



**UNIVERSITY of LIMERICK
OLLSCOIL LUIMNICH**

Department of Physical Education and Sport Sciences

LOCAL HEALTH & SAFETY STATEMENT

Department of Physical Education and Sport Sciences

Dated: March 2005

Revised : June 2020

[Also available online](#)

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SECTION 1 INTRODUCTION

This safety statement is written to help prevent accidents in the **Department of Physical Education and Sport Sciences (PESS)**, and is included as an appendix to the University of Limerick (UL) Safety Statement.

This Local Safety Statement is produced to ensure, so far as is reasonably practicable, that the Department of Physical Education and Sport Sciences provides:

- A safe place of work
- Safe plant, equipment and machinery
- Adequate hazard identification and risk control
- System for reporting accidents, incidents and ill-health
- Safe systems of work (e.g. safe operating procedures, area rules, etc)
- Training, awareness, competence and supervision to ensure the safety and health of employees
- If necessary, to provide suitable clothing and equipment where hazards cannot be eliminated
- Designated staff having emergency duties (e.g. evacuation stewards, first aid responders, spill clean up, departmental safety advisors, etc.)
- Protection from risk to health and safety any article or hazardous substance (including plant, machinery, equipment, chemicals, dusts, fume, etc.)
- Inspections and audits to review and continuously improve the departmental health and safety performance

It should be read in conjunction with the [University Safety Statement](#). The University Safety Statement sets out duties and responsibilities of staff and students as well as general policies on arrangements for safety within the college. It is the duty of all of us to take reasonable care of one's own health and safety and that of any other person who may be affected by our acts and to maintain a safe and healthy working environment.

All employees should read the University Safety Statement so that they are aware of health and safety hazards. [The 'Health and Safety Essentials booklet'](#) is also available from the University [HR Policies, Procedures and Forms](#) webpage. It should be remembered that reading the Health and Safety Essentials booklet is not a substitute for reading the full Safety Statement.

Emergency Procedures for the Physical Education and Sport Sciences (PESS) department are set out in the PESS Building Emergency Plan ([Appendix A](#)).

The Physical Education and Sport Sciences (PESS) department welcomes feedback regarding any aspect of this document or any other health and safety concerns.



Signed _____

Date 24/06/2020

Dr. Giles Warrington
Head of Department

SECTION 2 DEPARTMENT INFORMATION

2.1 Department Contacts

Position	Name	Phone no
Head of School/Department (overall responsibility for safety)	Dr. Giles Warrington	Tel: 061 234903
COVID-19 Lead Worker Representative Manger	Mr. Steve Clothier	Tel: 061 213083
COVID-19 Deputy Worker Representative	Dr. DJ Collins	Tel: 061213075
Safety Representatives	Mr. Steve Clothier Ms. Rhoda Sohun	Tel: 061 213083 Tel: 061 234185
First Aid	Mr. Steve Clothier Ms. Ursula Freyne Ms. Rhoda Sohun Dr. Tom Comyns Dr. Ian Kenny Claire Walsh	Tel: 061 213083 Tel: 061 202871 Tel: 061 234185 Tel: 061 202591 Tel: 061 234308 Tel: 061 213246
Accidents must be reported to	Mr. Steve Clothier	Tel: 061 213083
Evacuation Stewards	For Complete list of Stewards and Zones see: PESS Evacuation Steward List	
Display Screen Equipment (DSE) Assessor	Health and Safety Unit	Tel: 061 2074/2429
University Safety Officer	Philip Thornton	Tel: 061 202239
Student Health Centre		(9.00am - 5.00pm semester time only) 061 202534 / 202132 (Outside Hours) 061 213333

2.2 Fire Assembly Point

- Car Park beside Schrodinger Building.

2.3 Location of First Aid Boxes

- PESS Building Main Reception Desk
- Sports Store PG-036 (mobile kit)
- Biochemistry Laboratory PG-048
- Physiology Laboratory PG-050
- PESS Administrators Office P1-024
- Biomechanics Laboratory PG040
- Cell Biology Laboratory PG052a

Any missing items from these kits should be brought to the attention of the PESS Department Health and Safety Advisors, who will replace the items. The first aid kits are filled according to the recommendations of the University of Limerick's Health and Safety Technical Officer using the HSA guidelines for first aid kits.

2.4 Defibrillator

The defibrillator is located at the PESS Reception, next to the porter's office (mounted on wall).

Staff trained in the use of defibrillator

Mr. Steve Clothier	Room: PG-049	Tel: 061 213083
Ms. Ursula Freyne	Room: P1-021	Tel: 061 202871
Ms. Rhoda Sohun	Room: PG-057	Tel: 061 234185
Dr. Tom Comyns	Room: P1-026	Tel: 061 202591
Dr. Ian Kenny	Room: P1-040	Tel: 061 234308
Ms. Claire Walsh	Room: P1-021	Tel: 061213246

2.5 Procedure for Reporting Accidents

An accident can be described as any unplanned event that results in injury or ill health or damage to or loss of facilities, equipment etc. All accidents are 'incidents'. However, the definition of an incident is wider in that it includes dangerous occurrences and 'near misses'. All staff are required to report accidents, dangerous occurrences and 'near-miss situations' that they are involved in to their immediate supervisor and department Safety Advisor or Head of Department.

The Chief Technical Officer and/or Head of Department/School will investigate the causes of the incident. The University Accident Report Form or the University Dangerous Occurrence Form must be completed by a PESS staff member. Copies of the completed form should be forwarded to the Safety Officer and the Buildings Department as soon as possible. The purpose of an investigation is to establish all the facts relating to the incident, to draw conclusions from the facts and make recommendations to prevent reoccurrence. Each accident will be looked at from the

point of view of place, plant, procedures and people, to see where the safety system has failed and to improve controls.

Serious accidents/incidents (i.e. involving injury, death, significant property damage or other serious loss) must be reported immediately to the Safety Officer by email or phone.

Accident, First Aid Report and Dangerous Occurrence forms can be downloaded at <https://www.ul.ie/hr/current-staff/health-safety-ul/accidents-dangerous-occurrences>

SECTION 3 ARRANGEMENTS FOR SAFE WORKING

Statutory Requirement: Section 9 of the Safety, Health and Welfare at Work Act 1989 places a number of obligations on employees whilst at work.

1. It is the duty of all employees while at work to –
 - a. **Take reasonable care for your own safety** and that of any other person who may be affected by your acts or omissions while at work.
 - b. **Co-operate with your employer** and any other person so that they may comply with their obligations under the act.
 - c. **Use all appliances, protective clothing or safety devices** provided in the correct manner so as to provide the protection intended.
 - d. **Report without delay**, any defects in plant, equipment, place of work or systems of work, of which you become aware.

2. **Not to intentionally or recklessly interfere or misuse** any appliance, equipment protective clothing or anything, which has been provided to secure the safety, health and welfare of persons at work.

3.1 Training

3.1.1 Safety training

Safety training will be provided for staff as necessary. The training needs of the staff are determined by the Head of Department/School in conjunction with the Safety Officer as required.

Relevant staff will receive the following training;

- Safety Induction Training
- Evacuation Steward Training
- Fire Fighting Training
- DSE Workstation Training (staff are also encouraged to complete the e-learning DSE Training Programme that can be accessed at <https://limerickac.britsafelearning.com/login/index.php>)
- First Aid Responder Training
- Manual Handling Training
- Hazard Identification and Risk Assessment Training
- Chemical Agent Risk Assessment Training
- Office Ergonomics Training
- Evacuation Chair Training
- Gas Safety Awareness
- Liquid Nitrogen Training
- Working at Height Training

Details of the specific course arrangements are available on the training section of the Health & Safety/Human Resources website and by email. It is the responsibility of each Head of Department/School to assess the safety training needs of their employees and ensure that they have received training appropriate to their job. To arrange training

for the employees in your area please contact hnsbookings@ul.ie detailing required training course and the number of staff to be trained.

Training records are maintained by the Health and Safety Unit for all courses facilitated by the Unit. Heads of School/Department are required to maintain staff training records.

3.1.2 Equipment training

New members of staff, postgraduate students and undergraduate students must be provided with instruction on the use of specialised equipment and procedures that they will use. Instruction will be provided by an experienced member of staff.

3.1.3 Defibrillator training

Defibrillator training will be provided by the University and the Physical Education and Sport Sciences department for selected staff within the Department. As per UL guidelines, only trained users should operate the defibrillator machine.

3.1.4 Competency of part time and contract staff

The Department will satisfy itself that all part time and contract teaching staff are competent in their abilities to provide for that course, and will receive an electronic or hard copy of the [Health and Safety Essentials booklet](#). They will also be made aware of the Departmental Health & Safety statement.

3.2 Consultation and communication

If staff members feel that there are unsafe practices or unsafe equipment they are encouraged to bring this initially to the attention of the Safety Contact Person of the facility (listed in Section 3.4 below), and then to the Departmental Safety Advisor. Concerns with respect to safety can also be addressed to the Head of Department.

The Head of Department and the Safety Advisors will meet once per year (or as required) to review safety arrangements and compliance with the provisions of the Safety Statement. The department's local safety statement will be reviewed on an annual basis (or more frequently if work practices change or new equipment is introduced).

3.3 PESS Department COVID-19 (Coronavirus) Response Plan

The COVID-19 pandemic has had a major impact on the way in which people live and work. As outlined in the [Government's Return to Work Safely Protocol](#). The Physical Education and Sport Sciences (PESS) department's COVID-19 response plan has been prepared in accordance with the requirements of the government's return to work safely protocol. The response plan must be followed by all occupants in the PESS building. It is reviewed and updated regularly as new updates and guidance are issued.

The electronic version of the PESS Response Plan held on the [PESS Sharepoint site \(Health and Safety/COVID-19\)](#) is the current version; it supersedes any print copy. A print copy of this policy is not a controlled document. Users should always check the

electronic version of this policy, and all reference documents included in it, to ensure they are working to the current requirements.

In addition, existing laboratory protocols and risk assessments have been reviewed to identify any measures required to prevent the spread of COVID-19. These include extra sanitisation procedures, additional PPE where necessary and the requirement to adhere to physical distancing at all times. Users of the PESS building are also expected to comply with the designated traffic flow through the building and all other restrictions that are put in place by the department. To ensure continuous improvement, all users must report any issues with the systems that have been put in place.

3.3.1 COVID-19 Symptoms

Infection with the virus that causes COVID-19 can cause illness, ranging from mild to severe, and, in some cases, can be fatal. It can take anything from 2 days up to 14 days for symptoms of coronavirus to appear. They can be similar to the symptoms of cold and flu.

Common symptoms of coronavirus include:

- A fever (high temperature - 38 degrees Celsius or above)
- A cough - this can be any kind of cough, not just dry.
- Shortness of breath or breathing difficulties.

For the complete list of symptoms, please refer to the <http://www.hse.ie/coronavirus/symptoms>. Some people infected with the virus, so called asymptomatic cases, have experienced no symptoms at all.

3.3.2 Transmission of Virus

The virus that causes COVID-19 disease is spread from people in fluid and in droplets scattered from the nose or mouth of an infected person when the person with COVID-19 coughs, sneezes or speaks. The fluid or droplets land on objects and surfaces around the infected person. Other people contaminate their hands by touching these objects or surfaces and then bring the virus into contact with their eyes, nose or mouth by touching them with their contaminated hands. COVID-19 can also spread if droplets from an infected person land directly on the mucous membranes of the eye, nose or mouth of a person standing close to them.

3.3.3 Procedure to follow if you are experiencing COVID-19 symptoms

You must not attend the University campus if:

- You are currently experiencing any COVID-19 symptoms or have done so in the past 14 days.
- You have been diagnosed with COVID-19 in the past 14 days.
- You are a close household contact of someone who has had a positive COVID19 diagnosis in the past 14 days.
- Your doctor has advised you to isolate or cocoon.
- You are currently awaiting COVID-19 test results.

Please contact your Line Manager if you are unable to report for work.

3.3.4 Access to University of Limerick on Covid-19

In response to the pandemic the University has set up and maintains a designated COVID-19 information website, <https://www.ul.ie/covid-home>. University staff can access the latest COVID-19 public health information in addition to information specific to University operations.

3.4 Hazard & Risk Assessments and Safety Inspections

A hazard is a potential source of harm or adverse health effect on a person or persons. Safety representatives in PESS and safety contacts for PESS laboratories and facilities identify potential hazards for areas of work and activities. A risk assessment assesses the severity of the hazard and its potential outcomes in conjunction with other factors, such as the level of exposure, the number of persons exposed and the likelihood of the hazard being realised. PESS Safety Representatives undertake risk assessments in all areas under the PESS department's control. The assessments are recorded on the University's Risk Assessment templates available from <https://www.ul.ie/hr/current-staff/health-safety-ul/hazard-identification-risk-assessment>. Risk assessments are available in PESS laboratories and stored on PESS sharepoint.

The University of Limerick Risk Assessment 'Working on the University Campus during the COVID-19 Pandemic' has been circulated to all PESS Staff and is available on the [UL COVID-19 Sharepoint hub](#).

(Also see [Appendix H](#) of this Safety Statement, 'COVID-19 risk assessment in PESS').

PESS Safety Representatives and the Head of the Department carry out an annual safety inspection to monitor the effectiveness of the PESS department's safety programme.

If you have a health and safety query or if a problem arises, take the following steps:

- Deal with the problem personally if you can, e.g. by removing a trailing flex from an access route in your work area.
- Check the safety statement and other relevant safety information.
- Report the problem to your Supervisor or Head of Department/School upon detection.
- If repair or servicing is required, report the issue to the relevant person/party. If the equipment or area cannot be used safely in the interim, ensure that it cannot be accessed or used (e.g. isolate the power supply to the equipment) and post signs to warn people of the hazard.

3.5 Emergency Procedure

To ensure the safety of all concerned parties, it is important that you become familiar with the University's fire, emergency and other procedures in advance of an emergency occurring.

All lecturers, trainers or conference organisers using a lecture theatre or teaching room must ensure that all students, staff and visitors leave the room immediately, exit the building via the nearest emergency exit and proceed to the building's designated Assembly Point. To ensure you can perform this in a satisfactory manner please familiarise yourself with the nearest fire exits local to the room you are in.

All staff must be aware of the action to be taken on the discovery of a fire and/or on hearing a continuous alarm. Please also refer to Appendix A of this document, which contains the [PESS Building Emergency Evacuation Procedure](#).

3.6 First Aid

The provision of first aid within the university is a legal requirement under the Safety, Health and Welfare at Work (General Application) Regulations 2007, Chapter 2 of Part 7. First Aid Responders and first aid equipment are available throughout the University buildings. A list of PESS First Aid Responders are displayed on safety posters in all PESS laboratories and facilities. These employees should be contacted in the event of an injury or illness requiring first aid treatment.

If the injury necessitates further medical assistance, the injured person should be brought to hospital or the emergency services should be contacted, as appropriate. The Medical Emergency Response Procedure is available at <https://www.ul.ie/hr/current-staff/health-safety-ul/accidents-dangerous-occurrences>. First Aid Responders are required to complete a First Aid Report Form available at <https://www.ul.ie/hr/current-staff/health-safety-ul/accidents-dangerous-occurrences> and submit to the Health and Safety Unit.

3.7 Electricity

When used in the correct manner and properly maintained, electrical equipment is quite safe. However, misuse or lack of maintenance can lead to the risk of fatal electrical shocks or fires and explosions. When using electricity, ensure that:

- there are no loose connections and cables are not damaged
- the appliances are not damaged
- leads are not trailing
- there is no risk of liquids being spilt in the vicinity
- the appropriate fuse rating is used

Residual current devices (RCDs) are required in many cases and need to be in proper working order to operate effectively. The distribution of electricity throughout the university is the responsibility of the Buildings & Estates Department.

3.8 Slips, Trips and Falls

Slips, trips and falls account for a significant number of accidents. Many such incidents occur when employees are moving or carrying loads and may be caused by the condition of the floors, poor lighting or untidiness.

Such accidents can be easily prevented by taking steps such as those below:

- Clear up spillages on floors quickly.
- Do not allow trailing leads to create tripping hazards.
- Report damaged floor coverings, etc., for repair.
- Ensure that stairwells are well lit.
- Ensure that passageways and corridors are kept tidy.

3.9 Personal Protective Equipment

Personal protective equipment (PPE) is required in circumstances in which it is not reasonably practicable to eliminate or control the hazards in the workplace. The University will provide and maintain protective clothing or equipment deemed necessary to ensure the safety, health and welfare of employees. When using PPE, it is important to remember that you are obliged to use it as instructed, maintain it in a state of good repair and report any defects or other problems promptly. PPE is not the solution to a hazard and should only be used to control a hazard when all other control measures have been exhausted.

3.10 Disabilities

All work undertaken within the University is subject to risk assessment and suitable preventative and protective measures are to be put into place. The University through the local Head of Department/School provides support to staff with disabilities. The Disability Support Services supports students registered on undergraduate and post graduate programmes of study at the University.

Where work has already been subject to a formal risk assessment, it may be sufficient to review the risk assessment taking care to ensure that any specific vulnerability of persons with disabilities is taken into account.

If a more extensive risk assessment specific to the disability of staff or students is required, this shall be carried out.

Where it is reasonably foreseeable that persons with disabilities may be visitors to the University, the Head of Department/School is responsible for the visitors. The Head of Department/School shall ensure arrangements fully take into account the disabilities, modifying instructions and making reasonable accommodations as appropriate.

Emergency evacuation chairs have been provided in the University buildings to evacuate persons with special needs (i.e. those with mobility disabilities or who are injured) from multi-story buildings with speed and safety. The emergency evacuation chair locations can be found at <https://www.ul.ie/hr/current-staff/healthsafety-ul/fire-emergencies>. Personal Emergency Evacuation Plans are completed by the Health and Safety Unit for staff and students as required.

3.11 Child Safeguarding

The University of Limerick Child Safeguarding Policy describes the circumstances under which the need for Garda (police) vetting applies to interactions with children or vulnerable persons.

A “child” means a person under the age of 18 years.

A “vulnerable person” means a person, other than a child, who (a) is suffering from a disorder of the mind, whether as a result of mental illness or dementia, (b) has an intellectual disability, (c) is suffering from a physical impairment, whether as a result of injury, illness or age, or (d) has a physical disability, which is of such a nature or degree as to restrict the capacity of the person to guard himself or herself against harm by another person, or that results in the person requiring assistance with the activities of daily living including dressing, eating, walking, washing and bathing.

All PESS staff and students who work with children or vulnerable persons must read the [University of Limerick Child Safeguarding Statement](#) and sign the Acceptance of the UL Child Safeguarding Statement.

3.12 Manual Handling of Loads

Many injuries are the result of incorrect lifting and handling techniques or attempts to lift or carry loads that are inappropriate for the physical capacity of the person involved. Specific regulations on manual handling are set out in the Safety, Health and Welfare at Work (General Application) Regulations 2007 and can be summarised as follows:

- Where possible, avoid handling loads.
- Use equipment if appropriate.
- Know the correct way to lift. (Training is available at the University)
- Get help if the load is awkward.

3.13 Lone Working

PESS facilities may be used for lone working outside of normal operating hours on the express condition they fulfil all of the conditions outline in the [PESS Lone Working Policy](#).

3.14 Office Safety

Although offices are not particularly hazardous places to work, accidents can happen. The following basic measures can prevent such accidents:

- Keep access routes clear at all times.

- Do not allow flexes (such as to computers or phones) to trail. If this is not possible, take steps to ensure they do not become a trip hazard.
- Take care when handling loads. Do not store heavy items too high or too low on shelving – they are easiest to handle at waist height. Use a ladder/kick-along for items stored up high.
- Ensure that paper-cutting guillotines and other hazardous equipment are guarded at all times.

3.15 Computers

If you work regularly on a computer or similar equipment, you should take these basic precautions to minimise discomfort:

- Change your activity regularly.
- Adopt a good posture and adjust your chair to support your back.
- If possible, arrange the equipment to avoid awkward positions that cause neck and shoulder discomfort.
- If possible, reposition the computer so that the monitor is glare-free.
- Take an eyesight test – this is available to employees who regularly use DSE equipment, Information is provided in the UL Eye and Eyesight Testing policy available at https://www.ul.ie/hr/sites/hr/files/user_media/pdfs/CX018%20Eye%20and%20Eyesight%20Testing%20Policy.pdf
- Complete the e-learning DSE training programme available at <https://limerickac.britsafelearning.com/login/index.php>.

As required by the Safety, Health and Welfare at Work (General Application) Regulations 2007, computer workstations should be assessed. Requests for DSE assessments should be forwarded to hnsbookings@ul.ie

3.16 Pregnant staff and students

All female staff and students are advised that should they become either pregnant or a ‘new’ mother (that is a woman who has given birth within the last six months and who is breast feeding), they should inform the head of department. This is to ensure that a pregnant employee risk assessment is completed as soon as possible and that the appropriate protective and preventive measures are put in place. The [UL Pregnant Employees Assessment Checklist](#) should be completed to determine what the pregnant woman is exposed to, how often the exposure occurs and for how long. The UL Pregnant Employees Assessment Checklist should be completed by the Head of Department or employee’s line manager.

For any risks to which the pregnant or new mother is potentially exposed, and which represent an additional risk because of the pregnancy, recent birth or breast-feeding, efforts shall be made to reduce the risks. If the assessment reveals there is a risk, the Head of Department or line manager in consultation with the UL Safety Officer will inform the woman about the risk and what will be done to ensure neither she nor the developing child is injured.

The [UL safety statement](#) indicates that if risks remain following action to reduce such risks, the pregnant or new mother shall be reassigned to other work for which the risks are assessed as not significant.

Once the UL Pregnant Employees Assessment Checklist is completed, the completed documentation must be given to the PESS executive administrator for retention. As per [UL Records and Retention policy](#), the completed documentation will be retained for a period of 5 years and must be stored locally in the PESS department.

A Mother and Baby Room is located in the Main Building EO-010. The key for the room is available from the Compensation and Benefits, HR Division.

3.17 Occupational Stress

Occupational stress is a term used to define ongoing stress that is related to the workplace. The stress may have to do with the responsibilities associated with the work itself or personality conflicts.

As with other forms of tension, occupation stress can eventually affect both physical and emotional well being if not managed effectively. Staff who are experiencing occupational stress are strongly encouraged to discuss this matter with their Manager or to seek advice from the Human Resources Division.

An Employee Support Service (ESS) is available to UL staff. Details of the service are available at <https://www.ul.ie/hr/current-staff/employee-relations/employee-support-service>.

3.18 Dignity & Respect in the Workplace

The University is committed to the development and maintenance of a positive working environment, in which all employees have the right to be treated with dignity and respect.

The University will not tolerate bullying, harassment or victimisation and may take appropriate action, up to and including dismissal against those who contravene this policy.

The University has appointed a number of trained “Designated Contact Persons” to provide a voluntary informal resource for confidential support and information to recipients of bullying behaviour and to those against whom a complaint has been made.

Further information may be obtained from the Dignity and Respect Policy available at <https://ulsites.ul.ie/corporatesecretary/sites/default/files/UL%20Policy%20%26%20Procedures%20for%20workplace%20dignity%20and%20respect.pdf>

3.19 Roads and Traffic

All road markings, speed limits and traffic signs must be observed. Be aware of pedestrians and cyclists on campus roads, at junctions and particularly at pedestrian crossings.

Restrictions apply to parking on campus – you can only park in designated car parks. A valid parking permit must be displayed on your vehicle. Cars that are found to be illegally parked may be clamped and/or removed from campus.

3.20 Driving for Work

A driving for work risk assessment must be completed for any staff driving for work.

Staff using their private vehicle for business on behalf of University of Limerick must obey The Road Traffic Act 1961 (and its later amendments) and be prepared to react to other drivers and driving conditions. Only full-licenced drivers are permitted to use their personal vehicles for use on University business.

Private motor vehicles must be adequately insured while used on official University business. Staff must confirm with their insurance broker/company that University of Limerick is indemnified.

Staff claiming mileage are required to have made the appropriate arrangements with their insurers as part of the submission process. University of Limerick will not accept liability for any loss or damage resulting from the use of a private motor vehicle on official University business.

3.21 Safety Signs

Signs and symbols are used to warn, inform and enforce safety in the workplace. The signs are colour-coded and specifically designed to be readily understood (in accordance with the Safety, Health and Welfare at Work (General Application) Regulations).

For example:

- A prohibitory sign is red and circular, e.g. a no-smoking sign.
- A warning sign is yellow and triangular, e.g. an electrical hazard sign.
- Signs for emergency escape or first aid are green and rectangular/square.

SECTION 4 MAINTENANCE OF FACILITIES, EQUIPMENTS AND SAFE WORKING CONDITIONS

The manner in which the safety, health and welfare of people will be secured by the provision of a safe place, safe plant, safe procedure and safe procedure.

In order to control the hazards of the workplace and to prevent accidents, housekeeping and maintenance activities will be implemented. Responsibility within teaching facilities and laboratories will be designated to the member(s) of staff responsible for the particular teaching facility/laboratory.

4.1 Daily Check (all staff)

- (a) Check all walkways and exits are free from obstruction
- (b) Ensure lighting, heating and ventilation is adequate.
- (c) Ensure all equipment is safe to use at all times, and that they are replaced in their appropriate storage places.

4.2 Weekly Check

- (a) Ensure appropriate timetables are available for laboratory bookings

4.3 Monthly Check (Safety Advisor)

- (a) Ensure all First Aid kits are adequately stocked.
- (b) Eye wash stations are flushed.

4.4 Annual Check

- (a) Department Safety Personnel carry out a visual check on all teaching facilities and laboratories.
- (b) Technicians to carry out inventory and general assessment of laboratory equipment safety – e.g. plugs, cables. Major faults/defects will be reported to the HOD. Appropriate repairs or replacements as necessary, will be carried out to ensure adequate safety of the equipment.
- (c) Professional equipment specialists will also inspect specialised equipment and laboratory equipment as required (can be more than annually).
- (d) Darragh Hogan (Equipment Stores Manager) and PESS staff will review the physical education and sports equipment that is housed in the PESS Building. When equipment is no longer fit for purpose it is removed and replaced.

NOTE: An on-going system of assessment and maintenance is in place to ensure that teaching facilities, laboratories and their equipment are safe for users.

SECTION 5 HAZARDS AND RISK ASSESSMENTS

5.1 PESS Teaching and Laboratory facilities

Risk Assessment is ongoing in the PESS Department. The UL Risk Assessment form is used to assess risks in the department and is available from

<https://www.ul.ie/hr/current-staff/health-safety-ul/hazard-identification-risk-assessment>.

When completing a risk assessment, the following must be completed:

- List Significant Hazards
- Persons at Risk:
- Existing Controls
- Risk Class: Even after all precautions have been taken, some risk usually remains. What you have to decide is whether this remaining risk is high, medium or low.
- Further Controls Required:
- Persons Responsible: Identify individuals who are responsible for implementing the controls necessary to keep the risks low.
- Target Completion Date:

When completing a risk assessment, refer to the [UL Health and Safety Risk Assessment Guidelines document](#)

Completed risk assessment sheets for PESS activities and equipment are available in the laboratories where such activities occur and on the PESS Sharepoint. The Departmental Safety Advisors and safety contact person for the facility will carry out risk assessments on each of the facilities listed below:

PESS Teaching Facilities

Sports Hall
Gymnasium
Multipurpose Sports Hall
Aquatics

Safety Contact Person

Mr. Daniel Tindall
Mr. Daniel Tindall
Mr. Daniel Tindall
Mr. Alan Ward

The principal safety contact person for UL Sports facilities that PESS use for teaching purposes is Ms. Neasa O'Donnell (UL Sports Department). Individual managers include Mr. Alan Ward (aquatics facilities) and Mr. Ger Cunningham (UL Activity Centre, UL North Campus, UL Track, McGuire's Playing Pitches).

PESS Laboratory Facilities

Anatomy & Kinesiology Laboratory
Biochemistry Laboratory
Biomechanics Laboratories
DXA Laboratory
Physiology (PG050 & PG051)
Performance Metabolism Lab
Metabolic Laboratory
Cell Biology Laboratory
Pedagogy Laboratory
Psychology Laboratory
PEPAYS Research Centre

Safety Contact Person

Dr. Mark Lyons
Prof. Phil Jakeman
Dr. Ian Kenny
Professor Phil. Jakeman
Dr. Brian Carson/Stephen Clothier
Prof Phil Jakeman
Prof. Phil Jakeman
Dr. Matthew Lees/Dr. Brian Carson
Dr. Daniel Tindall
Dr. Mark Campbell
Prof. Ann MacPhail

5.2 Experimentation on Human Subjects

A risk assessment process is in place for any experimental procedure involving human subjects. All such procedures are examined by the Faculty of Education and Health Sciences Research Ethics Committee ([EHSREC](#)) and must be approved by this committee. Each research procedure has a unique ethics risk assessment. A list of approved procedures is available from ([EHSREC](#)).

All subjects participating in laboratory trials must give their consent and are required to complete a pre-test questionnaire to assess their suitability for the trials. Example of a pre-test questionnaire is available here <https://www.ul.ie/pess/research-ethics/par-9>

SECTION 6 TEACHING FACILITIES SAFETY STATEMENT

The following section contains information on health and safety issues relevant to the teaching facilities of PESS. These facilities are used primarily for practical classes of the Physical Education (PE) and Sport and Exercise Science (SES) degree programmes and postgraduate programmes. All PE lecturers and demonstrators are recommended to read '*Safe Practices in Physical Education*' for a comprehensive guide on safety considerations with sports equipment. PE equipment should conform to the appropriate standards of manufacture and performance as provided by the British Standards Institute (BSI) or the European Committee for Standardisation (CEN). This is an important consideration to ensure safety and quality when new equipment is to be purchased or existing equipment replaced.

NOTE: During the COVID-19 pandemic, additional safety guidelines for PESS teaching facilities in the PESS building apply. These guidelines must be consulted and adhered to at all times prior to and during any activity being carried out in the PESS building.

For all physical activities, several general rules should be adhered to:

- Appropriate clothing should be worn at all times, and should be reasonably close fitting
- Fingernails should be kept short
- Long hair should be tied back
- Any body piercing that may increase the risk of injury to anyone involved should be removed
- All jewellery and watches should be removed.
- Mobile phones should be stored in the storage boxes provided.

6.1 Sports Hall (Room PG-031)

This facility is situated within the PESS building. The sports hall is used primarily for teaching practical elements of the PE, SES and Masters programmes. The primary activities conducted are of a physical activity and sporting nature.

General Safety Checklist:

- Ensure appropriate sports clothing is worn during classes.
- Ensure equipment is put away in appropriate storerooms.
- Ensure floor is clean and tidy and free from dust and dirt.

Safety Contact Person: Mr. Daniel Tindall

Any health and safety issues that arise in the Sports Hall should be directed to the Safety Contact Person.

Many physical activities are conducted in the Sports Hall, and a variety of equipment is used. The following sections outline the safety considerations of activities in the Sports Hall.

6.1.1 Badminton

Ensure that:

- All equipment should be in a satisfactory condition.
- Rackets with broken strings should not be used, and removed from use and replaced.
- Posts should be properly positioned and secured.
- Nets should be in good order, pulled tight and flush with the posts so that there are no holes or gaps through which the shuttlecock may pass.
- The playing area should be kept clear of equipment, e.g. spare rackets and shuttlecocks.

6.1.2 Basketball/Netball

Ensure that:

- All equipment should be in a satisfactory condition.
- Basketballs should not be over-inflated. They should be inspected regularly for splits or other damage, in which case they should be removed from use and replaced.

6.1.3 Volleyball

Ensure that:

- All equipment should be in a satisfactory condition.
- Weighted posts should be tied back to the wall and not allowed to stand freely. Tie wires should be positioned well above head height.
- Ropes used as nets should be made clearly visible to all participants.
- Players should have sufficient space to practice the smash or the serve.

6.2 Gymnasium (Room PG-033)

This facility is situated within the PESS building. The gymnasium is used primarily for teaching practical elements of the PE programme and the Professional Master of Education (Physical Education). The primary activities conducted are of a gymnastic or dance nature. This facility is a 'no shoe' facility.

General safety checklist:

- Regular assessment of floor and fixtures and fittings, e.g. ropes and climbing frame.
- Ensure appropriate sports clothing is worn during classes.
- Ensure equipment is put away in appropriate storerooms.

Safety Contact Person: Mr. Daniel Tindall

Any health and safety issues that arise in the Gymnasium should be directed to the Safety Contact Person.

Specific and designated physical activities are conducted in the Gymnasium, and a variety of equipment is used. The following sections outline the safety considerations of activities in the Gymnasium.

6.2.1 *Gymnastic Apparatus*

The gymnastic apparatus in PESS consists largely of fixed and portable equipment. When not in use, fixed apparatus should be tied or locked back securely; and portable equipment should be stored in the store area.

Ensure that:

- It should be checked immediately before use and any faults should be reported to the faculty member in charge.
- Any defective equipment should NOT be used. It should be clearly labelled as such and removed from the working area until it has been repaired or replaced.

6.2.2 *Climbing Frame*

Ensure that:

- The wooden beams have no cracks or splinters.
- The floor sockets are free from obstruction and the bolts locate fully and lock.

6.2.3 *Climbing ropes*

Ensure that:

- Drag-lines are not worn and there is a securing cleat on the wall to stabilise the ropes when fully extended.
- The runway operates smoothly.
- Ropes are free of knots.
- The caps at the base of the ropes are not worn or missing and the stitching is not working loose.
- The securing nuts are tight.

6.2.4 *Vaulting apparatus*

Ensure that:

- The wood is free from splinters and the covers are free from tears. Leather covers should be rough and not highly polished through age or excessive use.
- There are no cracks or loose screws.
- Fitted height adjustment mechanisms work smoothly.
- All rubber stops are firmly fixed and in good condition and no screws are in contact with the floor.

6.2.5 *Benches*

Ensure that:

- The timber is not warped, and the rubber buffers are in place. These should make contact with the floor when the bench is inverted.
- The fixing hooks are covered with leather or plastic and that the screws are firm.
- The bracing brackets on the legs are firm.
- The rubber pads on the base are in good condition and are free from any build-up of dirt or polish.
- The fixing hooks on benches are laid flat when the apparatus is used in the inverted position.

6.2.6 *Mats*

The use of mats to absorb landings is a feature of PE and sporting activities. They should be used as equipment designed to cope with planned and foreseen landings. When used in this deliberate way, mats should eliminate or greatly reduce impact

shock and isolated injury. Mats should always be stored flat and never left in an upright position.

Ensure that:

- The placing of mats is very important. They should be used where it is expected that people will need to cushion deliberate landings. They should not be placed around indiscriminately, as they can produce real danger to people accidentally tripping over them.
- Where several mats are used on top of and to the side of each other to provide greater absorption, care should be taken to ensure that gaps do not appear between the mats during class exercises.
- Mats should be checked to ensure that the core substances are not disintegrating, and that the integrity of the mat's cushioning is maintained. Mats should not be folded as this can cause cracks and damage to the core.
- Mats should be clean and free from dirt and grime. Mats should be inspected for signs of wear and tear.

6.2.7 *Dance classes*

Dance generally does not require the use of any gymnastic equipment. Dance classes are usually conducted in bare feet or dance/gymnastic slippers.

Ensure that:

- An adequate warm up is essential before strenuous exercise.
- Clothing should be suitable and jewellery, watches and other personal effects should be removed.
- The floor should be checked for dirt, grit and sharp objects eg nails or staples.
- Facilities and equipment should be maintained in good order.

6.3 **Multi Purpose Sports Hall (PG-053)**

This facility is situated within the PESS building. The multi purpose sports hall is used primarily for teaching practical elements of the PE, SES and Masters programmes.

General Safety Checklist:

- Ensure appropriate sports clothing is worn during classes.
- Ensure floor is clean and tidy, and free from any trip hazards or splinters.
- Ensure lighting, heating and ventilation are appropriate

Safety Contact Person: Mr. Daniel Tindall

Any health and safety issues that arise in the Multi Purpose Sports Hall should be directed to the Safety Contact Person.

6.4 **Aquatics**

Water activities are taught and conducted at UL Sport 50m and 25m swimming pool and outdoors on local waterways or at the University of Limerick Activity Centre situated in Killaloe, Co. Clare. The UL Sport swimming pools are used for practical classes of the PE programme, and occasionally for practical classes and project work

of the SES programme. UL Sport is responsible for the upkeep and management of the swimming pool.

General Safety Checklist:

The development of confidence on and in water is essential for safe and enjoyable participation in water related activities, and should be a prime objective of all such activities. In particular:

There should be instruction in water safety prior to participation in all water related activities.

The emphasis should at all times be on preventing accidents.

Training in safe swimming, in-water survival techniques, self-rescue, rescue of others and CPR is recommended, and should include cold-water emersion as appropriate.

The use of personal buoyancy aids or life jackets appropriate to the activity should be insisted upon.

Safety Contact Person: Mr. Alan Ward (UL Sports Department)

Any health and safety issues that arise with Aquatic activities should be directed to the Safety Contact Person.

6.4.1 Indoor aquatic activities

Ensure that:

- adequate life saving equipment and personnel are present during classes.

6.5 Field Activities

Field games are conducted out-of-doors on the university sports/playing fields. UL Sport is responsible for the upkeep and management of the outdoor playing fields.

General Safety Checklist:

- Ensure appropriate sports apparel and personal protective equipment is worn during classes.
- It is advisable that all field game activities are preceded with a visual sweep of the playing area before the class commences. All dangerous objects, e.g, broken glass, should be removed.
- Surfaces vary according to the weather. Affects of rain, snow and frost need to be assessed, and if a real risk to participants is present, then the class should not go ahead.

Safety Contact Person: Mr. Ger Cunningham (UL Sports Department)

Any health and safety issues that arise in the UL sports/playing fields should be directed to the Safety Contact Person.

6.5.1 Gaelic Football

Ensure that:

- Studded boots should be worn on grass.

- Nylon and metal studs should conform to size regulations. There is a danger of stress injury from using synthetic surfaces if correct footwear is not worn.
- Worn studs with sharp edges should not be allowed.

6.5.2 Hurling

Ensure that:

- All players should wear protective helmets that conform to BS standards.
- Studded boots should be worn on grass.
- Nylon and metal studs should conform to size regulations.
- Worn studs with sharp edges should not be allowed.

6.5.3 Rugby

The strenuous and physical contact nature of rugby means that safety must be given paramount importance. Refereeing must be firm in upholding the laws, especially those relating to scrummaging and tackling.

Ensure that:

- Boots should be firm fitting with good ankle support.
- Studs: Nylon and metal studs should conform to size regulations and should be examined regularly for use. Worn studs with sharp edges should not be allowed.
- Personal Protection: Personal mouth guards are a valuable means of protection but great care must be taken to ensure that they fit correctly.
- The base of the uprights of the goalposts should be padded. Corner flags should be flexible, smooth and with rounded edges.

Note: When rugby is taught on the Astro Turf, the reference to boots and studs do not apply.

6.6 Astro-Turf Facility

Team sports such as hockey and soccer are taught and conducted on the University's Astro-turf pitch. The University's Sports Department is responsible for the upkeep and management of the Astro-turf pitch.

General Safety Checklist:

- Ensure appropriate sports apparel and personal protective equipment is worn during classes.
- Surfaces vary according to the weather. Affects of rain, snow and frost need to be assessed, and if a real risk to participants is present, then the class should not go ahead.

Safety Contact Person: Mr. Ger Cunningham (UL Sports Department)

Any health and safety issues that arise on the Astro-Turf Facility should be directed to the Safety Contact Person.

6.6.1 Soccer

Ensure that:

- Goal posts should be rigid and stable, with secure fixtures at the junctions of the uprights and crossbar.
- Portable goals should be stabilised during play to prevent them falling over when contacted.
- Plastic marker cones can be used as improvised goal posts.
- Correct footwear for the playing surface is essential, to ensure control and to prevent slipping. Studded boots should be worn on grass. Nylon and metal studs should conform to size regulations. Worn studs with sharp edges should not be allowed. There is a danger of stress injury from using synthetic surfaces if correct footwear is not worn.
- The use of track suit trousers and long-sleeved shirts should be considered for play on synthetic surfaces to prevent friction burns when falls occur.

6.6.2 Hockey

Ensure that:

- Goal posts should be rigid and stable. Portable goals should be stabilised during play to prevent them falling over when contacted.
- Correct footwear for the playing surface is essential, to ensure control and to prevent slipping. There is a danger of stress injury from using synthetic surfaces if correct footwear is not worn.
- All players must wear shin pads.
- The use of track suit trousers and long-sleeved shirts should be considered for play on synthetic surfaces to prevent friction burns when falls occur.
- Goalkeepers must always be well protected and equipped. They should wear adequate pads and kickers, gauntlet gloves, body and abdominal armour. A full helmet and mask should be considered for match play.
- Hockey sticks must be maintained in good condition and must be discarded and replaced if they become dangerous through wear, roughness, splinters or cracks.

6.7 Outdoor Athletics Facility

Athletics embraces a range of both track and field events, and these are taught and conducted on the University's athletics track. UL Sport is responsible for the upkeep and management of the athletics track.

General Safety Checklist:

- Ensure appropriate sports apparel is worn during classes. This is particularly important if it has been raining and the track is wet, as it can become quite slippery.
- Ensure that any equipment and safety mats are in good order and appropriate for the event.

Safety Contact Person: Mr. Ger Cunningham (UL Sports Department)

Any health and safety issues that arise on the Outdoor Athletics Facility should be directed to the Safety Contact Person.

6.7.1 Track Events

Ensure that:

- If spikes are worn, the numbers of people in different events should be strictly limited.
- All races of one lap or less should be run in lanes.
- Hurdles should be of rigid construction, smooth and free from sharp or protruding edges. The legs and feet must be at right angles to the top bar.
- Starting blocks and any other material should be removed from the track immediately after use.

6.7.2 Field Events

All field events, especially the throws, involve obvious hazards.

6.7.2.1 Throwing Activities

Ensure that:

- The routine of lining up, throwing and retrieving must be strictly enforced.
- Practice nets should be in good condition, with no holes allowing the thrown object to pass through.

Javelin

Metal javelins are potentially lethal, and should only be used when basic throwing skills have been mastered.

Ensure that:

- Javelins should be carried in portable storage stands.
- A person should never run with the javelin, except when throwing.
- When a single javelin is being moved to the throwing site, both ends should be covered with a piece of protective material.
- Javelins should never be stick into the ground at a dangerous angle.
- Whenever possible, a surfaced area should be provided for the javelin run up, since this gives a firmer foothold than grass.

Discus

The discus should never be used until the basic throwing skills have been mastered.

Ensure that:

- A discus with cracks, worn rims or projecting rivet heads should never be used.
- Practice throwing should be confined to a safe area.

Shot Putt

Ensure that:

- The shot should be carried in two hands and close to the body. It should be placed carefully on the ground, not dropped.

Hammer

Hammer throwing is arguably the most hazardous and physically demanding of the throwing events. It requires great technical skill and coordination.

Ensure that:

- Only purpose made hammers should be used. The spindle must be free to rotate. Bent, worn or rusty wires are dangerous.
- Protective cages are essential. The frame must be fixed firmly to the ground.

6.7.2.2 Jumping Activities

Ensure that:

- Landing mats are in good order. They should be deep and dense enough to prevent “bottoming out”, i.e. the weight of the landing must be completely absorbed by the material. The covering of mats should be all-weather, low friction and resistant to wear from spikes.
- Sand used in jumping pits should be ‘sharp’ (i.e. non caking) and deep enough to absorb the impact of landing without jarring. It must be free from foreign objects and kept raked and flat. Jumping should never take place while landing area is being dug or raked.

Long Jump and Triple Jump

Ensure that:

- Runways should be repacked and rolled when they become so worn that the edge of the take-off board is no longer level with the surface of the runway.
- Take-off boards should be of regulation size and must be firmly embedded in the runway. A loose board can cause serious injury to the instep of the take-off foot. Boards should be painted in a distinguishing colour and kept clean and dry.

High Jump and Pole Vault

Ensure that:

- Bars are suitable, and free from damage. They should be colourful and strong so that they are clearly visible and still for the athlete.
- Landing mats should be in good repair.
- Fibre poles can deteriorate and snap after extensive. They should be examined regularly and discarded if they are cracked or worn.
- Ensure that each vaulting pole has a bung at the planting end. Only plant the bung (event when doing vaulting drills in sand).

6.8 Tennis Courts

Tennis is taught and conducted on the University’s tennis courts. UL Sport is responsible for the upkeep and management of the tennis courts.

General Safety Checklist:

- When outdoor courts have been made slippery by rain or frost, then play or practice should be delayed, or conducted indoors, until the surface reverts to its more normal state.
- Games nets and surrounding fencing should be kept in good order. In particular, the tennis net should not be used if they have holes that will allow a ball to pass through.

Safety Contact Person: Mr. Ger Cunningham (UL Sports Department)

Any health and safety issues that arise on the tennis courts should be directed to the Safety Contact Person.

- Ensure that:
The playing area should be kept as free as possible from spare tennis rackets and balls.
- Sufficient space is necessary when players are practicing serves, volleying and smashing.
- Tennis rackets in poor condition, with cracked shafts or broken strings should be discarded and replaced.

6.9 Indoor Facilities UL Sport

- Indoor facilities, e.g. indoor courts, are occasionally used as part of the Sport and Exercise Sciences and Physical Education undergraduate programmes.
- UL Sport gym facilities (e.g. elite weights room) are occasionally used as part of UG / PG teaching programmes ?

General Safety Checklist:

- The safety checklist for UL Sport indoor courts should be followed as well as the general safety guidelines described for PESS indoor facilities ([PESS Sports Hall](#)).
- The safety checklist for UL Sport Weights room should be followed as well as the general safety guidelines described for the [PESS Anatomy and Kinesiology Laboratory](#).

Safety Contact Person: Ms. Neasa O'Donnell (UL Sports Department)

SECTION 7 RESEARCH LABORATORIES SAFETY STATEMENT

The laboratory facilities in PESS are used for delivering practical classes on both the PE and SES degree programmes and the taught postgraduate programmes.

NOTE: During the COVID-19 pandemic, additional safety guidelines for PESS laboratories and the PESS building apply. These guidelines must be consulted and adhered to at all times prior to and during any activity being carried out in PESS laboratories.

7.1 Anatomy and Kinesiology Laboratory (PG-039)

This laboratory is used as a teaching facility for both the PE and SES programmes as well as the Masters in Sports Performance.

General Safety Checklist:

- No lone working in the lab at any time
- No food allowed.
- No drink liquids allowed on lifting platforms
- Operators should have received appropriate training in the use of any S&C or anthropometric equipment used.
- Rubber soled or weightlifting shoes only, strictly for all lifting platforms
- Plates returned to horizontal stack in order, or to cage in order
- Dumbbells returned to vertical stack in order
- Bars returned to vertical stand
- Kettlebells and medicine balls returned underneath dumbbells
- Boxes positioned on level surfaces.
- No boxes positioned on a wooden platform for the purposes of jumps

All lifting racks

- A spotter to be present at all times
- Bar collars must be fitted
- Bars should be loaded evenly
- Correct bar for the lift used at all times, e.g. training bar, hex bar, Olympic
- Technique lightweight bar loaded to 100 kg maximum

Multipurpose lifting platform area

- No overhead lifts or Olympic lifts on the last metre beside mirrors
- No boxes on wooden surfaces for jumping

Safety Contact Person: **Dr. Mark Lyons**

Any health and safety issues that arise in the Anatomy and Kinesiology Laboratory should be directed to the Safety Contact Person.

7.2 Biomechanics Laboratories (Room PG-040 and PG-043)

The Biomechanics laboratory (PG-040) is used for teaching the Biomechanics modules, and also some video analysis and related modules as required. The Biomechanics Research Laboratories (PG-043 and P1-043) are used for research purposes by the staff, post-graduate and undergraduate students of PESS.

General Safety Checklist:

- Ensure equipment is put away in appropriate storage areas.
- Ensure floor space is free from unnecessary trip hazards. Signage on the laboratory door reminds those entering the lab of trip hazards.
- Ensure lighting, heating and ventilation are appropriate.

Safety Contact Person: **Dr. Ian Kenny**

Any health and safety issues that arise in either PG-040 or PG-043 should be directed to the Safety Contact Person.

7.2.1 Cameras

These devices are used for obtaining video records suitable for viewing on a TV screen or for kinematic analysis using e.g. SiliconCoach, HuMan, Motion Analysis or other appropriate video digitisation software. The cameras present minimal personal risk.

Ensure that:

- On occasions when multiple genlocked cameras are used, students/researchers should be reminded to be aware of the genlocking cables on the floor.
- Mains powered cameras should be inspected regularly.

7.2.2 Lights

These devices are used in conjunction with cameras for obtaining video records suitable for viewing on a TV screen or for kinematic analysis using SiliconCoach, HuMan or other appropriate video digitisation software. Lights should be placed alongside cameras to illuminate the subject. Plug into mains and switch on or off using flick switch.

Ensure that:

- Lights are not touched while in use – they become very hot. Do not touch light bulb at any time. There is a risk that light bulbs will explode.
- Ensure mesh protectors are in place.
- Do not look directly into lights while illuminated.
- Avoid bumping into stands whilst lights are in use.
- Leave lights to cool down for 15 to 20 minutes after use.
- Always store lights and stands away after use.
- Mains powered lights should be inspected regularly. Use mesh protector and barn-doors.

7.2.3 Force plates

This device measures ground reaction force in three dimensions. Force plates are used for measuring forces while walking, jumping etc. The plates themselves present minimal risk and no personal protection necessary.

Ensure that:

- Subjects walk, run, jump or balance as instructed by the operator.

7.2.4 Golf net and launch monitor

This device measures golf club head movement velocity and subsequent ball impact velocity, spin and trajectory. The launch monitor simulates shot performance.

Ensure that:

- Netting is fully unfolded before any shots are taken
- Golf shots should always be taken from the purpose-made tee mat.
- The mat should be placed inside the netting area.
- No persons should stand forward of the golfer, and not within three metres.
- Fully retract the net when not in use
- Ensure no items are placed behind the netting when shots are taken.

7.2.5 Isometric rack

This device is placed around but not directly on top of the force platforms and enables the GRF measurement of a maximal strength deadlift isometric pull.

Ensure that:

- All participants are strictly supervised by an experienced investigator before use.
- A full and appropriate warm-up is performed.
- The rack should be weight down with equal numbers of disc weights in each corner, appropriate for the body mass and strength of the participant.

7.3 Biochemistry Laboratory (Room PG-048)

The Biochemistry laboratory is used for research purposes only by PESS staff, postgraduates and undergraduate students undertaking research.

General Safety Checklist:

- Ensure all users of the lab have received adequate training in the safe use of chemicals, and the storage and disposal of chemicals.
- Ensure appropriate protective clothing and equipment are worn when handling chemicals.
- Ensure the Fume Cupboard is used when necessary.
- Ensure floor space is free from trip hazards.
- Ensure First Aid equipment and materials are appropriate.

Safety Contact Person: Prof. Phil Jakeman

Working outside of normal hours/Lone Working

1. Work undertaken in the Biochemistry Laboratory outside of normal working hours is governed by the PESS Department Lone Working Policy (Appendix F). All personnel permitted to work in the Biochemistry Laboratory **must follow the Lone Working Procedures.**
2. Lone working outside of hours **is only permitted when the risk identified in the Chemical Risk Procedure indicates that lone working is acceptable for the specific procedure to be conducted by the researcher.**

Any health and safety issues that arise in the Biochemistry Laboratory should be directed to the Safety Contact Person.

7.3.1 Working with chemicals

Before working with a chemical for the first time it is important to consult the Safety Data Sheet (SDS) and become familiar with the hazards associated with the chemicals in the lab, how to transport and store the chemicals and how to deal with them in the event of a spillage or fire. It is the safest policy to treat all substances as hazardous until they have been proved to be otherwise. Current SDSs are available from the computer in the Biochemistry Laboratory (Desktop folder 'SDS and risk assessments'). These should be kept updated as new chemicals are introduced into the laboratory.

Health and Safety Authority (HSA) legislation requires that:

- Dangerous chemicals are appropriately classified, packaged and labelled
- A documented chemical agent risk assessment is completed for each hazardous chemical in use". Chemical agent risk assessments (CARA) must be completed on the UL Chemical Agent Risk Assessment form available at: <https://www.ul.ie/hr/hazard-identification-risk-assessment>. The [UL CARA guidance document](#) for completing a CARA should be consulted.

Wearing of buttoned up laboratory coats and protective eye goggles are mandatory at all times when handling or working with any chemicals. Where appropriate: work in a well-ventilated fume cupboard; use safety screens; wear the appropriate type of gloves and face mask as required.

- Dry chemical are stored in the appropriate chemical presses.
- Poisons are stored in a locked cabinet.
- Flammable liquid chemicals are stored in the chemical storage cabinet which is compliant to the EN14770 standard and should be locked at all times.

7.3.2 Disposal of waste

Accurate identification and classification is the first step in proper handling and disposal of laboratory chemicals / material that have become waste. One should also aim to keep all waste to an absolute minimum. Always check with the faculty member in charge what the procedures are for dealing with the different categories of waste.

7.3.2.1 Chemical waste

The mixing of liquid wastes can lead to chemical reactions and should only be undertaken after it has been established as being safe. From a safety and cost point of view all liquid waste should be segregated as much as is reasonably practicable at source. Waste should be stored in the fume cupboard in a glass duran or UN certified plastic container and adequately labelled. When the storage area is approaching capacity, the Chief Technical Officer should be notified; he will arrange to have the waste moved to the University Chemical Store. An approved waste disposal company will collect this waste from the University Chemical Store as required. The Chief Technical Officer will keep a record of the amount of waste removed from the Biochemistry Laboratory.

Generally speaking, non-toxic water soluble material in small quantities can be disposed of by flushing down the sink, provided that heavy dilution is employed to bring down the concentration to acceptable levels. In some instances it may be necessary to pre-treat chemicals before disposal to render them safe. Under no circumstances may flammable liquids that are immiscible with water be allowed to enter the sinks.

7.3.2.2 Biological waste

Biological waste should be disposed of in a biohazard bag ([See Appendix C for PESS Clinical/Biowaste guidelines](#)). When collecting biowaste such as blood samples, contaminated tissues, cotton swabs and gloves, staff/students should collect a plastic biohazard bag from the technical officers (Room PG049). When finished with the bag, the bag must be returned to the technical officers who will then deposit it in the Biowaste Storeroom (PESS Building). When the biowaste storeroom is approaching capacity, the Chief Technical Officer will arrange to have this waste collected. Sharp bins should be left in the laboratory and when full returned to the technical officers who will remove them to the biowaste store. The CTO will replace full sharp bins with new sharp bins.

7.3.3 Dealing with chemical spillages

The following general rules can be applied to the extent necessary to deal with any spillage without danger to the operators involved or to the environment. These should be supplemented with advice from the chemical suppliers, SDS, or from the relevant local authorities.

- Eliminate all sources of heat and ignition for all flammable materials and also for those that form more toxic substances on exposure to heat.
- Wear suitable personal protective equipment. – gloves, laboratory coat, eye goggles
- Ensure that all other personnel either leave the affected area or, if they remain to help, are also adequately and suitably protected.
- Liquid spills can be treated in several ways:
 - If spill is small absorb on paper towels and evaporate in the fume cupboard.
 - If spill is large, use the designated spill kit, , and put into a covered container for removal and subsequent disposal.

- Most solid materials should be swept up dry or mixed with dry sand before being swept up and placed into a covered container for removal and subsequent disposal.
- Following removal of the material from the site of the spillage, the area should be ventilated to remove any residual vapour and/or washed with water and soap or detergent to remove any traces of material.
- Any contaminated personal or protective clothing should be thoroughly cleaned to remove all traces of contaminant. In some cases it may be necessary to discard contaminated clothing.
- Finally, each incident should be reported to the safety contact person and Chief Technical Officer so that it can be investigated to evaluate the cause of the spillage with a view to preventing further similar incidents in the future.

7.2.3.1 Chemical spillage onto person

The following general rules can be applied to deal with any chemical spillage onto a person:

- Affected areas of the skin should be immediately treated with liberal quantities of water and any contaminated clothing removed. If a shower needs to be taken then the showers in the nearby changing rooms should be used. It is good practice to follow the initial water sluice by washing with soap and water.
- Spillage into the eyes presents unusual problems in that the victim often has no vision to assist him/herself and is usually in a very anxious state. The eyes should be well rinsed at the eyewash station in the laboratory or with copious amounts of water by the victim's colleague(s): firm instructions to open the eyes for treatment and gentle restraint are normally needed. Entry of dangerous materials into the eyes should always be treated as a matter of concern and hospital examination should always follow the emergency first-aid procedure.
- Any student requiring emergency first-aid treatment, after initial treatment (preferably by a trained first-aider) should be brought to the UL Health Centre where advice will be given on whether further hospital treatment is required. It is important that medical staff are informed of the nature of the accident, the time at which it occurred and the chemicals involved. The SDS sheet(s) of the chemical involved in the spillage should accompany the student to the UL health centre/hospital.

7.3.4 Working with compressed gases

When working with compressed gases all users must know and understand the properties of the gas they are using and the correct operating procedures for the equipment being used with the gas. SDS for compressed gases are kept with cylinders outside in PESS gas cylinder store room and in laboratories. [See section 7.4.2](#) of this safety statement for further information in handling and using compressed gases.

7.3.5 Working with cryogenic materials

All cryogenic fluids are liquefied gases, some of which embrace the hazards of flammability, irritancy, corrosivity, toxicity and the vigorous support of combustion. Contact with cryogenic fluids or equipment can result in frostbite, or torn flesh, injuries which are just as unpleasant as high temperature burns. Prolonged inhalation of cold vapour or gas should also be avoided. Eyes are particularly vulnerable to cryogenic fluids, so protective eye goggles should be worn when handling cryogenic liquids. In addition protective gloves should be worn.

The common cryogenic materials used in the PESS department are liquid nitrogen and solid carbon dioxide (dry ice).

Liquid nitrogen (-196° C)

Ensure that:

- This material must always be stored and used in Dewar vessels.
- Personal protective equipment (eye protection and thermal gloves) should be worn when handling liquid nitrogen.
- Do not store or use in a confined or poorly ventilated area as liquid nitrogen will condense oxygen from the atmosphere as liquid oxygen, which is a very hazardous material capable of greatly enhancing the flammability and shock sensitivity of many materials. In addition, liquid oxygen, when removed from the cooling effect of liquid nitrogen will evaporate very rapidly giving the potential for pressure build up and explosions.
- Do not transport in a passenger lift accompanied by people because in the event of lift failure oxygen deficiency could occur and lead to asphyxia.
- Training is needed in filling containers so this should never be attempted unless accompanied by a trained laboratory attendant or technician in your area. Any requirements for liquid nitrogen should be directed through the Chief Technical Officer.

Solid carbon dioxide (-78°C) (Dry Ice)

Ensure that:

- This material should be stored in Dewar vessels or an insulated box.
- Personal protective equipment (eye protection and thermal gloves) must be worn when handling Dry Ice.

7.3.6 Manipulation of glassware

Many laboratory accidents arise from the handling of glassware. Many injuries are caused by broken glass. Such injuries are not only dangerous in themselves, but may also provide a ready means for toxic substances and biological materials to enter the body.

Before using glassware check that it is scrupulously clean and free from defects. Damaged glassware, unless it can be repaired by a trained and competent person, should be rejected and disposed of appropriately by placing in a bin that is labelled for broken glassware only. To avoid further injury it is always advisable to bring the bin to the broken glassware and not vice-versa.

Two types of commonly used glass are used in the Biochemistry lab: Soft Glass or Pyrex:

Soft Glass has a melting point 600 to 800°C; used in droppers, glass rods, tubing, bottles; workable with a Bunsen burner; subject to attack by alkali; resists thermal shocks.

Pyrex has a melting point 750 to 1100° C; used for beakers, flasks, common glass equipment; withstands alkali; resists thermal shock.

If undertaking any laboratory operations using glassware the following practices should be followed to minimise hazards and thus avoid accidents.

Ensure that:

- Flasks should not be supported by a retort clamp around the neck, but should be placed on cork rings or iso-mantles.
- Support of glassware in large assemblies must be carried out carefully and due allowance must be made for the expansion of glass if the apparatus is to be heated.
- The relatively simple operation of inserting glass tubing or thermometers into rubber bungs is responsible for an inordinately large number of accidents. The mistake is to bore too small a hole in the bung as a result of using a borer of the same size as the tubing into it. Breakage results very readily with resultant cuts of the hand if no protection has been used. A borer slightly larger than the tube or rod should be used, lubricated with soap or grease to facilitate cutting of the hole. The tube should be gently eased into the hole using a cloth or gloves to protect the hands. Always hold the glass at the active ends. The ends of tubing or rods should be fire-smoothed to avoid sharp edges.
- Stopcocks that have stuck in their barrels may be removed by the application of gentle heat or by lightly tapping the handle with the wooden end of a spatula with the thumb placed at the other side. Care should be exercised and gloves worn.

7.3.7 Laboratory hygiene and general housekeeping

Standards of personal hygiene need to be even higher in the biochemistry laboratory than most other work situations because of all the hazardous and potentially hazardous chemicals and biological materials that may be in use there. Poor standards of housekeeping lead to hazardous situations and are the cause of most laboratory accidents. Because of this it is imperative to have high standards of personal hygiene and general housekeeping and adhere to the following procedures:

- Food or drink should not be prepared or stored in laboratories or chemical storerooms.
- Wash your hands regularly when working with chemicals.
- Never remove or apply makeup in the biochemistry laboratory.
- Closed toe shoes must be worn (sandals are prohibited).
- Keep the workbench clean at all times and free from chemicals and apparatus that are not required.
- Clean up after each stage of an experiment.
- Keep floors free of obstruction, dry and free from slippery materials.
- Mop up spillages on the bench or floor immediately, taking into account the nature of the spill.
- All equipment not in use should be returned to its proper storage place, in a clean and working condition, reporting any faults and arranging for its repair.
- Laboratory reagents and chemicals should be placed on the appropriate shelves or storage cabinets immediately after use, with their labels to the front.
- Reagent bottles should always be cleaned if the contents have been spilled down the sides.
- All chemicals and biological material should be clearly labelled and carry the appropriate international hazard symbol where necessary.

- Ensure that all waste from the laboratory is disposed of in the approved manner.
- Before passing laboratory apparatus and equipment to non-laboratory maintenance staff for repair, it should be decontaminated of any harmful substances.

7.3.8 Working with laboratory equipment

Anyone needing to use any piece of equipment must receive adequate training from the faculty member in charge of the area who will instruct on all aspects of safe operation. The manufacturer's instructions must always be followed. In particular great care should be exercised when using the following equipment:

7.3.8.1 Centrifuge

This operates at high speeds, is delicate and dangerous if misused. Instructions for use are clearly displayed on the instrument and should be strictly followed along with any other instructions from the academic in charge.

Ensure that:

- Tubes are balanced carefully before centrifugation to avoid stressing the rotor.
- The centrifuge is cleaned after each use and any spillages are mopped up.
- Care is taken when choosing the rotor speed, so as not to exceed the manufacturer's instructions for the particular rotor being used.
- On start-up, the centrifuge is carefully monitored until the desired operating speed has been achieved.
- In the case of imbalance or other problems occurring, the centrifuge is stopped by using the brake, not by switching off or plugging out the centrifuge.
- The door is not opened until the rotor has come to a complete stop.

7.3.8.2 Furnaces / ovens / hot plates

The removal of hot solid objects from furnaces rarely gives trouble, provided that suitable tongs and manipulative skill are employed. A more frequent source of burns is unguarded objects left to air-cool after removal from the furnace. It is important that a warning notice should be placed as near to the hot work as possible.

Ensure that:

- Quenching operations following furnace heating should never be undertaken without at least, the wearing of eye protection.
- Face and skin is protected from hot air blasts from an oven when the door is opened.
- Caution must be exercised before touching stirrer/hot plates as they may still be hot from recent use.
- Care should also be taken to protect the electrical leads of heating equipment from burning or scorching.

7.3.8.3 -80°C Freezers

As with working with cryogenic materials, special care is needed when dealing with the -80 Freezers. The insulated gloves should be worn at all times.

All samples should be stored as per the sample storage guidelines listed on the front panel of each freezer, ie all samples should be placed in an appropriate sample storage box. Box should be labelled with researchers name, project and the nature of the samples.

7.3.8.4 Cryostat

The operating temperature of this piece of equipment is around -20°C.

Ensure that:

- Care must be taken not to touch the cold operating part with a bare hand.
- Wear insulated gloves if necessary.
- Decontamination and defrosting should be conducted as necessary.

7.3.8.5 Fume Cupboard C Chemflow™4139.

Operates to provide protection against contact with potentially hazardous materials (e.g. solvents, vapours, powders, particles) by maintaining a face velocity extraction of 0.5 m/s according to BS 7258 Part I and Part IV (1992). A dual cupboard storage area for solvents is provided, sink drainage, cold water and helium gas supply is connected.

Ensure that:

- This equipment is only be operated by a trained user.
- Gloves and eye goggles must be worn at all times.
- Equipment must be inspected/tested biannually as per manufacturer's recommendations.
- Do not use unless required face-velocity extraction is operating (alarm protected).
- Face velocity extraction to be maintained @ 0.5m/s.
- Maximum height of front panel to achieve this set at 50cm.

7.3.9 Maintenance of Equipment

Over a period of time equipment will deteriorate through use or mis-use and faults if not detected and corrected could prove fatal. The manufacturer's instructions and operating experience should always be taken into consideration when deciding on what preventative maintenance checks are necessary. These checks should normally take place annually by trained personnel.

7.3.10 Safety rules for biochemistry laboratory

- Work is not permitted in the absence of appropriate supervision. No student may commence experimental work for the first time without receiving appropriate safety instruction.
- Suitable eye protection, adequate foot protection and a buttoned up laboratory coat **MUST** be worn **AT ALL TIMES** when working with chemicals in the laboratory.
- Bags and coats should not be stored in the laboratory.
- Smoking, eating and drinking are strictly prohibited whilst in the laboratory.
- Unwarranted interference with laboratory safety equipment (fire extinguishers, eye wash station, first aid kit, etc.) is **STRICTLY PROHIBITED**. Any person found contravening this rule **will be reported to the University Disciplinary Committee**.
- All persons should conduct themselves in an orderly manner whilst in the laboratory. Persons found engaging in disorderly conduct will be required to leave.

- Broken glassware or malfunctioning instruments must be reported to the academic supervisor immediately. Broken glassware must be placed in the special bin provided.
- Chemical and biological waste should be disposed of in the appropriate receptacles.
- **ALL accidents** and chemical spillages must be reported to supervisor **AT ONCE**.
- Know where the EXITS, fire extinguishers, showers, eye wash station and first aid kit are.
- On completion of experimental work ensure work area is clean and hands are washed on leaving the laboratory.
- **REMEMBER: If in doubt, ask academic supervisor.**

7.4 Physiology Laboratory (Room PG-050)

The Large Teaching laboratory is used for teaching the Physiology modules of the BSc in Sport and Exercise Science.

General Safety Checklist:

- Ensure equipment is put away in appropriate storage areas.
- Ensure floor space is free from trip hazards.
- Ensure First Aid equipment and materials are appropriate.

Safety Contact Person: **Dr Brian Carson/ Stephen Clothier**

Any health and safety issues that arise in the Physiology Laboratory should be directed to the Safety Contact Person.

7.4.1 Disposal of waste

As per section [7.3.2 Disposal of Waste](#), accurate identification and classification is the first step in proper handling and disposal of biological waste. One should also aim to keep all waste to an absolute minimum. ([See Appendix C Clinical/Biowaste Procedure](#)).

7.4.1.1 Hypodermic needles

Used hypodermic needles and other sharps should be placed in the yellow sharps bin provided. Overfilling of these containers must be avoided at all costs in order to prevent accidental sticks. When the container is adequately filled it should be sealed and the Chief Technical Officer should be notified; he will arrange to have the bins removed and stored in the Biowaste Store (Outside PESS Building). When this storeroom is approaching capacity, the Chief Technical Officer will arrange to have this waste collected by an approved waste disposal company.

7.4.1.2 Biological waste

As per section [7.3.3.2, biological waste](#) should be collected and disposed of according to specific procedures. (Additionally, [See Appendix C for PESS Clinical/Biowaste guidelines](#))

7.4.2 Working with Compressed Gases

Compressed gasses are used in the Physiology Laboratory for various procedures. The gasses used are: Carbon Dioxide, Nitrogen, Oxygen (medical quality), Calibration Gas mixes e.g. 5% CO₂, 15% O₂, 80% N₂ and 1% SF₆, 50% O₂, 5% N₂O, 44% N₂.

All users must know and understand the properties of the gas they are using and the correct operating procedures for the equipment being used with the gas. You should have in your possession the safety data sheets for the gases you are using together with the operating instructions for the equipment. Cylinders are labelled in accordance with the Classification, Packaging and Labelling of Dangerous Substances Regulations and are colour coded. A cylinder must never be used unless it can be clearly identified, one must not rely on the colour code alone as a means of identification. In addition to this information you should also read “Safe under pressure”, guidelines for all who use BOC gases in cylinders. This booklet will be available in your laboratory and from the Chief Technical Officer.

7.4.2.1 Storage, transport and handling of compressed gasses

- All persons handling gas cylinders should wear protective footwear, eye protection and industrial gloves and avoid loose clothing, particularly sleeves which may catch on cylinder valves.
- Oxygen should not be stored in the vicinity of combustible gases, or of other combustible materials. A distance of 3 metres apart is recommended or separation by means of a firewall.
- Cylinders under transport should be mounted in a gas cylinder trolley with the valve shut. Whilst in use they should be secured in an upright position by clamping to the laboratory bench, by chains affixed to a wall, or on a cylinder trolley.
- When moving cylinders between laboratories in PESS, use the cylinder trolley. When moving cylinders to UL main store, disconnect equipment (regulators, hoses, blowpipes) before transporting. Store cylinders in a designated and controlled place.

7.4.2.2 Looking after cylinders

- Lubrication of cylinder valves and fittings is highly dangerous as well as being unnecessary.
- High-pressure oxygen will react violently with oils and grease and may explode or ignite violently. Do not apply jointing compounds or jointing tape to any cylinder, valves or fittings.
- Oxygen equipment is most at risk from oil and grease so keep greasy hands, rags and gloves away from any part of the cylinder and fittings.
- Keep cylinder valves clean, if grit, dirt, oil or dirty water gets into the cylinder valve sockets leakage may occur.

7.4.2.3 Making safe connections and safe operations

- Check that the cylinder is labelled and the gas is what you want.

- Check that the system you are connecting to is designed to take the gas pressure.
- Any equipment used in conjunction with the gas should be operated in accordance with the manufacturers instructions.
- Open cylinder valves slowly (anti-clockwise) using the correct spindle key or the hand-wheel fitted on some cylinders. If you stop work for more than a few moments, close the cylinder valve.
- Make sure the pressure regulator is designed for use with high-pressure gas cylinders and that the threads are the same as on the valve outlet.
- To prevent the interchange of fittings between cylinders containing combustible gases and non-combustible gases the cylinder valve outlets are threaded to opposite hands. Non-combustible gases have conventional right hand threads while combustible gases have left-hand threads. Left-hand threaded nuts are notched on their faces.
- Never force a connection that does not fit or attempt to repair or modify the regulator.
- To prevent flames travelling back into cylinders, devices known as flashback arrestors should be fitted downstream of pressure regulators in oxygen, acetylene, propane and hydrogen systems.
- Check all connections and equipment for leaks using 1% Teepol HB7 in water, or an approved leak detection fluid available from BOC. Periodic re-tests are recommended.
- Always turn off the gas supply at the cylinder when the job is finished.
- Report to BOC and the Chief Technical Officer any damage to cylinders and never attempt to disguise damage in any way or attempt to repair.
- Spindle keys should always be left in position on the valve spindle when the equipment is in operation to ensure speedy shut-down in an emergency.

7.4.2 *Electromyography / Electrocardiography*

These procedures involve electrical recording from active muscle or myocardium.

Ensure that:

- Operators have received appropriate training in the use of the piece of equipment
- Surface electrodes are placed in the appropriate positions on the skin
- The apparatus conforms to EU medical devices regulation
- Disposable razors are used and full instruction by PESS demonstrators are provided if shaving is required
- The procedures outlined in ULREC approved procedure SS002 are followed
- Student users receive specific instructions on how to use equipment by supervisor

7.4.3 *Electrical stimulation of muscle*

This procedure involves percutaneous electrical stimulation of human muscle. In this procedure, large surface electrodes are placed at either end of the muscle, and a small current is delivered through the muscle to induce muscle contraction.

Ensure that:

- Operators have received appropriate training in the use of the piece of equipment
- Disposable razors are used and full instruction by PESS demonstrators/faculty are provided if shaving is required

- Electrodes are never placed bilaterally, i.e. one electrode on each side of the body
- Once electrodes are in place, volunteers are familiarized with the feeling of electrical stimulation
- The procedures outlined in ULREC approved procedure SS004 are followed
- Student users receive specific instructions on how to use equipment by supervisor

7.4.4 *AMIS gas analysis system*

This is a mobile system for measuring the gas content of expired air.

Ensure that:

- Operators have received appropriate training in the use of this piece of equipment.
- Mouthpieces have been sterilised before use – only use mouthpieces from the clearly marked container ‘Sterilised Mouth Pieces’.
- Used mouthpieces should be rinsed under tap water and placed in the container marked ‘Used Mouth Pieces’.
- Breathing tubes and mixing bag will be sterilised once per year
- Student users receive specific instructions on how to use equipment by supervisor

7.5 **Project Laboratory (Room PG-051)**

The Project laboratory is used for research purposes by the staff, postgraduate and undergraduate students of PESS. Depending on the research studies in progress, this lab may contain some equipment from the Large Teaching laboratory.

General Safety Checklist:

- Ensure equipment is put away in appropriate storage areas.
- Ensure floor space is free from trip hazards.
- Ensure First Aid equipment and materials are appropriate.

Safety Contact Person: Dr. Brian Carson

Any health and safety issues that arise in the Project Laboratory should be directed to the Safety Contact Person.

7.5.1 *Contrex dynamometer*

This piece of equipment measures muscle contractile properties on the con-trex isokinetic system. The contrex machine allows eccentric, concentric or isometric movement around a joint for a number of joint systems: these are the knee, elbow and ankle.

Ensure that:

- Operators have received appropriate training in the use of this piece of equipment.
- Subject range of motions have been set before forces are measured.
- Subjects are holding the abort switch whilst testing is undertaken: this switch will cut the power to the motor which moves the limb, allowing the volunteer to terminate any unpleasant testing.

7.5.2 Treadmills

These devices allow data be collected simultaneously during walking and running.

Ensure that:

- Treadmill is in a safe place with no other equipment in too close a proximity
- Electrical installations are kept clear of the treadmill
- Treadmill is single use only
- Subjects stand on either side of treadmill belt and use handrails to allow them to start at an initially slow speed; gradually increase speed as required
- Subjects are made aware of the safety stop button on treadmill, which allows subjects to stop the treadmill at any stage if necessary
- Treadmill is reduced to walking speed after use
- Technical staff are present when the treadmill is being moved for safety reasons
- Student users receive specific instructions on how to use equipment by supervisor

7.5.3 Blood Analyser (*Analox™GM7*)

This is a multi-substrate automated rapid analyzer used for the measurement of glucose, lactate, β -hydroxybutyrate, urea, uric acid, alcohol, pyruvate, ammonia and cholesterol in biological samples, normally mixed-capillary or venous blood and urine.

Ensure that:

- Operators have received appropriate training in the use of this equipment.
- The operating area around this instrument is clearly marked as a biohazard area.
- The electrode housing is flushed with distilled water after use to preserve the membrane function.
- The waste container is emptied at regular intervals, cleaned and sterilised with a 1% hyperchloride solution.
- Regular maintenance checks are performed by a qualified person
- The Blood Analyser is a movable piece of equipment and moves to other laboratories as required.

7.5.4 *Innocor™* Cardiopulmonary Measurement System.

This is an inert gas re-breathing cardiopulmonary measurement instrument capable of measuring both respiratory gas exchange and cardiopulmonary

Ensure that:

- Operators have received appropriate training in the use of this equipment.
- Mouthpieces have been sterilised before use – only use mouthpieces from the clearly marked container ‘Sterilised Mouth Pieces’.
- Used mouthpieces should be rinsed under tap water and placed in the container marked ‘Used Mouth Pieces’.
- Bacterial filters are used as an interface between the subject’s mouth and the breathing port.
- The gas cylinders are turned off and uncoupled after use.
- Regular maintenance checks are performed by a qualified person.
- The Innocor Cardiopulmonary Measurement System is a movable piece of equipment and moves to other laboratories as required.

7.6 Cell Biology Laboratory (Room PG-052a)

The Cell Biology laboratory is used for research purposes by some staff, postgraduate and undergraduate students of PESS.

Access to this lab is strictly restricted to authorised and trained personnel only. Regard all samples and cultures as potentially pathogenic.

General Safety Checklist:

- Appropriate P.P.E should be worn at all times.
- Ensure floor space is free from trip hazards.
- Ensure First Aid equipment and materials are appropriate.
- Ensure persons are fully familiar with the protocols and safety procedures put in place for each piece of equipment prior to use of the equipment. All SOP's and risk assessments are available in the Cell Biology lab. Ref: *General Tissue Culture-Risk Assessment*.
- Waste disposal needs to be assessed and completed according to the containment level standards. Ref: *SOP Biological Waste Procedure*

Safety Contact Person: Dr. Brian Carson

Any health and safety issues that arise in the Cell Biology Laboratory should be directed to the Safety Contact Person.

7.6.1 Biological Safety Cabinet (BSC)

This is a class II laminar flow hood which provides the aseptic environment required to culture cells.

Ensure that:

- Operators have received appropriate training in the use of this piece of equipment. Ref: *SOP_Biological Safety Cabinet*
- The electrics or housing are not tampered with. Proper maintenance checks of cords, wires and loose connections should be made regularly. Proper fuses should be used.
- BSC should be switched on and running for 15 minutes to allow air-flow stability before starting work.
- The BSC should be kept clean and dry. Any spills that do occur should be cleaned up immediately.
- The BSC is never over-crowded.
- Never obstruct the air flow or the grilles.
- The laboratory door is closed when BSC is on.
- Users are made aware of the hazardous properties associated with their materials and handle, and dispose of correctly. Other users should be aware of potential hazards also.
- P.P.E. is worn at all times, lab coat and gloves. Safety glasses if necessary.

7.6.2 Centrifuge and microfuge

These devices allow samples to be run at high speed.

Ensure that:

- All operators are fully trained before operation of the centrifuge or microfuge. Ref: *Centrifuge 380 SOP*.

- The electrics or housing are not tampered with. Proper maintenance checks of cords, wires and loose connections should be made regularly. Proper fuses should be used. The area around the centrifuges should be kept clean and dry. Samples should be stored in tubes which are closed properly. Any spills that do occur should be cleaned up immediately.
- Users are aware of the hazardous properties associated with their materials and handle, and dispose of correctly.
- Other users should be aware of potential hazards also.
- Centrifuges are cleaned out daily with 70% ethanol or virkon to decontaminate it.
- User makes sure that the centrifuge is located safely on a secure bench-top.
- Any occurrences which are out of the regular should be reported to the person in charge immediately, for instance, heavy vibration, noises.
- Centrifuge should be closed properly before use.
- The rotor is in place correctly before use.
- That sample tubes are in place properly before use.
- Centrifuge can go down to temperatures of 0 degrees. If a user is using the centrifuge at this low temperature, they should leave the lid open on the centrifuge to allow the centrifuge to return to ambient.
- Users are cautious of taking out samples which were centrifuged at low temperatures to prevent thermal burns off the inside of the centrifuge.
- P.P.E. to be worn, lab coat and gloves, safety glasses if necessary.

7.6.3 *Water Bath*

This bath allows the heating of water up to 100°C.

Ensure that:

- Operators have received appropriate operational and safety training in the use of this equipment. Risk of burn associated with this equipment. Ref: *Water Bath training manual*.
- The electrics or housing are not tampered with. Proper maintenance checks of cords, wires and loose connections should be made regularly. Proper fuses should be used.
- Users should ensure that there is sufficient water in the bath before turning it on to prevent damage to the water bath.
- P.P.E. to be worn at all times, lab coat and gloves. Safety glasses if necessary.

7.6.4 *CO² Gas*

This gas is being piped to the incubators in the room to facilitate the growth of mammalian cells.

Ensure that:

- Personnel are aware that the gas cylinders for the CO₂ incubator is located outside in the gas store outside. r. There is also a regulator on the tank to ensure that the correct amount of gas is released.
- CO₂ gas detectors are located in the cell biology lab which will let the users know if there are higher than normal levels of CO₂ in the air.
- If the detector alarms while in the laboratory, leave the room immediately and contact the safety contact person.
- If the detector alarms when there is not anybody in the laboratory, follow the safety guidelines listed on the outside of the laboratory door.
- P.P.E. to be worn, e.g. laboratory coat, gloves and safety glasses if necessary.

- Operational and safety training should be completed.
- A yearly maintenance service check by an appropriate company is carried out on an annual basis.

7.6.5 Incubators

This piece of equipment houses mammalian cells in an atmosphere of 5% CO₂ gas and at 37° C

Ensure that:

- Operators have received appropriate training in the use of this equipment.
- The incubator is kept clean at all times and all spills are cleaned up immediately.
- Opening and closing of the door is kept to a minimum.
- If the incubator alarms, contact the safety contact person.

7.7 Metabolic Room (PG-052b)

The purpose of this laboratory is for drawing blood for tests and analysis. Only appropriately trained personnel carry out this procedure in PESS.

General Safety Checklist

The following policies and guidelines from the HSE are followed in this laboratory by trained personnel (www.hse.ie)

- Infection Prevention + Control
- Dealing with blood samples (blood born viruses. HIQA)
- Hand Hygiene
- Needle stick and sharps injury, body fluid splash exposure
- Correct disposal of clinical waste
- Correct equipment

Safety Contact Person: Brian Carson

Any health and safety issues that arise in the Phlebotomy Laboratory should be directed to the Safety Contact Person.

7.8 Body Composition Laboratory (PG-052c)

The body composition laboratory is used for research purposes by PESS staff and postgraduate students. This laboratory contains a source of ionising radiation that is harmful to humans. This is a restricted access area to trained personnel and trained operators only. Procedures applicable to the use of the DXA are clearly displayed within the DXA laboratory and must be strictly adhered to. A copy of these procedures is attached to this safety statement ([Appendix D](#)). The laboratory also contains equipment to measure bioelectric impedance.

General Safety Checklist:

- Ensure equipment is put away in appropriate storage areas.
- Ensure floor space is free from trip hazards.

Safety Contact Person: Prof. Phil Jakeman

Any health and safety issues that arise in the Body Composition Laboratory should be directed to the Safety Contact Person, Prof. Phil Jakeman.

7.9 Performance Metabolism Laboratory (PG-047)

The performance metabolism laboratory is a general purpose laboratory for research. Postgraduate and undergraduate students of PESS are able to use the lab under supervision of a trained staff member.

Safety Contact Personnel: Stephen Clothier, Phil Jakeman

General Safety Checklist:

- Ensure equipment is cleaned and put away in appropriate storage areas.
- Ensure floor space is free from trip hazards.
- Ensure equipment quality control checks are completed before testing

7.9.1 Metabolic Carts

These devices allow data to be collected via respiratory gas exchange, pulse oximetry, electro-cardiography and non-invasive blood pressure under pre-set conditions.

Ensure that:

- Training has been completed and verified by technical staff
- The cart is in a safe place, whereby the umbilical cord is within appropriate sampling distance away from any trailing leads/cords.
- All hardware is thoroughly cleaned and checked for defect before usage, and participants are fully aware/familiar with the testing protocol
- Compressed gas cylinder are turned off after calibration, with both valves closed
- Students taking data from participants are under supervision of a trained and verified staff member

7.9.2 Cycle Ergometers

These devices allow data to be collected during cycling

- Ergometers are in a safe place, within appropriate proximity of the connecting cables to the computers
- Ergometers are kept clear of any electrical installations
- Participants are fully familiarised with the ergometers, specifically stopping exercise and moving on and off the bike.
- Appropriate training on the use of the ergometer is provided for all users by relevant PESS staff.
- Technical staff are present when the treadmill is being moved for safety reasons
- Students recording data from participants are under supervision of a trained and staff member

7.9.3 Treadmills

These devices allow data be collected simultaneously during walking and running.

Ensure that:

- Treadmill is in a safe place with no other equipment in too close a proximity.
- Electrical installations are kept clear of the treadmill.
- Treadmill is single use only.
- Training have been completed and verified by technical staff.
- Participants are fully familiar with the treadmill, especially emergency stopping and moving on and off the treadmill.
- Technical staff are present when the treadmill is being moved for safety reasons.
- Students recording data are under supervision of a trained staff member.

The following sections of this safety statement are relevant to the Performance Metabolism laboratory and should be referred to:

[7.3.2 Disposal of waste](#)

[7.3.2.2 Biological waste](#)

[7.4.1.1 Hypodermic needles](#)

[7.4.2 Working with compressed gases](#)

7.10 Psychology Laboratory (Room P1-038)

This laboratory is used for research purposes. It principally includes PCs for gaming research and a treadmill.

General Safety Checklist:

- Ensure equipment is put away in appropriate storage areas.
- Ensure floor space is free from trip hazards.

- Ensure lighting, heating and ventilation are appropriate

7.10.1 Treadmill

The treadmill allows data be collected simultaneously during walking and running.

Ensure that:

- Treadmill is positioned safely in lab with no other equipment in too close a proximity
- Electrical installations are kept clear of the treadmill
- Treadmill is single use only
- Training have been completed and verified by technical staff
- Participants are fully familiar with the treadmill, especially emergency stopping and moving on and off the treadmill
- Technical staff are present when the treadmill is being moved for safety reasons
- Students taking data are under supervision of a trained staff member

Safety Contact Person: Dr. Mark Campbell

Any health and safety issues that arise in the Psychology Laboratory should be directed to the Safety Contact Person, Dr. Mark Campbell.

7.11 Pedagogy Laboratory (Room P1-037)

The Pedagogy Laboratory is used for healthy living and behavioural research. It is available for use by the staff, postgraduate and undergraduate students of the PESS department and includes PCs for use by the students and staff.

General Safety Checklist:

- Ensure equipment is put away in appropriate storage areas.
- Ensure floor space is free from trip hazards.
- Ensure lighting, heating and ventilation are appropriate

Safety Contact Person: Dr. Daniel Tindall

Any health and safety issues that arise in the Pedagogy Laboratory should be directed to the Safety Contact Person.

7.12 PEPAYS Ireland Research Centre (Room P1-007)

This facility is used by members of the PEPAYS Research Group for research discussions, PE PAYS lecture series, research advising conferences, and other meetings approved prior to its use.

General Safety Checklist:

- Adequate ventilation is provided.
- Facility is locked when not in use.

Safety Contact Person: Prof. Ann MacPhail

Any health and safety issues that arise in the PEPAYS Research Group Room should be directed to the Safety Contact Person.

7.13 Postgraduate Research Rooms (PG-034 and P1-039)

Postgraduate research students use these two facilities.

General Safety Checklist:

- Adequate ventilation is provided.
- Facility is locked when not in use.

Any health and safety issues that arise in the Postgraduate Research Room should be directed to the Department Safety Advisors.

SECTION 8 WORKING RULES

8.1 Working outside normal operating hours

'Out of hours' is defined as times when the building is locked, i.e. after 10.30 pm Mondays to Thursday and after 6pm on Fridays and throughout the weekend. Out of semester hours, the building closes at 6pm. The following departmental rules will apply:

8.1.1 Staff

PESS staff are permitted in the PESS building during out of hours, but must ensure that security is maintained by locking the outer door at the main entrance. Staff should ensure that no other persons enter building other than those with prior permission – see below. Staff must sign the sign-in/out book when working out of hours. Staff must ensure they have read the 'Lone Working Procedures in PESS'(Appendix F).

8.1.2 Postgraduates

Keys to access the PESS building will be issued to postgraduate students upon receipt of €50 deposit which will be returned to the student upon return of the key. Keys will remain the property of the University of Limerick, and any unauthorised copying of keys will be deemed a very serious offence. Postgraduate students are not permitted to allow any other unauthorised persons to enter the building with them. Postgraduate students should inform their supervisors if they will be working in the department outside of normal operating hours and their supervisors should be made aware of the nature of the work that the postgraduate student will be doing during this time.

Academic supervisors must ensure that they themselves or a suitable competent person will be present during any experimental procedures that are potentially harmful to the experimenter or subjects. Postgraduate students must be aware of emergency procedures and emergency contact numbers during out of hours work in laboratories.

8.1.3 Undergraduates and Taught Postgraduate Students

Undergraduate and taught Postgraduate students are NOT permitted in PESS building outside of normal working hours. Evening time supervision can be arranged until 9pm in advance by contacting a Department Administrator. Undergraduate project supervisors must complete a Security Permit (Appendix E). Unsupervised evening time laboratory work is not permitted.

8.1.3.1 Undergraduate and Taught Postgraduate Security Permit

This form is issued by the student's supervisor, and permits students to carry out experimental work, including data collection and analysis, between the hours of 6pm and 9pm – Monday to Thursday. It may only be used under the following circumstances:

- The student's supervisor signs the form ensuring that they are aware of the work being conducted and that their undergraduate student(s) are capable of the procedure and are fully informed of any risks associated with the procedures used.
- Appropriate supervision has been organised in advance.

The following information must be included before the form is valid:

- Name of Student(s)
- Date & times of facility use
- Facility name
- Description of work to be carried out (please list Approved Risk Assessment Number)
- Name of trained postgraduate supervisor (if relevant)
- Name of Academic Supervisor* Signature
- Date of Issue

A completed and signed copy of this form must be presented to the Post Graduate student who is supervising on the evening in question. The completed form is then sent to the Department Administrator, the following day. A copy of this form is available in [Appendix E](#).

**APPENDIX A PESS BUILDING EMERGENCY EVACUATION
PROCEDURE**

University of Limerick
PESS Building Emergency Plan

Physical Education & Sport Sciences Building (PESS Building)

Introduction

The University of Limerick has a two-tiered systematic approach to the management of emergencies. Emergencies/crises are divided into:

- Those that occur at a Departmental or Building level and can be dealt with, in the first instance, at that level (e.g. small chemical spill, fire resulting in damage to a confined area within a building). This type of emergency is dealt with in the Departmental Emergency Plan. Each Department has its own Departmental Emergency Plan. Personnel from the Buildings Department and the Safety Officer will be involved.
- Those that affect the wider campus or the operation and good name of the University and require a response at an Executive level. This type of emergency/crisis is dealt with in the Executive Crisis Management Plan. Departmental Emergency Plans link in to the Executive Crisis Management Plan, i.e. on activation of the Executive Crisis Management Plan individual Departmental Emergency Plans may be activated.

SCOPE

This is a Departmental Emergency Plan and applies to all departments and occupants of the Physical Education & Sport Sciences Building.

The document is divided into two sections:

Section 1 should be read by all relevant staff named in the document and essentially sets out policy and detailed duties and responsibilities including responsibilities for maintaining the plan.

Section 2 is the functional part of the document and should be used in the event of an emergency. It sets out actions to be taken, and by whom. It also includes a map of the building, which can be given to the emergency services.

Section 1: Policy, Roles and Responsibilities

POLICY

COORDINATION WITH OTHER EMERGENCY PLANS

This emergency plan is a key component of departmental safety arrangements and University crisis management and must be coordinated with these other plans.

University of Limerick Executive Crisis Management Plan

In the event of a campus wide emergency the University of Limerick Executive Crisis Management Plan will be activated. The Departmental Emergency Plan is a component of the Executive Crisis Management Plan.

Requirements of the Safety, Health & Welfare at Work Act 1989

This plan satisfies the requirements of the Safety, Health and Welfare at Work Act with respect to emergency plans and also takes account of existing Departmental Codes of Practice.

ROLES

Roles And Responsibilities of Departmental Personnel

IMPORTANT - Under normal circumstances, the sections below outline the responsibilities of all individuals in responding to emergencies and/or evacuations. However, during the COVID-19 pandemic, many staff members will continue working from home so there will be fewer staff members on campus and the PESS building may be operating with fewer, if any, evacuation and assembly point stewards. Under these circumstances, it is of the utmost importance that all building occupants are familiar with this document and understand the procedures to be followed in the event of an emergency and/or evacuation. Any staff members, including faculty, support staff and teaching assistants, present during an emergency and/or evacuation will be expected to assume a leading role in guiding students/visitors etc. out of the building. All staff can dial 3333 for support in the event of an emergency.

All staff are responsible for:

- a. Being familiar with and following emergency procedures when required.
- b. Participating in drills and training as required.
- c. Orienting and informing students and visitors of procedures to be followed in case of an emergency. Students should have a brief orientation on the first day of class to assure that they are aware that evacuation is required, when the alarm system is activated, and that they know where the nearest exits are located. Visitors unfamiliar with building procedures should be informed and assisted as appropriate.

Duties of the Evacuation Coordinator

The Evacuation Coordinator has the following responsibilities:

- a. The Evacuation Co-ordinator acts as the liaison with the responding emergency service, the Safety Office and others if a departmental emergency occurs. In their absence, the alternates are responsible for carrying out the requirements. If an emergency happens when these members of the department are not available, the most senior employee will have decision-making authority.
- b. For a campus-wide event the Evacuation Coordinator or an alternate will establish contact with the University of Limerick Crisis Management Centre. The Evacuation Coordinator may then activate a full evacuation of the building.
- c. Ensure that the Departmental Emergency Plan is kept up to date. The plan should be reviewed annually with the assistance of the University Safety Officer. The plan must be available to all staff and students in the building.
- d. Assign Evacuation Stewards and Assembly Point Stewards (and alternates) and ensure that they know what their duties are in case of an evacuation. The Physical Education and Sport Sciences Building is divided into 7 evacuation zones with two evacuation stewards allocated to each zone. Two Assembly Point Stewards are also appointed. A current list of Evacuation Stewards and Assembly Point Stewards is given in Appendix 1.
- e. Ensure students are informed by lecturers about emergency procedures, exit routes, and assembly points on the first day of the first term.
- g. In conjunction with the University Safety Officer, conduct and record fire drills.
- h. During a fire alarm and evacuation, the Evacuation Co-ordinator or the alternate must report to Assembly Point 7 (Schroedinger Car Park) and then act as a liaison with emergency services and do the following:
 - Receive status reports from evacuation stewards.
 - Provide information about the building layout, systems, processes, and special hazards to emergency personnel. A copy of section 2 of this plan should be brought to the emergency services.
 - Ensure that all evacuation stewards return to the assembly points and are accounted for.
 - Coordinate with Buildings staff and Safety Officer
- i. Assign Evacuation Stewards or other assigned personnel, as needed, to be stationed by all building entrances to prevent unsuspecting personnel from re-entering the building. When an "ALL CLEAR" is given by the fire officer in charge / Gardai, the Evacuation Coordinator notifies the Evacuation Stewards that staff and students may re-enter the building.

Duties of the Evacuation Stewards

The Evacuation Steward has the following responsibilities:

- a. Be familiar with the "Departmental Emergency Plan"
- b. Coordinate with the other Evacuation Stewards on your floor to work together and avoid duplication of tasks. Evacuation Stewards systematically check through their designated area to ensure all staff and students have evacuated.
- c. Walk over the evacuation routes at least once per term to familiarize yourself with emergency exits and routes to the assembly points.
- d. Check that the ORANGE evacuation waistcoat for your area is in place during evacuation drills. If they are missing report to the Evacuation Coordinator.
- e. Attend training sessions and meetings to review procedures and duties, if necessary as organised by the UL Health and Safety Office.
- f. Know where hazardous conditions or situations in your area may exist. Know the location of flammable, radioactive and other hazardous materials if your zone includes such hazards.
- g. Know where the phones and fire alarm break glass units are and how to operate them.

Duties of the Assembly Point Stewards

The Assembly Point Steward has the following responsibilities:

- a. Be familiar with the "Departmental Emergency Plan"
- b. Walk over your evacuation routes at least once per term to familiarize yourself with emergency exits and routes to the assembly points.
- c. Check that the ORANGE evacuation waistcoat is in place with the megaphone during evacuation drills. Check that megaphones are in working order during evacuation drills. Report any faults to the Evacuation Co-ordinator.
- d. Attend training sessions and meetings to review procedures and duties, if necessary. Assembly Point Steward training sessions are organized by the UL Health and Safety Office.
- e. During and evacuation of the building, stand outside the back of the building and direct people to Assembly Point 7 (Schroedinger Car Park).

Lecturer's Responsibility

Lecturers have the following responsibilities:

- a. Know how to report an emergency from the classroom/lecture being used. Phone extension **3333**. The appropriate emergency service will then be contacted immediately.
- b. Take charge of the classroom and follow emergency procedures for all building alarms and emergencies.

RESPONSIBILITIES

NORMAL HOURS EMERGENCY EVACUATION PROCEDURES

A ON THE DISCOVERY OF A FIRE:

- (a) Raise the alarm by breaking the nearest available break glass point.
- (b) Phone extension **3333**. The appropriate emergency service will then be contacted immediately.
- (c) If the fire is small and contained staff should consider using the nearest appropriate appliance provided, ensuring that the extinguisher is compatible with the fire e.g. **do not use water on electrical or flammable liquid fires**.

IMPORTANT: Under no circumstances should students tackle a fire.

B ON HEARING A CONTINUOUS ALARM:

Evacuate the building in the following manner:

- (a) WALK (do not run) to the nearest exit point briskly.
- (b) Do NOT delay to pick up personal belongings. This could hinder evacuation of the building and put not only your own life in danger but also the lives of others.
- (c) Disconnect all electrical appliances.
- (d) Close all doors behind you (where practical).
- (e) Do not use lifts. In the event of an emergency, electrical connections to lifts are disconnected.
- (f) DO NOT RESTRICT EGRESS BY CONGREGATING IN THE STAIRWELLS.
- (g) Assemble at the assembly point designated for the building (Schroedinger Car Park). It is important to assemble at this assembly point, following the routes

clearly marked, to avoid congestion and to allow unhindered access to the emergency services.

- (h) During the evacuation and on arrival at the designated assembly points it is essential to follow the stewards instructions as they endeavour to keep adjacent areas clear.
- (i) Do NOT re-enter the buildings until authorised by the assembly point steward.
- (j) To relieve congestion on re-entering the building, it is important to use the same route by which you entered.

OUTSIDE NORMAL WORKING HOURS EMERGENCY EVACUATION PROCEDURES

A ON THE DISCOVERY OF A FIRE:

- (a) Raise the alarm by breaking the nearest available break glass point.
- (b) Phone extension **3333**. The appropriate emergency service will then be contacted immediately.
- (c) If the fire is small and contained staff should consider using the nearest appropriate appliance provided, ensuring that the extinguisher is compatible with the fire e.g. **do not use water on electrical or flammable liquid fires.**

IMPORTANT: Under no circumstances should students tackle a fire.

B ON HEARING A CONTINUOUS ALARM:

Evacuate the building in the following manner:

- (a) WALK (do not run) to the nearest exit point briskly.
- (b) Do NOT delay to pick up personal belongings. This could hinder evacuation of the building and put not only your own life in danger but also the lives of others.
- (c) Disconnect all electrical appliances.
- (d) Close all doors behind you (where practical).
- (e) Do not use lifts. In the event of an emergency, electrical connections to lifts are disconnected.
- (f) Assemble at the assembly point designated for the building (Schroedinger Car Park). Await instructions of security staff.
- (g) Do NOT re-enter the buildings until authorised by the security staff.

Section 2 Functional Plan

A. Porter Function – Fire Alarm activated automatically

On hearing the alarm security / porter / buildings staff will have the following responsibilities:

- Go to the main panel to ascertain the location of the alarm activation.
- Proceed immediately to the area indicated on the panel readout and determine if it is a genuine alarm.
- If there is a false alarm return to the panel and mute the sounders, reset the panel and advise Main Reception via radio or phone. Advise the Evacuation Coordinator.
- If there is a fire and it is small you may attempt to fight it with the 'first-aid' appliances available.
- If you cannot fight the fire, summon assistance by contacting Main Reception (by radio or phone ext. 3333) or dial 112 on an external line and ask for the fire brigade. If the alarm is activated as a result of an explosion ask for an ambulance also.
- State there is a fire in the University of Limerick Physical Education and Sports Science Building. Give your name and state that a security person will be sent to the West Gate if required.
- Assist in the all-out evacuation of the building.
- Contact security at Main Reception (Ext. 3333) and request that a person be sent to the West Gate if required by the fire brigade.
- Go to Assembly Point 7 and report to the Evacuation Coordinator.

B. Security Function – Power Failure

- Go to main panel beside Notice Board by main exit to ascertain whether there is a power failure as a result of fire.
- Check with Main Security whether the power failure is local or campus wide.
- If it is a local power failure contact Buildings.
- Buildings ascertain whether the failure can be rectified.
- If the power failure cannot be rectified within 2 hours Buildings will instruct the Porter to activate the fire alarm and initiate the evacuation of the building.
- Go to Assembly Point 7 and inform the Evacuation Coordinator that there has been a power failure.
- Buildings Officer informs Security, Evacuation Stewards, Assembly Point Stewards and Heads of Departments as to the length of time required to rectify the situation.
- Depending on situation Assembly Point Stewards are instructed by the Evacuation Co-ordinator to give instructions to staff and students, e.g. 'Go to another building and return within the hour' or 'Go home, the power failure is campus wide'.

C. Evacuation Instructions for Evacuation Stewards

1. On hearing the alarm collect **ORANGE** high visibility waistcoat marked “Evacuation Steward” from office and clear respective zone.
2. Encourage people to respond to the alarm (occasionally people do need this encouragement). Check your designated areas and remember to check the toilets/store rooms in your designated areas. Direct occupants to the nearest exits and tell them where to assemble (i.e. Assembly Point 7).
3. Instruct staff and students not to use the lift.
4. Conduct a quick search as you go to ensure that no one is left behind.
5. Instruct un-cooperative persons to evacuate but under no circumstances delay your own evacuation. This check should not involve opening doors if the fire is believed to be behind them.
6. Report to the Evacuation Coordinator at Assembly Point 7 the clearance of your area, or the number and location of persons still in the building.
7. After evacuation prevent people from re-entering the building until the Evacuation Coordinator gives the “All Clear”.

D. Evacuation Instructions for Assembly Point Stewards

1. Collect **ORANGE** high visibility waistcoat marked “Assembly Point Steward” and the megaphone.
2. Wait outside, at the back of the PESS building. Another steward waits at the front of the PESS building.
3. Use the megaphone to move people away from the building and direct them to Assembly Point 7.
4. Move staff and students further away from the building to Visitors’ Car Park 6 if requested to do so by the Evacuation Coordinator or a member of the fire service.
5. Await instruction from the Evacuation Coordinator. Only the Evacuation Coordinator can give the “All Clear” signal.
6. When the All Clear signal is received instruct staff and students to re-enter the building by the same door they exited if possible.

E. Evacuation Instructions for Evacuation Coordinator

1. Go to the white cabinet at PESS reception and collect the **YELLOW** high visibility waistcoat marked “Evacuation Coordinator” and pick up the clipboard containing a copy of the Emergency Evacuation Procedures, checklist, and building plans.
2. Go to Assembly Point 7 and then act as a liaison with the Emergency Services and do the following:
 - a. Receive status reports from the Evacuation Stewards and coordinate with staff from the Department, Buildings & Estates and the Safety Officer.
 - b. In conjunction with staff from the Department, Buildings & Estates, provide information about the building layout and systems to emergency personnel.
 - c. Ensure that all Evacuation Stewards report to the Assembly Points.
3. Department, Buildings & Estates will inform the Evacuation Coordinator as to the nature of the emergency based on information from the fire panel and visual (if appropriate) investigation.
4. If it is a false alarm instruct the Assembly Point Stewards to give the “All Clear” and allow re-entry to the building.
5. If there is a fire, await instructions from the fire brigade.
6. If there is a bomb threat (or other risk of explosion) and the bomb is thought to be in the PESS Building, instruct Assembly Point Stewards to move staff / students to Visitors’ Car Park 6.
7. Await instructions from the Fire Brigade / Gardai.

F. Action in the event of a Chemical Spill or Release

Small Spills

Spills that do not endanger staff or students in the immediate area may be cleaned up by laboratory staff using the spill kits provided.

1. Eliminate all sources of heat and ignition for all flammable materials and also for those, which form more toxic substances on exposure to heat.
2. Wear suitable personal protective equipment – lab coat, nitrile gloves, eye protection.
3. Ensure that all other personnel either leave the affected area or, if they remain to help, are also adequately and suitably protected.
4. If a liquid spill is small, absorb on paper towels and evaporate in a fume cupboard;
5. If large, absorb on sand, vermiculite or chem-sorb (industrial absorbent for liquid spills, available in all the laboratories), put into a covered container, label and remove for disposal. Solid materials should be swept up dry or mixed with dry sand before being swept up and placed in buckets for removal and subsequent disposal.
6. Following removal of the material from the site of the spillage, the area should be ventilated to remove any residual vapour and/or washed with water and soap or detergent to remove any traces of material;
7. Any contaminated personal or protective clothing should be thoroughly cleaned to remove all traces of contaminant. In some cases it may be necessary to discard contaminated clothing.
8. Report the incident to the Departmental Safety Advisor so that it can be thoroughly investigated to evaluate the cause of the spillage with a view to preventing further similar incidents and also to ensure that the instructions for handling such incidents are satisfactory.

Spillage Onto the Person

1. In the case of spillage onto the person, affected areas of the skin should be immediately treated with liberal quantities of water and any contaminated clothing removed. It is good practice to follow the initial water sluice by washing with soap and water.
2. The eyes should be well washed, either with water or some suitable eye lotion, by the victim's colleagues: firm instructions to open the eyes for treatment and gentle restraint are normally needed. Entry of dangerous materials into the eyes should always be treated as a matter of concern and hospital examination should always follow the emergency first-aid procedure.
3. Any student requiring emergency first-aid treatment, after initial treatment (preferably by a trained first-aider, should be brought to the UL Student Health Centre where they will be advised if further hospital treatment is required. It is important that medical staff are informed of the nature of the accident, the time at which it occurred and the chemicals involved.

Large spills/unknowns

1. If the spill is large, if the chemical is not easily identified, or if the chemical is extremely hazardous, then the technician, postgraduate or lecturer should:
2. Evacuate all personnel from the area.
3. Phone the emergency services and request the fire brigade and ambulance if required
4. When making an emergency call:
 - a. Give your name.
 - b. Give your location (room and building).
 - c. Give the phone number you are using.
 - d. Describe the emergency/injuries.
5. If possible, remain in vicinity, away from danger, to assist the emergency services.
6. Await instruction from the emergency services before re-entry.
7. Report the incident to the University Safety Officer

G. Action in the event of a Bomb Threat – instruction to person receiving call

1. University personnel receiving telephoned threats should attempt to get the exact location where the bomb has been planted, or is going to be planted.
2. Attempt to get as much information as possible about the caller, for example, male or female, accent, etc.
3. Listen for any background noise that may indicate the location of the caller.
4. Report it immediately to the Gardaí on 112.
5. Act on the advice of the Gardaí with respect to evacuation
6. If the Gardaí recommend evacuation, activate the fire alarm system by operating the nearest break glass unit.
7. Go to Assembly Point 7 and inform the Evacuation Co-ordinator as to the nature of the emergency.
8. Complete the checklist as soon as possible after receiving the threatening call
9. Bomb threats received through the post or by other means are also to be reported immediately to the Gardaí.

PESS EVACUATION PLAN - RESPONSIBLE INDIVIDUALS

Name	Alternative	Role / Area
Giles Warrington	Ian Kenny	Evacuation Coordinator Collect YELLOW jacket from notice board area at main entrance, and go to Assembly Point 7 (Schrödinger car park)
Daniel Tindall	Brigitte Moody	Evacuation Steward Zone 1 Put on ORANGE jacket and evacuate the following areas: Offices P1008-P1012, P1-019 P1-020: Direct staff in these offices to exit via Emergency Evacuation Stairs. Main corridor - staff offices, classrooms & toilets. Exit building by Main Entrance. Report to Evacuation coordinator.
Rhoda Sohun	Antonio Calderon	Evacuation Steward Zone 2 Put on ORANGE jacket and evacuate the following areas: Downstairs Postgraduate Room, Biomechanics lab, Biomechanics Project lab, Teaching Assistant Office, Research Office upstairs and A&K Lab. Exit building by Back Door. Report to Evacuation coordinator.
Darragh Hogan	Adam Toth	Evacuation Steward Zone 3 Put on ORANGE jacket and evacuate the following areas: Gym, Sports Hall, Area above Sports Hall: Upstairs Postgraduate Room, Psychology laboratory, Pedagogy Laboratory, research office overlooking Sports Hall, male and female toilets. Exit building by Back Door. Report to Evacuation coordinator.
DJ Collins	Stephen Clothier	Evacuation Steward Zone 4 Collect orange jacket from office PG-052 Evacuate the following area: Biochemistry Lab, Physiology Project Lab, Physiology Lab, Cell Biology Lab, Performance Metabolism Room, Body Composition Room, and Metabolic Room. Exit by side door Report to Evacuation Officer
Helen Quain	Coaching Ireland ANO	Evacuation Steward Zone 5 Collect ORANGE jacket from Coaching Ireland reception and evacuate the following areas: Labs, Offices, toilets and reception area. Exit building by Coaching Ireland Main door. Report to Evacuation coordinator.
Maeve Gleeson	Mary Hackett	Evacuation Steward Zone 6 Collect ORANGE jacket from PESS administration office and evacuate the following areas: Central Core Upper: Student Computer Suites, Offices, Toilets, Lecture Theatre, Classroom next to Lecture Theatre. Exit building by Main Entrance. Report to Evacuation coordinator.
Tom Comyns	Ciaran MacDonncha	Evacuation Steward Zone 7 Put on ORANGE jacket and evacuate the following areas: Canteen area, showers, toilets, multipurpose sports hall, 5 office/research rooms. Exit building by Main Entrance. Report to Evacuation Coordinator.
Brian Carson (Back Door) Claire Walsh	Mark Lyons (Front Door) Ursula Freyne	Assembly Point Steward (Back Door): Collect ORANGE jacket and megaphone from office, and wait outside back entrance of PESS building. Assembly Point Steward (Front Door): Collect ORANGE jacket and megaphone from reception, and wait outside back entrance of PESS building. Direct crowd to Assembly Point 7 (Schrödinger car park) Report to Evacuation Coordinator.

Emergency Evacuation for Persons With Disabilities

General

Staff and students with disabilities must develop their own evacuation plans and identify their primary and secondary evacuation routes from each building they use.

At the beginning of each semester a PESS Safety Advisor will contact PESS students and staff with a mobility disability regarding evacuation routes from the PESS Building. Evacuation Stewards will assist individuals with a disability to evacuate from the PESS building. The individual with the disability will inform the Evacuation Steward/PESS Safety Advisor how they should be assisted during the evacuation.

Disabled visitors unfamiliar with the building will be assisted in evacuation by Evacuation Stewards.

HAZARDS IN PESS BUILDING

Date 12-06-2020

Location	Hazards	Size	Contact person
Biochemistry lab PG 048	Flammable, Corrosive and toxic chemicals. Biohazard(urine and blood samples stored in Freezers)		Prof Phil Jakeman 061 202800
Large Teaching Lab Physiology	Nitrogen 99.99% 5%CO ² 15% O ² rest N ²	W V	Dr Brian Carson 061 202020 Steve clothier 085 1509719
Outside Gas Store	Carbon Dioxide Vapour Liquid (2 Cylinders) O ² Cylinder Biohazard Store (Sharps and Blood Samples)	W small	Dr Brian Carson 061 202020 Steve clothier 085 1509719
Performance Metabolism Lab (PG-047)	Calibration gases 5% CO ² 12%O ² Balance N ² 5% CO ² 12%O ² Balance N ² 21% O ² Balance N ² 21% O ² Balance N ²	V V V V	Prof Phil Jakeman 061 202800 Steve clothier 085 1509719
Cell Biology Lab (PG-052a)	CO ² supply into lab from cylinders in outside store		Prof Phil Jakeman 061 202800 Steve clothier 085 1509719

EMERGENCY CONTACT NUMBERS

EMERGENCIES (GARDAI, FIRE BRIGADE AND AMBULANCE) **999** or **112**

CAMPUS EMERGENCIES (24 HOURS) **EXT: 3333** or **061 213333**

UNIVERSITY CONTACTS:

- STUDENT HEALTH CENTRE 061 202534 (9AM – 5PM)
- BUILDINGS AND ESTATES 061 202001 or 202006
- SAFETY OFFICER 061 202239
- SECURITY 061 202249 or 202006 (DAY) 061 202010 (NIGHT)

EXTERNAL CONTACTS:

- AN GARDA SIOCHANA (HENRY STREET) 061 212400
- MID-WESTERN REGIONAL HOSPITAL 061 301111
- ST. JOHN'S HOSPITAL 061 462222

The first location for the Crisis Management Centre is: Department Buildings and Estates AM Area

The secondary location is: Plassey Village Hall

EVACUATION CHECKLIST FOR EVACUATION COORDINATOR

On hearing the alarm collect **YELLOW** high visibility waistcoat, the clipboard containing the Emergency Evacuation Management Procedures and checklist. Proceed to the designated Assembly Point.

Date that Alarm Sounded: _____

Evacuation Stewards (Names)

- Zone 1 Daniel Tindall Brigitte Moody
- Zone 2 Rhoda Sohun Antonio Calderon
- Zone 3 Darragh Hogan Adam Toth
- Zone 4 DJ Collins Stephen Clothier
- Zone 5 Helen Quain Coaching Irl ANO
- Zone 6 Maeve Gleeson Mary Hackett
- Zone 7 Tom Comyns Ciaran MacDonncha
- Assembly Point Steward Brian Carson Mark Lyons
- Assembly Point Steward Claire Walsh Ursula Freyne

Zone	Area Checked	YES or NO
1	Main corridor - staff offices (P1008-12, P1-019-20), classrooms & toilets	Y <input type="checkbox"/> N <input type="checkbox"/>
2	Downstairs PG Room, Biomechanics Lab, Biomechanics Project Lab, A&K, Lab, TA Office, Research lab above TA Office	Y <input type="checkbox"/> N <input type="checkbox"/>
3	Sports Hall and Gym. Area above Sports Hall: Upstairs PG Room, Psychology Lab, Pedagogy Lab, Research Office, Male and female toilets.	Y <input type="checkbox"/> N <input type="checkbox"/>
4	Lecture Room, Physiology Lab (PG050), Biochemistry Lab (PG048), Physiology Teaching Lab (PG-051), Technicians Office (PG-049), DEXA Room, Metabolic Room, Performance Metabolism Lab, Cell Biology Lab	Y <input type="checkbox"/> N <input type="checkbox"/>
5	Coaching Ireland Offices and Laboratories	Y <input type="checkbox"/> N <input type="checkbox"/>
6	Central Core Upper: Student Computer Suites, Offices, toilets, lecture theatre, classroom next to lecture theatre	Y <input type="checkbox"/> N <input type="checkbox"/>
7	Central Core Lower: canteen, showers, toilets, multipurpose sports hall, offices opposite cafe	Y <input type="checkbox"/> N <input type="checkbox"/>

Assembly Point Steward is in possession of Megaphone Yes No

Alarm Sounded at (time): _____

All Clear Given at: _____

APPENDIX B SAFETY STATEMENT FOR CAPILLARY BLOOD SAMPLING

SAFETY STATEMENT FOR OBTAINING CAPILLARY BLOOD SAMPLES

1. Hepatitis B immunisation is a requirement for all staff and students that handle blood.
2. Subject must fill out pre-test questionnaire. If there is any reason to believe that the subject has a blood disorder (e.g. Hep B, C, HIV), then he/she should not be included in the study.
3. Exclude from taking blood from anyone with obvious open wounds or lacerations on the hands. In any case, during any experimental work these should be covered by a waterproof plaster.
4. Set out the tray with equipment:
 - i) lancet
 - ii) sterile swab
 - iii) cotton wool
 - iv) adhesive plaster
5. The experimenter and subject should wash hands with soap and water using a nail brush if necessary.
6. Wear appropriate gloves. Persons with known Latex allergy should wear non-Latex gloves.
7. Swab the site of the puncture, and dispose of the swab in the biohazard bag.
8. Obtain the sample. Pierce the skin using a sterile, single use captive lancet. No other device may be used. Swab off excess blood and dispose of the swab in the biohazard bag when bleeding has stopped.
9. Any spillage of blood onto surfaces should be cleaned by using Virkon or a 1:10 dilution of bleach.
10. Dispose of lancet blade into the yellow sharps container. This should be sealed before it becomes full to avoid injuries from forcing sharps into a full box. The sharps box should be included in the clinical waste when sealed.
11. Never retrieve an item from the sharps container.
12. Following the procedure, it is good practice to again wash and dry the hands. Dispose of gloves in the biohazard bag.
13. Any blood contaminating the experimenter should be washed off immediately using soap and water.
- 14. Should the experimenter puncture him/herself and consider that he/she has been contaminated, then he/she should encourage local bleeding and wash immediately with hot water and soap. The experimenter must inform the lecturer/demonstrator of the incident. Medical advice should then be sought from UL Student Health Centre. The volunteer's sample should be kept for testing for blood borne pathogens. The University of Limerick ['Accident Report Form'](#) should be completed. Forms are available from the PESS administrator's office.**

APPENDIX C PESS Biohazard/ Chemical Waste Guidelines

PESS BIOHAZARD WASTE CATEGORIES

Biohazard Waste (Healthcare Risk Waste)

This is categorized as waste which is potentially harmful to those who come in contact with it, due to its infectious, biological, chemical, radioactive, sharp contents: It is classified as hazardous.

Yellow Bag /Risk Waste

All blood–stained or contaminated items including:

- Syringes, gauze, swabs, gloves, tissue, bandages, Eppendorf's, pipette tips and Pasteur pipettes

Yellow Sharps Bin

All sharp items including:

- Needles, Cannula's and contaminated slides, scalpels

Chemical Waste

2l Duran or 15 l Drum

All chemical waste segregate as appropriate:

- Acid, bases, organics and refer to Material Data Safety Sheet for guidelines
- Record on the label the exact chemical and volume and securely seal to prevent spillage

Household Waste (Non Healthcare Risk Waste)

This category of waste includes wastes which are not classified hazardous.

Note: The term non-risk is used to distinguish this waste from hazardous waste; it should not be taken as implying that the waste is without risk if carelessly handled

Black or Clear Bags

- All household non –recyclable waste
- Non-contaminated gloves, syringes, tissue, empty urine container, Pasteur pipettes

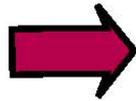
CLINICAL/BIOWASTE PROCEDURE

- Appropriate protective clothing to be worn, i.e. coat and gloves when handling Biowaste.
- Sharp bins and Biowaste bags to be obtained from CTO.
- Sharp bin will be assembled by CTO and dated.
- **(Do not overfill.** There IS an indication line on sharps bin. Biowaste bag is only to be filled to 2/3 full).
- When Sharp bin or Biowaste bags are full contact CTO.
- CTO will seal sharp bin and date it and remove it to main Bio-waste store.
- CTO will seal Biowaste bag and remove it to main Bio-waste store.
- When Biowaste main store bin is nearly full then CTO will contact a Specialist Waste Disposal & Collection Service.
- Date of removal will be arranged.
- On day of collection CTO will sign sharp bin (company name and date) and sign collection documentation.
- Certificate of destruction must be received from the waste company.
- In the event of a Biowaste spill the CTO will be called to clean area with Virkon (Virkon spray to be kept in Biochemistry lab).
- Small liquid spillages (less than 0.2ml) can be disinfected with a 2% aqueous solution of Virkon as for surface disinfection.
- **Each research group must keep a record of the amount of their waste**

For any queries regarding the correct manner of disposal please contact Stephen Clothier, Chief Technical Officer, PG-049, Ext:3803

Segregation of Risk and Non Risk Waste

Yellow Bag Risk Waste



All bloodstained or contaminated items including:

- Syringes
- Gloves
- Gauze
- Tissues
- Swabs

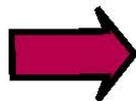
Yellow Rigid 30/60 Litre Lidded Container



Include Only

- Pads at base of bin
- Blood, plasma and body fluid contained in hard plastic
- **No sharps, free liquids or heavy metals**

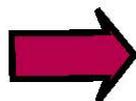
Yellow Sharps Bin



All sharp items including :

- Needles
- Cannulas
- Contaminated Slides

Black/Clear Refuse Bags



Household non-Recyclable waste including **non-contaminated:**

- Gloves
- Urine Containers (rinsed)
- Syringes
- Tissues
- Pasteur Pipettes

**APPENDIX D RADIATION SAFETY PROCEDURES FOR THE SAFE
USE OF DUAL ENERGY X-RAY ABSORPTIOMETRY
(DEXA)**

UNIVERSITY OF LIMERICK
DEPARTMENT OF PHYSICAL EDUCATION AND
SPORT SCIENCES

**Radiation Safety Procedures
for the safe use of
Dual Energy X-ray Absorptiometry (DEXA)**

(Prof. Phil Jakeman)

CONTENTS

- 1. Introduction**
- 2. Scope**
- 3. Responsibility**
- 4. Licensing**
- 5. Working Instructions for Protection of Staff, Persons Undergoing DEXA Scans, and members of the Public.**
- 6. Emergency Procedures**

Appendix 1. Schedule of Key Personnel

Appendix 2. Inventory of Irradiating Apparatus

1. Introduction

- 1.1. These Radiation Safety Procedures (Local Rules) are intended to ensure that x-ray apparatus used in a manner which is consistent with the Radiation Safety Plan, good radiation protection practices, the relevant Irish legislation; in particular the Radiological Protection Act (1991-2014), S.I. 125 of 2000, and S.I. 478 of 2002, and the conditions of the licence and guidance notes issued by the EPA Office of Radiological Protection (ORP), and any relevant guidelines issued by the Medical Council or the National Radiation Safety Committee (NRSC). The local rules will be periodically reviewed as required under the conditions of the licence. A copy of the local rules must be made available to all relevant staff, who must read them and sign a statement that they have read and understood them. The local rules must be reviewed and updated in accordance with the radiation safety plan

2. Scope

- 2.1. These procedures relate to the use of dual energy x-ray absorptiometry devices in the dedicated DEXA room (PG052c) in the Sports Building. The key personnel in the department are detailed in appendix 1, while the specific devices used in the department are listed in appendix 2.

3. Responsibility.

- 3.1. The administrative arrangements for radiation safety in the University are set out in the Radiation Safety Plan, which details the general responsibilities of the various officers and individuals.
- 3.2. A Radiation Safety Committee has been appointed to formalise radiation safety policy, and a Radiation Protection Officer (RPO) has been appointed with an oversight role for ensuring radiation safety in the University. An external Radiation Protection Adviser (RPA) has also been appointed (appendix 1).
- 3.3. Overall responsibility for Radiation Safety rests with the Head of the Department (Appendix 1). The practical implementation of these responsibilities is delegated to the Departmental Radiation Protection Supervisor (Appendix 1).
- 3.4. It is the responsibility of all users of the devices to familiarise themselves with these local rules and to ensure that no members of staff, students or other members of the public are unnecessarily exposed to ionising radiation.
- 3.5. It is the responsibility of all operators to familiarise themselves with these local rules and to ensure that no members of staff, subjects or other members of the public are unnecessarily exposed to ionising radiation. In particular, the responsibilities of the operator include performance of routine Quality Assurance or calibrations in accordance with manufacturers instructions, and generally ensuring that the bone densitometer is operated and maintained in accordance with manufacturers instructions and the Working Instructions (Section 4).
- 3.6. Service engineers are responsible for their own safety in accordance with their Company procedures, but must also agree to comply with these local

rules. As such a copy of these procedures should be forwarded to the service manager who must acknowledge receipt and agree to abide by them.

4. Licensing

- 4.1. All irradiating apparatus is subject to licensing by the EPA and must be listed in schedule 2 of the licence. A copy of the current licence must be displayed in the DEXA Room.
- 4.2. No new irradiating apparatus or radioactive sources may be introduced without the prior knowledge of the RPA and the RPO, until an appropriate risk assessment has been conducted, and until a licence amendment has been obtained from the ORP.
- 4.3. No licensed items may be moved or disposed of, or have their storage conditions changed without the prior knowledge of the RPO/RPA, and the ORP, so that appropriate steps can be taken for safe disposal, risk re-assessment, and/or licence amendment as appropriate.

5. Working Instructions for Protection of Staff, Persons Undergoing DEXA Scans, and Members of the Public

- 5.1. Working practices should be optimised such that all exposures are kept as low as reasonably achievable (ALARA). To this end;
 - (a) All x-ray exposures must be justified in accordance with selection criteria as set out in Appendix 3.
 - (b) All exposures must be kept as low as reasonably achievable and must be no greater than are necessary to produce a satisfactory scan.
 - (c) Members of staff or service engineers must not expose themselves or others to ionising radiation to a greater extent than is necessary for the purpose of their work and they must co-operate with the RPO on safety matters. Unauthorised exposure of any persons, or self-exposures, are strictly prohibited.
- 5.2. **Subject Identification Policy:** It is the responsibility of the operator to positively identify the subject as an authorised participant in the research programme. The subject should be asked to confirm his/her name and address, and that he/she understands that he/she is participating in a research programme. The scan should not proceed where there is any doubt as to the identity of the subject, or whether or not the subject is a participant in the research programme.
- 5.3. Staff must not place any part of their bodies in the x-ray beam while scanning. Staff may not hold or support the subject during the scan.
- 5.4. It is the responsibility of the operator to maximise his/her distance from the scanner and to ensure that he/she, or members of the public are never closer than 2 metre from the scanner during scanning.
- 5.5. Only authorised and appropriately trained staff may operate bone densitometers. These include the operators listed in Appendix 2, authorised service personnel, and the RPA.
- 5.6. The operator must always check the x-ray on indicator before approaching the scanner. When illuminated, x-rays are being generated. He/she must also be in view of the x-ray on indicator while performing a scan.

- 5.7. Any fault or difficulty with calibration/scanning must be immediately reported to the RPO. The scanner must not be returned to use until it has been repaired.
- 5.8. It is practice policy that pregnant women should not be scanned. There is no restriction on pregnant staff while these working instructions are observed.
- 5.9. The operator must ensure that no unauthorised person has access to the scanner when not in use.
- 5.10. A log of all subject exposures must be kept.

6. Emergency Procedures.

- 6.1. In the event of any malfunction resulting in an exposure to any person, the device must be immediately switched off and taken out of use, and the incident reported to the RPO and the DRPS. An accident/incident report must be completed by the person involved and the RPO must conduct an investigation. The RPA should be contacted where advice on dosimetry is required.
- 6.2. Any unjustified patient exposures must be recorded, investigated, and reported in accordance with guidelines issued by the National Radiation Safety Committee (NRSC).
- 6.3. If the x-ray on light remains illuminated or if any fault occurs in the scanner, the subject should be moved to a safe distance, the mains supply disconnected, and the scanner taken out of service.
- 6.4. The ORP shall be notified of damage to, leakage from or other incident / accident involving a licensed item as soon as possible and at the latest within 24 hours, in accordance with RPII guidelines for reporting radiological incidents of August 2013. Results of dose investigations must also be forwarded to the ORP where EPA reportable dose limits are exceeded.
- 6.5. In the event of fire or other emergency, the alarm must be raised as a priority, and where time and safety permit, the electrical power to all x-ray devices must be switched off. Other fire orders to be followed as normal.

6.6.

APPENDIX 1 - KEY PERSONNEL

Head of Department

Dr Giles Warrington

Radiological Protection Advisor (RPA)

Mr. J Upton MSc, X-Spect Limited, 3 Ballinakill Close, Waterford.
Medical Physicist

Radiological Protection Officer (RPO)

Mr. P Thornton, BSc, MSc, CMIOSH
Safety Officer.

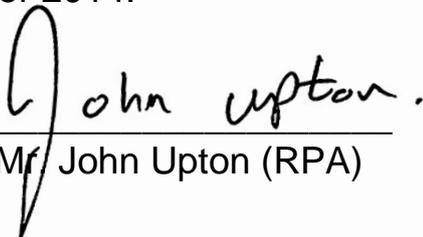
Departmental Radiological Protection Supervisor (DRPS)

Professor Phil Jakeman
Professor in Exercise Physiology

Emergency Contacts

Name	W.Tel	W.Fax	H.Tel	Mobile
Philip Thornton	061	061	061	086
Safety Officer / RPO	202239	202595	340030	8351374
UL Security (24 Hours)	061 203333			
Radiological Protection Institute of Ireland	01 269 7766			
Gardai, Fire Brigade & Ambulance	999 or 112			

These procedures were reviewed by the RPA and the RPO on the 26th November 2014.

Signed: 
Mr. John Upton (RPA)

Mr. Philip Thornton (RPO)

Prof. Phil Jakemen

APPENDIX 2

INVENTORY OF IRRADIATING APPARATUS

Ref. No.	Description	Location	Installed	Replacement Date	Licence Status
1.	GE Lunar iDXA Fan Beam DEXA Scanner. Tube S/N 1104261.	DEXA Room, Sports Building	Nov. 07	Nov-17	Use

**APPENDIX E SECURITY PERMIT FOR UNDERGRADUATE &
TAUGHT POSTGRADUATE STUDENTS REQUIRING EVENING
SUPERVISION FOR USE OF PESS FACILITIES**

Security Permit for Evening Supervision of Undergraduate and Taught Masters Students

**PESS Department
6.00pm – 9.00pm Monday to Thursday Only**

The student’s supervisor completes the security permit and emails the request to Mary Hackett.

Name of Student(s)	
Level of Supervision Required (<i>delete the option that is not relevant</i>)	
Option 1 (PG Student does not need to be present in the lab at all times)	
Option 2 (PG Student needs to be present in laboratory for full duration) <i>If Option 2, please indicate the name of the PG students who are suitable to supervise the students in the table below:</i> 1. 2. 3. 4.	
Date Evening Supervision is Required	
Time Evening Supervision is Required	
Description of Work to be carried out (specify FYP/Sports Apps, Masters Research Project, Risk Assessment Procedure Number(s))	
Name of Academic Supervisor *	
Date of Issue	

*I, the Academic Supervisor, ensure that the above-mentioned student(s) is/are fully competent in the procedures they will be carrying out and is/are aware of the risks associated with the procedure. I have informed the student(s) of the appropriate safety issues associated with the laboratory.

If the research procedure(s) that the student(s) are carrying out require more than an UG level of supervision, I have ensured that an appropriate trained postgraduate student has been identified for supervision.

The following table must be completed by the Supervising Postgraduate Student

Start and Finishing time of Supervision	
Signature of postgraduate student	

APPENDIX F LONE WORKING PROCEDURES IN PESS



Lone Working Policy

The PESS laboratories and building facilities may be used outside of normal operating hours on the express condition they fulfil all of the conditions attached.

Staff is defined as (post-graduate/post- doctoral/academic/administrative/technical).

The after hours **login/logout book** is located near the main entrance by the porter's office. If working after hours then one must use this book.

Office out of hours (defined as after 10pm Monday to Thursday or before 8am and after 6pm on Fridays and throughout the weekend and bank holidays) then staff must sign in/out using the after hour's login book.

Lab after hours (defined as after 6pm Monday to Friday or before 8am and throughout the weekend and bank holidays) staff must sign in/out using the after hour's login book.

Lone working is prohibited in labs between 10pm until 8am (unless special permission has been obtained from HOD)

The reason for this is that security will know who is working in the building after hours, so they can check on the safety of personnel. Also in situations where the building needs to be evacuated the fire/emergency security will have an idea of who is in the building. Security is to carryout regular checks of the labs and the building which will improve safety and security.

Laboratory Working

Undergraduates

- Undergraduate students are **NOT** permitted in the PESS Labs outside of normal working hours (i.e. before 9am and after 6pm Monday to Thursday and after 5pm on Fridays and all weekends and bank holidays).
- However evening supervision can be arranged from 6pm to 9pm Monday to Thursday by using the evening supervision booking procedure.

Staff (working after hours in labs.)

- After hours is defined as after 6pm Monday to Friday or before 8am and throughout the weekend and bank holidays)
- All staff and faculty working in the lab must have filled out a **lone working in labs form** and be aware of the Health and safety aspects of the lab. (A health and safety lab

manual is located in each lab) and also be aware of emergency procedures and emergency contact numbers during out of hours work in laboratories.

- Security staff will be checking the labs on a regular basis and will check that the person in the lab is permitted by checking their ID Card.
- All persons working in the labs during out of hours must ensure that security is maintained by locking all doors after them.
- They must use the login/out book at the main entrance.

Office Working

Staff working after hours in the building.

- When working out of hours (defined as after 10pm Monday to Thursday; and after 6pm on Fridays and throughout the weekend and bank holidays) then staff must sign an after-hours login book. This is located near the PESS entrance; they must also sign the book when they leave. Security will then use this log to check the safety of all personnel signed in.
- Login book details will contain: date, login time, location, name, log-out time.
- When working out of hours, all staff and faculty must ensure that security is maintained by locking the doors after them and ensuring that no other persons enter the building other than those with prior permission.

Lone Working in labs

Staff and undergraduates Lone working in laboratories during normal working hours

- Lone working in laboratories during working hours is permitted providing the nature of the risk is low. If in doubt contact safety person responsible for the lab, supervisor or Chief Technical Officer.
- If you need to work alone during normal hours, and there are significant hazards beyond the normal hazards found, you need a [UL risk assessment](#). The risk assessment should consider the potential for an accident where the lack of immediate assistance may be a problem.

Undergraduates and Outside of Normal Hours

- Undergraduate students are **NOT** permitted in the PESS Labs outside of normal working hours (i.e. before 9am and after 6pm Monday to Thursday and after 5pm on Fridays and all weekends and bank holidays)
- However evening supervision can be arranged from 6pm to 9pm Monday to Thursday by using the evening supervision booking procedure.

Staff and Outside of Normal Hours

Lone working in laboratories after hours is defined as after 6pm to 8am Monday to Thursday; and after 5pm on Fridays and throughout the weekend). The login/logout book at the main entrance must be used during these hours.

Staff must comply with the following procedures

- **Lone working is prohibited in labs between 10pm until 8am** (unless special permission has been obtained from HOD)
- The after hours login/out book at the main entrance must be used.
- All persons using the lab must be aware of the codes of practice/risk assessments for that lab and must complete an approval form for out of hours/lone working.
- The lab or room must have a phone with emergency contact numbers displayed.
- The safety person for a particular lab should state if lone working in that lab is permitted in accordance with the PESS lone working policy. (may indicate certain activities are ok)
- The “lone working in labs form” must have been completed.

PESS Lone Working in Labs Form

Name

Position

Date (dd/mm/yyyy)

Please indicate labs you wish to use :

<input type="checkbox"/> Physiology (PG050)	<input type="checkbox"/> Biomechanics Research (PG043)
<input type="checkbox"/> Project (PG051)	<input type="checkbox"/> A+K (PG039)
<input type="checkbox"/> Biochemistry (PG048)	<input type="checkbox"/> Biomechanics (PG040)
<input type="checkbox"/> DEXA (PG052c)	<input type="checkbox"/> Pedagogy (P1037)
<input type="checkbox"/> IRMS (PG052a)	<input type="checkbox"/> Psychology (P1038)
<input type="checkbox"/> Cryotherapy (PG052b)	<input type="checkbox"/> Other (enter details):
<input type="checkbox"/> PEPAYS (P1007)	

I have read the PESS Health and Safety code of practice and risk assessment sheets for the above labs **Yes**

I have read the PESS after hours and lone working policy **Yes**

Signature _____

Date

Print Name

(Form to be completed and returned to Chief Technical Officer)

APPENDIX G: UNIVERSITY OF LIMERICK RISK ASSESSMENTS FOR ELECTRICITY, FIRE, AND MAINTENANCE OPERATIONS

The University does recognise that some risks are more difficult to control than others because they cannot be contained or guarded, such as:-

- Electricity,
- Fire,
- Maintenance Operations (housekeeping, manual handling, display screen equipment (DSE), Photocopier/Laser Printer).

The level of training and supervision will reflect the hazardous nature of these operations. The risks from all the hazards identified will be assessed periodically and corrective action will be taken if the standards are not being met.

The following pages outline the hazards identified, risks assessed and measures to control the risks.

1.1 Fire

Risk Assessment **Low**

Hazard Loss of life, adverse health effects, damage/loss of equipment.

Control Measures

- A fire detection and abatement system has been installed and is maintained throughout the campus.
- Fire extinguishers are in place and are serviced regularly. Do not remove them from their positions.
- Training in the use of fire extinguishers is available.
- Cardboard boxes and other combustible wastes must not be allowed to accumulate in storage areas.
- Smoking and vaping is not permitted on campus.
- It is a requirement of the University's insurers that all flammable substances be stored in purposely designed store rooms or in flame proof cabinets which comply with EN14770-1 (Fire Safety Storage Cabinets – Part 1: Safety Storage Cabinets for Flammable Liquids).

1.2 Electricity

Risk Assessment **Low**

Hazards Electric shock, fire, adverse health effects, trips or falls from loose cables.

Control Measures

- If for any reason there is an electrical fault the Buildings and Estates department should be immediately contacted to remedy the matter.
- Staff and students are not permitted to attempt to carry out repairs either temporary or permanent to the electrical supply system or to any of the electrical appliances.
- Electrical equipment such as projectors must only be repaired and serviced by a competent person. Do not use damaged equipment, electrical cords or plugs.
- Any specialist equipment manufactured or formulated for experimental purposes must comply with electrical safety guidance.
- The Buildings Officer will ensure that the wiring installation to the building is checked by a competent qualified electrician. Dangerous or defective material should be secured and replaced or remedied as soon as is practicable.
- Portable appliances will be inspected and tested in accordance with the requirements of the General Application Regulations 2007.

Wiring standards - equipment and machinery

- All new fixed and temporary wiring will be to the latest Irish standards and, where practicable, in compliance with the national rules for electrical installations.
- Portable or temporary equipment will be connected by means of switched socket outlets suitable for the environment.
- Flexible cables will also be adequately protected against external mechanical damage.
- Adequate fusing or excess protection, e.g. circuit breakers, must be provided for all fixed and portable equipment and regularly maintained.
- Sufficient sockets shall be provided to prevent overloading by use of adaptors. Proper plugs shall always be fitted to electrical appliances and flex firmly clamped.
- Frayed and damaged cables shall be replaced immediately.
- Flexible cables should not be run across floors. Where damage at floor level to cables is possible, protection by ramps, conduit or armouring must be used

1.3 Housekeeping

Risk Assessment: Low- Medium

Hazard Poor housekeeping can lead to a range of issues or accidents including slips, trips, falls, manual handling injuries or fire.

Control Measures

- It is the responsibility of all staff to keep their work areas as tidy as possible.
- Items will be allocated a specific storage area and must be kept in that area, e.g. projectors.
- Passage ways must be kept clear at all times. Keep aisles, stairs and walkways clear of obstacles.
- Avoid carrying loads that hinder sight.
- Shut cabinet drawers, secure loose carpeting and clean up spills immediately.

1.4 Manual Handling

Risk assessment: Low - Medium

Hazards

Back and limb injury, loss or damage to equipment

Control measures

- Manual handling will be avoided where possible. Other means of moving or lifting will be employed such as the use of trolleys.
- Staff will be provided with manual handling training as required.
- Staff should seek assistance where possible when lifting heavy items.

1.5 Display Screen Equipment (DSE)

Risk Assessment: Low

The University recognises that only a small proportion of people using DSE suffer health problems as a result, but because there are so many users this can be a significant number. In most cases the problems do not arise directly from the DSE itself, but from the way they are used.

Adverse effects can be avoided/minimised by good workplace and job design and by the way the equipment and workstation is used.

The Display Screen Equipment Regulations apply to employees who are habitual users of display screens. The University will comply with requirements of Safety, Health and Welfare (General Application) Regulations 2007 Chapter 5 of Part 2.

Hazards

- Upper limb pain and discomfort (WRULDs)
- Temporary fatigue or soreness in the limbs
- Cramp
- Ongoing pain in the muscles or nerves
- Chronic soft tissue disorders
- Eye strain

Control

- The University shall purchase and provide appropriate equipment (hardware) and processing systems (software) and a working environment suitable for display screen work.
- Each workstation will be risk assessed and appropriate steps taken to reduce risks. Assessments can be requested by contacting hnsbookings@ul.ie.
- Offices will be maintained at a comfortable temperature and humidity and the lighting arranged to avoid screen glare.

- The University will provide information, instruction and training to employees in relation to the risks associated with DSE work and how these risks are minimised.
- DSE users should have activities arranged so as to provide regular breaks from screen/keyboard work.
- The University will offer eye and eyesight tests to employees in accordance with the Eye and Eyesight Testing Policy
https://www.ul.ie/hr/sites/hr/files/user_media/pdfs/CX018%20Eye%20and%20Eyesight%20Testing%20Policy.pdf
- Where an employee is found to require corrective lenses (or an alteration of existing lenses) for DSE work, the basic cost will be borne by the University (excluding employee PRSI entitlements). If other than the basic frames are requested by the employee all additional costs resulting from this must be borne by the user. If the Optician determines that the employee for normal day-to-day use requires spectacles, the University will not cover the costs of these and the employee must make their own arrangements for the supply of these and will be responsible for the full cost.
- All users are requested to report to their supervisor or manager in the event of any problem with their display screen work, defects in environment or equipment, or personal health status which could affect their ability to work safely and in comfort.

1.6 Photocopiers and Laser Printers

Risk Assessment: Low

Hazard Toner is an extremely fine powder. Any dust in substantial concentration is, as it may cause respiratory tract irritation resulting in coughing and sneezing.

Ozone is produced as a result of the high voltage electrical discharges inside the photocopier or laser printer. Ozone, O₃, a form of oxygen, is a highly reactive, unstable, colourless gas with a distinctive odour which, at room temperature, decomposes rapidly to oxygen. Ozone levels produced by photocopiers are well below occupational exposure limits.

The lamps in photocopiers emit light in both the visible and ultraviolet ranges. In general, the ultraviolet light does not pass beyond the glass plate in which the original is placed.

Laser printers have a series of interlocking safety devices that prevent operator exposure to the laser beam.

Controls

- Departments should give careful consideration to the location of photocopiers in relation to employee work areas to prevent unnecessary stress from the heat or noise of the machine.
- Photocopiers and laser printers should be sited in well-ventilated areas. High volume copiers should ideally be sited in a dedicated room.
- Copiers and printers should not be positioned in corridors where they may cause an obstruction of an emergency exit route.
- Persons who suffer from asthma, bronchitis, etc should avoid changing toner cartridges.
- Vacuum up any spilled toner, rather than brush off, to avoid raising a dust cloud.
- The remainder should be removed using a damp cloth rinsed in cold water. Hot water should be avoided as it may cause the toner to partially melt and become sticky.

- Operator exposure to visible light is minimal and is well below the permissible exposure level. Nevertheless, as an additional safety measure, keep the cover closed whilst copying. Should the cover have to remain partially open e.g. to copy a book, look away from the light source.

APPENDIX H COVID-19 (CORONAVIRUS) RISK ASSESSMENT

COIVD-19 (Coronavirus) Risk Assessment

Hazards

- Direct transmission of SARS-CoV2 coronavirus between occupants of the PESS Building, causing COVID-19.
- Indirect transmission of SARS-CoV2 coronavirus via contamination of surfaces, equipment or work areas.

Risk Assessment: Medium

Note: A general Health and Safety Risk Assessment 'Working on the University Campus during the Covid-19 Pandemic' has been completed by the UL Health and Safety Department and is available on [UL Covid 19 Sharepoint Hub](#).

Control measures in PESS

- Risk of infection to/from visitors & public eliminated by prohibiting these groups from accessing the PESS building, unless approved for research purposes.
- Risk to/from contractors minimised by restricting access to essential maintenance only.
- Risk to/from co-workers minimised through implementing remote working where possible; only access for laboratory work by priority researchers and essential maintenance by external service providers will be allowed.
- Priority researchers seeking authorisation to undertake laboratory work must submit a detailed plan of activities prior to returning to PESS laboratories to the Covid-19 Lead Worker Representative and the PESS Research Committee.
- PESS researchers must provide an updated risk assessment for all procedures that they intend carrying out to identify the processes, if any, that require them to work in close proximity to others, and if additional PPE, in particular face masks/shields, are required.
- Workers who are granted access to PESS laboratories must complete a pre-return self-declaration form at least three days in advance of their return to work.
- All workers requesting access to the PESS building must complete COVID-19 induction training before entering the building
- No handshaking or person-to-person contact is permitted, except for the provision of first aid or approved research procedures.
- The researcher must select and use appropriate PPE for the laboratory tasks to be undertaken following the procedure 'Use and Disposal of PPE in PESS laboratories during Covid-19 pandemic' (available on PESS Sharepoint/Health and Safety/Covid-19).
- Social distancing of a 2-metre minimum distance between co-workers is implemented in all PESS laboratory and communal areas.
- Appropriate signage and floor markings is in place in the PESS Building, e.g handwashing signage in bathrooms, on doors and in laboratory areas; at entrance and exit to the building; maximum occupancy signage on laboratory doors and social distancing signage in the café area.
- Researchers must follow the designated traffic flow system in the building and use the designated entry and exit routes at all times.

- Where absolutely required, external suppliers, contractors and research participants will be facilitated to enter the building with prior approval from the PESS research committee but must comply with strict protocols around distancing, traffic flows, PPE and must only be on-site for an agreed period of time.
- All visitors will be signed in and out of the building and a log kept of same.

Response Structure to a suspected COVID-19 Case

If a worker develops symptoms of COVID-19 while in the PESS Building, they must report this to the COVID-19 manager or a response team member immediately.

The standard operating procedure for response to a suspected COVID-19 case in the PESS Building is described in procedure “PESS Response Structure to a suspected COVID-19 case”. The electronic version of this procedure on the PESS Sharepoint/Health and Safety/Covid-19 is the current version; it supersedes any print copy. Users should always check the electronic version of this procedure, and all reference documents included in it, to ensure they are working to the current requirements.

The PESS COVID19 Response team responsible for responding to a suspected case of COVID-19 in the PESS building are named in Appendix 1.

The isolation rooms P1003 and PG-056 have been identified for suspected cases. These isolation room are supplied with the following supplies:

- Tissues, hand sanitiser, disinfectant and/or wipes
- PPE; gloves, masks,
- Clinical waste bags
- ‘In use/do not enter’ signage

If a worker displays symptoms of COVID-19 during work, the lead worker representative/ response team will:

- Isolate the worker and accompany the individual to the isolation room via the most direct route, keeping at least 2 metres away from the symptomatic person and also making sure that others maintain a distance of at least 2 metres from the symptomatic person at all times.
- Provide a mask for the person presenting with symptoms. These are provided in the first aid kits at all first aid stations in PESS. First aid responders will also have their own ‘grab bags’. The worker should wear the mask if in a common area with other people or while exiting the premises.
- Assess whether the unwell individual can immediately be directed to go home and call their doctor and continue self-isolation at home. If the individual does not have their own transport they should contact a family member or friend. Public transport of any kind should not be used.
- Facilitate the person presenting with symptoms remaining in isolation if they cannot immediately go home and facilitate them calling their doctor. The worker should avoid touching people, surfaces and objects.

- Advise the person presenting with symptoms to cover their mouth and nose with a disposable tissue provided when they cough or sneeze and put the tissue in the waste bag provided.
- Carry out an assessment of the incident which will form part of determining follow-up actions and recovery.
- Arrange for appropriate cleaning from Building and Estates of the isolation area and work areas involved: the isolation room and all communal areas visited by the sick individual should be closed down for 72 hours and disinfected using appropriate chemical. The person carrying out this cleaning must wear appropriate PPE.
- The COVID-19 Lead Worker Representative manager or response team member responding to the incident will complete a First Aid report form and return this to the UL Health & Safety Officer
- The COVID-19 Lead Worker Representative manager and response team will provide advice and assistance if contacted by the HSE.