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# 2. Document Control Summary

There are further details on document management in section 9.

Area	Document Information
Author e.g. School of Chemical and	School of Chemical and BioPharmaceutical
BioPharmaceutical Sciences working group	Sciences
Owner e.g. Head of School of Chemical and	Head of School, Prof Declan McCormack
BioPharmaceutical Sciences	
Version	1.2
Status e.g. draft/ Final	Final
Approved by	Declan McCormack
Approval date	16.12.2025

## 3. Introduction / Context

This document has been prepared by the School of Chemical and BioPharmaceutical Sciences and reviewed by the Safety, Health and Welfare (SHW) Office.

This document is based solely on the information provided to the author(s) on the date of completion. If there is any inaccuracy, misstatement, omission or any other error of whatever nature contained herein, it should be reported immediately to the Head of School and the Safety, Health and Welfare Office.

This document is our written commitment to managing safety, health welfare and the measures we have implemented to achieve this. It outlines the following:

- the results of risk assessments;
- the names and job titles of those appointed to be responsible for any safety and health matters;
- the <u>duties of employers and employees</u>, including the co-operation required from employees on safety and health matters;
- our commitment to employee consultation and participation, including arrangements for appointing safety representatives;
- our welfare arrangements;
- our plans and procedures for dealing with fire and emergency evacuation;
- our arrangements to ensure the safety of young persons, pregnant employees and visitors to the workplace or anyone else who may be affected by our activities;
- our personal protective equipment policy and register of equipment;
- our first-aid procedure, and details about the equipment and facilities available;
- our procedures for accident reporting and investigation; and
- our training details.



# 4. Purpose

This document outlines the local arrangements in place to achieve the objectives of the University Safety, Health and Welfare Policy.

# 5. Scope

This document applies to all employees of the School of Chemical and BioPharmaceutical Sciences and others at TU Dublin who may be exposed to any risks associated with the activities of the School e.g., undergraduate/postgraduate/apprentice students, visitors, contractors, service providers etc.

The School of Chemical and BioPharmaceutical Sciences of is one of four Schools comprising the Faculty of Sciences & Health. The School is based across two campuses with facilities both in Grangegorman and Tallaght and has strong links with the FOCAS, ESHI and CASH research institutes and soon to be established research hubs.

Within the School, 89 people are employed in either full- or part-time roles as described below

- Academic staff
  - o 1 Senior Lecturer III (Head of School)
  - 4 Senior Lecturer II (Heads of Discipline)
  - o 4 Senior Lecturer I
  - 47 Lecturers (Full time)
  - 7 Lecturers (Part time)
- Administrative staff
  - 1 Operations Lead
  - o 3 Administrators (2 FT plus 1 part time)
- Laboratory staff
  - o 3 Senior Technical Officers
  - o 12 Technical Officers
  - o 3 Technicians
  - o 3 Laboratory Aides
  - 1 Cleaning staff member

Normally the School also engages up to 20 part-time academic staff, some of whom are postgraduate students on higher degree programmes such as M.Phil./Ph.D. programmes by research, and others are industry experienced professionals, who lecture in specific specialised areas. Staff members from the School work throughout the TU Dublin campuses and on occasion off-site within other academic institutions and companies.



There is a long tradition of research in the School. Collaborative projects with industry, state scientific bodies, research organisations and other universities are an important part of the School's research activities. Such research topics cover many aspects of modern chemistry and range from fundamental, curiosity-driven exploration to applied and industrially motivated research. Associated with the School are the CASH, FOCAS and ESHI Institutes and future research hubs.

The School is managed by Prof. Declan McCormack (Head of School), who is supported in his management function by Mr. John Behan (Head of BioPharmaceutical Sciences), Dr. Eoin McGillicuddy (Head of Chemical Sciences), Prof. Anne Greene (Head of Part-Time Education) and Dr. Patrice Behan (Head of Postgraduate Education).

The programmes offered by the School comprise of ordinary degree, honours degree, taught postgraduate programmes and short training courses in all areas of chemistry and biopharmaceutical sciences. Opportunities to pursue higher degrees through research are also offered by the School.

The programmes for which the School has responsibility are as follows:

#### **Undergraduate Programmes currently offered by the School:**

#### **Honours Degree Programmes:**

TU851	Analytical Chemistry	(Environmental	, Forensic and Pharmaceutical)

TU852 Chemical Sciences with Medicinal Chemistry

TU854 Science (General Entry)

TU864 DNA & Forensic Analysis

TU876 Pharmaceutical Science

TU887 Bioanalytical Science

TU855 Science with Nanotechnology (in partnership with School of Physics,

Clinical and Optometric Sciences)

## **Ordinary Degree Programmes:**

TU752 DNA & Forensic Analysis

TU755 Science (General Entry)

TU760 Bioanalysis

TU763 Pharmaceutical Science

TU651 Applied Biology

TU762 Medicinal Chemistry and Pharmaceutical Sciences

DT291 Manufacture of Medicinal Products



# <u>Taught Postgraduate Programmes offered by the School of Chemical and BioPharmaceutical Sciences</u>

TU258 (DT233) MSc in Pharmaceutical Quality Assurance and Regulation (Full Time)

TU288 (DT237) MSc in Pharmaceutical Quality Assurance and Regulation (Part-time)

TU289 (DT9279) MSc Pharmaceutical Validation Technology (Part-time)

#### Postgraduate degree by Research \*\*\*

As of January 2024, there are 41PhD students & 2 MPhil students registered.

### **Continuing Professional Development (CPD) and Springboard**

The School also offers a range of part time CPD courses:

TU5266	Certificate in Reusable Invasive Medical Devices Decontamination (Minor Award)
TU5267	Certificate in Primary Care Decontamination (Minor Award)
TU5268	Certificate in Endoscope Decontamination (Minor Award)
TU5286	Certificate in GMP & Biopharmaceuticals (Minor Award)
TU056	Higher Certificate in GMP and Technology (Level 6)
TU057	Higher Certificate in Science Medical Device Decontamination (Level 6)
TU063	BSc in Decontamination Management (Level 7)
TU064	BSc in Decontamination Management Yr. 3 (Add-on) (Level 7)
TU065	BSc in Pharmaceutical Technology (Level 7)
DT698	Certificate in eBioPharmaChem (Springboard)
DT758A	Certificate in e-Validation (Springboard)
DT291	BSc (Ord) Manufacture of Medicinal Products (Springboard)
TU5301	GMP & Pharmaceuticals



## 6. Definitions

We utilise the following definitions and glossary

# 7. Policy Details

## **Policy Overview and Details**

The School is committed to working in accordance with the provisions of the *Safety, Health and Welfare at Work Act 2005* and other associated legislation.

We are fulfilling our statutory obligations to manage and co-ordinate workplace safety and health and, as far as is reasonably practicable, commit to ensuring that:

- Work activities are managed to ensure the safety, health and welfare of our employees and others who may be affected;
- Our safety documentation is maintained and updated, and written risk assessments are carried out and reviewed as required and brought to the attention of employees at least annually;
- Identified protective and preventive measures are implemented and maintained;
- Improper conduct likely to put an employee's safety and health at risk is prevented;
- A safe place of work is provided that is adequately designed and maintained;
- A safe means of access and egress is provided;
- Safe plant and equipment are provided;
- Safe systems of work are provided;
- Risks to health from any article or substance are prevented;
- Appropriate information, instruction, training and supervision are provided;
- Where hazards cannot be eliminated suitable protective clothing and equipment are provided;
- Emergency plans are prepared and revised;
- Welfare facilities are provided and adequately maintained; and
- Competent personnel who can advise and assist in securing the safety, health and welfare of our employees are employed when required.

Revised and reviewed 16.12.2025

Signed: Signed: Miloul W Date: 22/02/2024

## 8. Related Documents

- University Safety Statement
- Details of School Policies, Procedures, Protocols and Standard Operating Procedures (SOP's) can be found by clicking below.
- Tallaght Campus
  - https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmSciences-AllStaff/Shared%20Documents/General/Health%20%26%20Safety/Laboratory%20Sa fety%20Manual.docx?d=w587e50a5ea03471a96b62e5cff76bf07&csf=1&web=1&e= DjqESC
- City Campus
  - SAFETY MANUAL 7thSept23.docx



# **Document Management**

## **Approval Process**

This document is approved by the Head of School and noted at the relevant Campus Safety Health and Welfare Committee and at the University Safety, Health and Welfare Steering Committee.

## **Document Review**

This document must be relevant at all times. Therefore, it should be reviewed at least annually by the School working group in consultation with the Safety, Health & Welfare Office or reviewed more frequently if;

- changes occur your activity changes and your employees/others are exposed to new hazards, for example the introduction of new machinery/equipment/chemicals, new work practices, procedures or emerging risks are introduced;
- new technical knowledge becomes available, or when new legislation or standards are brought in;
- there is reason to believe that the information it contains is no longer adequate, for example changes to health and safety arrangements and resources, or a review of policy following an incident.

All updates and changes will be conducted through the consultation process. Reviews will be brought to the attention of all employees and others (relevant stakeholders) whenever it is changed or updated and when new recruits commence. It will be brought to their attention in a form and language that is understood.

## **Version Control**

To be used when changes occur within the School of Chemical and BioPharmaceutical Sciences in advance of the annual review.

VERSION NUMBER	VERSION DESCRIPTION / CHANGES MADE	AUTHOR	DATE
1.1		ED/BM	25.09.23
1.2		ED/BM	05.12.25



# **Document Approval**

VERSION APPROVAL DATE		APPROVED BY (NAME AND ROLE)
1.1	22.02.24	Head of School (Declan McCormack)
1.2	16.12.2025	Head of School (Declan McCormack)

# **Document Ownership**

This document is owned by Prof. Declan McCormack

# **Document Storage**

This document is available on the <u>SHW website</u> and the School of Chemical and BioPharmaceutical Sciences website.

# Safety Arrangements for the School of Chemical and BioPharmaceutical Sciences

## Names and Job Titles

Those appointed to be responsible for any safety, health & welfare matters

Name	Role	Location	Contact Number	Email Address
Prof. Declan McCormack	Head of School of Chemical & BioPharmaceutical Sciences	City	(01) 220 5551	Declan.Mccormack@tudublin.ie
Mr. John Behan	Head of BioPharmaceutical Sciences	Tallaght	(01) 220 7183	John.Behan@tudublin.ie
Dr. Eoin McGillicuddy	Head of Chemical Sciences	City	(01) 220 5569	eoin.mcgillicuddy@tudublin.ie
Dr. Patrice Behan	Head of Postgraduate Education	City	(01) 2205554	patrice.behan@tudublin.ie



Name	Role	Location	Contact Number	Email Address
Prof. Anne Greene	Head of Part Time Education	City	(01) 220 5560	anne.greene@TUDublin.ie
Lisa Molloy Tara Duggan Aisling Smith***	School Administrators	Tallaght City Tallaght	(01) 220 5246 (01) 220 7510 (01) 220 8197	lisa.molloy@tudublin.ietara.duggan@tudublinaisling.smith@tudublin.ie
Breda Noonan	School Operations Lead	City & Tallaght	(01) 220 5232	breda.noonan@tudublin.ie
John Behan Eleana Dunne Dr Andrew O Connor Dr Mohammad Tanweer Alam Tania Flynn	School Safety Committee (Tallaght Campus)	Tallaght	(01) 2207183 (01) 207180 (01) 2207860 (01) 2208011	John.behan@tudublin.ie  Eleana.dunne@tudublin.ie  Andrew.oconnor@tudublin.ie  Tanweer.alam@tudublin.ie  Tania.flynn@tudublin.ie
Brian Murphy (Chair) Dr. Gavin Sewell Dr. Aine Whelan	School Safety Committee (City)	City	(01) 2205579 (01) 220 5552	brian.murphy@tudublin.ie gavin.sewell@tudublin.ie aine.whelan@tudublin.ie
John Behan John Byrne Paul Coleman Edel Niland	Tallaght Campus Safety, Health and Welfare Committee		01-2207177	catherine.bruen@tudublin.ie john.behan@tudublin.ie john.byrne@tudublin.ie paul.coleman@tudublin.ie edel.niland@tudublin.ie



Name	Role	Location	Contact Number	Email Address
Student Union Representative x 2				
Gillian Kerins (Library representative)				gillian.kerins@tudublin.ie  Michael.quinlan@tudublin.ie
Michael Quinlan				Mary.deasy@tudublin.ie  Kevin.byrne@tudublin.ie
Mary Deasy				Sarah.maher@tudublin.ie
Kevin Byrne Sarah Maher (Sustainability)				Conor.mccague@tudublin.ie
Conor McCague				Eleana.dunne@tudublin.ie
Eleana Dunne				
Brian Murphy	Persons responsible for document control	City	(01) 220 5232	brian.murphy@tudublin.ie
Eleana Dunne		Tallaght	(02) 2207180	Eleana.dunne@tudublin.ie
Tara Duggan	Person responsible for training register	City	(01) 220 5792	Tara.duggan@tudublin.ie
Brian Murphy (City) Eleana Dunne (Tallaght)	Person responsible for PPE register	City Tallaght	(01) 2205579 (01) 2207180	brian.murphy@tudublin.ie eleana.dunne@tudublin.ie



# **SHW Staffing Details**

Name	Role	Location	<b>Contact Number</b>	Email Address
Edel Niland	SH&W Senior Manager	City	(01) 2206266/ 086 389 1080	edel.niland@tudublin.ie
Rosie Fleming	Occupational Health Advisor	City	(01) 2206270/087 980 9194	rosie.fleming@tudublin.ie
Vacant	Occupational Health Advisor	City	(01) 2206268/087 980 9135	
Orlaith Waters	Occupational Health Advisor	City	(01) 2206269/087 980 9131	orlaith.waters@tudublin.ie
Sinead Collins	SH&W Administrator	City	(01) 2206267	sinead.m.collins@tudublin.ie

## Duties of Employers, Employees and Others

The full listing of roles and responsibilities within TU Dublin is available on the SHW website click here.

Cate	egories of School of Chemical and BioPharmaceutical Sciences Personnel	Tick (√) which is relevant to your School of Chemical and BioPharmaceutical Sciences
Employ	rees	
0	Academic staff	✓
0	Technical staff	✓
0	Laboratory aides	√ – No lab aides on Tallaght
		campus
0	Professional Services staff	✓
0	Administrative staff	✓
0	Other (please specify) Cleaning staff	✓
Contra	ctors/Service Providers	✓
Franchi	se Holders, Campus Companies, Others with Shared	✓
Occupa	incy	
Studen	ts	✓
Visitors	3	<u> </u>
Campu	s users	✓

# Plans and Procedures for Dealing with Fire and Emergencies

Action for fire/evacuation warning - The immediate response to fire/evacuation warning for all campus users

### On suspecting a fire i.e. smelling or seeing smoke

• Do not investigate alone; and



• Alert front desk/reception and wait for further instruction. Prepare to evacuate.

#### On discovering a fire:

- Do not panic;
- Activate the nearest alarm call point or break glass unit, after which;
- Alert the front desk/reception or Emergency Services if possible;
- Fight the fire with the appropriate fire extinguisher <u>only</u> if it is safe to do so and you are trained;
   and
- Follow the evacuation procedure below.

#### If you hear the evacuation alarm (the alarm will sound continuously)

- Proceed to evacuate without delay;
- Do not return for personal belongings or wait for further information or instruction;
- If there is time and it is safe to do so, shut down electricity and gas, and close doors and windows;
- Leave the building using the nearest emergency exit following the green emergency exit signs;





- Do not use the lift;
- Form a single file on stairways and corridors and leave the centre passageway clear for emergency access;
- If you encounter crowd congestion, smoke or other danger proceed to another exit if possible;
- If, for some reason you cannot exit the building, make your way to a refuge area and use the call point, where available to inform colleagues of your whereabouts;
- Disperse from the building and report any issues to the Incident Controller;
- Move away to the designated Assembly Point; and
- Do not re-enter the building until the "all clear" has been given by the Incident Controller/person in charge.

### Refuge call point- where present (press the button to communicate)





#### **CONTACTING EMERGENCY SERVICES**

- Dial 112 or 999 (if dialling from a campus landline phone you may need to dial "0" for an outside line);
- Ask for correct service(s); and
- Give the following information: Your name, telephone number, exact location (TU Dublin Campus building, street, landmarks, Eircode if known), type of incident, contact details, number of casualties, type of injuries, any hazards etc.

#### DON'T HANG UP THE PHONE UNTIL THE OPERATOR CLEARS THE LINE

- If dialling 112 or 999 from a campus landline phone, remember you may need to dial "0" first to get an outside line. The dial tone may differ from the usual tone;
- Designate someone to inform the front desk/reception of the situation; and
- Designate a person to go to the front of the building to guide the Emergency Services to the scene

#### **Evacuation Marshals (ALL EMPLOYEES)**

All employees are required to act as evacuation marshals during an evacuation. The main role of an evacuation marshal is to carry out a "sweep/search" of rooms in their area and instruct all occupants to leave the building promptly by the nearest and safest exit and report to the Assembly Point. They report information about their area to the Incident Controller outside the building. Evacuation marshals are advised not to put themselves in any danger while undertaking their duties. The role and duty of an evacuation marshal is covered in Emergency Response Training.

Emergency Preparedness details may be found at this link

Assembly Points and pictures of same relevant to your campus may be found at this link

First Response procedures in emergency scenarios are available <u>here</u>

## First-Aid and Details about the Equipment and Facilities Available

TU Dublin First-aider details are available from this link

Local first-aiders for the School of Chemical and BioPharmaceutical Sciences are listed in the table below. All laboratory staff have emergency first aid training



FIRST-AIDERS						
Name	Location	Contact Number	Email Address			
Aine McParland	Tallaght	01-2207193	aine.mcparland@tudublin.ie			
Tania Flynn	Tallaght	01-2208011	Tania.flynn@tudublin.ie			
David Saville	Tallaght	01-2207192	David.saville@tudublin.ie			

Replenishment of first-aid stocks can be ordered from the Safety, Health & Welfare Office email shw@tudublin.ie

First-aid response to medical conditions are available from this <u>link</u>.

#### First – aid Rooms

Some of these rooms also serve as a rest facility for pregnant women and breastfeeding mothers.

Building	Room/Area
Central Quad, Grangegorman	Room, CQ-0372, Ground Floor
East Quad, Grangegorman	Room EQ-020, Ground Floor
Lower House, Grangegorman	First-Aid Room, Ground Floor
Park House	First-Aid room, 4 <sup>th</sup> Floor
Rathdown House, Grangegorman	Room RD003, Ground Floor
Tallaght	Medical Centre, 1 <sup>st</sup> Floor of Main building, Room 110

Location of First-Aid Equipment			
First-Aids Kits	First-aid kits are available at the front desk/reception and in all in laboratories.		
Automated External Defibrillators (AEDs)	AEDs are available at the front desk/reception in the main buildings of both City and Tallaght campuses. A		



	full listing of all AED locations is available on the
	website <u>click here</u>
Emergency Showers	Central Quad
	Extendable hose units are provided in
	CQ418,420,422,424,426 and 427
	Tallaght
	Drench Showers: Science Yard 009, 111, 113/115, 119,
	121, 131, 149, 151
Eye-Wash Stations	All laboratory spaces

# **Internal and External Emergency Numbers**

TU Dublin City Internal Contact Numbers			
Central Switchboard	(01) 220 5000		
<u>Chaplaincy</u>			
City	(01) 2207076		
Tallaght	(01) 220 7671 / 086 102 2698		
Blanchardstown	(01) 220 7089 / 086 0671548		
Security Control Centre 24 hour	(01) 220 7615		
(Grangegorman, Orchard House)	(01) 220 7616		
Student Counselling Service	086 0820543		
Corporate Employee Assistance Programme	Call freephone		
(Spectrum Life)	<b>1800 814 243</b> or		
24 hours a day/365 days per year	text "Hi" using WhatsApp or SMS to		
	<b>087 369 0010</b> or		
	you may email an enquiry to the specialist		
	information service at eap@spectrum.life		
Estates Helpdesk	(01) 220 7666		
Student Health Centres:			
Aungier Street (Room 2051, Second Floor)	(01) 220 5700		
Grangegorman, Rathdown House (First floor)	(01) 220 5700		
Tallaght (Room 110, First Floor of Main Building)	(01) 220 7739		
Blanchardstown (Room 108/109, First Floor Croí	(01) 220 8117/ 087 188 1336		
Building)			

External Emergency contact numbers			
<b>Emergency Services</b>	112/999 (If dialling from a landline phone you may need to		
	dial "0" for an outside line)		
Hospitals	Northside (01) 803 2000 Mater Hospital		
	(01) 646 5000 Blanchard	stown	
	<b>Southside</b> (01) 401 3000 St. James	Hospital	
	(01) 414 2000 Tallaght Hospital		
Dublin City Council	(01) 222 22 22		
Garda Síochána	Northside: Southside:		
	Bridewell: (01) 666 8200	Kevin Street: (01) 666	
	Mountjoy Square: (01) 666 8600 9400		
	Fitzgibbon Street: (01) 666 8400 Pearse Street: (01)		
	Store Street: (01) 666 8000	9000	



	Tallaght: (01) 666 6000		
	Blanchardstown: (01) 666 7000		
Gas Networks Ireland 24-hour	1850 20 50 50		
Emergency			
ESB Fault Emergency Line	1850 372 999		
	Fault and Emergency: 021 4537000 (open 24 hours, 7 days		
	per week)		
Health and Safety Authority	0818 289 389		
Samaritans	116 123		
Environmental Protection Agency	0818 33 55 99		
National Poisons Information Centre	Members of Public: (01) 809 2166		
	(8.00 a.m. to 10.00 p.m. 7 days a we	eek)	



#### TU DUBLIN EMERGENCY FIRST-AID PROCEDURE

#### **ACCIDENT / INJURY / UNWELL**



#### **CONTACT FIRST AIDER**

- A first-aid kit and Automated External Defibrillator (AED) are available at the Front Desk/Reception area
- Contact your nearest first-aider (a list of trained first-aiders is available <u>here</u>)
- If you require advice contact:
  - The Safety, Health & Welfare Office for advice 087 9809194 / 087 9809135 / 087 9809131 / 086 3891080
  - Student Health Centres: Aungier Street & Grangegorman (Rathdown House): (01) 220 5700 Tallaght: (01) 220 7739, Blanchardstown: (01) 220 8117/ 087 188 1336



### **WORRYING INJURY/ILLNESS**

Requires immediate medical attention

- Arrange transport for the person to their local GP or A&E Department
- Students <u>ONLY</u> can attend the Student Health Centres (Mon Fri 9:00am 5:00pm)
   Aungier Street & Grangegorman (Rathdown House): (01) 220 5700
   Tallaght: (01) 220 7739

Blanchardstown: (01) 220 8117/087 188 1336

If in doubt of severity of injury/illness

Contact Emergency Services on 112 or 999 (Dial '0' from a TU Dublin landline)



#### **SERIOUS INJURY/ILLNESS**

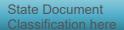
- Call emergency services on 112/999 (Dial '0' from a TU Dublin landline)
- Keep the person comfortable until the ambulance arrives
- A friend/responsible person should accompany the person to hospital
- Contact the SH&W Senior Manager 086 3891080



#### FOR ALL INCIDENTS

- If in doubt of the severity of an injury/illness contact the emergency services on 112 or 999
- For all accidents complete an accident form on the Health, Safety and Welfare website click <u>here</u>





# Commitment to Employee Consultation and Participation Including arrangements for appointing safety representatives

It is recommended that Schools/ Functions with significant hazards should consider setting up a school/function safety committee to ensure full compliance with the requirements of the 2005 Act and associated regulations.

Safety is a standing agenda item at each Operations meeting. Minutes are available in Onedrive.

The following working groups are in place:

#### School City Campus Safety Committee/Tallaght Safety Committee

The following Safety Representatives are selected: Sara Boyd

#### Heads of School/Function will:

 Communicate relevant risk assessments to employees, students and others who may be affected e.g. tell them about the control measures in place and know who is responsible for implementing any additional controls and by what date;

### Employees:

- Are encouraged to monitor the effectiveness of the control measures in place;
- Will ensure they read and understand safety documentation (including risk assessments) and what is expected to ensure a safe working environment; and
- Will communicate with management if they feel additional control measures are required.

# Arrangements to Ensure the Safety of Sensitive Work Groups Young persons, pregnant employees and visitors to the workplace or anyone else who may be affected by our activities are addressed in the risk assessments.

## Personal Protective Equipment Policy and Register of Equipment

All PPE and safety equipment purchased by the School/Function (or by students at the request of the School/Function) must be of approved standards and comply with relevant EC Directives regarding design and manufacture. Defects shall be reported to Managers/Supervisors.

The various areas where PPE must be worn are outlined in the risk assessments. This is further complemented with mandatory signage. PPE shall be provided and worn in designated areas and whilst carrying out specific tasks, based on the risk assessments.

Please outline staff and student arrangements for PPE e.g. staff are supplied with PPE by the School/Function and students purchase their own PPE. *Tick* \*the yellow box for PPE relevant to your School/Function.









must be worn

Safety gloves must be worn

Safety harness

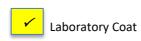
must be worn



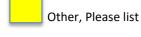












### **Tallaght Campus**

Lab coats and glasses are reusable and laundered as appropriate.

Used coats are put into a laundrette bag & when full the laundry company is phoned by the technical staff & the bags are collected, laundered & returned cleaned & folded.

Staff are advised and students are instructed what PPE is mandatory (laboratory coat and glasses) upon entering the laboratory.

#### **City Campus**

A washer/dryer is available on site for staff use. Dirty laboratory coats are deposited in the machine and a wash is carried out normally once per week or as needed.



# Procedure for Reporting Accidents/ Near misses/ Dangerous Occurrences/ Hazards

Employees and students are required to immediately inform their Supervisor/Line Manager of any accident/near miss/dangerous occurrence/hazard. An online <u>report form</u> must be submitted to the SHW Office within 24 hours.

Accidents will be investigated by the Manager/Supervisor in charge of the area in which the accident occurred and assisted as necessary by the Safety, Health and Welfare Office. The purpose of this investigation is to identify the causes of the accident and allow corrective action to be taken to prevent a recurrence. All staff, students and contractors/service providers are obliged to co-operate with such investigations and to provide any information which may be useful in establishing the circumstances surrounding the accident.

The reporting of certain accidents and dangerous occurrences to the Health and Safety Authority (HSA) will be completed by the Safety, Health and Welfare Office as required.

In the event of a serious accident/fatality the Safety, Health & Welfare Senior Manager will liaise with the Health & Safety Authority and Gardaí regarding the reporting and investigation of the accident.

## Statutory Testing/ Register of Equipment

The School of Chemical and BioPharmaceutical Sciences must keep a register of equipment that requires statutory testing

Item	Location	Test Frequency	Test Company Details
Autoclave	Pharma Plant - Tallaght campus	Annual	Allianz
Priorclave – Tactrol 2	Biology lab – Tallaght Campus	Annual	Allianz
Priorclave – Tactrol 2	Biology lab – Tallaght Campus	Annual	Allianz
Horizontal- MultiTubular Steam Boiler	Main Boiler House- Tallaght Campus	Annual	Allianz
Blow Down Receiver- Steam-Boiler Blowdown vessel	Main Boiler House- Tallaght Campus	Annual	Allianz
Astell Autoclave- PDN40550/ Model - AVS125G18717	Biology lab – Tallaght Campus	Annual	Allianz
Autoclave -Tomy SX- 300E	Biology lab – Tallaght Campus	Annual	Allianz
Autoclave -Tomy SX- 300E	Biology lab – Tallaght Campus	Annual	Allianz



## Training details

In addition to the general health and safety training requirements outlined in the Health & Safety Training Policy, the following specialised training is required for specific hazards relevant to this school/function (*Please tick box Y*);

⊠ Chemical	⊠Gas	⊠Biological	□Laser	⊠ Machinery and plant
□Working at heights	⊠Child Pr	otection Training	⊠Other (p	lease specify)

- plant equipment qualifications
- in-house chemical qualifications
- in-house biological qualifications
- in-house gases qualifications
- manual handling training
- child protection corporate training.

## 9. Hazard Identification

Please use the checklist below to assist in the identification of hazards and complete the risk assessment in accordance with the risk assessment procedure and template provided below.

Further resources on risk assessment development and templates is available from the <u>SHW website</u> and the <u>HSA website</u>. The Safety, Health & Welfare Office is available to provide risk assessment training, review risk assessments completed by Schools/Function, and offer professional judgement and advice.

## Risk Assessment Procedure & Templates

#### Introduction

Section 19 of the Safety, Health and Welfare at Work Act 2005 requires every employer, the self-employed, and those who control workplaces to any extent, to identify the hazards in the workplace under their control and to assess the risks presented by those hazards. Employers are required to do all that is reasonably practicable to minimise the risk of injury. A School/Function can achieve all that is reasonably practicable by:

- identifying the hazards and associated risks relating to the School/Function, and
- putting in place appropriate control measures such that it would be grossly disproportionate to do more.

#### **Purpose**

The purpose of this procedure is to set out how risk assessments are completed at TU Dublin.

#### Scope

The hazard identification, risk assessment and control process relates to all activities and equipment in the place of work under TU Dublin's control.

#### Responsibilities



Each Head of School/Function is responsible for:

- Ensuring written risk assessments are carried out for all work activities and equipment in areas under his/her control;
- Convening a working group, where necessary, to assist with the risk assessment process (see working group section below);
- Consulting with and involving his/her employees as part of the risk assessment process;
- Keeping records of risk assessments completed;
- Ensuring control measures outlined in the risk assessments are implemented;
- Reviewing risk assessments annually or as necessary; and
- Communicating findings of risk assessments to all employees and others under their remit or to those who may affected by their work activities.

The Safety, Health & Welfare Office is appointed to facilitate and support Heads of School/Function with the risk assessment process by:

- Developing standard template forms for completion;
- Ensuring training is provided in the form of legal briefings and risk assessment methodology;
- Advising of changes in legislation or associated guidance that will impact on the requirement to carry out or revise a risk assessment;
- Reviewing risk assessments completed by Schools/Function and offering professional judgement and advice as appropriate; and
- Sourcing external expertise where necessary.

#### **Working Groups**

Collaboration and employee involvement is fundamental in ensuring risks are effectively managed as often they have the most knowledge of the hazards and risks associated with their work.

For Schools/Functions with considerable hazards to be risk assessed, in terms of the place of work or work activities or both, a working group of competent persons will be convened by the Head of School/Function to assist him/her with the risk assessment process. The group may consist of a mixture of employees to ensure a broad range of subject matter knowledge, skills and experience within the group e.g. school/function representatives from management, academic, technical, administration and support staff. Led by the Head of the School/Function, the working group will carry out the following:

- Undertake risk assessment workshop provided by the Safety, Health & Welfare Office;
- Assist in the preparation of risk assessments (steps 1-5 below);
- Head of School/Function consults with all his/her employees and takes feedback on board;
- Head of School/Function approves final version and brings to the Faculty Dean and University Safety Steering Committee for noting.

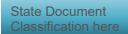
#### **Procedure**

The five main steps to completing a risk assessment are:

#### Step 1: Look at the hazards

The first step is to identify all the hazards in the workplace (see hazard check list below to assist). A hazard is anything with the potential to cause injury or ill health. Within your School/Function there may be several different types of hazard:





Physical hazards, such as manual handling, slip or trip hazards, poor housekeeping, fire, working at height, working with hot items, working in cold environments or using poorly maintained equipment.

Health hazards, such as noise, vibration, unsuitable light levels, harmful dusts or stress.

Chemical hazards, such as working with common everyday products from cleaning agents, glues and correction fluids to industrial solvents, dyes, pesticides or acids.

Human factor hazards, such as bullying by or violence from other employees or members of the public.

#### Step 2: Assess the risks

Risk means the likelihood that someone will be harmed by a hazard, together with the severity of the harm suffered. When we look at likelihood matched up with severity using the below categorisations, we can determine the level of risk associated and classify it numerically and by colour code (see risk matrix below). Risk also depends on the number of people who might be exposed to the hazard. In assessing the risk, you should estimate:

- how likely it is that a hazard will cause harm,
- how serious that harm is likely to be, and
- how often and how many individuals are exposed.

When assessing the risk, it is important to consider who may be exposed to a specific hazard. Apart from direct employees, think about the people who may not be in the workplace all the time, for example:

- students,
- cleaners,
- visitors,
- other employers' workers such as contractors/service providers, and
- maintenance personnel.

Where the public access your offices/work areas under your control, you will need to assess the hazards that they are exposed to. Hazards could vary from slips, trips and falls to unauthorised entry to dangerous areas.

You also need to consider vulnerable groups for which you may need to put in place additional control measures. These vulnerable groups may include:

- young people, who may be more at risk due to their inexperience and lack of training;
- elderly people;
- pregnant, post-natal and breastfeeding employees;
- people with language difficulties or for whom English is not a first language;
- people with different abilities or disabilities; and
- people who are handling money or dealing with the public.

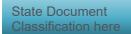
#### Step 3: Decide on control measures

Decide on the control measures to reduce risks and assign ownership for implementation. When deciding on the appropriate control measures to put in place, the working group need to ask themselves:

- Can we eliminate the hazard altogether?
- Can we change our activities to make it safer?
- If not, what safety precautions are necessary to control this risk as much as possible?

Schedule 3 of the SHWW Act 2005 general principles of prevention should be implemented with reliance on personal protective equipment being the last option.





- 1. The avoidance of risks.
- 2. The evaluation of unavoidable risks.
- 3. The combating of risks at source.
- 4. The adaptation of work to the individual, especially as regards the design of places of work, the choice of work equipment and the choice of systems of work, with a view, in particular, to alleviating monotonous work and work at a predetermined work rate and to reducing the effect of this work on health.
- 5. The adaptation of the place of work to technical progress.
- 6. The replacement of dangerous articles, substances or systems of work by safe or less dangerous articles, substances or systems of work.
- 7. The giving of priority to collective protective measures over individual protective measures.
- 8. The development of an adequate prevention policy in relation to safety, health and welfare at work, which takes account of technology, organisation of work, working conditions, social factors and the influence of factors related to the working environment.
- 9. The giving of appropriate training and instructions to employees.

#### Step 4: Take Action

Implement the control measures in the agreed timeline.

#### Step 5: Review

Monitor the effectiveness of the control measures implemented and review the risk assessments at least annually.



		Severity					
		(What could the impact be?) $\; ightarrow\; i$					
RISK FACTOR MATRIX		1 2 3		3	4	5	
		Trivial Injury	Minor Injury	Potential Major Injury	Major Injury	Fatality	
Likelihood  (How likely is it to occur)  ↓ ↓ ↓ ↓		A trivial injury or condition not requiring hospital treatment could occur	A minor injury or condition could occur which may require minor hospital treatment	A major injury or condition could occur resulting in an over three days absence from work	A major injury or condition will occur unless risk controls are put in place	A fatality will occur unless robust risk controls are put in place	
	Certain	5	10	15	20	25	
5	It will almost certainly occur?	LOW	MEDIUM	HIGH	HIGH	HIGH	
4	Frequent occurrence It could occur on a	4 LOW	8 MEDIUM	12 HIGH	16 HIGH	20 HIGH	
	regular basis? Likely	3	6	9	12	15	
3	occurrence It could occur but not on a regular basis?	LOW	MEDIUM	MEDIUM	HIGH	HIGH	
	Occasional occurrence	2	4	6	8	10	
2	It is unlikely to occur but it is possible?	LOW	LOW	MEDIUM	MEDIUM	MEDIUM	
	Improbable occurrence	1	2	3	4	5	
1	It is very unlikely to occur?	LOW	LOW	LOW	LOW	LOW	
RISK A							
	Severity (S) X L	_ikelihood (L) = R	ISK FACTOR RAT	ΓING (RFR) befor	e risk controls.		
	After risk controls are applied = RESIDUAL RISK RATING (RRR )						
1 -	5	Indica	Indicates a <b>LOW</b> risk Proceed with caution a risks pro		ed with caution as the risks prese		
6 -	10	Indicate	Proceed with caution as there risks still present. Improve contributions if reconceably precise.		control measures		
12 - 25		Indicates a HIGH risk		measu	if reasonably practicable.  DO NOT PROCEED. Further control measures need to be applied to reduce the risk to a Medium or Low risk		





Risk Assessments

School of Chemical and BioPharmaceutical Sciences:	Locations (building location): Central Quad / Tallaght Campus
Risk assessment working group members: City Campus – Brian Murphy – STO Tallaght Campus – Eleana Dunne - STO	

#### **RISK ASSESSMENT TEMPLATES**

Chemical, biological and infectious diseases risk assessment templates are available here.

For all other hazards use the standard template provided below in word. The template is also available in excel format on request.

HAZARD CHECKLIST				
HAZARD CHECKLIST (please tick (✔) yes or no)	<u>No</u>	<u>YES</u>	If YES, please provide details and complete the risk assessment below	
Biological agents e.g. Blood/ food/air/ water borne pathogens, hepatitis sharps, clinical waste, other		✓		
Chemicals e.g. solvents, paints, degreasers, cleaning products, asbestos, acetylene		<b>√</b>		
Gases (natural gas, gases in cylinders and piped gases)		<b>√</b>		
Lasers		✓		
Physical				
Manual handling		<b>√</b>		
Display Screen Equipment/Visual Display Units (i.e. computers, laptops)		✓		
Equipment/Machinery		<b>√</b>		

[		1 .	
Electricity		✓	
Hand Tools		<b>√</b>	
Heat Sources / High		<b>✓</b>	
Temperatures /		,	
Hot Surfaces			
Instrumentation		<b>V</b>	
Lifting Equipment /		✓	
Mechanical Aids			
Vehicles			
Noise		✓	
Power Tools			
1 0WE1 10013			
Pressure Systems		<b>√</b>	
,			
Machinen, & Dlant		<b>✓</b>	
Machinery & Plant		<b>Y</b>	
Portable Electrical		✓	
Appliances			
(Note: PAT risk assessment			
to be completed)			
Radiation	Х		
Vibration	Х		
Maybing at Height			
Working at Height	Х		
(incl. use of ladders)			

	Human Factors			
	Sensitive Work Groups: Pregnant Employees /Students & Nursing Mothers	<b>*</b>		
	Young Persons, Students on Placement	·		
	People with Disabilities	<b>√</b>		
	Visitors	·		_
Risk	Contractors/ Service Providers	· ·		Assessments
	Out of hours access	·		Tallaght Campus
	Allergens	<b>V</b>		Campus
	Psychosocial e.g. Violence, aggression, stress, bullying, harassment, horse play	<b>V</b>		_
	OTHER HAZARDS / ANY OTHER RELEVANT INFORMATION :			
		BIOLOGICA	AL- Laboratory Spaces	
Ref No	o/ ID number: TA01	Date of Assessment: 27 Review Date: 8 <sup>th</sup> Dec 2 Risk Assessor(s): Elean	025	

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25) Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be <u>implemented</u> to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Biological Agents	-Accidental ingestion of biological agent through hand / mouth contact -Waste not being removed promptly -Sharps not being disposed of appropriately	-Good housekeeping in place, including prompt waste removal following a laboratory session.  - Use of only Class I & II microorganisms  -Subsequent sterilization, by autoclave, of biologically contaminated material  -Appropriate & adequate training of both staff & students  - Presence of appropriate waste receptacles, particularly for biologically contaminated sharps.	2X2 = 4 Low	None	Ongoing surveillance	Ongoing

people with disabilities □Other (please specify)

-Policy of no laboratory							
entry without appropriate							
PPE, Howie style lab coat							
& safety glasses.							
- Provision of gloves &							
instruction of how to							
remove safely a							
contaminated glove							
-Eating & drinking is							
strictly prohibited within							
the laboratory							
Persons at risk/ Who is harmed (please tick): ⊠Students ⊠Staff members ⊠Visitors ⊠Contractors/ Service provider ⊠Sensitive risk groups (young persons, pregnant women,							

OPERATIONAL- Laboratory Spaces								
Ref No/ ID number:TA02		Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne						
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)		

			Severity (1-5) X Likelihood (1-5)			
Room Over- crowding	Access/Egress hampered	Room capacities in place Timetabling software in place to eliminate class overlap	1X1 = 1 Low	None	N/A	Complete

**Persons at risk/ Who is harmed (please tick):**  $\boxtimes$  Students  $\boxtimes$  Staff members  $\boxtimes$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$  Other (please specify)

HUMAN FACTORS							
Ref No/ ID number:TA03		Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)	

Psychosocial Hazard -	-Physical harm or	-Security at front	1X1 = 1 Low	None	N/A	Complete
Violence	intimidation	desk				
		-Regular patrol of the building -Incident/near miss reporting in place				
	-Adverse clinical outcome	-Emergency				
Illness/injury to		numbers posted				
staff/students/visitors	-Death	-CCTV in place				
		All laboratory staff				
		in the School have				
		emergency first aid				
		training				
		AEDs are available				
		on each floor and				
		at the				
		porters/security				
		desk				
		First aid room				
		available with a				
D		nurse onsite				,

**Persons at risk/ Who is harmed (please tick):**  $\boxtimes$  Students  $\boxtimes$  Staff members  $\boxtimes$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$  Other (please specify)



		CHEM	ICAL				
Ref No/ ID number: TA04		Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25) Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)	
Chemicals	<ul> <li>Skin Contact</li> <li>Inhalation of dust / volative chemicals</li> <li>Inhalation of solvent vapours</li> <li>Accidental ingestion</li> <li>Fire &amp; explosion</li> </ul>	-PPE must be worn worn -Chemical storage cabinets are vented to external atmospherse -Weigh safe cabinets are used to weigh toxic substances -Incompatible chemicals are not stored together	3X2 = 6 Medium	No outstanding measures to be implemented	Ongoing	Ongoing	

Storage of
incompatible
chemicals is avoided
by storing in
accordance with the
UN ADR
Classification system
(ADR) and with
reference to the
material SDS. Spot
checks are also
performed during
laboratory audits
(City Campus).
Quartzy stock
control software is
utilised (Tallaght
Campus) to ensure
appropriate storage
and segregation
-All cuts and
abrasions must be
covered with
waterproof plasters
-Trolleys used to
transport chemicals

	to reduce risk of		
	spillage		
	-Persons working		
	with hazardous		
	chemicals must be		
	trained to handle		
	them & be aware of		
	the associated risks		
	-Long hair tied back		
	when around		
	chemicals		
	-Lone work with		
	chemicals should be		
	avoided		
	-High standard of		
	housekeeping		
	should be		
	maintained when		
	working with		
	chemicals		
	-Users should wash		
	their hand		
	thoroughly after		
	chemical use		
	-Ensure fire blankets		
	& appropriate		
	extinguishers are		
	extiliguisticis ale		

located near	
chemical use	
-Stock control levels	
should be monitored	
closely	
-All containers	
should be clearly	
labelled	
-Chemicals should be	
stored at eye level or	
below	

**Persons at risk/ Who is harmed (please tick):** □Students □Staff members □Visitors □Contractors/ Service provider □Sensitive risk groups (young persons, pregnant women, people with disabilities □Other (please specify)

		PHYSI	CAL			
Ref No/ ID num	iber: TA05	Date of Assessment Review Date: 8 <sup>th</sup> De Risk Assessor(s): El	c 2025	3		
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Gases	<ul> <li>Fire</li> <li>Explosion</li> <li>Asphyxiation</li> <li>Cylinder with a damaged valve acting</li> </ul>	-Staff using compressed gases are trained in safe techniques for their use	3X2 = 6 Medium	All control measures for safe use are	Ongoing	Ongoing

as a high velocity	-Suitable PPE used,	currently in	
projectile	protective clothing,	place	
Personal injury moving	gloves, shoes & eye		
cylinders	protection		
	-Cylinders properly		
	housed externally		
	and gases piped in.		
	All piping labelled		
	appropriately as to		
	what each pipe		
	contains		
	-All tubing &		
	regulators must be		
	compatible with the		
	gas type and		
	working conditions		
	-Where gases in use		
	, constant &		
	thorough ventilation		
	maintained.		
	-when flammable		
	gases are in use all		
	ignition sources		
	must be removed		
	from the area.		
	-All valves must be		
	tightly shut when		
	not in use		



	-Outlets checked
	regularly for leakage
	& any leakage
	reported
	immediately to
	HOD/HOS
	-Outside piping must
	be insulated
	properly.
	-Gas leakage
	detection system
	installed to detect
	gas leaks with
	storage area
	-Annual inspections
	of the gaseous
	systems in order to
	maintain integrity &
	safety
Parsons at rick / Who is harmed (please tick):	Students □Staff members □Visitors □Contractors/ Service provider □Sensitive risk groups
i croons at risk, who is narmed (piease tick).	between to the month of the provider boundaries and the groups

PHYSICAL – Laboratory Spaces			
Ref No/ ID number:	Ref No/ ID number: Date of Assessment: 27th July 2023		
TA06	Review Date: 8th Dec 2025		
	Risk Assessor(s): Eleana Dunne		

Haza rd	Risk(s) Associated/Desc ription	Current Control measures	Risk Fact or	Further Control measures	Action comple ted by	Status (In progress
	•		Rati ng (1- 25)	or actions to be <u>implemen</u> <u>ted</u> to reduce the	whom and by when?	Outstand ing/ Complete
			Severity (1-5) X Likelihoo d (1-5)	risk		
Slips	Physical     Injury	-Good housekeeping in place	1X1 = 1	• All	Ongoing	Ongoing
/ Trips /	Injury	-Reporting of hazards in place	Low	cont rol mea		
Falls		-Working at height not permitted by School staff		sure		
		https://www.hsa.ie/eng/publications and forms/publications/retail/g		S		
		en apps work at height.pdf		curr		
		-Incident/near miss reporting in place		entl y in use		
		Student lockers available to eliminate bags, coats etc within the lab				
		-Signage to be used if any liquid spillage on the floor & then cleaned immediately				

	PHYSICAL- Laboratory Spaces					
Ref No/ ID nu	ımber: TA07	Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Fire	Personal Injury	<ul> <li>Good housekeeping in place</li> <li>Extinguishers/blankets/call buttons in place and maintained.</li> </ul>	5X1 = 5 Low	All control measures currently in use	Ongoing	Ongoing

Emergency lighting in place      All staff act as Fire Marshals for visitors/students	
<ul> <li>Regular fire drills and reviews carried</li> <li>Open stairway and lift access is closed off when an alarm is triggered</li> <li>Assembly points sign posted</li> <li>Incident/near miss reporting in place</li> <li>Incompatible chemicals stored separately</li> <li>Chemical waste segregated to avoid adverse reactions</li> </ul>	

	<ul> <li>Solvent fire load kept to a minimum and stored in 90min flameproof cabinets when not in use</li> <li>Staff trained in Emergency response</li> </ul>	
Persons at risk/ Who is harmed (please tick	$oxed{:}$ : $oxtimes$ Students $oxtimes$ Staff members $oxtimes$ Visitors $oxtimes$ Contractors/ Service proving	der ⊠Sensitive risk groups

	PHYSICAL					
Ref No/ ID number: TA08  Date of Assessment: 27 <sup>th</sup> July 2023  Review Date: 8 <sup>th</sup> Dec 2025  Risk Assessor(s): Eleana Dunne						
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)

Manual Handling – Incorrect method of lifting, pushing, pulling or carrying	Personal Injury	<ul> <li>Measures taken to reduce amount of manual handling to a minimum &amp; mechanical handling devices supplied &amp; used as far as is possible</li> <li>Trolleys used where possible for transportation</li> <li>Staff trained in manual handling techniques</li> <li>Adequate lighting to ensure visibility is sufficient at all times</li> </ul>	3X2 = 6 Medium	All control measures currently in use	Ongoing	Ongoing

**Persons at risk/ Who is harmed (please tick):**  $\square$  Students  $\square$  Staff members  $\square$  Visitors  $\square$  Contractors/ Service provider  $\square$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$  Other (please specify)

		PHYSICAL- Labo	ratory Space			
Ref No/ ID num	ber: TA09	Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Working at a height	Personal Injury	Storage at height is avoided where possible  Where items are stored at height they should be accessible by two step ladder or steps  Items stored at height should not	3X2 = 6 Medium	All control measures currently in use	Ongoing	Ongoing

pose a risk to persons below to their size/w or contents.	
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	PHYSICAL- Laboratory Spaces						
•		Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025					
			Review Date: 8 Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s)	Current Control	Risk Factor	Further Control	Action	Status	
пагаги	Associated/Description	measures	Rating (1-25)  Severity (1-5) X Likelihood (1-5)	measures or actions to be implemented to reduce the risk	completed by whom and by when?	(In progress/ Outstanding/ Complete)	
Office & VDU safety	Personal Injury- eye/ muscle / back injury	Adequate office space provided. All furniture, fittings & equipment should be	1X1 = 1 Low	All control measures currently in use	Ongoing	Ongoing	

<del></del>	<del>,</del>	
	arranged so staff	
	can move without	
	collision with	
	sharp corners of	
	desks, cabinets	
	etc.	
	Items on shelves	
	should be placed	
	properly to	
	prevent falling &	
	causing injury, kick	
	stools provided if	
	necessary	
	Tiecessary	
	Electric / phone	
	cables should not	
	trail or present as	
	a trip hazard	
	Cond	
	Good	
	housekeeping and	
	floor kept clear of	
	obstructions	
	6.60	
	Sufficient	
	ventilation &	
	lighting should be	



provided and ambient temperature should be at a comfortable temperature		
VDU screens should be of good quality, free from flicker & glare with a swivel & tilt facility.  Work chair should be stable & comfortable with adjustable height, tilt & back support if required.		
Work activities should include short frequent breaks from display screens		

	Eye testing available for those using VDU's.  DSE assessments available for staff
Persons at risk/ Who is harmed (please tick): ⊠S	Students $oxtimes$ Staff members $oxtimes$ Visitors $oxtimes$ Contractors/ Service provider $oxtimes$ Sensitive risk groups

	PHYSICAL- Laboratory Space							
		Date of Assessment: 27th July 2023						
			Review Date: 8th Dec 2025					
	<u> </u>	Risk Assessor(s):	Eleana Dunne					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)		
Electricity	Electric shock	Only qualified,	5X2 = 10	All control	Ongoing	Ongoing		
	Electric burns	authorized	Medium	measures				

• Fire	personnel allowed	currently in	
Trips / falls	to work with live	use	
Death	electrical sources		
	Notices must be		
	clearly displayed		
	when live work is		
	being carried out		
	& no un-		
	authorized		
	personnel allowed		
	access to the area.		
	All electrical		
	equipment and		
	leads must be of		
	good quality & in		
	good working		
	order with		
	damaged leads or		
	equipment		
	removed from use.		
	Sufficient sockets		
	provided to		
	prevent overload		

No Cabl trailing ground.		
All elect equipm grounde		
not stor	le liquids d or used electrical	
Persons at risk/ Who is harmed (please tick): ⊠Students	Staff members   Visitors   Contractors/ Sea	rvice provider ⊠Sensitive risk groups

PHYSICAL-Laboratory Space				
Ref No/ ID number: TA12 Date of Assessment: 27th July 2023				
Review Date: 8th Dec 2025				
Risk Assessor(s): Eleana Dunne				

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Noise	Loud laboratory equipment, eg.     Sonicators, pumps, radios – prolonged exposure to loud noise may lead to loss of hearing, increased blood pressure & stress levels	Faulty equipment removed. When new equipment is being purchased, consideration given to noise production When sound levels are at 80dBA, hearing protection provided If radios used in the lab area, consent from all personnel should be given	1X1 = 1 Low	All control measures currently in use	Ongoing	Ongoing

		7. l . 57.0. cc . l				
<b>Persons at risk/ Who is harmed (please tick):</b> $\boxtimes$ Students $\boxtimes$ Staff members $\boxtimes$ Visitors $\boxtimes$ Contractors/ Service provider $\boxtimes$ Sensitive risk groups						
(young persons, pregnant women, people with disabilities □Other (please specify)						

	PHYSICAL- Laboratory Space					
Ref No/ ID number: TA13		Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Sensitive Work Groups- Pregnant employees/ students & nursing mothers	Handling loads Noise Excessive heat / cold Chemical / Biological exposure	-Manual handling training given to all staff Risk assessments carried out, with, specifically pregnancy in mind Line manager/ supervisor to	4X2 = 8 Medium	None	N/A	Complete

	assess ways in	
	which risk can be	
	avoided	
	Regulations	
	applicable as soon	
	as the pregnant	
	lady notifies TU	
	Dublin	
	<u>Assessment</u>	
	available for	
	pregnant ladies.	
	-	
Dorsons at rick/Who is harmed (n	lease tick): $oxtimes$ Students $oxtimes$ Staff members $oxtimes$ Visitors $oxtimes$ Contractors/ Service provider $oxtimes$	✓ Consitive risk groups

PHYSICAL- Laboratory Space					
Ref No/ ID number: TA14	Date of Assessment: 27th July 2023				
Review Date: 8th Dec 2025					
Risk Assessor(s): Eleana Dunne					

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Cryogenics / Dry Ice	-Freeze burn -Asphyxiation -Personal Injury while handling dewars	-All staff working with low temperature liquefied gases or systems requiring such gases should be trained in their safe use. This is typically carried out "in house"Hazard warning pictograms where cryogenic gases are used -Liquid Helium comes supplied in its own dewar.	3x2= Medium	None	N/A	Complete

-Liquid nitrogen
is transferred to
another dewar
on site.
-PPE is worn,
cryogenic gloves,
lab coat, safety
glasses, closed
toe footware,
full length
trousers, low
oxygen alarm
available to the
technician for
use in the NMR
room when
filling the
instrument.
-Dewar
supported is
appropriate
transportation/
pouring trolley.
-Buddy system
operates when
handling dewars

		-Dewar stored i a well-ventilate area					
=	is harmed (please tick): 🗆 Sant women, people with disab			tractors/ Service prov	vider ⊠Sensitive r	isk groups	
		HUMAN FACTORS – Lak	oratory Space				
Ref No/ ID number:TA15		Review Date: 8th D	Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description	Current Control n measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)	
Lone Working	Suffering an accident Overcome by chemical -Falling ill -Attack by another person	-Unsupervised out of hours work by undergraduate students forbidden -lone worker must not undertake any manual handling	3X1 = 3 Low	None	N/A	Complete	

activity in relation	
to plant, goods &	
substances which	
may result in injury	
-Lone worker must	
not suffer from any	
medical condition	
that makes them	
unsuitable for lone	
work	
-suitable safe	
contact & security	
arrangements must	
be in place	
-A register of out-	
of-hours access	
must be maintained	
at reception desk,	
with sign-in and out	
details	
-High risk activities	
avoided	
<b>Persons at risk/ Who is harmed (please tick):</b> $\boxtimes$ Students $\boxtimes$ Staff members $\boxtimes$ Visitors $\boxtimes$ Contractors/ Service provider $\boxtimes$ Sensitive risk group	S

	HUMAN FACTORS – Laboratory Space						
Ref No/ ID number:TA16		Date of Assessment: 27 <sup>th</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025					
		Risk Assessor(s): Eleana Dunne					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)	
Out of hours Working	_	-Out of hours	3X1 = 3 Low	None	N/A	Complete	
	-Falling ill Overcome by chemicals/gas	access must be approved					
	over come by enemically gus	A register of out-of-					
		hours access must					
	-Attack by another person	be maintained at					
		the main reception					
		-Staff requiring access must book in					
		advance, contacting					
		estates manager, a					
		copy sent to					
		security personnel					
		& permission					

sought from lir	е	
manager		
-On arrival, sign	n-in	
must carried o	ıt &	
sign out when		
departing		

	CHEMICAL					
Ref No/ ID n	Risk(s) Associated/Description	Date of Assessment Review Date: 8 <sup>th</sup> De Risk Assessor(s): E Current Control measures	t: 27 <sup>th</sup> July 202 ec 2025	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Chemical waste	<ul> <li>Skin Contact</li> <li>Inhalation of dust / volatile chemicals</li> <li>Inhalation of solvent vapours</li> <li>Accidental ingestion</li> <li>Fire &amp; explosion</li> </ul>	-PPE must be worn worn -Undergraduate students are informed in prepractical safety talks as to where each	3X2 = 6 Medium	No outstanding measures to be implemented	Ongoing	Ongoing

chemical should go	
with respect to	
waste	
Supervision at all	
times to ensure	
adherence to	
procedures	
-Staff are trained	
with respect to	
waste management	
-Waste segregation	
is practiced in the	
laboratory	
-Non compatible	
chemicals are	
disposed of	
separately	
Breathing	
apparatuses	
covering the entire	
head are worn when	
waste is being	
decanted into large	
IBC's	
-Trolleys are used to	
transport waste	
-A buddy system is	
in place when	

		posing of waste, ver lone working BIOLOGICAL- Labor	atory Spaces			
Ref No/ ID number:	TA18	Date of Assessment: 27 Review Date: 8th Dec 20 Risk Assessor(s): Elean	<sup>th</sup> July 27, 2023 025			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25) Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Biological Waste	-Bio-hazardous agent spillage -Cuts /lacerations on material containing biohazardous material	-Only class 1& 2 microorganisms used in the laboratory thus reducing any potential serious infection	2X2 = 4 Low	None	Ongoing surveillance	Ongoing

Spill kits available
and staff trained in
their use
-PPE, lab coat,
gloves & safety
glasses worn when
working with
biological materials.
- Staff are trained in
how to handle
material safely.
-Undergraduate
students are given
pre-practical safety
talks.
Supervision at all
times to ensure
adherence to
procedures
-Biologically
contaminated
sharps are disposed
of into yellow
sharps bins with
purple lids.
-Autoclave bags for
biohazardous
material are

re	emoved after each
lai	boratory session
&	autoclaved for 15
m	ninutes, at 15psi at
12	21C &
su	ubsequently
re	emoved from site
by	y waste
co	ontractors in
w	heeled bins
-1	L% Virkon
di	isinfectant
so	olution is prepared
fre	reshly each
M	1onday and
av	vailable on every
be	ench
Persons at risk / Who is harmed (please tick): Students Staff members	hers Nisitors MContractors/Service provider MSensitive risk groups (voung persons, pregnant women

	PHYSICAL
number: TA19	Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025 Risk Assessor(s): Eleana Dunne

Haza	Risk(s)	Current Control measures	Ris	Further	Actio	Status
rd	Associated/D		k	Control	n	
	escription		Fac	measur	compl	(In
			tor	es or	eted	progres
			Rati	actions	by	s/
			ng	to be	who	Outsta
			(1-	implem	m	nding/
			25)		and	Comple
				to	by	te)
			Severit y (1-5)	reduce	_	
			Х	the	?	
			Likelih ood	risk		
_	_		(1-5)			
Slips,		Good housekeeping in place	5X1	None	N/A	Ongoi
Trips	injury	Correct footwear	= 5			ng
,		Use of hazard warning signage where spills have occurred  Carrying aids available e.g. bottle carriers, trollies etc.	Low			
Falls	Chemicai	Spill kit available				
	spills					
Fire	Personal	Good housekeeping in place	5X1	None	N/A	Compl
	Injury	Chemical waste segregated to avoid adverse reactions	= 5			ete
		Solvent fire load kept to a minimum and chemical waste stored in fume hoods in 10L drums prior	Low			
		to transport to waste IBC'c in a locked bunded container				
		Extinguishers/fire blankets present and maintained.				
		Fire drills at regular intervals				



		Staff trained in Emergency response				
Man		Staff training in place	5X1	None	N/A	Compl
ual		Lifting/carrying aids e.g. bottle carriers, trolleys etc.	= 5			ete
hand		Maximum container size requiring lifting (10L/10kg)	Low			
ling						
Wor	Falls,	Storage at height is avoided where possible	5X1	None	N/A	Compl
king	personal	Where items are stored at height they should be accessible by two step ladder or steps	= 5			ete
at	injury	Steps available at the IBC's to decant off the waste containers	Low			
heig		https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmSciences-				
ht		AllStaff/Shared%20Documents/General/Health%20%26%20Safety/SOP%27s/Waste%20Disposal.do				
		cx?d=w111f69f475f64794a5494c81c12cf1c7&csf=1&web=1&e=GvGNQM				
		Items stored at height should not pose a risk to persons below due to their size/weight or				
		contents				

**Persons at risk/ Who is harmed (please tick):**  $\square$  Students  $\square$  Staff members  $\square$  Visitors  $\square$  Contractors/ Service provider  $\square$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$  Other (please specify)

OPERATIONAL							
Ref No/ ID number: TA20  Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne							
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be	Action completed by	Status	

			Severity (1-5) X Likelihood (1-5)	implemented to reduce the risk	whom and by when?	(In progress/ Outstanding/ Complete)
Lone working	Injury	Lone working prohibited Buddy system in place	5X1 = 5 Low	None	N/A	Complete

	HUMAN FACTORS							
ef No/ ID number: TA21  Date of Assessment: 31st July 2023  Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne								
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)		
Unauthorised access	Injury, property damage	Bunded shed locked with only authorised personnel access to a key Supervision in place	5X1 = 5 Low	None	N/A	Complete		
Behaviour	Injury due to negligence/horseplay	Supervision of students in place Staff trained and competent	5X1 = 5 Low	None	N/A	Complete		



	CHEMICAL					
Ref No	o/ ID Date of Assessment: 31st July 2023 er: TA22 Review Date: 8th Dec 2025 Risk Assessor(s): Eleana Dunne					
	Associated/ Description		k Factor Rating (1- 25)	measu res or action s to be <u>imple</u> mente <u>d</u> to reduce the risk	n com plete d by who m and by whe n?	s (In progre ss/ Outsta nding/ Compl ete)
Unint ende		Segregation of incompatible chemical waste Only UN approved transport containers are used for waste disposal	5X	None	N/A	Comp lete

d	release of	Glass bottle bank on site for empty & clean chemical bottles.	1 =			
reacti	poisonous		5			
ons	gas		Lo			
			w			
Stock	Increased	Waste/obsolete chemicals disposed of at least annually. More often where required.		None	N/A	Comp
piling	fire load		5X			lete
			1 =			
			5			
			Lo			
			W			
Spills	-	General chemical spill procedure in place		None	N/A	_
		https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmSciences-	5X			lete
	_	AllStaff/Shared%20Documents/General/Health%20%26%20Safety/SOP%27s/Spillage%20containment.d	1 =			
		ocx?d=wdd3f7819c66148f182b96e103c8a5088&csf=1&web=1&e=1HU1P7	5			
			Lo			
		Spill kit onsite	W			
Chem		Specific practical chemical risk assessment in place	,	None	N/A	
ical		Lab coat and glasses mandatory in lab spaces	5X			lete
Expos		PPE such as gloves available where identified by the specific practical risk assessment	1 =			
ure		Point of use extract and fume cupboards available where required	5			
		Eating and drinking prohibited in lab spaces	Lo			
		the edge of the 1991 and 1991 by the 1991	W			
		Hand wash facility available in all labs				
		<b>Drench showers available in the labs</b> : SOP for Drench shower maintenance				
		https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmSciences-				
		AllStaff/Shared%20Documents/General/Health%20%26%20Safety/Drench%20shower%20%26Eye%20				
		wash%20Testing%20SOP.docx?d=w82334c4ccfe24ac5ac78de7e7d96ffb6&csf=1&web=1&e=4A5LU1				



	First aid supplies and eye wash stations/units available in all labs		
	Emergency first aid training in place		
	Emergency contacts posted on all lab doors		
	Nurse onsite		

**Persons at risk/ Who is harmed (please tick):**  $\boxtimes$  Students  $\boxtimes$  Staff members  $\boxtimes$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\boxtimes$  Other (please specify)

		BIOLOG	ICAL			
Ref No/ ID number: TA23		Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Spills	Exposure to biohazardous	Howie style lab cost	2X2 = 4 Low	Ongoing	Ongoing	Ongoing
	materials	& glasses worn Appropriate PPE available, eg gloves.				

P	Pre-practical safety	
l t	alks given to	
l lu	ındergraduate	
s	tudents	
E	ating & drinking in	
t	he lab prohibited	
	Only BSL 1&2	
n	nicroorganisms	
	onsite	
	land wash facility	
a	vailable in all labs	
	Orench showers	
a	vailable in the labs	
F	irst aid supplies	
a	ind eye wash	
s	tations/units	
a	vailable in all labs	
E	mergency first aid	
t	raining in place	
E	mergency contacts	
p	posted on all lab	
d	loors	
	Nurse onsite	
	Appropriate	
	piological waste	
	eceptacles onsite	
	or each waste type,	
e	eg. Clean sharps,	

	contaminated sharps, biohazardous autoclavable material. Spill kit appropriate to hazard available				
Persons at risk/ Who is harmed (please tick): ⊠Students ⊠Staff members □Visitors □Contractors/ Service provider □Sensitive risk groups (young persons, pregnant women, people with disabilities □Other (please specify)					
groups (young persons, pregnant women, peop	e with disabilities LiOther (please specify)				

		PHYSICAL				
Ref No/ ID number: TA24		Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)		Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Slips, Trips, Falls	Personal injury	Good housekeeping in place.	5X1 = 5 Low	None	N/A	Complete

		Supervision in place  Carrying aids available e.g. bottle				
		carriers, trollies etc.  No trailing cables				
		No training cables				
Manual handling	Personal injury	Staff training in place	5X1 = 5 Low	None	N/A	Complete
		Lifting/carrying aids e.g. bottle carriers, trolleys etc.				
Electrical	Shock/Fire	Equipment is inspected for damage prior to use	5X1 = 5 Low	None	N/A	Complete
		Damaged equipment /leads /plugs/outlets should be reported immediately and must never be used				
		The use of extension leads should be avoided where possible.				
		If used the load on the outlet should be assessed.				



		Staff trained in Emergency response and Emergency First Aid  First aid supplies available in all				
		Emergency electrical Isolation push button in all labs		Future consideration of linking a map to highlight location		
Hotplates	Burns/Fire	Staff are trained.	5X1 = 5 Low	None	N/A	Complete
		Supervision in place Thongs/heat resistant gloves are available where required.				
		Flammable material should not be adjacent.				
		Use of unattended hotplates is prohibited.				
		Hotplates are allowed to cool before returning to storage Extinguishers/fire blankets				
		present and maintained				



	Fire drills at regular intervals  Staff trained in Emergency response and Emergency First			
	First aid supplies available in all labs			
Persons at risk/ Who is harmed (please tick): □Students □Staff members □Visitors □Contractors/ Service provider □Sensitive risk groups (young persons, pregnant women, people with disabilities □Other (please specify)				

OPERATIONAL					
	Date of Assessment: Review Date: 8 <sup>th</sup> Dec Risk Assessor(s): Ele	c 2025			

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	actions to be implemented to	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
		Lone working prohibited in undergraduate laboratories	5X1 = 5 Low	None	N/A	Complete

HUMAN FACTORS				
Ref No/ ID number: TA26  Date of Assessment: 31st July 2023  Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne				

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Unauthorised access	Injury, property damage	Security personnel patrolling throughout the day & laboratories locked when staff not onsite, out of hours  Supervision in place	5X1 = 5 Low	None	N/A	Complete
Behaviour	Injury due to negligence /inappropriate use of equipment/horseplay	Supervision of students in place Staff trained and competent	5X1 = 5 Low	None	N/A	Complete

		СНЕМІС	CAL			
Ref No/ ID numb	er: TA27	Date of Assessment Review Date: 8 <sup>th</sup> De	_	3		
	T	Risk Assessor(s): Ele	ana Dunne	T	T	
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be <u>implemented</u> to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Contaminated equipment	Exposure to hazardous reagents	Equipment should be cleaned appropriately by the user at end of use with reference to the SDS and general chemical spill procedure  Chemicals not stored on bench, only present during laboratory sessions	5X1 = 5 Low		N/A	Complete

Persons at risk/ W	ho is harmed (please tick): $\Box$ S	tudents □Staff membe	rs 🗆 Visitors 🗆	Contractors/ Service	e provider □Sensi	tive risk groups
young persons, pregnant women, people with disabilities  Other (please specify)						

		BIOLOGI	CAL			
Ref No/ ID number: TA28  Date of Assessment: 31st July 2023  Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne						
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)

Biohazardous Contamination of equipment	Exposure to biohazardous material	Virkon disinfection solution prepared freshly each week and on each bench in the laboratory.  Benchtop autoclave bags are available for small contaminated disposables, which are transferrable to the larger autoclave bags	3X2 = 6 Medium	N/A	Ongoing	Ongoing
Bunsen burners	Fire / burns	Staff are trained to use Bunsen burners.  Undergraduate students are trained how to use bunsens  Students are never left unsupervised.				

Staff trained in	
Emergency	
response and	
Emergency First Aid	
First aid supplies	
available in all labs	
available iii aii iabs	
Gas taps are fitted	
with safety push	
down to turn on	
mechanism	
mechanism	
Bunsen burners are	
never left	
unattended and	
when not being	
used the blue flame	
is turned on.	
No flammable	
materials or	
reagents are left	
near bunsens when	
in use.	

Emergency gas Isolation push button in all labs	
Extinguishers/fire blankets present and maintained	
Fire drills at regular intervals	

	PHYSICAL					
Ref No/ ID number: TA29 Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025 Risk Assessor(s): Eleana Dunne						
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)

				to reduce the risk		
Slips, Trips, Falls	Personal injury Chemical/waste spills/exposure	Good housekeeping in place  Carrying aids available e.g. bottle carriers, trollies etc.	5X1 = 5 Low	None	Ongoing	Complete
Manual handling	Injury	Staff training in place  Lifting/carrying aids e.g. bottle carriers, trolleys etc.  Buddy system in place when removing wheeled bins to external biological waste storage sheds & separation of stacked bins carried out by 2 people  Maximum container size requiring lifting (10L/10kg)	5X1 = 5 Low	None	Ongoing	Complete
Fire	Personal Injury	Good housekeeping in place	5X1 = 5 Low	None	N/A	Complete



	10L waste receptacles are stored in the fume hoods in labs with a specified capacity and removed to external IBC's when maximum capacity reached.		
	Chemical waste segregated into organic, non-chlorinated, chlorinated & Gram stain waste to avoid adverse reactions		
	Extinguishers/fire blankets present and maintained.		
	Fire drills at regular intervals		
	Staff trained in Emergency response.		

Working at	Falls, personal injury	Storage at height is	5X1 = 5	None	N/A	Complete
height		avoided where possible	Low			
		Where items are stored at height they should be accessible by two step ladder or steps. There is a step-up facility at the external IBC's when chemical waste is being decanted				
		Items stored at height should not pose a risk to persons below due to their size/weight or contents				

**Persons at risk/ Who is harmed (please tick):**  $\square$  Students  $\boxtimes$  Staff members  $\square$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$  Other (please specify)

	OPERATIONAL				
Ref No/ ID number: TA30	Date of Assessment: 31 <sup>st</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025				
	Risk Assessor(s): Eleana Dunne				

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	when?	Status (In progress/ Outstanding/ Complete)
Lone working	Injury	_	5X1 = 5 Low	None	N/A	Complete
		prohibited. Buddy				
		system in operation				
Shared access to	Injury/Fire due to	•	5X1 = 5 Low			
		containers used by				
receptacles between	storage/waste containers	the school are UN				
chemistry & biology	or infrequent disposal	transport approved				
laboratories	schedule	and are				
		appropriately				
		labelled				
		10L containers used to house waste generated during laboratories which are then decanted into IBCs in a locked bunded area				

**Persons at risk/ Who is harmed (please tick):**  $\square$  Students  $\boxtimes$  Staff members  $\square$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$  Other (please specify)

	HUMAN FACTORS								
Ref No/ ID num	Ref No/ ID number: TA31  Date of Assessment: 31st July 2023  Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne								
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)			

Unauthorised access	Injury, property damage	Key required for access to bunded area for chemical waste disposal	5X1 = 5 Low	None	N/A	Complete
Behaviour	Injury due to negligence/horseplay	Staff trained and competent	5X1 = 5 Low	None	N/A	Complete

**Persons at risk/ Who is harmed (please tick):**  $\square$ Students  $\boxtimes$ Staff members  $\square$ Visitors  $\boxtimes$ Contractors/ Service provider  $\boxtimes$ Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$ Other (please specify)

	CHEMICAL								
Ref No/ ID num	ber: TA32	Date of Assessment: 31 <sup>st</sup> Ju Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Du	·						
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)			

			Severity (1-5) X Likelihood (1-5)			
Unintended reactions	Fire, explosion release of poisonous gas	for under-graduates includes instruction on appropriate waste disposal Segregation of	5X1 = 5 Low	None	Lead lectured & demonstrators	Ongoing
Stockpiling waste	Increased fire load	incompatible waste Waste/obsolete chemicals disposed of as required.	5X1 = 5 Low	None	N/A	Ongoing
Spills	Exposure to hazardous reagents	General chemical spill procedure & kits in place.  Large bunded locked container used where halogenated, nonhalogenated & inorganic waste is stored.		Spill SOP to be drafted	Eleana Dunne Oct 2023	In Progress
Chemical Exposure	Adverse reaction/chemical burn	Lab coat and glasses mandatory Long hair must be tied back.	5X1 = 5 Low	None	Ongoing	In Progress

Eating and drinking prohibited in laboratories.	In Progress
Containers labelled appropriately.	
Safety shower/First aid supplies and eye wash stations available in each lab	
Emergency first aid training in place	
Emergency contacts posted on all lab doors.	
Nurse on-site if required.	
please tick): □Students ⊠Staff members □Visitors ⊠Contractors/ Serve with disabilities □Other (please specify)	vice provider ⊠Sensitive risk groups (young

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Ref No/	ID	Date of Assessment: 31st July 2023				
number	: TA33	Review Date: 8 <sup>th</sup> Dec 2025				
		Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/D escription		Fact or Rati ng (1- 25)	Further Control measur es or actions to be implem ented to reduce the risk	n compl eted by whom and by when ?	(In progres s/
-	Illness	Good house-keeping in place.  No eating / drinking in laboratories.  PPE compulsory, Howie style lab coat & safety glasses.  Gloves used when handling biohazardous materials. Procedure for safe removal of contaminated gloves demonstrated to all undergraduate students.	1X2 =2 Low	N/A	_	Ongoi ng

Virkon disinfectant solution is prepared fresh each week and available on every bench in the lab.

Only micro-organisms of BSL 1 & 2 are used in the laboratory.

All biohazardous material (excluding sharps) is put into autoclave bags, autoclaved at 121C for 15 minutes, at 15psi. Removed and put into a UN approved yellow bag and placed in a lined wheeled bin which is removed when full to external storage shed for collection by SRCL.

Sharps are disposed of in sharps containers. If contaminated with chemicals or cytotoxic material, the container is yellow with a purple lid & if uncontaminated the container is yellow with a yellow lid. The contaminated sharps bins are removed to red wheeled bins when ¾ full. Uncontaminated sharps bins are removed to yellow wheeled bins.

https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmSciences-AllStaff/Shared%20Documents/General/Health%20%26%20Safety/Waste%20Disposal.docx?d= w111f69f475f64794a5494c81c12cf1c7&csf=1&web=1&e=hlXujN

	PHYSICAL					
Ref No/ ID number: TA34	Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025					
	Risk Assessor(s): Eleana Dunne					



Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	
Slips, Trips, Falls	Personal injury	Good housekeeping in place Carrying aids available e.g.trollies etc. Buddy system in place	5X1 = 5 Low	None	N/A	Ongoing
Manual handling		Staff training in place Lifting/carrying aids eg.trolleys  Maximum container size requiring movement (10kg)	2X1 = 2 Low	None	N/A	Up to date
Working at height	Falls, personal injury	Storage at height is avoided where possible	5X1 = 5 Low	None	N/A	Ongoing

to be lifted onto shelves,					
thus increased materials	stocktake carried out	Low			
	Bi- Annual consumable	2X1 = 2	None	N/A	Ongoing
	should be disposed of				
	broken glassware	Low			-
Cuts		2X1 = 2	None	N/A	Complete
	_				
	Buddy system in place				
	contents				
	to persons below due				
	should not pose a risk				
	Items stored at height				
	steps				
	two step ladder or				
	Cuts  Reduced storage capacity thus increased materials	steps  Items stored at height should not pose a risk to persons below due to their size/weight or contents  Buddy system in place to aid lifting items onto shelves  Cuts  Cracked, chipped or broken glassware should be disposed of Reduced storage capacity  Bi- Annual consumable	stored at height, they should be accessible by two step ladder or steps  Items stored at height should not pose a risk to persons below due to their size/weight or contents  Buddy system in place to aid lifting items onto shelves  Cuts  Cracked, chipped or broken glassware should be disposed of  Reduced storage capacity  Reduced storage capacity	stored at height, they should be accessible by two step ladder or steps  Items stored at height should not pose a risk to persons below due to their size/weight or contents  Buddy system in place to aid lifting items onto shelves  Cuts  Cracked, chipped or broken glassware should be disposed of  Reduced storage capacity  Reduced storage capacity  Stored at height, they should be years libration.	stored at height, they should be accessible by two step ladder or steps  Items stored at height should not pose a risk to persons below due to their size/weight or contents  Buddy system in place to aid lifting items onto shelves  Cuts  Cracked, chipped or broken glassware should be disposed of  Reduced storage capacity  Stored at height, they should be yellow accessible by two steps ladder or s

**Persons at risk/ Who is harmed (please tick):**  $\square$  Students  $\boxtimes$  Staff members  $\boxtimes$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$  Other (please specify)

			OPERATI	ONAL			
Associated/Description measures [1-25] Rating (1-25) actions to be implemented to reduce the risk when? (In progress, Outstanding Complete)  Lone working Injury Lone working prohibited Buddy system in SX1 = 5 Low Buddy system in Complete by whom and by when? (In progress, Outstanding Complete)	Ref No/ ID numb	oer: TA35	Review Date: 8 <sup>th</sup> De	ec 2025	3		
prohibited  Buddy system in	Hazard			Rating (1-25)	measures or actions to be implemented to	completed by whom and by	(In progress/ Outstanding/
	Lone working	Injury	prohibited  Buddy system in	5X1 = 5 Low	None	N/A	Complete



Review Date:31st July 2024  Risk Assessor(s): Eleana Dunne  Hazard Risk(s) Current Control Risk Factor Further Control Action Status  Associated/Description measures Rating measures or completed by (In progress/	BIOLOGICAL									
Associated/Description measures Rating (1-25) measures or actions to be implemented to reduce the risk complete by whom and by when? (In progress/Outstanding/Complete)  Pests Illness and disease Pest control measures in place 1X1 = 1 Low None N/A Complete			Review Date:31st July 2024							
measures in place	Hazard			Rating (1-25)	measures or actions to be implemented to	completed by whom and by	(In progress/ Outstanding/			
No food or drink consumed in the consumable cage area  Persons at risk/ Who is harmed (please tick):   Students  Staff members  Visitors  Contractors/ Service provider  Sensitive risk groups			measures in place (bait-boxes)  No food or drink consumed in the consumable cage area				·			

Ref No/ ID number: TA37  Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne  PHYSICAL							
	Risk(s) Associated /Descriptio n		ent Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further r Control I measures or action s to be imple mente d to reduce the risk	on plet by who and by	us (In progr ess/ Outst andi ng/ Com plete
sing of blades	re wounds. Exposure to hazardous materials		udents on the safe handling of sharps v bin with purple lid) available for safe dispo	1x1 = low	N/A	Ong oing	Ongo ing

es					
etc.					
Chang ing, using, fitting a	re wounds. Exposure to hazardous materials	Needles are not to be used where a safer alternative exists  No re-sheathing policy in place  In lab training provided to students on the safe handling of sharps			
Chang ing using, remov ing, fitting a scalpe I blade	lacerations. Exposure to hazardous materials		Draft an SOP and training to ensure best practic e is being followe	na Dun ne	Outs tandi ng For com pleti on by Sept 2023
Dispo sing of broke n glass	Cuts lacerations. Exposure to hazardous materials		Draft an SOP to ensure best practic e is being	na Dun	Outs tandi ng For com pleti on by

			fol d	llowe		Sept 2023
		CHEMICAL				
Ref No	' ID numbe	r· TA28				
Kei No)	ib ilullibe	. 1A36				
Date of A	Assessment	t: 31 <sup>st</sup> July 2023				
Review D	Date: 8 <sup>th</sup> De	ec 2025				
D'-l A	/-\ FI					
KISK ASSE	essor(s): El	eana Dunne 				
Hazard	Risk(s)	Current Control measures	Ris F	Furth	Acti	Stat
	Associate		k			us
	d/Descrip			Contr		
	tion		ct			progr ess/
				meas ures	Cu	Outst
						andi
			g	actio	m	ng/
			- 1	ns to	and	plete
					by	)
				<u>imple</u> v ment		
					•••	
			rity – (1-5) <b>r</b>	ed to reduc		
			X Likeli			

			hood (1- 5)	e the risk		
Chemical	Exposure	Technical staff familiar with the hazards of the chemicals in use		N/A	N/A	N/A
	to harmful		5X			
MR/Sens	substances		1 =			
itiser			5			
exposure			Lo			
			w			
		SDS for individual chemicals used in the laboratory are available from quartzy & manufactures website				

## **BIOLOGICAL**

Ref No/ ID number: TA39

Date of Assessment: 31st July 2023

Review Date: 8<sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Broken microscope slide	Infection	As per Chemical Section		· '	As per Chemical Section	As per Chemical Section

**Persons at risk/ Who is harmed (please tick):**  $\boxtimes$  Students  $\boxtimes$  Staff members  $\square$  Visitors  $\square$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\square$  Other (please specify)





## **HUMAN FACTORS**

Ref No/ ID number: TA40

Date of Assessment: 31st July 2023

Review Date: 8th Dec 2025

Risk Assessor(s): Eleana Dunne

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Pregnant Employees /Students & Nursing Mothers Additional measures	<ul> <li>As per above</li> <li>Harm to Mother, unborn child or breastfeeding baby</li> <li>Physical risks</li> <li>Chemical risks</li> <li>Biological risks</li> </ul>		5X1 = 5 Low	N/A	N/A	N/A

		and necessary by Health & Safety Office  Risk assessment will be completed in conjunction with the Line Manager / a representative from the School where necessary regarding chemical exposure				
Young Persons (<18 years of age on TU Dublin premises)  Circumstances include:	<ul> <li>Injuries</li> <li>Accidents</li> <li>Lack of</li> <li>training and</li> <li>experience</li> <li>Lack of</li> <li>familiarity with TU</li> <li>Dublin work</li> <li>environment, work</li> <li>practices and</li> <li>emergency plans</li> <li>Physical risks</li> <li>Chemical</li> <li>risks</li> <li>Biological</li> <li>risks</li> </ul>	<ul> <li>General induction process given by School</li> <li>Training and supervision given</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A

People with		TU Dublin Disability	5X1 = 5	N/A	N/A	N/A
Disabilities		Office send information to	Low	•		•
		TU Dublin Health & Safety				
		Office				
		<ul> <li>Risk Assessment</li> </ul>				
		carried out by the Health &				
		Safety Office where				
		required				
		Risk assessment				
		carried out by the School				
		and facilitated by the				
		Health & Safety Office for				
		non-routine work e.g.				
		projects				
		Reasonable				
		accommodation identified				
		in risk assessment				
		Disability Support				
		Service available				
		Induction/Elearning				
		available from Health &				
		Safety Office on request				
		Personal				
		Emergency Egress Plans				
		completed where				
		required				
New Recruits:	<ul> <li>Lack of</li> </ul>	<ul> <li>Induction available (in</li> </ul>	5X1 = 5	N/A	N/A	N/A
Full-time and	experience	person or online) from	Low			
part-time staff	<ul> <li>Lack of</li> </ul>	People Development Office				
members	training					

	<ul> <li>Injuries</li> <li>Accidents</li> <li>and incidents</li> <li>Lack of</li> <li>training and</li> <li>experience</li> <li>Lack of</li> <li>familiarity with TU</li> <li>Dublin work</li> <li>environment, work</li> <li>practices and</li> <li>emergency plans</li> </ul>	including a Health & Safety section  • Health & Safety Elearning available: contact the TU Dublin Health & Safety Office  • Line Manager gives induction for School  • Training and supervision in place by management				
Undergraduates	<ul> <li>Lack of experience</li> <li>Lack of training</li> <li>Injuries</li> <li>Accidents and incidents</li> <li>Lack of familiarity with TU Dublin work environment, work practices and emergency plans</li> </ul>	<ul> <li>All work with chemicals is risk assessed prior to commencement</li> <li>Induction available from the TU Dublin Health &amp; Safety Office on request</li> <li>E-learning available from TU Dublin Health &amp; Safety Office on request</li> <li>Emergency procedures in place for the Central Quad, Grangegorman</li> <li>First-aid facilities available</li> <li>Safety induction given by lecturers where required</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A

		<ul> <li>Task-specific instructions/ demonstrations provided by staff where required</li> <li>Supervision of students by staff members</li> <li>Student support services available</li> </ul>				
Postgraduates	<ul> <li>Lack of experience</li> <li>Lack of training</li> <li>Injuries</li> <li>Accidents and incidents</li> <li>Lack of familiarity with TU Dublin work environment, work practices and emergency plans</li> </ul>	<ul> <li>Induction available         <ul> <li>(in person or online) from</li> <li>Staff Training &amp;</li> <li>Development, including a</li> <li>Health &amp; Safety section</li> </ul> </li> <li>Health &amp; Safety</li> <li>Elearning available: contact the TU Dublin Health &amp;</li> <li>Safety Office</li> <li>School SOPs in place</li> <li>Training and</li> <li>supervision in place by</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A

		PHYSICAL				
Ref No/ ID number: TA41		Date of Assessment: 31st July 2023  Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description		Risk Factor Rating (1-25)	Further Control measures or actions to be <u>implemented</u> to reduce the risk	completed by whom and by	Status (In progress/ Outstanding/ Complete)
Slips, Trips, Falls	Personal injury Chemical spills	Good housekeeping in place Carrying aids available e.g. bottle carriers, trollies etc. Spill kits available	5X1 = 5 Low	None	N/A	Ongoing
Fire	Personal Injury	Good housekeeping in place SOP in place for storage and transport of chemicals	5X1 = 5 Low	None	N/A	Complete

	Chemicals are stored by				
	Class with incompatible				
	chemicals segregated				
	further to avoid adverse				
	reactions				
	Solvent fire load kept to				
	a minimum with				
	flammable chemicals				
	stored in 90min				
	flameproof cabinets,				
	with extraction to the				
	external atmosphere.				
	The cabinets are stored				
	in a specified chemical				
	storage room where				
	laboratory work is not				
	carried out.				
	Extinguishers/fire				
	blankets present and				
	maintained				
	Fire drills at regular				
	intervals				
	Staff trained in				
	Emergency response				
Manual handling	Staff training in place	5X1 = 5	None	N/A	Complete
	Lifting/carrying aids e.g.	Low			
	bottle carriers, trolleys				
	etc.				

		Maximum container				
		size requiring lifting				
		(10L/10kg)				
Working at a	Falls, personal injury	Storage at height is	5X1 = 5	None	N/A	Complete
height		avoided where possible	Low			
		Where items are stored				
		at a height, they should				
		be accessible by two				
		step ladder or steps				
		Items stored at height				
		should not pose a risk to				
		persons below due to				
		their size/weight or				
		contents				

OPERATIONAL							
Ref No/ ID number: TA42 Date of Assessment: 31st July 2023							
		Review Date: 8 <sup>th</sup> De	c 2025				
	Risk Assessor(s): Eleana Dunne						
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be	Action completed by	Status	

		Severity (1-5) X Likelihood (1-5)	implemented to reduce the risk	whom and by when?	(In progress/ Outstanding/ Complete)
Lone working	 Lone working prohibited	5X1 = 5 Low	None	N/A	Complete

		HUMAN FA	ACTORS			
Ref No/ ID numb	oer: TA43	Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Unauthorised access	Injury, property damage	Digital access to the chemical store in place Access to the Cabinets within the chemical store is restricted with locked cabinets.  Supervision in place	5X1 = 5 Low	None	N/A	Complete
Behaviour	Injury due to negligence/horseplay	Supervision of students in place	5X1 = 5 Low	None	N/A	Complete

		Staff trained and					
		competent					
Persons at risk/ Who is harmed (please tick): ⊠Students ⊠Staff members ⊠Visitors ⊠Contractors/ Service provider ⊠Sensitive risk							
groups (young persons, pregnant women, people with disabilities □Other (please specify)							

	CHEMICAL							
Ref No/ ID num	Risk(s) Associated/Description	Date of Assessment: 31 Review Date: 8th Dec 20 Risk Assessor(s): Eleana Current Control measures	)25	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)		
Unintended reactions	Fire, explosion release of poisonous gas	Segregation of incompatible chemicals	5X1 = 5 Low	None	N/A	Complete		
Stockpiling	Increased fire load	Obsolete chemicals disposed of at least annually. More often where required	5X1 = 5 Low		N/A	Complete		

Spills	Exposure to hazardous	Chemical spill kits in-	5X1 = 5	None	N/A	Complete
	reagents	situ in the laboratories	Low			
		Fume hoods utilised				
		when decanting				
		/consolidating				
		hazardous stock				
		Weighsafe station,				
		which contains a HEPA				
		filter is used when				
		weighing out hazardous				
		materials				
		Specific practical				
		chemical risk				
		assessment in place				
Chemical	Adverse reaction/chemical	Specific practical	5X1 = 5	None	N/A	Complete
Exposure	burn	chemical risk	Low			
		assessment in place				
		Appropriate GHS				
		labelling in place				
		Lab coat and glasses				
		mandatory in lab				
		spaces				
		PPE such as gloves				
		available where				
		identified by the				
		specific practical risk				
		assessment				

<u></u>	
Point o	f use extract and
fume cu	upboards
availab	le where
require	d
Eating a	and drinking
prohibi	ted in lab
spaces	
Hand w	ash facility
availab	le in all labs and
elbow a	activated sink
availab	le in the biology
laborat	ory 151 if
necessa	iry.
First aid	supplies and
eye wa:	sh stations
/units a	vailable in all
labs.	
Drench	showers
availab	le in the
laborat	ories
Emerge	ncy first aid
training	; in place
Emerge	ncy contacts
posted	on all lab
doors.	
Nurse o	on-site
Persons at rick/ Who is harmed (please tick): Students	Staff members Wisitors Wicontractors/Service provider Wisensitive risk

		BIOLOG	ICAL			
Ref No/ ID number: TA45  Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne						
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Spills	Exposure to biohazardous reagents	Specific practical risk assessments in place.	Choose an item.	Not applicable	Not applicable	Not applicable
Biohazardous exposure	Personal Illness / sickness	Lab coat and glasses mandatory in lab spaces PPE such as gloves available where and when necessary				

	1	ı	
Eating and drinking			
prohibited in lab			
spaces			
Hand wash facility			
available in all labs			
and elbow			
activated sink			
available in the			
biology laboratory			
151 if necessary.			
Weighsafe station,			
which contains a			
HEPA filter is used			
when weighing out			
hazardous			
materials.			
All biohazardous			
materials must be			
clearly labelled and			
disposed of			
appropriately.			
First aid supplies			
and eye wash			
stations/units			
available in all labs.			
Emergency first aid			
training in place			
0 1 1 1 1			

		Emergency contacts posted on all lab doors. Nurse on-site				
Persons at risk/ Who is harmed (please tick): □Students □Staff members □Visitors □Contractors/ Service provider □Sensitive risk groups						
(young persons, pr	young persons, pregnant women, people with disabilities □Other (please specify)					

	PHYSICAL					
Ref No/ ID number: TA46  Date of Assessment: 31 <sup>st</sup> July 2023  Review Date: 8 <sup>th</sup> Dec 2025  Risk Assessor(s): Eleana Dunne						
Hazard	Risk(s) Associated/Description	measures Rating measures or completed by (In progre actions to be whom and by Outstandi			Status (In progress/ Outstanding/ Complete)	
Slips, Trips, Falls	Personal injury	Good housekeeping in place	5X1 = 5 Low	None	N/A	Complete
	Chemical spills	Carrying aids available e.g. bottle carriers, trollies etc.				

		Spill kits available				
Fire	Personal Injury	Good housekeeping in	5X1 = 5	None	N/A	Complete
		place	Low			
		SOP in place for storage				
		and transport of				
		chemicals				
		Chemicals are stored by				
		UN Class with				
		incompatible chemicals				
		segregated further to				
		avoid adverse reactions				
		Solvent fire load kept to				
		a minimum with				
		flammable chemicals				
		stored in 90min				
		flameproof cabinets				
		prior to use				
		Extinguishers/fire				
		blankets present and				
		maintained				
		Fire drills at regular				
		intervals				
		Staff trained in				
		Emergency response				
anual handling		Staff training in place	5X1 = 5	None	N/A	Complet
			Low			

		Lifting/carrying aids e.g. bottle carriers, trolleys				
		etc.				
		Maximum container				
		size requiring lifting				
		(10L/10kg)				
Working at	Falls, personal injury	Storage at height is	5X1 = 5	None	N/A	Complete
height		avoided where possible	Low			
		Where items are stored				
		at height they should be				
		accessible by two step				
		ladder or steps				
		Items stored at height				
		should not pose a risk to				
		persons below due to				
		their size/weight or				
		contents				

		OPERATI	ONAL			
Ref No/ ID number: TA47  Date of Assessment: 31st July 2023  Review Date: 8th Dec 2025  Risk Assessor(s): Eleana Dunne						
Hazard	Risk(s) Associated/Description	Current Control Risk Factor Further Control Action Status measures Rating measures or completed by (In progress actions to be whom and by Outstanding				Status (In progress/ Outstanding/ Complete)
Lone working	Injury	Lone working prohibited	5X1 = 5 Low	None	N/A	Complete

	HUMAN FACTORS					
Ref No/ ID numb	er: TA48	Date of Assessment: 31 <sup>st</sup> July 2023 Review Date: 8 <sup>th</sup> Dec 2025 Risk Assessor(s): Eleana Dunne				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be <u>implemented</u> to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Unauthorised access	Injury, property damage	Digital access control in place Access can be further restricted with locked	5X1 = 5 Low	None	N/A	Complete

		cabinets where required				
		Supervision in place				
Behaviour	Injury due to negligence/horseplay	Supervision of students in place	5X1 = 5 Low	None	N/A	Complete
		Staff trained and competent				

CHEMICAL				
Ref No/ ID number: TA 48	Date of Assessment: 31st July 2023 Review Date: 8th Dec 2025			
	Risk Assessor(s): Eleana Dunne			

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Unintended reactions	Fire, explosion release of poisonous gas	Segregation of incompatible chemicals	5X1 = 5 Low	None	N/A	Complete
Stockpiling	Increased fire load	Regular lab safety audit carried out  Obsolete chemicals disposed of at least annually. More often where required	5X1 = 5 Low	None	N/A	Complete
Spills	Exposure to hazardous reagents	General chemical spill procedure in place Fume cupboard utilised when	5X1 = 5 Low	None	N/A	Complete

		decanting/consolidating hazardous stock				
		Specific practical chemical risk assessment in place				
		Spill kits available in labs				
		and location is labelled				
Chemical	Adverse reaction/chemical	Specific practical chemical	5X1 = 5	None	N/A	Complete
Exposure	burn	risk assessment in place	Low			
		Appropriate GHS labelling in place				
		Lab coat and glasses				
		mandatory in lab spaces				
		PPE such as gloves available where identified				
		by the specific practical				
		risk assessment				
		Point of use extract and				
		fume cupboards available where required				
		Eating and drinking				
		prohibited in lab spaces				



Hand wash facility	
available in all labs	
First aid supplies and eye	
wash stations/units	
available in all labs	
Emergency first aid	
training in place	
Emergency contacts	
posted on all lab doors	

## Risk Assessments City Campus

## **Risk Assessment General Spaces Central Quad**

		PHYSICAL				
Ref No/ ID nu	ımber:	Date of Assessment: June 20 Review Date: 10 Dec 2025 Risk Assessor(s): Brian Murp				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)

			Likelihood (1-5)			
Slips, Trips	Physical injury	Good housekeeping in	1X1 =	None	N/A	Complete
& Falls		place	1 Low			
		Reporting of hazards in place				
		Working at height not permitted by School staff				
		Incident/near miss reporting in place				
		Student lockers available				
Fire	Injury or death	Good housekeeping in	1X5 =	None	N/A	Complete
		place	5 Low			

	Regular fire drills and reviews carried out		
	Fire extinguishers/blankets/cal I buttons in place and maintained		
	Emergency lighting in place		
	All staff act as Fire Marshals for visitors/students		
	Enclosed stairways act as refuge points		

		Open stairway and lift access is closed off when an alarm is triggered				
		Assembly points sign posted				
		Incident/near miss reporting in place				
Electrical	Shock, Injury or death	Building electrical system tested annually	1X5 = 5 Low	None	N/A	Complete
		Fault/damage reporting in place				

		Pest control in place				
Manual		Manual handling training	1X1 =	None	N/A	Complete
handling		in place	1 Low			
		TU Staff do not move furniture in rooms				
		Rooms are laid out on				
		request by building				
		management company				
Persons at risk	(/ Who is harmed (please tick)	: □ Students □ Staff members	☐ Visitors	 s □ Contractors/ Se	ervice provider [	☐ Sensitive
		n, people with disabilities $\square$ Other			civice provider i	
risk groups (yo	ung persons, pregnant wonter	i, people with disabilities 🗀 Oth	ei (biease :	эреспу)		

	OPERATIONAL					
Ref No/ ID number:		Date of Assessment: June 2023  Review Date: 10 Dec 2025				
		Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)

Room	Access/Egress hampered	Room capacities	1X1 = 1	None	N/A	Complete
Overcrowding		in place	Low			
		Timetabling software in use				

	HUMAN FACTORS					
Ref No/ ID number:	Date of Assessment: June 2023  Review Date: 10 Dec 2025  Risk Assessor(s): Brian Murphy					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)

Physical harm or	Security at front	1X1 = 1	None	N/A	Complete
intimidation	desk	Low			
	Access control to				
	1001113				
	the building				
	Incident/near				
	miss reporting in				
	place				
	Emergency				
		Access control to upper floors and rooms  Regular patrol of the building  Incident/near miss reporting in	intimidation  Access control to upper floors and rooms  Regular patrol of the building  Incident/near miss reporting in place  Emergency	intimidation  Access control to upper floors and rooms  Regular patrol of the building  Incident/near miss reporting in place  Emergency	intimidation  Access control to upper floors and rooms  Regular patrol of the building  Incident/near miss reporting in place  Emergency

Illness/injury to	Adverse clinical	All laboratory	1X1 = 1	Occupational	Head of	On going
staff/students/visitor	outcome	staff in the	Low	first aid and	School	
S		School have		AED training		
		emergency first		to be		
	Death	aid training		promoted to		
				staff in the		
				School		
		AEDs are				
		available on				
		each floor and at				
		the				
		porters/security				
		desk				
		First aid room				
		available				

**Persons at risk/ Who is harmed (please tick):** ⊠ Students ⊠ Staff members ⊠ Visitors ⊠ Contractors/ Service provider ⊠ Sensitive risk groups (young persons, pregnant women, people with disabilities ⊠ Other (please specify)

CHEMICAL							
Ref No/ ID number:		Date of Assessment: June 2023  Review Date: 10 Dec 2025  Risk Assessor(s): Brian Murphy					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)	

			Severity (1-5) X Likelihood (1-5)	to reduce the risk		
None identified	N/A		Choose an item.	N/A	N/A	N/A
Persons at risk/ Who is harmed (please tick): ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)						

BIOLOGICAL								
Ref No/ ID number:		Date of Assessment: June 2023						
		Review Date: 10 Dec 2025						
		Risk Assessor(s): Brian Murphy						
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating	Further Control measures or actions to be	Action completed by whom and by	Status (In progress/ Outstanding		
			(1-25)	implemented to reduce the risk	when?	/ Complete)		
			Severity (1-5) X Likelihood (1-5)					

Pests	Illness and disease	Waste bins	1X1 = 1	None	N/A	Complete
		changed regularly	Low			
		Rooms cleaned at				
		regular intervals				
		and on request				
		Pest control				
		measures in place				
		(traps)				
Viral	Illness	Procedures in	1X1 = 1	None	N/A	Complete
outbreak		place to	Low	140116	,,,	Complete
		implement for				
		Covid type				
		outbreak				
Persons at risk/	Who is harmed (please tick)	: ⊠ Students ⊠ Staff mo	embers 🗵 Visi	tors 🗵 Contractors	/ Service provide	r ⊠ Sensitive

Persons at risk/ Who is harmed (please tick): 
☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)

## **Risk Assessment Office Spaces Central Quad**

		PHYSI	CAL			
Ref No/ ID nu	ımber:	Date of Assessment: June 2023 Review Date: 10 Dec 2025 Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/Descr iption	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be	Action completed by whom and by when?	Status  (In progress/ Outstanding/ Complete)

			Severity (1-5) X Likelihood (1-5)	implemen ted to reduce the risk		
Slips, Trips & Falls	Physical injury	Good housekeeping in place	1X1 = 1 Low	None	N/A	Complete
		Reporting of hazards in place				
		Working at height not permitted by School staff				
		Incident/near miss reporting in place				
		Lockers available				

Fire	Injury or death	Good housekeeping in place	1X5 = 5 Low	None	N/A	Complete
		Regular fire drills and reviews carried out				
		Fire extinguishers/blankets/call buttons in place and maintained				
		Emergency lighting in place				
		All staff act as Fire Marshals for visitors/students				
		Enclosed stairways act as refuge points				

		Open stairway and lift access is closed off when an alarm is triggered				
		Assembly points sign posted				
		Incident/near miss reporting in place				
Electrical	Shock, Injury or death	Building electrical system tested annually	1X5 = 5 Low	None	N/A	Complete
		Fault/damage reporting in place				
		Pest control in place				

Manual handling		Manual handling training in place	1X1 = 1 Low	None	N/A	Complete
		TU Staff do not move furniture in rooms				
		Rooms are laid out on request by building management company				
VDU use	Eye/muscle strain	Adjustable height VDUs  Free eye testing offered to staff	1X1 = 1 Low	None	N/A	Complete
Poor work station ergonomics	Back/muscle strain	Appropriate office furniture provided	1X1 = 1 Low	None	N/A	Complete
		Appropriate lighting and task lighting provided				

	Individual ergonomic assessment available if need identified				
•	se tick): ☐ Students ☒ Staff members ☒ th disabilities ☐ Other (please specify)	☑ Visitors ☑ Con	tractors/ Service	e provider 🛛 Sensitive ris	sk groups (young

		OPERAT	IONAL		
Ref No/ ID num	nber:	Date of Assessmen Review Date: 10 Do Risk Assessor(s): Bo	ec <b>2025</b>		

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)
Room Overcrowding	Access/Egress hampered	Room capacities in place	1X1 = 1 Low	None	N/A	Complete
Overcrowding		пт ріасе	LOW			
	Who is harmed (please tick):				s/ Service provider	<sup>-</sup> ⊠ Sensitive



		HUMAN FACTORS				
Ref No/ ID number:		Date of Assessment: June 2023  Review Date: 10 Dec 2025  Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/De scription	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action complete d by whom and by when?	Status  (In progress/ Outstanding / Complete)

Bullying/Harassment	Poor mental	Mandatory anti-bullying and harassment	5X1 =	None	N/A	Complete
	health	training in place	5 Low			
		Policy and protocol to deal with complaints				
		in place				
Violence	Physical harm	Security at front desk	5X1 =	None	N/A	Complete
	or intimidation		5 Low			
		Access control to upper floors and rooms				
		Regular patrol of the building				
		Incident/near miss reporting in place				
		Emergency numbers posted				

Ilness/injury to staff/students/visitors	Adverse clinical outcome Death	All laboratory staff in the School have emergency first aid training which includes the majority of staff in CQ offices  AEDs are available on each floor and at the porters/security desk	1X1 = 1 Low	Occupational first aid and AED training to be promoted to staff in the School	Head of School	On going
		First aid room available				
		: $\square$ Students $\boxtimes$ Staff members $\boxtimes$ Visitors $\boxtimes$ Co ilities $\square$ Other (please specify)	ontractors/	Service provider 🛭 S	ensitive risk gr	oups (youn

Ref No/ ID nu	mber:	Review Date: 10  Risk Assessor(s):	Dec 2025			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Household detergents	Skin/eye/respiratory irritation/sensitivity/ damage	Gloves provided where necessary	5X1 = 5 Low	None	N/A	Complete

		Good ventilation in place				
Persons at risk/	$^\prime$ Who is harmed (please tick): $\Box$	Students ⊠ Staff n	nembers 🗵 \	/isitors 🗵 Contrac	tors/ Service pro	vider 🗵 Sensitive risk groups (young
persons, pregna	ant women, people with disabilitie	es 🗆 Other (please s	specify)			

		BIOLOGICA	L		
Ref No/ ID nur	mber:	Date of Assessment: June 2023			
		Review Date: 10 Dec 2025			
		Risk Assessor(s): Brian Murphy			

Hazard	Risk(s) Associated/Descriptio n	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding/ Complete)
Pests	Illness and disease	Waste bins changed regularly	1X1 = 1 Low	None	N/A	Complete
		Rooms cleaned at regular intervals and on request  Pest control measures in place				
		(traps)				

Hygiene food	Food	Food should not be consumed at	1X1 =	None	N/A	Complete
prep areas	poisoning/illness/pest	desk	1 Low			
	s					
		Common food prep				
		area/equipment should be				
		cleaned regularly or after use as				
		required				
		Utensils and crockery should be				
		cleaned after use				
		Household detergents available				
Viral	Illness	Procedures in place to implement	1X1 =	None	N/A	Complete
outbreak		for Covid type outbreak	1 Low			
			🔽 🙃			
		k): ☐ Students ☐ Staff members ☐ Vis	itors 🗵 Co	ontractors/ Service	provider 🗵 Sei	nsitive risk groups (young
persons, pregna	nt women, people with disa	ibilities   Other (please specify)				

## **Risk Assessment Laboratory Spaces**

		PHYSICAL				
Ref No/ ID number:		Date of Assessment: June 2023  Review Date: 10 Dec 2025				
		Pick Assassar(s): Prion I	Murahy			
		Risk Assessor(s): Brian I	viurpny			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)

Slips, Trips,	Personal injury	Good housekeeping in	5X1 = 5	None	N/A	Complete
Falls		place	Low			
	Chemical spills					
		Lockers available for				
		student belongings				
	Stick injury with					
	glassware					
		Supervision in place				
		Carrying aids available				
		e.g. bottle carriers,				
		trollies etc.				
Fire	Personal Injury	Good housekeeping in	5X1 = 5	None	N/A	Complete
	,	place	Low			-
		Incompatible				
		chemicals stored				
		separately				
		,				

Chemical waste	
neutralised/segregate	
d to avoid adverse	
reactions	
https://tudublin.shar	
epoint.com/:w:/r/site	
<u>s/SchChemBioPharmS</u>	
<u>ciences-</u>	
AllStaff/Shared%20Do	
cuments/General/Hea	
<u>Ith%20%26%20Safety</u>	
/SOP%27s/Waste%20	
Disposal.docx?d=w11	
<u>1f69f475f64794a5494</u>	
<u>c81c12cf1c7&amp;csf=1&amp;w</u>	
eb=1&e=0FyqCc	
COD diaments	
SOP disposal waste	
organic solvent	
2024.doc (City	
campus)	

	to a minimum and stored in 90min flameproof cabinets when not in use		
	Extinguishers/fire plankets present and maintained		
I	Fire drills at regular intervals		
E	Staff trained in Emergency response		

Manual		Staff training in place	5X1 = 5	None	N/A	Complete
handling			Low			
		Lifting/carrying aids				
		e.g. bottle carriers,				
		trolleys etc.				
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
		Maximum container				
		size requiring				
		movement (10L/10kg)				
		movement (10L/ 10kg)				
Working at	Falls, personal injury	Storage at height is	5X1 = 5	None	N/A	Complete
height		avoided where	Low			
		possible				
		Where items are				
		stored at height they				
		should be accessible				
		by two step ladder or				
		steps				
					1	

		Items stored at height should not pose a risk to persons below due to their size/weight or contents				
Piped gases	Fire risk acetylene	Leak checked performed annually???	5X1 = 5 Low	None	N/A	Complete
		Hydrocarbon sensor in place???				
		Extract in place				
		Gas line proving control and shut off in each lab		Future consideration to link map with locations		

mplete
_r

		Gas line proving control and shut off in each lab				
	Asphyxiation risk	Leak checked	5X1 = 5	None	N/A	Complete
	argon/helium/nitrogen	performed	Low			
		annually???				
		Extract in place				
		Gas line proving				
		control and shut off in				
		each lab				
Cracked/broke	Cuts, chemical exposure	Glassware should be				
n glassware		inspected before use				

		Cracked, chipped or broken glassware should be disposed of						
Persons at risk/ Who is harmed (please tick): ⊠ Students ⊠ Staff members ⊠ Visitors ⊠ Contractors/ Service provider ⊠ Sensitive								
risk groups (young	risk groups (young persons, pregnant women, people with disabilities  Other (please specify)							

	OPERATIONAL
Ref No/ ID number:	Date of Assessment: June 2023 Review Date: 10 Dec 2025

		Risk Assessor(s): Br	Risk Assessor(s): Brian Murphy			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)
Lone working	Injury	Lone working prohibited in undergraduate laboratories	5X1 = 5 Low	None	N/A	Complete

Overcrowding	Access/egress restricted	Room capacitates in place	5X1 = 5 Low	None	N/A	Complete	
		Timetabling in place					
Persons at risk/ Who is harmed (please tick):  ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)							

HUMAN FACTORS					
Ref No/ ID number:	Date of Assessment: June 2023				
	Review Date: 10 Dec 2025				

		Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Unauthorised access	Injury, property damage	Digital access control in place Supervision in place	5X1 = 5 Low	None	N/A	Complete

Behaviour	Injury due to	Supervision of	5X1 = 5	None	N/A	Complete		
	negligence/horseplay	students in place	Low					
		Staff trained and competent						
<b>Persons at risk/ Who is harmed (please tick):</b> $\boxtimes$ Students $\boxtimes$ Staff members $\boxtimes$ Visitors $\boxtimes$ Contractors/ Service provider $\boxtimes$ Sensitive								
risk groups (young persons, pregnant women, people with disabilities								

CHEMICAL
CHEWICAL

Ref No/ ID number:		Date of Assessment: June 2023					
			Review Date: 10 De	c 2025			
			Risk Assessor(s): Bri	ian Murphy			
	Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
	Unintended	Fire, explosion release of	Segregation of	5X1 = 5	None	N/A	Complete
	reactions	poisonous gas	incompatible chemicals	Low			

		Regular lab safety audit carried out  All				
		fridges/freezers are spark proof design				
		Individual risk assessment carried out for each practical/project				
Overstocking	Increased fire load	Inventory list maintained	5X1 = 5 Low	None  New Lab safety  Management	N/A	Complete

		https://app.quart		system may		
		zy.com/groups/19		assist in future		
		3340/inventory				
		Annual stocktake				
		carried out				
		Waste/obsolete				
		chemicals				
		disposed of at				
		least annually.				
		More often if				
		required				
Spills	Exposure to hazardous	General chemical	5X1 = 5	None	N/A	Complete
	reagents	spill procedure in	Low			-
		place				
		https://tudublin.sh				
		arepoint.com/:w:/				
		<u>r/sites/SchChemBi</u>				

Exposure	Adverse	Specific practical	5X1 = 5	None	N/A	Complete
	reaction/chemical burn	chemical risk	Low			
		assessment in				
		place				
		Lab coat and				
		glasses mandatory				
		in lab spaces				
		PPE such as gloves				
		available where				
		identified by the				
		specific practical				
		risk assessment				
		Point of use				
		extract and fume				
		cupboards				
		available where				
		required				

	Eating and drinking prohibited in lab spaces		
	Hand wash facility available in all labs		
	First aid supplies and eye wash stations/units available in all labs		
	Emergency first aid training in place		

	Emergency contacts posted on all lab doors				
Persons at risk/ Who is harmed (please tick): ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive					
risk groups (young persons, pregnant women, people with disabilities 🗵 Other (please specify)					

BIOLOGICAL					
Ref No/ ID number:	Date of Assessment: June 2023				

		Review Date: 10 De	ec <b>2025</b>			
		Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Not applicable	Not applicable	Not applicable	Choose an item.	Not applicable	Not applicable	Not applicable

Persons at risk/ Who is harmed (please tick): ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive						
risk groups (youn	g persons, pregnant women, pe	eople with disabilities	☐ Other (pleas	e specify)		

## **Risk Assessment General Storage Spaces**

	PHYSICAL						
Ref No/ ID number:  Review Date: 10 Dec 2  Risk Assessor(s): Brian							
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented	Action completed by whom	Status  (In progress/ Outstanding / Complete)	

			Severity (1-5) X Likelihood (1-5)	to reduce the risk	and by when?	
Slips, Trips, Falls	Personal injury  Stick injury with  glassware	Items should not be stored  Carrying aids available e.g. bottle carriers, trollies etc.	5X1 = 5 Low	None	N/A	Complete
Fire	Personal Injury	Good housekeeping in place	5X1 = 5 Low	None	N/A	Complete

	Extinguishers/fire blankets present and maintained				
	Fire drills at regular intervals				
	Staff trained in Emergency response				
Manual handling	Staff training in place	2X1 = 2 Low	None	N/A	Complete
	Lifting/carrying aids e.g. bottle carriers, trolleys etc.				

		Maximum container size requiring movement (10L/10kg)				
Working at height	Falls, personal injury	Storage at height is avoided where possible	5X1 = 5 Low	None	N/A	Complete
		Where items are stored at height they should be accessible by two step ladder or steps				
		Items stored at height should not pose a risk to persons below due to their size/weight or contents				

Cracked/broke	Cuts	Cracked, chipped or	2X1 = 2	None	N/A	Complete
n glassware		broken glassware	Low			
		should be disposed				
		of				
Overstocking	Increased fire load	Inventory list	2X1 = 2	None	N/A	Complete
		maintained	Low			
		Annual stocktake				
		carried out				
		carried out				
		Waste/obsolete				
		items disposed of at				
		least annually. More				
		often if required				
Persons at risk/ W	ho is harmed (please tick): $\Box$	Students 🗵 Staff member	ers 🗵 Visito	rs 🗵 Contractors/	Service provider	<sup>-</sup> ⊠ Sensitive
risk groups (voung	nersons pregnant women ne	onle with disabilities	har Inlasca s	nocify)		

Persons at risk/ Who is harmed (please tick):	☐ Students	Staff members		□ Contractors/	Service provider	⊠ Sensitive
risk groups (young persons, pregnant women, p	eople with d	disabilities 🗆 Other	r (please spe	ecify)		

	OPERATIONAL					
Ref No/ ID num	ber:	Date of Assessment Review Date: 10 De				
		Risk Assessor(s): Br	ian Murphy			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)

Lone working	Injury	Lone working prohibited	5X1 = 5 Low	None	N/A	Complete	
Persons at risk/ Who is harmed (please tick): ☐ Students ☒ Staff members ☒ Visitors ☒ Contractors/ Service provider ☒ Sensitive risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)							



Ref No/ ID num	ber:	Date of Assessmen	t: June 2023			
		Review Date: 10 Dec 2025  Risk Assessor(s): Brian Murphy				
		Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Unauthorised	Injury, property damage	Digital access	1X1 = 1	None	N/A	Complete
access		control in place	Low			

Behaviour	Injury due to negligence/horseplay	Staff trained and competent	1X1 = 1 Low	None	N/A	Complete
	Who is harmed (please tick):				s/ Service provider	Sensitive

CHEMICAL				
Ref No/ ID number:	Date of Assessment: June 2023  Review Date: 10 Dec 2025  Risk Assessor(s): Brian Murphy			

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)
N/A	N/A	N/A	N/A	N/A	N/A	

**Persons at risk/ Who is harmed (please tick):**  $\square$  Students  $\boxtimes$  Staff members  $\boxtimes$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\boxtimes$  Other (please specify)

	BIOLOGICAL							
Ref No/ ID nun	nber:	Date of Assessment: June 2023  Review Date: 10 Dec 2025						
Risk Assessor(s): Brian Murphy								
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)		

Pests	Illness and disease	Waste bins	1X1 = 1	None	N/A	Complete
		changed regularly	Low			
		Rooms cleaned at				
		regular intervals				
		and on request				
		Pest control				
		measures in place				
		(traps)				
Persons at risk/	Who is harmed (please tick):	☐ Students ☐ Staff me	embers 🗆 Visito	ors   Contractors/	Service provider [	☐ Sensitive
risk groups (you	ng persons, pregnant women, p	eople with disabilities	☐ Other (pleas	se specify)		
						_
Risk Assessmo	ent Hazardous Waste Sto	orage Spaces (Cen	tral Quad)			
		PHYSICA	\L			



Ref No/ID	number:	Date of Assessment: June 2023				
		Review Date: 10 Dec 2025  Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemente d to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Slips, Trips,	Personal injury	Good housekeeping in 5X1 = 5 None N/A Complete place Low				
Falls		piace	LOW			

	Chemical/waste spills/exposure	Carrying aids available e.g. bottle carriers,				
	opmo, onposition	trollies etc.				
Manual	Injury	Staff training in place	5X1 = 5	None	N/A	Complete
handling			Low			
		Lifting/carrying aids				
		e.g. bottle carriers,				
		trolleys etc.				
		Maximum container				
		size requiring lifting				
		(10L/10kg)				
Fire	Personal Injury	Good housekeeping in	5X1 = 5	None	N/A	Complete
		place	Low			
		Assessment of				
		capacity made prior to				



waste being brought		
to stores. Waste will		
remain in labs unless		
sufficient capacity		
available		
Chemical waste		
neutralised/segregate		
d to avoid adverse		
reactions		
Extinguishers/fire		
blankets present and		
maintained		
Eiro drille at regular		
Fire drills at regular		
intervals		
		L

		Staff trained in Emergency response				
Working at height	Falls, personal injury	Storage at height is avoided where possible	5X1 = 5 Low	None	N/A	Complete
		Where items are stored at height they should be accessible by two step ladder or steps				
		Items stored at height should not pose a risk to persons below due				

		to their size/weight or contents					
Persons at r	Persons at risk/ Who is harmed (please tick): ☐ Students ☒ Staff members ☐ Visitors ☒ Contractors/ Service provider ☒						
Sensitive risk groups (young persons, pregnant women, people with disabilities □ Other (please specify)							

	OPERATIONAL					
Ref No/ ID num	ber:	Date of Assessment	:: June 2023			
	Review Date: 10 Dec 2025					
		Risk Assessor(s): Bri	ian Murphy			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating	Further Control		Status

			(1-25)  Severity (1-5) X Likelihood (1-5)	measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	(In progress/ Outstanding/ Complete)
Lone working	Injury	Lone working prohibited. Buddy system in operation	5X1 = 5 Low	None	N/A	Complete
Shared access across Schools	Injury/Fire due to inappropriate storage/waste containers or infrequent disposal schedule	Communication with other Schools to encourage waste disposal and use of appropriate disposal containers	5X1 = 5 Low	Clearly defined policy to be adopted by all Schools in CQ for use of the facility	Brian Murphy June 2024	In Progress

		Waste register for				
		waste produced in				
		the School is				
		maintained				
		Allerman				
		All waste				
		containers used				
		by the School are UN transport				
		approved and are				
		appropriately				
		labeled				
Persons at risk/ \	Who is harmed (please tick):	☐ Students 🗵 Staff me	embers 🗆 Visito	ors   Contractors	/ Service provider ⊠ Ser	sitive risk groups (young
persons, pregnan	it women, people with disabilit	ies □ Other (please sp	ecify)			
		ш	UMAN FACTO	DC .		
		П	OIVIAIN FACTO	1.3		
Ref No/ ID num	ber:	Date of Assessment	: June 2023			
		Review Date: 10 De	c 2025			



		Risk Assessor(s): Bi	rian Murphy			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding/ Complete)
Unauthorised access	Injury, property damage	Key required for access	5X1 = 5 Low	None	N/A	Complete
Behaviour	Injury due to negligence/horseplay	Staff trained and competent	5X1 = 5 Low	None	N/A	Complete

		Supervision				
Persons at risk/	Who is harmed (please tick):	☐ Students ⊠ Staff m	embers 🗆 Visi	tors 🗵 Contractors	/ Service provider	⊠ Sensitive risk groups (young)
persons, pregnar	nt women, people with disabilit	ies 🗆 Other (please sរុ	pecify)			

	CHEMICAL
Ref No/ ID number:	Date of Assessment: June 2023 Review Date: 10 Dec 2025 Risk Assessor(s): Brian Murphy

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding/ Complete)
Unintended	Fire, explosion release of	Waste register in place	5X1	None	N/A	Complete
reactions	poisonous gas		= 5 Low			
		Segregation of				
		incompatible waste				
		Solvent waste				
		neutralised				

Stockpiling	Increased fire load	Waste/obsolete	5X1	None	N/A	Complete
waste		chemicals disposed of at	= 5			
		least annually. More	Low			
		often if required				
Spills	Exposure to hazardous	General chemical spill	5X1	Spill kit placed	Brian	Complete
	reagents	procedure in place	= 5	in storage area	Murphy	
		Spill kit and training	Low			
		Bunded pallet used to store solvent waste				
		store solvent waste				
		Elephant trunk extract in place				

Chemical Exposure	Adverse reaction/chemical burn	Lab coat and glasses mandatory	5X1 = 5	Chemical resistant heavy	
		,	Low	duty gloves to	Complete
		Point of use extract		be sourced	
		available			
		Decanting of waste prohibited		Signage	
				required (PPE, flammable)	
		Eating and drinking		Hammasicy	Complete
		prohibited in space			
		Contain on labellad			
		Containers labelled appropriately			
		Safety shower/First aid			
		supplies and eye wash			

		stations available in				
		<b>Goods Inwards</b>				
		Emergency first aid training in place				
		Emergency contacts posted on all lab doors				
Persons at risk/ Who is	is harmed (please tick):	Students Staff members	☐ Visitors	s ⊠ Contractors/ Se	rvice provider	Sensitive risk groups
(young persons, pregna	nant women, people with di	sabilities 🗆 Other (please spe	cify)			

		BIOLOG	GICAL			
Ref No/ ID nur	nber:	Date of Assessmen Review Date: 10 De Risk Assessor(s): Br	ec 2025			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)

N/A	N/A	N/A	Choose an	N/A	N/A	N/A
			item.			
Persons at risk/	Who is harmed (please tick):	☐ Students ☐ Staff me	embers 🗆 Visito	ors   Contractors/	Service provider [	☐ Sensitive
risk groups (your	ng persons, pregnant women, p	eople with disabilities	☐ Other (pleas	se specify)		

## Risk assessment chemical waste, collection transport and disposal

	PHYSICAL						
Ref No/ ID numb	Ref No/ ID number: Date of Assessment: June 2023						
	Review Date: 10 Dec 2025						
	Risk Assessor(s): Brian Murphy						

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Slips, Trips,	Personal injury	Good housekeeping in	5X1 = 5	None	N/A	Complete
Falls	Chemical spills	place  Carrying aids available  e.g. bottle carriers,  trollies etc.	Low			
Fire	Personal Injury	Good housekeeping in	5X1 = 5	None	N/A	Complete
		place	Low			
		SOP in place for disposal of waste				

Chemical waste		
neutralised/segregate		
d to avoid adverse		
reactions		
Solvent fire load kept		
to a minimum and		
waste stored in 90min		
flameproof cabinets		
prior to transport to		
waste disposal area		
Extinguishers/fire		
blankets present and		
maintained		
Fire drills at regular		
intervals		
IIILEI Vais		

		Staff trained in				
		Emergency response				
Manual		Staff training in place	5X1 = 5	None	N/A	Complete
handling			Low			
		Lifting/carrying aids				
		e.g. bottle carriers,				
		trolleys etc.				
		Maximum container				
		size requiring lifting				
		(10L/10kg)				
Working at	Falls, personal injury	Storage at height is	5X1 = 5	None	N/A	Complete
height		avoided where	Low			
		possible				
		Where items are				
		stored at height they				
		should be accessible				

		by two step ladder or				
		steps				
		Items stored at height				
		should not pose a risk				
		to persons below due				
		to their size/weight or				
		contents				
Persons at risk/ Who is harmed (please tick): ⊠ Students ⊠ Staff members ⊠ Visitors ⊠ Contractors/ Service provider ⊠ Sensitive						
risk groups (young	persons, pregnant women, pe	ople with disabilities $\ \square$ Oth	ner (please s	pecify)		

OPERATIONAL

Ref No/ ID number:		Date of Assessment: June 2023					
		Review Date: 10 De					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)	
Lone working	Injury	Lone working prohibited	5X1 = 5 Low	None	N/A	Complete	

Persons at risk/ Who is harmed (please tick): ⊠ Students ⊠ Staff members ⊠ Visitors ⊠ Contractors/ Service provider ⊠ Sensitive							
risk groups (young persons, pregnant women, people with disabilities   Other (please specify)							
	risk groups (young persons, pregnant women, people with disabilities in other (pieuse speelity)						

	HUMAN FACTORS
Ref No/ ID number:	Date of Assessment: June 2023  Review Date: 10 Dec 2025

		Risk Assessor(s): Bi	rian Murphy			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Unauthorised access	Injury, property damage	Digital access control in place or keyed  Supervision in place	5X1 = 5 Low	None	N/A	Complete

Behaviour	Injury due to	Supervision of	5X1 = 5	None	N/A	Complete	
	negligence/horseplay	students in place	Low				
		Staff trained and competent					
Persons at risk/ Who is harmed (please tick): ⊠ Students ⊠ Staff members ⊠ Visitors ⊠ Contractors/ Service provider ⊠ Sensitive							
risk groups (young persons, pregnant women, people with disabilities   Other (please specify)							

CHEMICAL



Ref No/ ID nun	nber:	Date of Assessment: June 2023				
		Review Date: 10 Dec 202  Risk Assessor(s): Brian N				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Unintended	Fire, explosion release of	Segregation of	5X1 = 5	None	N/A	Complete
reactions	poisonous gas	incompatible chemical	Low			
		waste				

		Only UN approved transport containers are used for waste disposal  Glass waste disposal bottles are prohibited  Fume cupboard utilised when consolidating/ neutralising/packagin g waste				
Stockpiling	Increased fire load	Regular lab safety audit carried out  Waste/obsolete chemicals disposed of at least annually.	5X1 = 5 Low	None	N/A	Complete

		More often where required				
Spills	Exposure to hazardous reagents	General chemical spill procedure in place	5X1 = 5 Low	None	N/A	Complete
		Specific practical chemical risk assessment in place				
		Spill kits and training available in labs and location is labelled				
Chemical Exposure	Adverse reaction/chemical burn	Specific practical chemical risk assessment in place	5X1 = 5 Low	None	N/A	Complete

Lab coat and glasses		
mandatory in lab		
spaces		
PPE such as gloves		
available where		
identified by the		
specific practical risk		
assessment		
Point of use extract		
and fume cupboards		
available where		
required		
Eating and drinking		
prohibited in lab		
spaces		

	Hand wash facility		
	available in all labs		
	avaliable in all labs		
	First aid supplies and		
	eye wash		
	stations/units		
	available in all labs		
	Emorgonov first oid		
	Emergency first aid		
	training in place		
	<b>Emergency contacts</b>		
	posted on all lab doors		
	posted on an ido doors		

**Persons at risk/ Who is harmed (please tick):**  $\boxtimes$  Students  $\boxtimes$  Staff members  $\boxtimes$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\boxtimes$  Other (please specify)

	BIOLOGICAL					
Ref No/ ID nur	nber:	Date of Assessmen	t: June 2023			
		Review Date: 10 Do	ec 2025			
		Risk Assessor(s): Bi	rian Murphy			
					_	_
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating	Further Control measures or	Action completed by	Status
			(1-25)	actions to be implemented		

			Severity (1-5) X Likelihood (1-5)	to reduce the risk	whom and by when?	(In progress/ Outstanding / Complete)	
Not applicable	Not applicable	Not applicable	Choose an item.	Not applicable	Not applicable	Not applicable	
	Persons at risk/ Who is harmed (please tick): ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)						

## Risk assessment for the collection, transport and disposal of sharps and chemical contaminated sundries

Ref No/ ID number:	Date of Assessment: 09/11/23
Sharps2023	Review Date: 09/11/25
	Risk Assessor(s): Brian Murphy

		PHYSICAL				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstandin g/ Complete)
Manual handling	Heavy load causing injury when lifting	Trolleys used to move multiple containers  Manual handling training and practical risk assessments	2X1 = 2 Low	N/A	N/A	N/A

		completed/implemente d			
Sharp objects	Stick injury/cuts	Containers used are fit for purpose sharps bins with lockable lid. Persons collecting and transporting container wear laboratory PPE	5X1 = 5 Low	All contaminated sundries will be disposed of in sharps bins to prevent possible stick injuries from poorly segregated waste	Complete
		Full containers are transported on trolleys rather than by hand		Syringe/sharps resistant gloves to be sourced	Complete
		First aid stations are available in each laboratory			Complete
Slips/Trips/Fall	Breakage and spillage of hazardous contents	Buddy system in operation	2X1 = 2 Low		Complete

House Keeping	Increased risk of trips falls  Increased risk of hazardous material	Containers are sealed and transported by trolley.  Waste levels are monitored and disposed of regularly	2X1 = 2 Low			Complete
	release during a fire					
	ho is harmed (please tick): [persons, pregnant women, p				vice provider	⊠ Sensitive
Hazard	Risk(s) Associated/Descri	Current Contro ptio measures	Risk Facto Ratin (1-25)  Severity 5) X Likelihoo (1-5)	measures or actions to be implemented to reduce the risk	Action complet ed by whom and by when?	Status (In progress/ Outstanding/ Complete)

Chemical	Exposure to harmful	Technical staff familiar	5X1 =	SOP to reflect	В	Completed
burns/CMR/Sensitise r exposure	substances	with the hazards of the waste being collected/transported	5 Low	only the technical staff transporting the waste should travel in lift	Murphy	
		SDS for individual chemicals used in the laboratory are available from manufactures website e.g. Sigma (Merck), Fisher Scientific and VWR		N/A	N/A	N/A
		Risk assessments for each practical are available (currently on local server)		N/A	N/A	N/A
		Containers are correctly labeled		N/A	N/A	N/A
		Designate waste storage area present		N/A	N/A	N/A
Persons at risk/ Who is h	armed (please tick): 🛛 Stu	dents ⊠ Staff members □	☐ Visitors	☐ Contractors/ Serv	ice provider	⊠ Sensitive
	ns, pregnant women, people				-	

		BIOLOG	GICAL			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Stick injury	Infection/chemical exposure	As per Chemical/Sharp objects	5X1 = 5 Low	As per Chemical/Sharp objects Section	As per Chemical Section	As per Chemical Section
	Who is harmed (please tick): [and persons, pregnant women, p				/ Service provider	

OLSCOIL TEICHEOLAÍOCHTA
BHAILE ATHA CLIATH

BLIN
TECHNOLOGICA
TECHNOLO

	HUMAN FACTORS									
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)				
Pregnant Employees /Students & Nursing Mothers	<ul> <li>Harm to Mother, unborn child or breastfeeding baby</li> <li>Physical risks</li> <li>Chemical risks</li> <li>Biological risks</li> </ul>	<ul> <li>Pregnant staff member/student inform Supervisor of pregnancy as soon as possible</li> <li>Risk assessment carried out for pregnant employees/students and control measures implemented as identified and necessary by Health &amp; Safety Office</li> <li>Risk assessment will be completed in</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A				

		conjunction with the Line Manager / a representative from the School where necessary regarding chemical exposure  Room available, Central Quad, TU Dublin, Grangegorman) available for resting, breastfeeding and expressing milk  Follow medical advice				
Young Persons (<18 years of age on TU Dublin premises)  Circumstances include: • TU Dublin students	<ul> <li>Injuries</li> <li>Accidents and incidents</li> <li>Lack of training and experience</li> <li>Lack of familiarity with TU Dublin work environment, work practices and emergency plans</li> <li>Physical risks</li> <li>Chemical risks</li> </ul>	<ul> <li>General induction process given by School</li> <li>Induction available from the Health &amp; Safety Office on request</li> <li>eLearning available from Health &amp; Safety Office</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A

• Transition	Biological risks	•	Training and				
Year Students			supervision given				
		•	TU Dublin				
			emergency plans in				
			place				
		•	All incidents are				
			reported to TU				
			Dublin				
People with		•	TU Dublin Disability	5X1 = 5	N/A	N/A	N/A
Disabilities			Office send	Low			
			information to TU				
			Dublin Health &				
			Safety Office				
		•	Risk Assessment				
			carried out by the				
			Health & Safety				
			Office where				
			required				
		•	Risk assessment				
			carried out by the				
			School and				
			facilitated by the				
			Health & Safety				
			Office for non-				
			routine work e.g.				
			projects				
		•	Reasonable				
		•					
			accommodation				

		identified in risk assessment  Personal Emergency Egress Plan prepared if required  Disability Support Service available  Induction/Elearning available from Health & Safety Office on request				
New Recruits: Full-time and part-time staff members	<ul> <li>Lack of experience</li> <li>Lack of training</li> <li>Injuries</li> <li>Accidents and incidents</li> <li>Lack of training and experience</li> <li>Lack of familiarity with TU Dublin work environment, work practices and emergency plans</li> </ul>	Induction available (in person or online) from Staff Training & Development, including a Health & Safety section Health & Safety Elearning available: contact the TU Dublin Health & Safety Office Line Manager gives induction for School Training and supervision in place by management	5X1 = 5 Low	N/A	N/A	N/A
Undergraduates	<ul><li>Lack of experience</li><li>Lack of training</li></ul>	<ul><li>All work with chemicals is risk</li></ul>	5X1 = 5 Low	N/A	N/A	N/A

Injuries     Accidents and incidents	assessed prior to commencement
Lack of familiarity with	Induction available
TU Dublin work	from the TU Dublin
environment, work	Health & Safety
practices and emergency	Office on request
plans	E-learning available
p.sc	from TU Dublin
	Health & Safety
	Office on request
	Emergency
	procedures in place
	for the Central
	Quad,
	Grangegorman
	First-aid facilities
	available
	Safety induction
	given by lecturers
	where required
	Task-specific
	instructions/
	demonstrations
	provided by staff
	where required
	Supervision of students by staff
	students by staff members
	Student support
	services available
	sei vices available

Postgraduates	<ul> <li>Lack of experience</li> <li>Lack of training</li> <li>Injuries</li> <li>Accidents and incidents</li> <li>Lack of familiarity with TU Dublin work environment, work practices and emergency plans</li> </ul>	<ul> <li>Induction available         (in person or online)         from Staff Training &amp;         Development,         including a Health &amp;         Safety section</li> <li>Health &amp; Safety         Elearning available:         contact the TU         Dublin Health &amp;         Safety Office</li> <li>Training and         supervision in place         by supervisor</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A
Personal Protective Equipment (PPE)	<ul> <li>Improper fit and use</li> <li>Incorrect type</li> <li>Poor maintenance</li> <li>Lack of training</li> <li>Exposure to physical or hazardous substances</li> <li>Slips, trips and falls</li> <li>Lack of awareness of</li> </ul>	<ul> <li>Appropriate         selection of PPE</li> <li>Consultation with         staff</li> <li>Inspection and         maintenance of PPE</li> <li>Students are         responsible for</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A
	PPE requirements • Contamination	laundering their own lab coat and having safety glasses or prescription safety glasses				

	Contact lenses are
	not allowed to be
	worn
	Defects reported
	Lockers provided for
	technical staff and
	laboratory aides
	Training,
	information and
	supervision
	Signage in place
	where PPE is
	required e.g. on lab
	doors
	Students are not
	permitted into the
	lab without the
	relevant PPE
	Students are
	supervised by staff
	to ensure the
	wearing of PPE
Persons at risk/ Who is harmed (please tick):	Students   Staff members □ Visitors □ Contractors/ Service provider □ Sensitive
	eonle with disabilities

## Risk assessment for the handling of sharps (including needles, broken glass and scalpels)

Ref No/ ID number:	Date of Assessment: 28/04/23
	Review Date: 28/04/25
	Risk Assessor(s): Brian Murphy

		PHYSICAL				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
Disposing of blades, needles etc.	Cuts/puncture wounds. Exposure to hazardous materials	SOP for the safe disposal of sharps in place Click here for SOP (City Campus)  In lab training provided to students on the safe handling of sharps	1x1	N/A	N/A	N/A

		Cytotoxic sharps bins available for safe disposal of needles etc.  Needle resistant gloves available to staff when transporting waste			
Changing, using, fitting a needle.	Cuts/puncture wounds. Exposure to hazardous materials	Needles are not to be used where a safer alternative exists  SOP for the safe use of needles in place  In lab training provided to students on the safe handling of sharps		N/A	Completed 2 May 2023 N/A  Outstanding Estimated delivery early May
Changing using, removing, fitting a scalpel blade	Cuts lacerations. Exposure to hazardous materials	SOP for the safe use or scalpels in place	N/A	N/A	

	to h	acerations. Exposure nazardous materials  armed (please tick):   s, pregnant women, pe	SOP wast In lalto st dispo					Service provider	⊠ Sensitive
Hazard		Risk(s) Associated/Descrip n	otio	Current Contro measures	I	Risk Facto Ratin (1-25 Severity ( 5) X Likelihoc (1-5)	Control measures or actions to be implemented to reduce the	and by when?	Status (In progress/ Outstanding/ Complete)

Chemical	Exposure to harmful	Technical staff familiar	5X1 =	N/A	N/A	N/A
burns/CMR/Sensitise	substances	with the hazards of the	5 Low			
r exposure		chemicals in use				
		SDS for individual	-	N/A	N/A	N/A
		chemicals used in the				
		laboratory are available				
		from manufactures				
		website				
		Risk assessments for		N/A	N/A	N/A
		each practical are				
		available				
Persons at risk/ Who is h	armed (please tick): 🗵 Stud	dents 🗵 Staff members 🛭	☐ Visitors	☐ Contractors/ So	ervice provider	⊠ Sensitive
risk groups (young person	ns, pregnant women, people	with disabilities $\square$ Other (	please spe	ecify)		

	BIOLOGICAL							
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)		

			Severity (1-5) X Likelihood (1-5)	to reduce the risk					
Stick injury	Infection	As per Chemical Section	5X1 = 5 Low	As per Chemical Section	As per Chemical Section	As per Chemical Section			
	Persons at risk/ Who is harmed (please tick): ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)								

	HUMAN FACTORS							
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)		

Pregnant Employees /Students & Nursing Mothers Additional measures	<ul> <li>As per above</li> <li>Harm to Mother, unborn child or breastfeeding baby</li> <li>Physical risks</li> <li>Chemical risks</li> <li>Biological risks</li> </ul>	<ul> <li>Pregnant staff member/student should inform Supervisor of pregnancy as soon as possible</li> <li>Risk assessment carried out for pregnant employees/students and control measures implemented as identified and necessary by Health &amp; Safety Office</li> <li>Risk assessment will be completed in conjunction with the Line Manager / a representative from the School where necessary regarding chemical exposure</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A

Young Persons (<18 years of age on TU Dublin premises)  Circumstances include: • TU Dublin students • Transition Year Students	<ul> <li>Injuries</li> <li>Accidents and incidents</li> <li>Lack of training and experience</li> <li>Lack of familiarity with TU Dublin work environment, work practices and emergency plans</li> <li>Physical risks</li> <li>Chemical risks</li> <li>Biological risks</li> </ul>	<ul> <li>General induction process given by School</li> <li>Training and supervision given</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A
People with Disabilities		<ul> <li>TU Dublin Disability         Office send         information to TU         Dublin Health &amp;         Safety Office         Risk Assessment         carried out by the         Health &amp; Safety         Office where         required         Risk assessment         carried out by the         School and         facilitated by the         Health &amp; Safety</li> </ul>	5X1 = 5 Low	N/A	N/A	N/A

		•	Office for non- routine work e.g. projects Reasonable accommodation identified in risk assessment Disability Support Service available Induction/Elearning available from Health & Safety Office on request				
New Recruits: Full-time and part-time staff members	<ul> <li>Lack of experience</li> <li>Lack of training</li> <li>Injuries</li> <li>Accidents and incidents</li> <li>Lack of training and experience</li> <li>Lack of familiarity with TU Dublin work environment, work practices and emergency plans</li> </ul>		Induction available (in person or online) from Staff Training & Development, including a Health & Safety section Health & Safety Elearning available: contact the TU Dublin Health & Safety Office Line Manager gives induction for School Training and supervision in place	5X1 = 5 Low	N/A	N/A	N/A

Undergraduates	Lack of experience	All work with	5X1 = 5	N/A	N/A	N/A
	<ul> <li>Lack of training</li> </ul>	chemicals is risk	Low			
	<ul> <li>Injuries</li> </ul>	assessed prior to				
	<ul> <li>Accidents and incidents</li> </ul>	commencement				
	<ul> <li>Lack of familiarity with</li> </ul>	Induction available				
	TU Dublin work	from the TU Dublin				
	environment, work	Health & Safety				
	practices and emergency	Office on request				
	plans	<ul> <li>E-learning available</li> </ul>				
		from TU Dublin				
		Health & Safety				
		Office on request				
		Emergency				
		procedures in place				
		for the Central				
		Quad,				
		Grangegorman				
		<ul><li>First-aid facilities</li></ul>				
		available				
		<ul> <li>Safety induction</li> </ul>				
		given by lecturers				
		where required				
		<ul><li>Task-specific</li></ul>				
		instructions/				
		demonstrations				
		provided by staff				
		where required				
		<ul><li>Supervision of</li></ul>				
		students by staff				
		members				

		Student support				
Postgraduates	<ul> <li>Lack of experience</li> <li>Lack of training</li> <li>Injuries</li> <li>Accidents and incidents</li> <li>Lack of familiarity with TU Dublin work environment, work practices and emergency plans</li> </ul>	services available Induction available (in person or online) from Staff Training & Development, including a Health & Safety section Health & Safety Elearning available: contact the TU	5X1 = 5 Low	N/A	N/A	N/A
		Dublin Health & Safety Office School SOPs in place Training and supervision in place by supervisor				

## Risk assessment collection, transport and storage of cryogens

	PHYSICAL
Ref No/ ID number:	Date of Assessment: 28/04/23

		Review Date: 28/04/25  Risk Assessor(s): Brian I				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Slips, Trips, Falls	Personal injury	Good housekeeping in place  Carrying aids available e.g Dewars, trollies etc.	5X1 = 5 Low	None	N/A	Complete

Manual	Personal Injury	SOP in place for collection transport and storage of cryogens. Click here for SOP (City Campus)  Cryogens should only be transported in appropriate vessels and should never be sealed  Staff training in place  Lifting/carrying aids e.g. Dewars, trolleys etc.  Maximum container size requiring lifting (10L)	5X1 = 5 Low	None	N/A	Complete

Extreme cold	Cold burns	Lab coat and glasses	5X1 = 5	None	N/A	Complete
		must be worn	Low			
		Cold resistant gloves should be worn when handling cryogens  First aid stations available in all labs  Emergency first aid training in place  Emergency contacts posted on all lab	Low			
		doors				
		40013				
Oxygen depletion	Asphyxiation	Cryogen dewars are filled in open air secure courtyard by gas supplier. Click here for SOP (City Campus)  Dewars should not be accompanied in lifts.	5X1 = 5 Low	None	N/A	Complete

		Lifts should be					
		secured at access and					
		egress points with the					
		Dewar transported					
		unaccompanied.					
		Large volumes of					
		cryogen e.g. 2001					
		He/N2 can only be					
		stored in area fitted					
		with O2 sensor, alarm					
		and method of					
		ventilation in the					
		event of an					
		emergency					
		,					
		Appropriate signage					
		outside storage					
		location indicating risk					
		of asphyxiation					
<b>Persons at risk/ Who is harmed (please tick):</b> $\boxtimes$ Students $\boxtimes$ Staff members $\boxtimes$ Visitors $\boxtimes$ Contractors/ Service provider $\boxtimes$ Sensitive							
risk groups (young persons, pregnant women, people with disabilities $\ \square$ Other (please specify)							

OPERATIONAL							
Ref No/ ID number:		Date of Assessment: 28/04/23 Review Date: 28/04/25 Risk Assessor(s): Brian Murphy					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)	

			Severity (1-5) X Likelihood (1-5)	to reduce the risk		
Lone working	Injury	Lone working prohibited	5X1 = 5 Low	None	N/A	Complete
Persons at risk/ Who is harmed (please tick): $\boxtimes$ Students $\boxtimes$ Staff members $\boxtimes$ Visitors $\boxtimes$ Contractors/ Service provider $\boxtimes$ Sensitive risk groups (young persons, pregnant women, people with disabilities $\square$ Other (please specify)						

DUBLIN
TECHNOLOGIA

HUMAN FACTORS							
Ref No/ ID number:		Date of Assessment: 28/04/23 Review Date: 28/04/25 Risk Assessor(s): Brian Murphy					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)	

Unauthorised	Injury, property damage	Digital access	5X1 = 5	None	N/A	Complete
access		control in place	Low			
		Access can be				
		further restricted				
		with locked				
		cabinets where				
		required				
		Supervision in				
		place				
Behaviour	Injury due to	Supervision of	5X1 = 5	None	N/A	Complete
Dellavioui				None	N/A	Complete
	negligence/horseplay	students in place	Low			
		Staff trained and				
		competent				
		-				

<b>Persons at risk/ Who is harmed (please tick):</b> $\boxtimes$ Students $\boxtimes$ Staff members $\boxtimes$ Visitors $\boxtimes$ Contractors/ Service provider $\boxtimes$ Sensit	ive
risk groups (young persons, pregnant women, people with disabilities   Other (please specify)	

CHEMICAL									
Ref No/ ID nur	number: Date of Assessment: 28/04/23								
	Review Date: 28/04/25								
		Risk Assessor(s): Brian Murphy							

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
N/A	N/A	N/A	5X1 = 5 Low	None	N/A	Complete

**Persons at risk/ Who is harmed (please tick):**  $\boxtimes$  Students  $\boxtimes$  Staff members  $\boxtimes$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\boxtimes$  Other (please specify)

	BIOLOGICAL									
Ref No/ ID number:		Date of Assessment: 28/04/23 Review Date: 28/04/25								
		Risk Assessor(s): Bı	rian Murphy							
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)				

Not	Not applicable	Not applicable	Choose an	Not applicable	Not	Not
applicable			item.		applicable	applicable
Persons at risk/	l Who is harmed (please tick): □	   Students   □ Staff me	l mhers □ Visite	ors 🗆 Contractors/9	Service provider [	☐ Sensitive
	•				bervice provider L	_ JCHSICIVC
risk groups (youn	ig persons, pregnant women, p	eople with disabilities	☐ Other (pleas	e specify)		

# Risk assessment for collection, transport and storage of bottled gas cylinders

PHYSICAL						
Ref No/ ID number:	Date of Assessment: 28/04/23					
	Review Date: 28/04/25					

		Risk Assessor(s): Brian N	Murphy			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)
Slips, Trips, Falls	Personal injury	Good housekeeping in place  Carrying aids available e.g, trollies etc.  Free standing cylinders must be secured	5X1 = 5 Low	None	N/A	Complete

Manual	Personal Injury	SOP in place for	5X1 = 5	None	N/A	Complete
handling		collection transport	Low			
		and storage of bottled				
		gases				
		Staff training in place				
		Lifting/carrying aids				
		e.g. Dewars, trolleys				
		etc.				
Fire	Flammable contents	Flammable gas				
		cylinders such as				
		hydrogen and				
		acetylene are not				
		permitted in labs				
		Small collision gas				
		(methane) cylinders				
		for MS systems are				
		allowed once they are				

Oxygen depletion	Asphyxiation	leak tested on installation and monitored thereafter Click here for SOP (City Campus)  Cylinders must be leak checked on installation and monitored thereafter. Click here for SOP (City Campus)  Cylinders should only be used in large rooms with a high degree of ventilation such as in laboratories with fume cupboards or additional air flows	5X1 = 5 Low	None	N/A	Complete
High pressure (200bar)	Injury	Staff trained and competent in use of	5X1 = 5 Low	None	N/A	Complete

		cylinders and SOP in place								
Persons at risk/ WI	Persons at risk/ Who is harmed (please tick): ⊠ Students ⊠ Staff members ⊠ Visitors ⊠ Contractors/ Service provider ⊠ Sensitive									
risk groups (young persons, pregnant women, people with disabilities   Other (please specify)										

		OPERATIO	ONAL		
Ref No/ ID num	ber:	Date of Assessment Review Date: 28/04 Risk Assessor(s): Br	1/25		

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)
Lone working	Injury  Vho is harmed (please tick):   ✓	Lone working prohibited	5X1 = 5 Low	None  tors  Contractors	N/A	Complete
	g persons, pregnant women, pe				, service provider	E JCHSICIVE

	HUMAN FACTORS							
Ref No/ ID number:  Date of Assessment: 28/04/23  Review Date: 28/04/25  Risk Assessor(s): Brian Murphy								
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)	Further Control measures or actions to be implemented	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)		

			Severity (1-5) X Likelihood (1-5)	to reduce the risk		
Unauthorised access	Injury, property damage	Digital access control in place  Supervision in place	5X1 = 5 Low	None	N/A	Complete
Behaviour	Injury due to negligence/horseplay	Supervision of students in place	5X1 = 5 Low	None	N/A	Complete

		Staff trained and competent					
Persons at risk/ V	Persons at risk/ Who is harmed (please tick): ⊠ Students ⊠ Staff members ⊠ Visitors ⊠ Contractors/ Service provider ⊠ Sensitive						
risk groups (young persons, pregnant women, people with disabilities $\ \square$ Other (please specify)							

		CHEMICAL		
Ref No/ ID nur	nber:	Date of Assessment: 28/0 Review Date: 28/04/25 Risk Assessor(s): Brian Me		

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
N/A	N/A	N/A	5X1 = 5 Low	None	N/A	Complete

**Persons at risk/ Who is harmed (please tick):**  $\boxtimes$  Students  $\boxtimes$  Staff members  $\boxtimes$  Visitors  $\boxtimes$  Contractors/ Service provider  $\boxtimes$  Sensitive risk groups (young persons, pregnant women, people with disabilities  $\boxtimes$  Other (please specify)

	BIOLOGICAL							
Ref No/ ID number:		Date of Assessment: 28/04/23  Review Date: 28/04/25						
		Risk Assessor(s): Bı	rian Murphy					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)		

Not	Not applicable	Not applicable	Choose an	Not applicable	Not	Not
applicable			item.		applicable	applicable
Persons at risk/ \	Who is harmed (please tick): $\Box$	☐ Students ☐ Staff me	mbers 🗆 Visito	ors   Contractors/	Service provider	☐ Sensitive
risk groups (youn	ng persons, pregnant women, po	eople with disabilities	☐ Other (pleas	e specify)		

# Risk Assessment bench top equipment (including hotplates)

	PHYSICAL				
Ref No/ ID number:	Date of Assessment: June 2023				
	Review Date: 10 Dec 2025				

		Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)
Slips, Trips, Falls	Personal injury	Good housekeeping in place.	5X1 = 5 Low	None	N/A	Complete
raiis		Supervision in place				
		Carrying aids available e.g. bottle carriers, trollies etc.				

Manual handling	Personal injury	Staff training in place	5X1 = 5 Low	None	N/A	Complete
		Lifting/carrying aids e.g. bottle carriers, trolleys etc.				
Electrical	Shock/Fire	Equipment is inspected for damage prior to use	5X1 = 5 Low	None	N/A	Complete
		Damaged equipment/flexes/plugs/outlet s should be reported immediately and must never be used				
		The use of extension leads should be avoided where possible.				

		If used the load on the outlet should be assessed.				
		Staff trained in Emergency response and Emergency First Aid				
		First aid supplies available in all labs				
		Emergency electrical Isolation push button in all labs				
Hotplates	Burns/Fire	Staff are trained	5X1 = 5 Low	None	N/A	Complete
		Supervision in place	3 20 10			

	Thongs/heat resistant gloves		
	are available where required		
	Flammable material should not		
	be adjacent		
	Use of unattended hotplates is		
	prohibited		
	Hotplates are allowed to cool		
	before returning to storage		
	Extinguishers/fire blankets		
	present and maintained		
	Fire drills at regular intervals		
<u> </u>			

		Staff trained in Emergency response and Emergency First Aid				
		First aid supplies available in all labs				
Persons at ri	sk/ Who is harmed (please tick):	: □ Students □ Staff members □ \	/isitors □ (	Contractors/ Servi	ce provider 🗆	Sensitive risk
groups (your	ng persons, pregnant women, ped	ople with disabilities $\ \square$ Other (pleas	e specify)			

OPERATIONAL						
Ref No/ ID number:	Date of Assessment: June 2023					
•						

		Review Date: 10 D	ec 2025			
		Risk Assessor(s): Brian Murphy				
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Lone working	Injury	Lone working prohibited in undergraduate laboratories	5X1 = 5 Low	None	N/A	Complete

						1			
Persons at risk/ Who is harmed (please tick): ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive									
risk groups (young persons, pregnant women, people with disabilities   Other (please specify)									

HUMAN FACTORS					
Ref No/ ID number:	Date of Assessment: June 2023 Review Date: 10 Dec 2025				

	Risk Assessor(s): Brian Murphy					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status  (In progress/ Outstanding / Complete)
Unauthorised access	Injury, property damage	Digital access control in place Supervision in place	5X1 = 5 Low	None	N/A	Complete

Behaviour	Injury due to	Supervision of	5X1 = 5	None	N/A	Complete		
	negligence/inappropriate	students in place	Low					
	use of							
	equipment/horseplay							
		Staff trained and						
		competent						
Persons at risk/ Who is harmed (please tick): ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive								
risk groups (young persons, pregnant women, people with disabilities   Other (please specify)								

CHEMICAL						
Ref No/ ID number:	Date of Assessment: June 2023					

	Review Date: 10 Dec 2025  Risk Assessor(s): Brian Murphy					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Contaminated equipment	Exposure to hazardous reagents	Specific practical chemical risk assessment in	5X1 = 5 Low	None	N/A	Complete
		place				

	Faurings and about a				
	Equipment should				
	be cleaned				
	appropriately by				
	the user at end of				
	use with				
	reference to the				
	SDS and general				
	chemical spill				
	procedure				
Persons at risk/ Who is harmed (please tick):	Students   Staff mer	mbers 🗆 Visito	ors   Contractors/ S	Service provider [	☐ Sensitive
risk groups (young persons, pregnant women, pe	ople with disabilities[	☐ Other (pleas	e specify)		

		BIOLOG	GICAL			
Ref No/ ID number:		Date of Assessment: June 2023  Review Date: 10 Dec 2025				
		Risk Assessor(s): Br	Risk Assessor(s): Brian Murphy			
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)

N/A	N/A	N/A	Choose an	N/A	N/A	N/A		
			item.					
Persons at risk/ Who is harmed (please tick): ☐ Students ☐ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive								
risk groups (young persons, pregnant women, people with disabilities   Other (please specify)								

# **Risk Assessment Flame Atomic Absorption Spectrometer**

PHYSICAL						
Ref No/ ID number: Date of Assessment: 13.06.23						
Atomic Absorption Instrument Review Date: 10 Dec 2025						
Risk Assessor(s): Grant Morton						

Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25)  Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)
• Gas	Gas: Risk of explosion from leaked acetylene if gas tap left open. Acetylene can form explosive mixture with air. May decompose violently at high temperature and/or pressure or in the presence of a catalyst.  Gas: Risk of asphyxiation from acetylene gas.  Gas: Risk of burns to limbs and face from flame.	All Staff and students must wear P.P.E. (Laboratory Coat and Safety Glasses).  Acetylene Gas Detection system installed on the wall behind the instrument and calibrated (16.01.23), alarm will sound upon detection of acetylene.  Instrument is serviced and service records are available in Technician Office CQ-421 and digital copy	3X1 = 3 Low	The gas <u>must</u> be turned off after instrument use.	All Users	COMPLET

	available from Grant Morton.  Use by staff and students is minimal.  Area around instrument is kept tidy allowing access at all times.			
Persons at risk/ Who is harmed (please tick):			Service provider [	Sensitive
risk groups (young persons, pregnant women, po			·	

OPERATIONAL						
Date of Assessment: 13.06.23						

Atomic Absorption Instrument		Review Date: 10 Dec 2025					
		Risk Assessor(s): Grant Morton					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25) Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)	
• Fire	Fire: Risk of fire if any combustible or flammable material is placed on or above the burner flame chimney.	Detailed S.O.P. in place to explain operation of instrument. All users trained how to operate instrument and informed of hazard prior to use. Click here to view SOP	2X2 = 4 Low	No further measures needed.	All users	COMPLET E	
	Burns: Risk of burns if any part of the body is placed above the burner flame chimney	All users trained how to operate instrument and informed of					

• Burns		hazard prior to use.				
Persons at risk/	Who is harmed (please tick):	Students 🗵 Staff me	embers 🗆 Visit	tors  Contractors/	Service provider	☐ Sensitive
	ng persons, pregnant women, po				·	

CHEMICAL							
Ref No/ ID nur	nber:	Date of Assessment: 13.06.23  Review Date: 10 Dec 2025  Risk Assessor(s): G Morton					
Hazard	Risk(s) Associated/Description	Current Control measures	Risk Factor Rating (1-25) Severity (1-5) X Likelihood (1-5)	Further Control measures or actions to be implemented to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding/ Complete)	
• Acids	Slight risk of burns from acids if volumetric flasks spilt.	All Staff and students must wear P.P.E. (Laboratory Coat	1X2 =2 Low	No further controls necessary	N /A	COMPLETE D	

		and Safety Glasses).					
Persons at risk/ Who is harmed (please tick): ⊠ Students ⊠ Staff members □ Visitors □ Contractors/ Service provider □ Sensitive risk groups (young persons, pregnant women, people with disabilities □ Other (please specify)							





**Appendices** 



### Appendix 1

#### **School/Function Safety Committees**

School/Function management can either choose to have health and safety as a standing agenda item at School of Chemical and BioPharmaceutical Sciences meetings or set up a safety committee. The School/Function Safety Committee has an advisory and consultative function.

#### **Guidance Document for School/Function Safety Committee**

### **School/Function Safety Committee**

This Committee has an advisory role regarding health and safety in their School/Function.

Examples of activities that Safety Committees may undertake at the School/Function level include:

- Assistance in the identification and control of hazards;
- Encouragement of safe work practices;
- Assistance in the development of safe working procedures, operating procedures and maintenance schedules;
- Assistance in the development of School/Function laboratory safety manuals (where relevant) and specific induction programs;
- Identification of employee and student training needs;
- Development and review of School/Function policies, practices and consultative procedures;

#### 1. Structure

It is recommended that School/Function Safety Committees have involvement from both staff and students where applicable. Each area of teaching and research should be represented on the committee. Members will include as appropriate:

- Head of School/Function, Manager or their nominee
- Academic staff
- Professional services staff
- Technical staff
- Student representatives.

Membership and the Chair of the committee are reviewed at the first meeting of each year. The Chair should be the Head of School/Function or their nominee. New membership should be encouraged each year. If requested, a representative from the Safety, Health & Welfare Office can attend as a non-voting member.

### 2. Meetings

Meetings should be conducted at least every 3 months or more frequently if required.

### 3. Agendas and Minutes

Recommended agenda items include:

- · Business arising from previous meeting;
- School/Function risk assessments
- Recent hazard and accident reports;
- Workplace inspections/audits findings;
- Training needs or upcoming courses of interest;
- First-aid requirements e.g. first responders and first-aid equipment needs;



- Feedback from the Campus and University Safety Health and Welfare Committees;
- Legislative or policy changes that are applicable to the work area; and
- Any issues that may affect the health and safety of employees/ students/ others in the School/ Function.

Minutes of meetings are to be recorded and circulated to the members of the School/Function Safety Committee.

#### 4. Issue Resolution

Issues should be attempted to be resolved at the School/Function Safety Committee level. If the issue cannot be resolved it should be forwarded to the Campus Safety Committee for assistance in issue resolution. Urgent issues should be brought to the attention of the Head of School/Function and/or the Dean/Head of Service as soon as possible for resolution.

