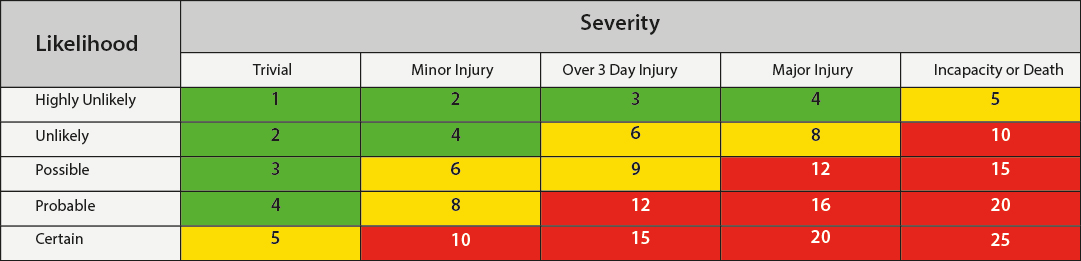
|  |
| --- |
|  |

# Appendix

## Risk ratings

Risk ratings are a way of evaluating risk. A risk is defined as the likelihood that a hazard will cause harm combined with the severity of the harm. We can apply a value to a risk by using the following formula and matrix.

Risk = Likelihood x Severity



Risks can then be prioritised by their rating

1 Urgent Action - (Risk 15 - 25)

2 High Priority - (Risk 10 - 12)

3 Medium Priority - (Risk 5 - 9)

4 Low Priority - (Risk 2 - 4)

5 Very Low Priority - No Action Required (Risk 1)

This gives the leads to the residual risk: Low (Risk 1-4), Medium (Risk 5-9), or High (Risk 10 to 25). If the risks are acceptable (Low Risk) then you may feel able to proceed without further action. If the risk is Medium or High then you must do something to bring the risk to a "tolerable" level.

## Controls measures

Control measures are actions that reduce the risk to a tolerable level. Controls should be chosen to reduce the severity and or likelihood of a risk. Controls should be applied in an order of preference or Hierarchy of Controls:

1. Elimination – Remove the hazard
2. Substitution – Exchange the risk for something less likely or severe
3. Physical Controls – separation or isolation, prevent contact with the hazard
4. Administrative controls - safe operating procedures to ensure safe interaction with hazard
5. Information, instruction, training & supervision – warn people of the hazard and tell or show them how, or help them to deal with it.
6. Personal Protective Equipment – dress people to reduce severity of harm

## COSSH section

The Control of Substances Hazardous to Health Regulations 2002 require additional specific risk assessment for hazardous substances. Fill in the COSHH section for any of the substances identified under hazard category F.6 . Control is adequate when the risk of harm is ‘as low as is reasonably practicable'. This means you need to demonstrate that:

1. All control measures are in good working order.
2. Exposure is below the Workplace Exposure Limit, where one exists.
3. Exposure to substances that cause cancer, asthma or genetic damage is reduced to as low a level as possible.

“A brief guide to COSHH”: <https://www.hse.gov.uk/pubns/indg136.htm>

## Workplace exposure limits (WEL)

There is a maximum exposure to hazardous substances defined by law. These workplace exposure limits are given in the following document.

“EH40/2005 Workplace exposure limits”: <https://www.hse.gov.uk/pubns/priced/eh40.pdf>

## COSHH Hazard classifications

This information should be given on the exterior of the container and on the COSHH data sheet supplied with the hazardous substance.

* Very Toxic
* Toxic
* Corrosive
* Harmful
* Irritant
* Sensitiser
* Dust
* Teratogenic
* Carcinogen or suspected carcinogen
* Microorganism
* Possible long term effects

## COSHH Routes of exposure

Routes of exposure are the different ways hazardous substances interact with the body. There may be more than one route.

* Contact damage to skin or eyes
* Injection
* Absorption through skin
* Ingestion
* Inhalation

## COSHH Supplier Safety data sheets

Attach the supplier safety data sheet to the risk assessment for each substance covered.

## Safe operating procedures

The faculty provides safe operating procedures for many activities these can be found on the health and safety web pages and in the folders located near any equipment they apply to. The activity you are planning may require an additional procedure to be written as a control. Contact the safety officer for help with this as they may be able to identify similar activities the procedure should apply to. They will also be able to advise on a suitable format and wording.

## Pre operation equipment checks

Pre operation checks are detailed in operating procedures found on the health and safety web pages and in the folders located near any equipment they apply to. Fill in the form provided each time you use the machine. Report any issues you encounter in your check and leave a note on the machine. Do not be tempted to skip pre operation checks. Faulty machinery can cause injury.

## Resources, instruction, information, supervision and training

In addition to the resources mentioned elsewhere. Manufacturer user manuals are available from the health and safety webpages https://sportsciencesafety.stir.ac.uk and in the folders by the equipment. Training and supervision are arranged as part of the laboratory induction. Remember, you must not work in any laboratory without obtaining authorisation for the activities you wish to undertake as part of an induction. Inductions should be repeated on a regular basis as indicated on your induction record. If further instruction, training or supervision is required, please contact the person in charge of the laboratory.

## Records, reporting faults

Every time you use a piece of equipment you should fill in the use form in the folder located nearby and note any faults you experience. This is important as adequate maintenance requires monitoring and maintenance periods are determined by the amount of use.

## Where does this all come from?

As part of your University induction and regular training you should have taken a set of compulsory courses <https://www.stir.ac.uk/about/professional-services/estates-and-campus-services/safety-environment-and-continuity/safety/induction-courses/>

The University has further information available on their health and safety pages <https://www.stir.ac.uk/about/professional-services/estates-and-campus-services/safety-environment-and-continuity/safety/>

The Sport Science health and safety pages are here <https://sportsciencesafety.stir.ac.uk>

Employers, employees and people who own buildings have a legal duty to their own safety and the safety of any others who may be affected by their activities. This mainly comes from the Health and Safety at Work act 1974 (HASAWA) and the Management of Health and Safety at Work Regulations 1999 (MHSWR). Substances used in the workplace must be used in accordance with The Control of Substances Hazardous to Health Regulations 2004 (COSHH). Work equipment must be suitable, safe and well maintained in accordance with The Provision of Work Equipment Regulations (PUWER). Further regulations apply to machinery. Machinery is a special category of work equipment which usually incorporates a motor. The legal requirements are summarised in guidance provided by the Health and Safety Executive. The guidance is much easier to read and can be found on the HSE web site.