

# ***University College Dublin***



## ***School of Biomolecular and Biomedical Science***

### ***Safety Statement***

***Rev 4. Issued April 2024***

***University College Dublin***

***Safety, Insurance, Operational Risk and Compliance (SIRC) Office***

***This document must be read in conjunction with the [University Parent Safety Statement](#), the [College / High-Level Functional Area Safety Statement](#) and the [Policy on Health and Safety Management](#).***

Safety Statement

UCD School of Biomolecular and Biomedical Science (SBBS) is committed to providing and maintaining a safe learning and working environment for everyone within the areas of the Science Centre where School activity occurs. This will be achieved by managing safety effectively, in consultation with staff and students.

An integral part of this policy is to develop and maintain a culture that is supportive of health and safety while contributing effectively to teaching the School's undergraduate students and to the research endeavours of our research groups.

SBBS acknowledges that people are its key resource and therefore it aims to have the highest regard for the health, safety and welfare of its staff and students, and of contract employees and visitors, ensuring that risk is minimised for all School activities that take place within the O'Brien Centre for Science.

The success of this policy depends on the commitment, participation and co-operation of management, employees and all relevant individuals and interested parties, recognising the statutory obligations imposed on all persons in the O'Brien Centre for Science.

It is the intention of the School that safe systems of work are implemented in line with best practice guidelines, and that tasks are within the competence and capacity of those to whom they are assigned. All persons will receive full information, training and instruction for their work and they will be supervised as appropriate.

The School commits to ensure that:

- The identification of occupational safety and health training needs, and the provision of such training, will be regularly addressed.
- Risks will be assessed and managed by implementing a systematic risk assessment of all facilities, which are the responsibility of the School within the O'Brien Centre for Science.
- Incident trends and emergency occurrences will be examined to identify new and existing hazards that need to be appropriately controlled.
- Regular safety audits will be carried out of all areas and activities that are the responsibility of the School within the O'Brien Centre for Science.
- Proper records will be maintained on all matters relating to safety, health and welfare.
- Communication and consultation with staff and students are recognised as being vital to ensure that the objectives of the Safety Statement are met.
- Sufficient financial resources will be allocated for the proper provision of all health and safety requirements and competent specialist advice will be sought where necessary.
- The health and safety programme will be reviewed periodically to allow for continual improvements in performance.

Signed by Head of School, SBBS:



Date:

23/4/24

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### **Revision History**

Draft Revision 0: Issued September 2015

Draft Revision 1: Issued September 2018 – Reflecting a change in staff, addition of more details around the responsibilities of Staff Members

Draft Revision 3: Issued November 2023 – Waste Management, addition of Risk Assessment Template, New areas added from UCD Safety Statement Template.

Draft Revision 4: Issued April 2024- Addition of Workshop Risk Assessments and updating of Hyperlinks throughout the document.

### **1. Introduction**

This document is designed to fulfil the requirements of Section 20 of the *Safety, Health and Welfare at Work Act (No. 10 of 2005)* which requires all employers to prepare a *Safety Statement*.

This document applies to the operations of *The School of Biomolecular and Biomedical Science* located on the Belfield Campus of *University College Dublin* and to its field operations. The School is co-located in both the *Conway Institute and The O'Brien Center for Science*.

This document when read in conjunction with the *University Parent Safety Statement* and The Conway Institute Safety Statement and relevant risk assessments outlines how the health and safety of staff, students and visitors to the school will be safeguarded.

This document will be subjected to review on a regular basis and when changes in work practices necessitate it.

All persons are strongly encouraged to develop local area safety plans and procedures to complement the contents of this document where they deem it necessary or useful to do so.

### **2. School Description**

The School of Biomolecular and Biomedical Science (SBBS) is one of seven constituent Schools of the College of Science (CoS). It was formed in 2005 when four departments merged: Biochemistry, Industrial Microbiology, Pharmacology and Physiology. It is the seventh largest School in UCD.

The School is committed to fostering excellence in both research and innovation and in high quality teaching and curriculum development. The range of expertise encompasses basic disciplines of

Biochemistry, Genetics, Microbiology, Neuroscience and Pharmacology and extends to interdisciplinary research themes of Infection biology, Biotechnology and Synthetic biology, Drug Development and Mechanisms of disease. As one of UCD's most research-intensive Schools, the majority of academic staff are internationally recognised in their fields. SBBS research funding includes notable awards from domestic and internationally competitive sources, including Science Foundation Ireland, the Irish Research Council, the Health Research Board, the Wellcome Trust, European Framework programmes and Industrial collaborators.

SBBS staff are located across multiple sites on the Belfield campus. All undergraduate teaching labs are located on the 2<sup>nd</sup> floor of Science Centre East and most lecture theatres and classrooms, where SBBS modules are delivered, are in the O'Brien Science Centre. The majority of SBBS staff are located in the Conway Institute and the remainder of staff are distributed across four locations in the Science Centre and Health Science Centre. There are other autonomous research centres to which the academic staff in SBBS are affiliated, including The UCD Earth Institute and the Centre for Synthesis and Chemical Biology.

The School places considerable emphasis on teaching and learning at undergraduate and postgraduate levels. By harnessing the complementary energies of research and teaching, we produce confident, highly skilled graduates with the potential to make major contributions to the knowledge economy in Ireland and abroad. A challenging and enjoyable learning experience provides first-rate training for a career in research or in the biotechnology, medical or pharmaceutical industry.

Further details are available on the School website <http://www.ucd.ie/sbbs/>

The School is committed to promoting greater internationalisation of its teaching and research programmes. We actively participate in student exchanges at both undergraduate and postgraduate levels. We welcome applications from international students for undergraduate courses (full courses or selected modules), MSc courses (taught and by research) and Ph.D. programmes.

### **3. Management of Health and Safety within the School**

University College Dublin is committed to providing a safe place of work for all its employees and to providing a safe environment for students in which to carry out their studies and associated activities. The University is also committed to ensuring that, in so far as is reasonably practicable, its actions and activities do not have a negative impact on the safety of any third parties.

The Head of School is responsible for ensuring or making arrangements to ensure that the activities undertaken within the school are carried out in a safe manner without undue risk to the health and safety of University employees, students or any third parties.

All employees have a duty to cooperate with the University in all matters of health and safety at work and not to endanger the safety of themselves, their co-workers or any other parties through any act or omission that they may undertake. This cooperation is essential to the effective management of safety within the University. In accordance with safety legislation the University expects all employees to take responsibility for their own safety whilst at work and to perform their duties in a safe manner and in accordance with all relevant safe working procedures.

The University encourages employees to become actively involved in safety matters and welcomes all suggestions or comments regarding safety which can be made to the local Safety Committee, where they can be dealt with most efficiently.

*Refer to the University Safety Statement for more details:*

<https://intranet.ucd.ie/sirc/safetystatements/index.php>

#### **a. Principal investigators**

Principal Investigators have statutory responsibility for ensuring the safety of their research groups. They may delegate the day-to-day duties of safety management to a senior researcher while retaining legal responsibility. The Principal Investigator must actively manage safety within his or her group. In order to demonstrate active management, the Principal Investigator ensures the following actions are taken within his or her research group. Some activities can be delegated to other members of the research group. Hazard identification, risk assessment and risk control procedures must always be carried out by a competent experienced member of the group.

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<b>Action</b>	<b>Frequency</b>	<b>Documentary evidence</b>
Chemical Agents Risk Assessments produced for all procedures involving chemicals used by the group	Reviewed annually	Chemical Agents Risk Assessment form completed & available to all researchers
Up to date Safety Data Sheets are available for chemicals in use by the group.	Reviewed annually	Safety Data Sheets (SDS)
Carcinogen Risk Assessments including justification for use of the carcinogen	Reviewed annually	Chemical Agents Risk Assessment form completed & available to all researchers
Biological Agents Risk Assessments produced for all procedures using group 2, 3 or 4 biological agents	Reviewed annually	Biological Agents risk Assessment
First time use of group 2,3 or 4 biological agents notified to the Health and Safety Authority	As required	HSA notification
Staff and students have received information and training in; <ul style="list-style-type: none"> <li>• Basic lab safety</li> <li>• Chemical and biological risk assessments specific to the lab</li> <li>• Chemical and Biological spills</li> <li>• Use of specialist equipment</li> </ul>	Before new staff or students start work	Training record
Pregnancy risk assessment is carried out	As required	Pregnancy risk assessment
Equipment owned by the group inspected and/or serviced in accordance with	As required	Service and/or inspection records



## Safety Statement

manufacturer's recommendations			
Chemicals labelled appropriately and stored appropriately.	On going		
Pre purchase risk assessments carried out on potentially hazardous equipment.	As required	Pre purchase assessment	
Accidents are recorded, investigated, and reported to SIRC Office and Safety Coordinator.	As required	Accident report form	

b. Research Group Members

All members of the Research Group are legally obliged to cooperate with the Principal Investigator and designated senior researcher in ensuring the highest standards of health and safety are maintained.

Research Group members must participate in health and safety training designated by the Principal Investigator and senior researcher.

c. Module Coordinators in Undergraduate Laboratories

In addition to the general duties and responsibilities set out in the Safety Health and Welfare at Work Act and outlined in the UCD University Parent Safety Statement, the following specific duties and responsibilities are assigned:

- Ensure lab manuals must incorporate safety instructions for students and the hazards associated with specific chemicals highlighted.
- Ensure the risk assessments associated with lab practicals are reviewed every 3 years and that the least hazardous chemical is used where possible. Safety Data Sheets associated with the lab practical's must also be reviewed and should all be dated past December 2022.

d. Chief Technical Officer

The Chief Technical Officer is responsible for:

- Ensuring risk assessments have been completed for work carried out by technical staff including chemical agents risk assessment for lab practical preparation.
- Ensuring risk assessments are carried out prior to the purchase of new shared equipment and that equipment is tested and serviced as appropriate and that records are maintained.

**4. Key Contact Details**

<b><u>Title</u></b>	<b><u>Name</u></b>	<b><u>Contact Details</u></b>
Head of School	Prof. Cormac Murphy	(716) 2572
School Safety Representative	Ms. Roisin O'Connor	(716) 2012
Chief Technical Officer	Ms. Roisin O'Connor	(716) 2012
University SIRC Manager	Mrs. Sarah Carry	(716) 8768 / 8770
Fire Alarm Maintenance Company	Contact UCD Estate Services	(716) 7000
Fire Extinguisher Maintenance Company	Contact UCD SIRC Office	(716) 8768 / 8770
Student Health Service		(716) 3133
UCD Chaplaincy		(716) 8372
UCD 24 HR Emergency Line		(716) 7999
Campus Duty Manager		(716) 7666
Campus Services		(716) 7000

**4. Key Contact Details Continued****School of Biomolecular and Biomedical Science First Aiders**

During normal working hours (i.e. 8.00a.m. - 5.00p.m.), the following personnel may be contacted if first aid is required:

<b>Name</b>	<b>Extension No.</b>	<b>Location</b>
Mary Murphy	(716) 2238 / 2274	Conway Institute
Roisin O'Connor	(716) 2012 / 2238	H1.41 / H2.36
Alan Hoban	(716) 2283 / 2238	H2.36
Greg Tsolkas	(716) 2283 / 2238	H2.36
Paula Ventura Da Silva	(716) 2283 / 2238	H2.36

***Emergency First Aid treatment and equipment is available from the local Services Desks and via the 24-hour Emergency line 716 7999.***

**School of Biomolecular and Biomedical Science Fire Marshals**

<b>Name</b>	<b>Extension No.</b>	<b>Location</b>
Alan Hoban	(716) 2238 / 2283	H2.36
Joan Simon	(716) 2238 / 2283	H2.36
Mary Murphy	(716) 2238	Conway Institute
Greg Tsolkas	(716) 2238 / 2283	H2.36

There are Automated External Defibrillators (AED's) in the following locations in the Science Complex:

- Science South – Ground floor entrance lobby near stairs
- Science East – Ground floor lobby at entrance to Science Hub
- Science North – Ground floor entrance lobby by lift

***First Aid and further AED's are also available through the 24 hour Emergency line 716 7999***

## 5. Employee Safety Representation

*University College Dublin* is committed to involving and consulting employees in the management of health and safety within the University. To this end the University encourages active participation by employees as Safety Representatives or in a Safety Committee System. The functions of Safety Representatives are to act as a medium for employees within a College / School to raise safety concerns and for the *University SIRC Office* and College / School Management to impart information on health and safety matters.

There is a School Safety Committee. Representation on the committee is drawn from a broad spectrum of areas that are the responsibility of the school within the O'Brien Centre for Science. All persons sitting on the committee are classed by the University as *Employee Safety Representatives* as outlined in Part 4 of the *2005 Safety, Health and Welfare at Work Act*.

Employees have a right under this legislation at any time to elect from their number such *Employee Safety Representatives*.

Any persons wishing to act as *Employee Safety Representatives* should contact their Head of School in the first instance.

## 6. Emergency Response Plans

### Introduction

The purpose of these emergency response plans is to detail the steps and responses that must be taken in the event of an emergency within the School. Where deemed necessary; individual units within the school may further develop these plans to take account of the individual circumstances in their areas.

The following are deemed as emergencies within the School of Biomolecular and Biomedical Science:

1. Fire
2. Natural Gas Leak
3. Laboratory Gas Alarm Activation
4. Loss / Spillage of A Chemical Agent
5. Loss / Spillage of A Biological Agent

6. Chemical Agent Exposure
7. Biological Agent Exposure
8. Personal Injury
9. Major Campus Emergency

**UCD operates a 24hr / 7 day a week / 365 days a year Emergency Line from which first aid and other emergency management assistance can be obtained. It should only be used to seek assistance in an emergency situation. It is 01 716 7999 (external telephone) / 7999 (internal extension).**

### 6.1 Fire

#### ***If you hear the fire alarm:***

1. Do not panic, but prepare to leave the building.
2. The alarm will sound continuously; leave the building immediately in an orderly fashion by following the green man running signs to the nearest exit. Please note that this may not be the same way that you entered the building.



3. Classes in session must be dismissed and students directed to leave.
4. Persons in laboratories and workshops should make their area safe before leaving by turning off equipment where possible, closing chemical containers, securing biological agents, etc.
5. Do not use the lift.
6. Do not go back to your working area for any reason.
7. If for any reason you are unable to leave the building, make your way to a protected stairwell or a room with an external window and shut the door. If possible, inform the emergency line (**ext. 7999**) or a colleague of your location and the reason why you cannot safely exit the building.
8. If safe to do so nominated *Fire Marshals* should inspect their designated areas.
9. Proceed to your designated emergency assembly following your departure from the building. The assembly areas for the O'Brien Centre for Science are:
  - **Car Park Beside Veterinary Science Center**
  - **Beside the Lake (CSCB End)**
  - **In Front of the Church**
  - **Pedestrian Area in Front of the O'Brien Center**

10. Report any knowledge you may have of missing or injured persons to a *Fire Marshal*.
  - 11.** Return to the building only after the *Chief Fire Marshal/ Services Personnel* give the all-clear signal.
- Full list of all campus assembly areas, see the [UCD SIRC Office website](#)**

***If you observe a fire:***

1. Activate the fire alarm by breaking one off the red wall mounted break glass units
2. If it is safe to do so and you have been trained to do so the fire may be tackled using a suitable fire extinguisher, but only if this does not place any person at risk of injury.
3. If you decide to fight a fire, ensure that you have a safe and clear means of escape from the fire at all times.
4. In the case of chemical fires be aware that many chemicals give off poisonous fumes under fire conditions. Only fight chemical fires if you are certain that it is safe to do so and that the products of combustion can be avoided.
5. In the event that you cannot fight the fire, or the fire begins to get out of control, evacuate the area immediately.

*Fire Extinguisher Types*

*Aqueous Film Forming Foam*

- Red cylinder with a cream-coloured label.
- Suitable for fighting paper, wood, fabric, etc fires.
- Not suitable for use on electrical fires.
- Suitable for use on most chemical fires.

*Carbon Dioxide*

- Red cylinder with a black label and a black discharge horn.
- Suitable for fighting electrical fires.
- Not suitable for paper or fabric fires as the gas is discharged under pressure and can blow embers around.
- Not suitable for use in a confined space due to the asphyxiant nature of the carbon dioxide.
- Discharge horn can get very cold during use.

*Dry Powder*

- Red cylinder with a blue label.

- Suitable for all types of fires including electrical and chemical.
- Can be very messy and can damage electronic equipment.

To Use A Fire Extinguisher:

- Remove from wall bracket if necessary.
- Break the seal and remove the pin.
- Squeeze handle to test the extinguisher.
- For carbon dioxide extinguishers manually turn discharge horn into position before testing. Once used do not touch the discharge horn again as it gets very cold.
- Fight fire by aiming extinguisher at the base of the fire.

## 6.2 Natural Gas Leak

- In the event that a natural or laboratory gas leak is suspected then the 24hr Emergency Line (ext. 7999) must be contacted.
- The area should be evacuated.
- Only authorised personnel may interfere with gas safety systems.

## 6.3 Laboratory Gas Alarm Activation

### Science Center East – 2<sup>nd</sup> Floor

There are oxygen depletion alarms in each of the teaching labs. When an oxygen depletion alarm sounds the BLUE strobe light in each room will flash and the siren will sound.



- The lab/room should be evacuated immediately. Do not re-enter the room until it is safe to do so.



- If instructed by a member of the Technical Staff, Science Operations or Campus Services leave the building.
- Contact a member of staff as per contact list located beside the Gas Detection Panel. If there is no response, please contact the following:  
 During Office Hours contact the Science Welcome Center 01-716 2845  
 Out of Hours contact UCD24 Hour Emergency line 01-716 7999
- The gas detector panel is located on the 2<sup>nd</sup> floor East at the start of the corridor to the teaching labs. The gas detector panel responds to any major changes which occur with the chemical gases in each lab. Only authorised people are to deal with the Gas Detection Panel. In the event of an activation of a laboratory gas alarm, the following steps must be adhered to:

○

## Science Centre East 2<sup>nd</sup> Floor Gas Detection Panel

- Check the Gas Detection VDU to see which channel is alarming, by hitting 'Alarms'
- There will be a red light flashing which indicates which channel (sensor) is alarming
- Mute the alarm when dealing with the incident



Alarms

Alarm Reset



Channel Listing

- Check the panel map to get accurate location of the sensor
- Ensure no major obstructions to the sensor may have triggered the alarm

- Check to see that no activity has taken place around the sensor which may have triggered the alarm
  - Next, try to reset the channel that is alarming by pushing the **Alarm Reset** button, if this does not work contact the Science Welcome Centre 01 -716 2845 for assistance
  - To place an inhibit on the VDU you will need to contact the Science Welcome Centre 01-716 2845. They will act as incident controller and complete the remedial actions
  - Out of hours please contact UCD First Response Room 01-716 7999. They will act as incident controller and complete the remedial action
- In the event of an activation of a laboratory gas alarm, follow local gas alarm response procedures

#### **6.4 Loss / Spillage of a Chemical Agent**

In the case of a spill or leak of a chemical agent the following procedure should be followed:

- In the event that a chemical is spilled or is discovered to have leaked then all persons should be verbally requested to leave the affected area immediately.
- Where possible windows should be opened but all doors shut be kept closed.
- If the spilled material is flammable all possible sources of ignition, including electrical appliances should be turned off if safe to do so.
- The SDS for the chemical concerned should be consulted before dealing with the spillage and the information contained therein utilised to ensure a safe cleanup response.
- For large spills (>10 litres / kgs) the University SIRC Office should be informed by dialling 2068 / 2070 or 7999 on an internal telephone.
- In the event that the spillage is deemed safe to deal with a spill kit should be obtained.
- Suitable personal protective equipment should be donned by the persons dealing with the spillage. At the very least safety glasses, gloves and a lab coat should be worn. All spills must be attended by at least two persons.
- The source of the leak should be ascertained and if possible and safe to do so closed or sealed. Any damaged containers should be removed and repackaged if possible.

- In the event of liquid spills adsorbent pads or vermiculite should be spread over the spilled material until it is covered. If necessary, absorbent booms should be used to prevent the spillage spreading further.
- Using a dustpan and brush or similar the spilled material along with the absorbent material should be collected and placed into the bag / container contained within the spill kit.
- In the event of the spillage of a solid material the material should be collected using a dustpan and brush and placed into the bag / container contained within the spill kit.
- All wastes and all contaminated items generated by spillages must be disposed of in a suitable manner.
- When dealing with spillages the inhalation of large amounts of vapour or air borne contaminants should be avoided. In the event that a large amount of material is spilled then specialist assistance may be required. Respiratory protection may be required when dealing with large spillages. Persons must note that non air fed respiratory protection is not a substitute for decreased ambient oxygen levels.
- Some chemicals require specialist responses, e.g. elemental mercury, cyanides, strong acids, etc. Reference should be made to a materials' SDS before it is used in the laboratory for the first time and if required any recommended specialist spill response equipment should be sourced and held in a suitable location.

### **6.5 Loss / Spillage of A Biological Agent**

For spillages where aerosols are not likely to be produced persons should don the necessary PPE (gloves and a lab coat at a minimum) and treat the affected area with an appropriate dry disinfectant or cover with tissue paper and apply a liquid disinfectant. The treated area should be allowed to remain long enough for the disinfectant to take effect before being cleaned and the waste material being disposed of accordingly. As a rule, *Virkon* and *Presept* should be used for the treatment of spillages of biological agents. If a different disinfectant is required, then this should be indicated in any relevant risk assessment.

Where a spillage may give rise to aerosols, e.g. during the rupture of a sample tube in a centrifuge, the area must be evacuated, and the droplets allowed time to settle. Persons wearing appropriate PPE (gloves, lab coat and barrier face mask) may then enter the affected area to treat the spillage. In some cases, extensive decontamination of the working area may be required. If deemed necessary testing

for the presence of the biological agent can be done following the completion of the disinfectant procedure. Respiratory protection may be required when dealing with spillages that have generated aerosols.

### **6.6 Chemical Agent Exposure**

Some agents require specialist first aid responses, e.g. hydrofluoric acid, cyanides, etc. Reference should be made to a material's MSDS before it is used for the first time and if required any specialist first aid equipment should be sourced and held in a suitable location and any unusual first aid responses should be noted.

The following are general guidelines for treating exposures to chemical agents.

#### *Inhalation*

- Following exposure to an airborne chemical; affected persons should be removed from the source of exposure to fresh air.
- At no time should persons place themselves at risk when trying to remove affected persons from the source exposure.
- If breathing stops then artificial respiration should be administered – note this may not be possible if corrosive or toxic materials are on the lips or in the mouth.
- If available, oxygen may also be administered.
- Any exposure which results in vomiting or unconsciousness must be referred to a medical practitioner.

#### *Skin Contact*

- Remove any contaminated clothing and wash (not scrub) the skin with soapy water.
- If required utilise an emergency shower if one is available.
- If the skin blisters or becomes reddened, then seek medical advice.
- In the case of gross contamination:
  - Clear the laboratory of all other students
  - Assist the person to strip
  - Use the emergency shower
  - Provide alternative clothing for the person (A Tyvek suit should be kept in the Chemical Spill Kit for this purpose)

#### *Eye Contact*

- Wash out eyes with copious amounts of fresh water for at least 15 minutes.
- Assistance will be required to hold the victim's eye open while washing.
- Seek medical advice.

#### *Ingestion*

- Refer to the specific SDS. Always seek medical advice.

The Eye Wash Stations in the teaching area (2<sup>nd</sup> Floor Science Centre East) are flushed out on a weekly basis by two designated members of the technical staff.

For further information contact the National Poisons Centre on 01 8092566 (7 Days a Week: 8am – 10pm).

If seeking medical advice after a chemical exposure, ensure that the patient has in their possession a copy of the relevant SDS.

### **6.7 Biological Agent Exposure**

Any person who suspects that they may have been exposed to a biological agent must contact the SIRC Office (ext. 8768 / 8771) immediately. Medical assistance / advice must be sought as soon as is possible.

For needle stick / sharps type injuries:

1. Cuts caused by sharps should be treated immediately. No attempt should be made to remove broken glass from wounds. Needle stick injuries from contaminated needles should be encouraged to bleed. Wash well under running water and cover with a dry dressing. An attempt should be made to identify any chemical or biological hazard in the needle that may have been injected.
2. Apart from very minor injuries, a First Aider should be called.
3. In the event of sustaining an accident resulting in a wound:
  - Immediately wash the wound liberally with soap and water but without scrubbing
  - Do not attempt to remove any glass by hand
  - Gently encourage free bleeding of puncture wounds but do not suck the wound

- Dry the area and apply a waterproof dressing
- Seek medical advice if the sharp concerned was contaminated with any hazardous materials

There is no evidence available to show that using antiseptics or squeezing a wound will reduce the risk of transmission of a blood borne pathogen. Using a caustic agent such as bleach to wash a wound is not recommended.

## 6.8 Personal Injury

In the event that a person suffers an injury that requires first aid treatment then:

- Treat the injury using first aid equipment. First aid equipment can be sourced from the following locations on the 2<sup>nd</sup> floor Science Centre East or from the 24hr Emergency Line (7999)

**Laboratories: E2.32, E2.33, E2.34, E2.46, E2.47, E2.48, E2.53, E2.54, E2.58**

**Technician's Office H2.36**

- 
- First aid assistance is available 24hours per day from the UCD Emergency Line on internal extension 7999 or 01 716 7999 from an external phone.
- If the emergency services are required, then the 24hr Emergency Line should be contacted and the request made.
- All personal injury or near miss incidents must be reported to the University SIRC Office on an official accident report form which is available from the University SIRC Office.

## 6.9 Location of Emergency Equipment

### *Fire Extinguishers*

- Fire extinguishers are located throughout all buildings and are readily available in all locations.

### *First Aid Boxes*

- First aid boxes are located in the following rooms: E2.32, E2.33, E2.34, E2.46, E2.47, E2.48, E2.53, E2.54, E2.58, H2.36
- There may be additional first aid boxes located locally - nominated local first aiders can advise on the location of your nearest first aid box.
- First aid equipment is also available via the 24hr emergency line – 7999.

### *Automatic External Defibrillators (AED's)*

*AED's* are located in the following locations around the University:

- Agriculture & Food Science Entrance Lobby
- Arts Annexe – Geary Institute Entrance Lobby
- Belfield Office Park – Blocks 9/10 Entrance Lobby (Nexus UCD)
- Campus Services Mobile Jeeps
- Conway Institute Undergraduate Area
- Engineering & Materials Science Centre First Floor
- Health Sciences Entrance Lobby
- James Joyce Library Admissions Desk
- Lyons Estate
- Main Restaurant Lobby
- Mobile Services Patrol Vehicle
- Newman Building Main Entrance Lobby
- Newstead Main Entrance Lobby
- Nova UCD
- National Virus Reference Lab (NVRL) Reception
- O'Reilly Hall
- Quinn School Of Business Reception Desk
- Richview Architecture Building – Main Entrance Lobby
- Roebuck Offices Main Entrance
- Rosemount Environmental Research Station
- Science Centre East at Entrance to Hub
- Science Centre North Ground Floor Lobby
- Science Centre South Ground Floor Lobby
- Science Centre West First Floor Entrance Lobby
- Smurfit School Of Business Services Desk, Blackrock
- Smurfit School Of Business Library Corridor
- Sports Centre and environs x 2
- Student Health Centre
- Tierney Building – Main Entrance Lobby
- UCD Bowl
- Veterinary Hospital
- Veterinary Science Main Entrance

For training in the use of defibrillators please contact [SIRC@ucd.ie](mailto:SIRC@ucd.ie)

Consult local information for the nearest location.

### **6.10 Contacting the Emergency Services**

In all instances contacting the Emergency Services must be done via Campus Services using the 24hr Emergency Line (internal extension 7999 or 01 716 7999 from an external phone). Campus Services personnel will then contact the Emergency Services and ensure that they are met upon their arrival on campus and are escorted to the correct location of any incident.

### **6.11 Personal Emergency Egress Plans**

Personal Emergency Egress Plans (*PEEPS*) are advisable for staff and students who suffer from a sensory, physical or medical impairment that may make evacuation of a building in an emergency more challenging. PEEPS are 'personal' plans and are tailored to an individual's needs and help address the challenges that the particular individual staff member or student may have to face in evacuating a university building in an emergency.

Staff who would like to discuss the preparation of a PEEP should contact the [SIRC Office](#). Students who would like to discuss the preparation of a PEEP plan should contact the [University Access and Lifelong Learning Office](#).

### **6.12 Acute Student Situations**

The SIRC Office has prepared a guidance document entitled [Dealing With Acute Student Situations and Other Emergencies](#) to provide staff members who work in public offices and have face to face interactions with students and members of the public with a set of guidelines for dealing with various types of emergency situations that may arise when dealing with same, e.g. disruptive or threatening behaviour; emotionally distressed students, student or staff injury.

In addition, the [UCD Student Mental Health and Wellbeing Policy](#) and further information and useful documents can be found through the website:

<https://www.ucd.ie/studentcentre/services/studentssupport/>



In all instances, contacting the Emergency Services must be done via *Campus Service* using the 24hr Emergency Line (**7999**). Services personnel will then contact the Emergency Services and ensure that they are met upon their arrival on campus and are escorted to the correct location of any incident.

### **6.13 Campus Emergency**

In the event that notification of a major campus incident is received, then all staff and students should adhere to the *Shelter-Shut-Listen* model of response.

- In the event that a critical incident is notified, then staff and students should **shelter** in a building, preferably in a secure area with access to a telephone and the UCD computer network. Lecturers should direct the students to remain indoors and should seek further information on their behalf via the UCD website, local Services Centre or the emergency line (**7999**).
- Staff should remain **shut** in their location until they are advised that the incident is over or until they are requested to leave the area.
- In the event that staff are required to evacuate an area the building fire alarm will be used to inform all building occupiers and further instructions will be given upon building evacuation.
- Unless instructed to do otherwise staff should remain indoors and **listen** for further instructions.
- Further instructions may be issued via voicemails, website, e-mail, campus siren, etc.

***Any fire, personal injury or near miss must be notified to the University SIRC Office using an official incident report form. Such forms can be obtained from the University SIRC Office. Contact [sirc@ucd.ie](mailto:sirc@ucd.ie) or ext. 8768 / 8771.***

### **6.14 Pandemic / Infectious Disease Outbreak**

- Where applicable, UCD will put in place emergency response plans to respond to a pandemic / infectious disease outbreak. Response plans will be developed and updated in line with the prevailing public health advice, and with government and sectoral guidance as appropriate.
- The University will put in place all measures as appropriate and communicate plans and up to date information to all University personnel, as required.
- All university personnel will be responsible for adhering to public health advice and the provisions of the University's response plans.

## **7. Out of Hours Access**

Out of hours access is from 18:00 – 08:00 Monday to Friday, Saturday, Sunday and Bank Holidays. During these times swipe card access might be required to access the O'Brien Centre for Science. Undergraduate students are not allowed to access the laboratories in Science Centre East during these times unless they have requested access in advance and are accompanied by a member of staff. No work which carries a high risk of personal injury is permitted during out of hours periods. Out of hours working should be avoided where possible and must be subjected to a lone working risk assessment where applicable.

## 8. Waste Management

It is the responsibility of all students, staff and researchers in the School of Biomolecular and Biomedical Science to dispose of non-hazardous and hazardous waste in an appropriate, safe and responsible manner. Non-hazardous waste can be disposed of in the regular waste bins located across the School and general campus areas. All hazardous waste must be disposed of according to category in specialised waste containers/bags.

### Solid Waste



**General Waste Bins** – Uncontaminated lab packaging and plastics, Tissue paper, small pieces of cardboard and paper

Large pieces/boxes of cardboard and polystyrene packaging should be left on the corridors in Science Centre East 2<sup>nd</sup> floor for daily collection by the cleaning staff.



**Hard Plastic Yellow Bins** – Disposable pipettes, pipette tips, cuvettes, culture dishes and flasks, 96 well plates, plastic syringes, broken glass, glass coverslips and slides, clear glass bottles with the labels removed, Glass plates from single use gels, test tubes. If uncertain what can be placed in the bin contact a member of the technical team. All waste bins must not be overfilled and should be closed when three quarters full. For the O’Brien Centre closed bins should be brought out to the large SBBS labelled bins in the Science yard area for collection.



**Yellow Bags** – Gloves, laboratory contaminated tissue paper, petri dishes, tissue culture flasks, Eppendorf tubes, pre-washed plastic chemical containers, general laboratory class wate, no object that could pierce the bag should be placed in it. All waste bags must not be overfilled and should be tied when three quarters full. For the O’Brien Centre tied bags should be brought out to the large SBBS labelled bins in the Science yard area for collection.



**Sharps Boxes** – Needles, syringes, blades



**Autoclavable waste** – Agar plates with microbial cultures, laboratory waste with microbial contamination – tips, tissue paper, disposable loops. Once the waste has been autoclaved the bags are then put into the yellow bags for disposal.

**Animal Waste** – All animal waste is collected and placed in a black plastic bag in a designated freezer. Once full, collection is organised.

#### **General Liquid Chemical Waste**

- Methanol waste
- Chloroform waste
- Acetonitrile waste
- Sodium Phosphate waste

- Sodium Tetraborate waste
- Isopropanol waste
- Solvent Waste

Generation of the above liquid waste should be collected in the appropriate containers, clearly labelled and stored until disposal. Disposal is organised twice yearly by a dedicated member of the technical team.

## 9. Risk Assessments

### 9.1 Risk Assessment Methodology

It is the aim of *University College Dublin* to identify hazards in the workplace and to control the risks from those hazards in so far as is reasonably practicable. 'Hazard' is defined as the potential to cause harm, while 'risk' is defined as the potential of the hazard to cause harm under the actual circumstances of use. The assessment of risk from the hazards identified is based on the linkage of the probability of occurrence with the severity of injury or material loss (the hazard effect) resultant from that occurrence.

Probability is determined based on an assessment on how likely it is that an adverse event related to the hazard concerned will occur. Probabilities are graded as:

- *Unlikely*: the adverse event being considered will occur only rarely.
- *Likely*: the adverse event being considered will occur on a frequent basis
- *Very Likely*: the adverse event being considered is almost certain to occur

Severity is based on the degree of personal injury or damage to property likely to occur in the event that the adverse event occurs. Severity of outcome is graded as:

- *Slightly Harmful*: e.g. superficial injuries; minor cuts and bruises; nuisance and irritation; temporary discomfort; minor infection; minor material damage.
- *Harmful*: e.g. lacerations; burns; concussion; sprains; minor fractures; dermatitis (temporary); asthma (temporary); long term discomfort; infection requiring medical treatment; significant material damage.
- *Very Harmful*: e.g. fatality; amputation; major fracture; severe poisoning; cancer; life shortening condition / disease; deafness; head injuries; eye injuries; substantial material damage.

The risk assessment matrix below is used to calculate the risk posed by any hazard by linking the probability of an adverse occurrence with the severity of injury or material loss (the hazard effect) resultant from that occurrence.

**Table 1. Risk Assessment Matrix**

		Severity Of Outcome Of Negative Event		
Probability Of Negative Event		Slightly Harmful	Harmful	Very Harmful
Unlikely		<i>trivial risk</i>	<i>acceptable risk</i>	<i>moderate risk</i>
Likely		<i>acceptable risk</i>	<i>moderate risk</i>	<i>substantial risk</i>
Very Likely		<i>moderate risk</i>	<i>substantial risk</i>	<i>intolerable risk</i>

- *Trivial Risk*: No further action required.
- *Acceptable Risk*: No additional risk control / reduction measures required
- *Moderate Risk*: Further risk control / reduction measures should be considered and implemented where possible. Hazards graded as *Moderate Risk* must be closely managed.
- *Substantial Risk*: Further risk control / reduction measures must be identified. If the risk cannot be reduced further, then the hazard must be strictly managed and the frequency and duration of the hazard must be reduced to as low a level as practicable along with the number of persons exposed to the hazard.
- *Intolerable Risk*: All work involving this hazard is prohibited.

The aim of any risk control / reduction measures identified and implemented are to reduce the residual risk from the hazard to as low a level as is reasonably practicable.

Where practicable *University College Dublin* commits itself to the elimination of hazards. Where the risk from a hazard cannot be eliminated at source then the University will supply a range of suitable personal protective equipment in order to protect employees where necessary.

Risk assessments will be reviewed regularly and when changes in work practises arise within the University or when new activities are introduced. All staff and postgraduate students must be familiar with the contents of the risk assessments that are relevant to their work. Training and further information on workplace safety and risk assessment is available from the *University SIRC Office* ([safety@ucd.ie](mailto:safety@ucd.ie)).

Staff and postgraduates working within *University College Dublin* must review all relevant available risk assessments (see register of risks below) prior to initiating work or undertaking new tasks to establish whether or not these documents identify and manage the hazards associated with their work adequately. In the event that existing risk assessments do not adequately manage the hazards

associated with their work employees and postgraduates should either complete their own risk assessments (see UCD [Risk Assessment Templates](#)); inform their local Safety Committee or inform the *University SIRC Office*.

An [Office Safety Handbook](#) which outlines the risk associated with working in an office environment is available for review by persons who work in said environment.

For those persons who as part of their duties have to meet members of the public face to face or engage in 'home visits' a set of [Safety Guidelines](#) has been developed which should be consulted by same. Persons required to complete risk assessments for chemical and biological hazards are strongly encouraged to consult the [University College Dublin Biosafety Manual](#) and the [Chemical Safety Manual](#) for more detailed safety information.

## **9.2 School of Biomolecular and Biomedical Science Register of Risks**

The following risk assessments are deemed to be relevant to the operations of the *School of Biomolecular and Biomedical Science*. The most current versions of these risk assessments are available on the [SIRC Office Website](#)

Persons working within the school must make themselves familiar with the contents of all risk assessments which are relevant to their assigned duties and work in accordance with the provisions contained therein.

Users must be strongly aware that the documents listed below are intended as an aid and are not to be used as an alternative to carrying out your own risk assessments. PI's, Post Doc's, Researchers, Technical and Administrative staff should always carry out their own risk assessments appropriate to the specific activities they are carrying out.



**Table 2. UCD School of Biomolecular and Biomedical Science  
Register Of Risk Assessments**

<u>General Risk Assessments</u>			
<i>These risk assessments may apply to all persons working within the school</i>			
<b>Risk Assessment Number</b>	<b>Title</b>	<b>Risk Rating</b>	<b>Comment</b>
UCDA1	<a href="#">Manual Handling (General)</a>	Acceptable Risk	
UCDA2	<a href="#">Access and Egress</a>	Acceptable Risk	
UCDA3	<a href="#">Bullying and Harassment</a>	Moderate Risk	
UCDA4	<a href="#">Workplace Housekeeping</a>	Acceptable Risk	
UCDA5	<a href="#">Pregnant Employees (General)</a>	n/a	Contact <a href="#">UCD SIRC Office</a> to arrange Risk Assessment
UCDA6	<a href="#">Home Working</a>	Trivial Risk	
UCDA7	<a href="#">Presence On A Third Party Site (General)</a>	Moderate Risk	
UCDA8	<a href="#">Kitchen / Tea Making Areas</a>	Trivial Risk	
UCDA9	<a href="#">Driving / Use Of Vehicles</a>	Substantial Risk	
UCDA10	<a href="#">Foreign Travel</a>	Acceptable Risk	
UCDA11	<a href="#">Lone Working (General)</a>	n/a	Risk rating to be decided on an individual basis
UCDA12	<a href="#">Workplace Stress</a>	Moderate Risk	
UCDA13	<a href="#">Use Of Passenger / Goods Lifts</a>	Trivial Risk	

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UCDA14	<a href="#">Noise (General)</a>	Acceptable Risk	
UCDA15	<a href="#">Use Of Personal Protective Equipment (General)</a>	Trivial Risk	
UCDA16	<a href="#">Travel Within Ireland</a>	Acceptable Risk	
UCDA17	<a href="#">Violence And Aggression (General)</a>	Acceptable Risk	
UCDA18	<a href="#">Fire (General)</a>	Moderate Risk	
UCDA19	<a href="#">Electricity (General)</a>	Moderate Risk	
<a href="#">Office Risk Assessments</a>			
<i>These risk assessments may apply to persons working within an office environment within the school</i>			
<b>Risk Assessment Number</b>	<b>Title</b>	<b>Risk Rating</b>	<b>Comment</b>
UCDB1	<a href="#">Office Safety (General)</a>	Acceptable Risk	
UCDB2	<a href="#">Use Of Display Screen Equipment</a>	Acceptable Risk	Contact SIRC Office to arrange individual assessment
UCDB3	<a href="#">Electricity In The Office</a>	Acceptable Risk	
UCDB4	<a href="#">Fire In The Office</a>	Acceptable Risk	
UCDB5	<a href="#">Manual Handling In The Office</a>	Acceptable Risk	

<b><u>Chemical Agents Risk Assessments</u></b>			
<i>These risk assessments may apply to persons working with chemical agents within the school</i>			
<b>Risk Assessment Number</b>	<b>Title</b>	<b>Risk Rating</b>	<b>Comment</b>
UCDC1	<a href="#"><u>Handling And Use Of Chemical Agents (General)</u></a>	Moderate Risk	For general guidance purposes only. Reference should be made to the more specific risk assessments for chemical agents. In the event that no risk assessment is available for a chemical agent then the user must arrange for one to be completed prior to using the agent for the first time.
UCDC2	<a href="#"><u>Storage Of Chemical Agents (General)</u></a>	Moderate Risk	The large scale storage of chemical agents (i.e. 00's of litres / kgs may require the completion of a more specific risk assessment).
UCDC3	<a href="#"><u>Handling And Use Of Flammable Liquids / Organic Solvents (General)</u></a>	Acceptable Risk	
UCDC4	<a href="#"><u>Cryogenic Liquids (General)</u></a>	Acceptable Risk	
UCDC5	<a href="#"><u>Use Of Compressed Gases (General)</u></a>	Acceptable Risk	

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UCDC6	<a href="#">Use and Handling Of Corrosive Chemicals (General)</a>	Acceptable Risk	
UCDC7	<a href="#">Use and Handling Of Hydrofluoric Acid (General)</a>	Moderate Risk	
UCDC8	<a href="#">Use and Handling Of Cyanide Compounds (General)</a>	Moderate Risk	
UCDC9	<a href="#">Use and Handling Of Mercury And Mercuric Compounds (General)</a>	Acceptable Risk	
UCDC10	<a href="#">Use and Handling Of Organic Peroxide Compounds (General)</a>	Acceptable Risk	
UCDC11	<a href="#">Use and Handling Of Potentially Explosive Materials (General)</a>	Acceptable Risk	
UCDC12	<a href="#">Use and Handling Of Laboratory Diagnostic Kits (General)</a>	Acceptable Risk	
UCDC13	<a href="#">Use and Handling Of Carcinogens and Mutagens (General)</a>	Moderate Risk	For general guidance purposes only. A specific risk assessment for every carcinogen and mutagen in use must be completed prior to using the agent for the first time.
UCDC15	<a href="#">Use and Handling Of Irritants, Harmful Agents and Sensitisers (General)</a>	Acceptable Risk	
UCDC16	<a href="#">Use and Handling Of Toxic Agents (General)</a>	Acceptable Risk	

UCDC17	<a href="#">Use and Handling Of Dry Ice (General)</a>	Acceptable Risk	
UCD18	<a href="#">Dealing With Chemical Spillages</a>	Moderate Risk	

<b><u>Biological Risk Assessments</u></b>			
<i>These risk assessments may apply to persons working with biological agents within the school</i>			
<b>Risk Assessment Number</b>	<b>Title</b>	<b>Residual Risk Rating</b>	<b>Comment</b>
UCDD1	<a href="#">Handling and Use Of Class 1 Biological Agents</a>	Trivial Risk	
UCDD2	<a href="#">Handling and Use Of Class 2 Biological Agents</a>	Acceptable Risk	
UCDD3	<a href="#">Use and Propagation Of Cell Lines (General)</a>	Acceptable Risk	
UCDD4	<a href="#">Handling and Use Of Biological Material Of Human / Animal Origin</a>	Acceptable Risk	
UCDD5	<a href="#">Diagnostic Laboratories (General)</a>	Acceptable Risk	
UCDD6	<a href="#">Handling and Use Of Class 3 Biological Agents</a>	Acceptable Risk	
UCDD7	<a href="#">Centrifugation Of Biological Samples (General)</a>	Acceptable Risk	
UCDD8	<a href="#">Dealing With Biological Agent Spillages</a>	Acceptable Risk	
UCDD9	<a href="#">UCDD9 Zoonoses (General) Risk Assessment</a>	Moderate Risk	
UCDD10	<a href="#">UCDD10 Use and Propagation of Cancer Cell</a>	Moderate Risk	

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	<a href="#">Lines (General) Risk Assessment</a>		
UCDD11	<a href="#">Use of Mobile Devices in Microbiological Laboratories Risk Assessment</a>	Moderate Risk	

<b><u>Laboratory Risk Assessments</u></b>			
<i>These risk assessments may apply to persons engaged in laboratory work within the school</i>			
<b>Risk Assessment Number</b>	<b>Title</b>	<b>Residual Risk Rating</b>	<b>Comment</b>
UCDE1	<a href="#">Use of Centrifuges (General)</a>	Acceptable Risk	
UCDE2	<a href="#">Use Of Autoclaves (General)</a>	Acceptable Risk	
UCDE3	<a href="#">Use Of Bunsen / Gas Burners (General)</a>	Acceptable Risk	
UCDE4	<a href="#">Cold Rooms / Walk In Freezers (General)</a>	Acceptable Risk	
UCDE5	<a href="#">Use Of Fridges / Freezer (General)</a>	Trivial Risk	
UCDE6	<a href="#">Use of Laboratory Glassware (General)</a>	Acceptable Risk	
UCDE7	<a href="#">Use Of Ovens (General)</a>	Acceptable Risk	
UCDE8	<a href="#">Use Of Microwave Ovens (General)</a>	Acceptable Risk	
UCDE9	<a href="#">Use Of Sharps (General)</a>	Acceptable Risk	
UCDE10	<a href="#">Use Of Homogenisers (General)</a>	Acceptable Risk	

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UCDE11	<a href="#">Use Of Hot Plates / Stirrers (General)</a>	Acceptable Risk	
UCDE12	<a href="#">Use Of pH Meters (General)</a>	Trivial Risk	
UCDE13	<a href="#">User Of Rotary Evaporators (General)</a>	Acceptable Risk	
UCDE14	<a href="#">Use Of UV Light Sources</a>	Acceptable Risk	
UCDE15	<a href="#">Gel Electrophoresis - Non Chemical Risks (General)</a>	Acceptable Risk	
UCDE16	<a href="#">Use Of Laboratory Personal Protective Equipment</a>	Trivial Risk	
UCDE17	<a href="#">Use Of Microtomes (General)</a>	Acceptable Risk	
UCDE18	<a href="#">Use Of Laboratory Pumps (General)</a>	Acceptable Risk	
UCDE19	<a href="#">Electricity In The Lab</a>	Moderate Risk	
UCDE20	<a href="#">Fire Safety In The Lab</a>	Moderate Risk	
UCDE21	<a href="#">Manual Handling In The Lab</a>	Acceptable Risk	
UCDE22	<a href="#">Handling and Disposal of Lab Wastes</a>	Acceptable Risk	
UCDE23	<a href="#">Laboratory Personal Hygiene</a>	Acceptable Risk	
UCDE24	<a href="#">Use Of Water / Oil Baths (General)</a>	Acceptable Risk	
UCDE25	<a href="#">Use Of Hot Air Guns (General)</a>	Acceptable Risk	

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UCDE26	<a href="#">Use Of Wax Baths (General)</a>	Acceptable Risk	
UCDE27	<a href="#">Use Of Ice Makers (General)</a>	Trivial Risk	
UCDE28	<a href="#">Dissection (General)</a>	Acceptable Risk	
UCDE29	<a href="#">Use Of Hand Sanitizers / Soaps (General)</a>	Acceptable Risk	
UCDE30	<a href="#">Handling And Use Of Disinfectants (General)</a>	Acceptable Risk	
UCDE31	<a href="#">Use of Lasers (General)</a>	Acceptable Risk	
UCDE32	<a href="#">Use Of Laboratory Analytical Equipment (General)</a>	Acceptable Risk	
UCDE33	<a href="#">NMR (General) Risk Assessment</a>	Acceptable Risk	



<b><u>Radiation Safety Risk Assessments</u></b>			
<i>These risk assessments may apply to persons working with radioactive materials within the School.</i>			
<b>Risk Assessment Number</b>	<b>Title</b>	<b>Risk Rating</b>	<b>Comment</b>
UCDG1	<a href="#">Handling And Use Of Radioisotopes (General)</a>	Moderate Risk	

<b><u>Fieldwork Risk Assessments</u></b>			
<i>These risk assessments may apply to persons engaged in fieldwork.</i>			
<b>Risk Assessment Number</b>	<b>Title</b>	<b>Risk Rating</b>	<b>Comment</b>
UCDH1	<a href="#">Fieldwork (General)</a>	Acceptable Risk	For general guidance purposes only. Reference should be made to the <a href="#">UCD Fieldwork Safety Guidelines</a> . In some cases an expedition specific risk assessment will be required.

<b><u>Workshop Risk Assessments</u></b>			
<i>These risk assessments may apply to persons working in a workshop and similar environments or using workplace equipment within the School.</i>			
<b>Risk Assessment Number</b>	<b>Title</b>	<b>Risk Rating</b>	<b>Comment</b>
UCDK1	<a href="#">Use Of Abrasive Wheels (General)</a>	Moderate Risk	
UCDK3	<a href="#">Use of Lasers (General)</a>	Moderate Risk	
UCDK4	<a href="#">Use of Lathes (General)</a>	Moderate Risk	

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UCDK5	<a href="#">Use of Milling Machines (General)</a>	Moderate Risk	
UCDK10	<a href="#">Soldering (General)</a>	Moderate Risk	
UCDK11	<a href="#">Use of Compressors (General)</a>	Moderate Risk	
UCDK13	<a href="#">Use of Compressed Air (General)</a>	Moderate Risk	
UCDK14	<a href="#">Use of Handheld Portable Electrical Tools (General)</a>	Moderate Risk	
UCDK15	<a href="#">Use of Handheld Tools (General)</a>	Acceptable Risk	
UCDK17	<a href="#">Use of Ladders (General)</a>	Moderate Risk	
UCDK18	<a href="#">Use and Handling of Hydraulic Oil – Workshop Lubricants</a>	Acceptable Risk	
UCDK19	<a href="#">Dust (General)</a>	Acceptable Risk	
UCDK20	<a href="#">Vibration (General)</a>	Acceptable Risk	
UCDK21	<a href="#">General Plant and Equipment</a>	Acceptable Risk	
UCDK22	<a href="#">Welding (General)</a>	Moderate Risk	

Technical specific Risk Assessments for the undergraduate practical classes are available on a google drive folder. If access to these is required, please contact the Chief Technical Officer.

## 10. Appendices

### 10.1 Appendix 1: [UCD Risk Assessment Templates](#)

- [Biological Agents Risk Assessment Template](#)
- [Chemical Agents Risk Assessment Template](#)
- [Fieldwork Risk Assessment Template](#)
- [Home Working Risk Assessment Template](#)
- [Lone Working Risk Assessment Template](#)
- [Machinery / Equipment Risk Assessment Template](#)

### 10.2 Appendix 2: UCD Guidance Documents and Manuals

- [Biosafety Manual](#)
- [Chemical Safety Manual](#)
- [Fieldwork Safety Manual](#)
- [Dealing with Acute Situations and Other Emergencies - Health and Safety Guidelines](#)
- [Guide for School/ Units Hosting Researchers, Work Experience Students or Unpaid Volunteers](#)
- [Health and Safety Management – A Guide for Managers](#)
- [Homeworking Safety Guidelines](#)
- [Office Safety Manual](#)
- [Travel Safety Guidelines](#)

### 10.3 Appendix 3: UCD Checklists

- [Self Audit Checklist](#)
- [Laboratory Safety Checklists](#)

### 10.4 Appendix 4: Emergency Response Posters

- [Biological Spill Response Poster](#)
- [Chemical Spill Response Poster](#)
- [Fire Evacuation Poster](#)

**10.5 Appendix 5: Laboratory Safety Induction Form – Technical Group****School of Biomolecular and Biomedical Science**

<b>Name:</b>	
<b>Laboratory:</b>	All teaching laboratories and associated rooms on the Second Floor East in The O'Brien Center for Science
<b>Group:</b>	Technical Group, SBBS
<b>Chief Technical Officer:</b>	Roisin O'Connor
<b>Head of School:</b>	Professor Cormac Murphy

		✓
1	The School of Biomolecular and Biomedical Science Safety Statement	
2	Safety Management structure	
3	Duties and responsibilities of Technical Staff	
4	Action in the event of a fire	
5	Action in the event of a gas leak	
6	Action in the event of a chemical or biological spill	
7	Location of First Aid Kits and knowledge of First Aiders	
8	Reporting of Accidents	
9	Basic Laboratory safety rules.	
10	Technical Risk Assessments	
11	Knowledge and safe use of Laboratory Equipment including: Autoclaves, Centrifuges, Spectrophotometers, Biosafety Cabinets and Laminar Air Flow Hoods.	
12	Manual Handling	
13	Tour of the 2 <sup>nd</sup> Floor showing fire escapes and assembly points	

<b>Date</b>	
<b>Signature of Technician:</b>	
<b>Signature of Chief Technical Officer:</b>	

**10.6 Appendix 6: SBBS Practical Class Risk Assessment Template**

General Information			
Practical Class Title:			
Principal Investigator (Person responsible for ensuring safety):			
Date of Assessment:			
Location of Practical Class:			
Frequency of Practical Class:			
Details of the Practical Class			
Persons at Risk			
Laboratory/Equipment required			
Risk Assessments to reference			
Control Measures required to reduce risk			
Risk Assessment	Probability Rating	Outcome Rating	Risk Rating

<b>(when all control measures have been implemented)</b>																																						
<b>Is the risk rating acceptable</b>																																						
<b>Revision History</b>																																						
<b>Risk Rating Method</b>	<p><b>Risk Rating = Likelihood of risk occurring x Severity of outcome</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2"></th> <th colspan="3" style="text-align: center;">Severity</th> </tr> <tr> <th colspan="2"></th> <th style="text-align: center;">Low</th> <th style="text-align: center;">Medium</th> <th style="text-align: center;">High</th> </tr> </thead> <tbody> <tr> <th rowspan="3" style="text-align: center;">Likelihood</th> <th style="text-align: center;">Low</th> <td style="background-color: #008000; color: white;">Trivial</td> <td style="background-color: #008000; color: white;">Acceptable</td> <td style="background-color: #ffcc00;">Moderate</td> </tr> <tr> <th style="text-align: center;">Medium</th> <td style="background-color: #008000; color: white;">Acceptable</td> <td style="background-color: #ffcc00;">Moderate</td> <td style="background-color: #ffcc00;">Substantial</td> </tr> <tr> <th style="text-align: center;">High</th> <td style="background-color: #ffcc00;">Moderate</td> <td style="background-color: #ffcc00;">Substantial</td> <td style="background-color: #ff0000; color: white;">Intolerable</td> </tr> </tbody> </table> <p><b>Assessment of Likelihood and Severity</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;">Severity of Outcome</th> <th style="text-align: center;">Likelihood of Exposure</th> </tr> </thead> <tbody> <tr> <th style="text-align: center;">Low</th> <td style="text-align: center;">Slightly Harmful</td> <td style="text-align: center;">Unlikely</td> </tr> <tr> <th style="text-align: center;">Medium</th> <td style="text-align: center;">Harmful</td> <td style="text-align: center;">Likely</td> </tr> <tr> <th style="text-align: center;">High</th> <td style="text-align: center;">Very Harmful</td> <td style="text-align: center;">Very Likely</td> </tr> </tbody> </table>					Severity					Low	Medium	High	Likelihood	Low	Trivial	Acceptable	Moderate	Medium	Acceptable	Moderate	Substantial	High	Moderate	Substantial	Intolerable		Severity of Outcome	Likelihood of Exposure	Low	Slightly Harmful	Unlikely	Medium	Harmful	Likely	High	Very Harmful	Very Likely
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Safety Statement

<b>Reviewed and approved by:</b>  <b>Position:</b>		<b>Date:</b>	
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## 10.7 Appendix 7: Science Complex Fire Safety Notice

### SCIENCE COMPLEX FIRE SAFETY NOTICE

#### IF YOU HEAR THE FIRE ALARM

1. Do not panic, but prepare to leave the building.
2. The alarm will sound continuously; leave the building immediately in an orderly fashion by following the green man running signs to the nearest exit. Please note that this may not be the same way that you entered the building.



3. Classes in session must be dismissed and students directed to leave.
4. Persons in laboratories and workshops should make the area safe before leaving by turning off equipment where possible and securing hazardous containers.
5. Do not use the lifts.
6. Do not go back to your working area for any reason.
7. If for any reason you are unable to leave the building make your way to a protected stairwell or a room with an external window and shut the door. If possible inform the emergency line (ext. 7999) or a colleague of your location and the reason you cannot safely exit the building.
8. Proceed to the nearest emergency assembly area to your point of departure from the building. The assembly areas for the Science Complex are:  
Car Park Beside Veterinary Science Centre      Beside the Lake (CSCB End)  
In Front of the Church      Pedestrian Area in Front of Computer Centre
9. Report any knowledge you may have of missing or injured persons to a *Fire Marshal / Services Personnel*.
10. Return to the building only after the *Chief Fire Marshal / Services Personnel* has given the all clear signal.

#### IF YOU OBSERVE A FIRE

1. Activate the fire alarm by breaking one of the red wall mounted break glass units located throughout the building and if possible inform the emergency line (ext. 7999).
2. If it is safe to do so and you have been trained to do so the fire may be tackled using a suitable fire extinguisher, but only if this does not place any person at risk of injury and you have a safe and clear means of escape from the fire at all times.
3. In the event that you cannot fight the fire or the fire begins to get out of control evacuate the area immediately.