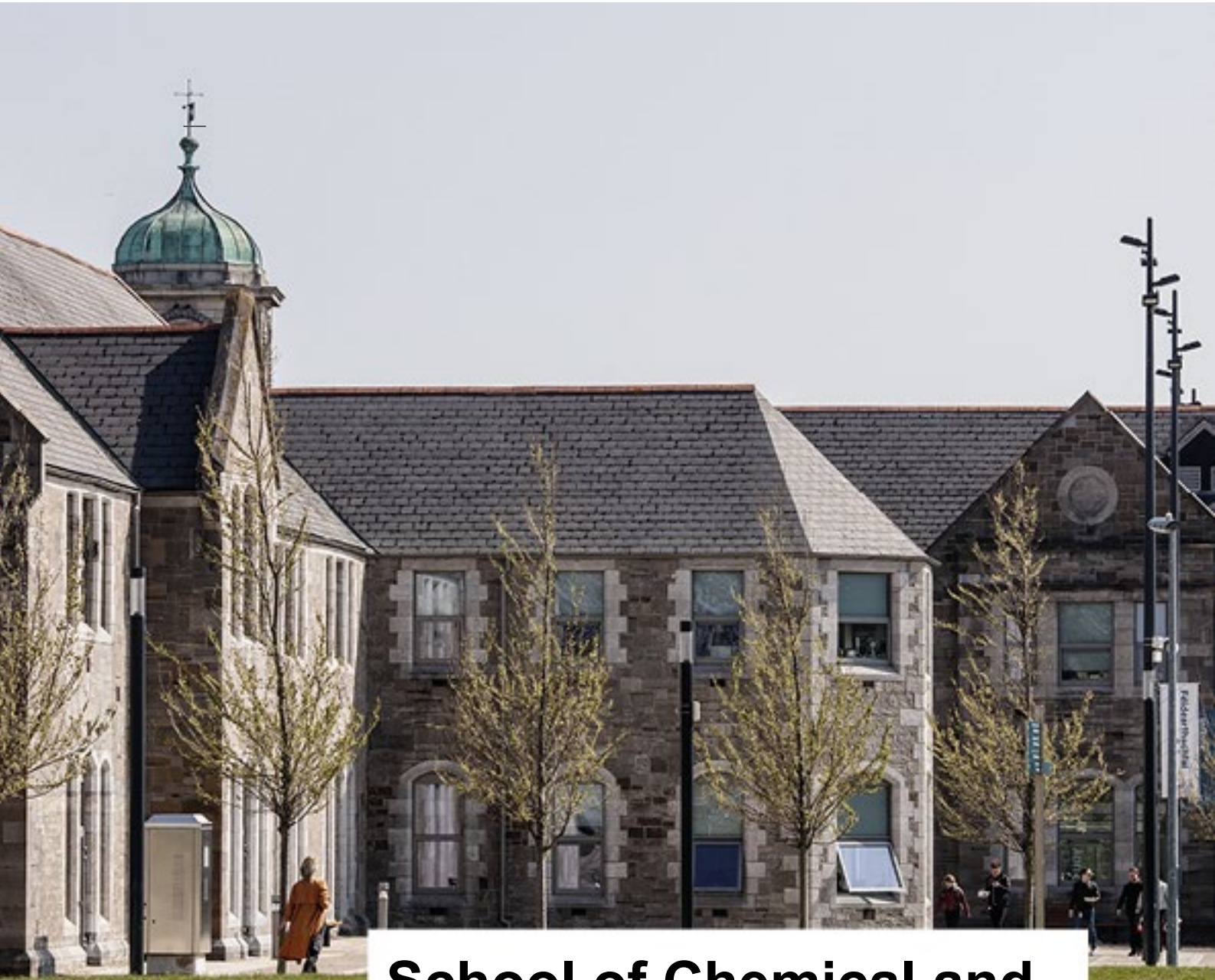

School of Chemical and BioPharmaceutical Sciences

Safety Arrangements and Risk Assessments

OLLSCOIL TEICNEOLAÍOCHTA BHAILE ÁTHA CLIATH

TU DUBLIN

TECHNOLOGICAL UNIVERSITY DUBLIN

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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 BioPharmaceutical Sciences working group	School of Chemical and BioPharmaceutical Sciences
Owner e.g. Head of School of Chemical and BioPharmaceutical Sciences	Head of School, Prof Declan McCormack
Version	1.1
Status e.g. draft/ Final	Final
Approved by	Declan McCormack
Approval date	22.02.2024

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 duties of employers and employees, 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, 91 people are employed in either full- or part-time roles as described below

- Academic staff
    - 1 Senior Lecturer III (Head of School)
    - 4 Senior Lecturer II (Heads of Discipline)
    - 4 Senior Lecturer I
    - 48 Lecturers (Full time)
    - 7 Lecturers (Part time)
- Administrative staff
    - 1 Operations Lead
    - 3 Administrators (1 FT plus 2 part time)
- Laboratory staff
    - 3 Senior Technical Officers
    - 11 Technical Officers
    - 4 Technicians
    - 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. Patrice Behan (Head of Chemical Sciences), Prof. Anne Greene (Head of Part-Time Education) and Prof. John Cassidy (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

Taught Postgraduate Programmes offered by the School of Chemical and BioPharmaceutical Sciences

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)

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.

Signed:  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%20Safety%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*

Document Approval

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

Document Ownership

This document is owned by Prof. Declan McCormack

Document Storage

This document is available on the SHW website 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. Patrice Behan	Head of Chemical Sciences	City	(01) 220 5554	patrice.behan@tudublin.ie
Prof. John Cassidy	Head of Postgraduate Education	City	(01) 220 5552	john.cassidy@tudublin.ie
Prof. Anne Greene	Head of Part Time Education	City	(01) 220 5560	anne.greene@TUDublin.ie
Goretti Murphy Tara Duggan Aisling Smith***	School Administrators	City City Tallaght	(01) 220 5792 (01) 220 7510 (01) 220 8197	goretti.murphy@tudublin.ie tara.duggan@tudublin.ie aisling.smith@tudublin.ie

Name	Role	Location	Contact Number	Email Address
Breda Noonan	School Operations Lead	City	(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	John.behan@tudublin.ie Eleana.dunne@tudublin.ie Andrew.oconnor@tudublin.ie Tanweer.alam@tudublin.ie Tania.flynn@tudublin.ie
Brian Murphy (Chair) Prof. John Cassidy Dr. Gavin Sewell Dr. Aine Whelan	School Safety Committee (City)	City	(01) 2205579 (01) 220 5552	brian.murphy@tudublin.ie john.cassidy@tudublin.ie gavin.sewell@tudublin.ie aine.whelan@tudublin.ie
Catherine Bruen (Chair) John Behan John Byrne Paul Coleman Edel Niland Student Union Representative x 2 Gillian Kerins (Library representative) Michael Quinlan Mary Deasy Kevin Byrne Sarah Maher (Sustainability)	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 gillian.kerins@tudublin.ie Michael.quinlan@tudublin.ie Mary.deasy@tudublin.ie Kevin.byrne@tudublin.ie Sarah.maher@tudublin.ie

Name	Role	Location	Contact Number	Email Address
Conor McCague Eleana Dunne				Conor.mccague@tudublin.ie Eleana.dunne@tudublin.ie
Brian Murphy Eleana Dunne	Person responsible for document control	City Tallaght	(01) 220 5232 (01) 2207180	brian.murphy@tudublin.ie Eleana.dunne@tudublin.ie
Goretti Murphy	Person responsible for training register	City	(01) 220 5792	goretti.murphy@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	Contact Number	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.

Categories of School of Chemical and BioPharmaceutical Sciences Personnel	Tick (✓) which is relevant to your School of Chemical and BioPharmaceutical Sciences
Employees	
○ **Academic staff**	✓
○ **Technical staff**	✓
○ **Laboratory aides**	✓ – No lab aides on Tallaght campus
○ **Professional Services staff**	✓
○ **Administrative staff**	✓
○ **Other (please specify) Cleaning staff**	✓
Contractors/Service Providers	✓
Franchise Holders, Campus Companies, Others with Shared Occupancy	✓
Students	✓
Visitors	✓
Campus 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:

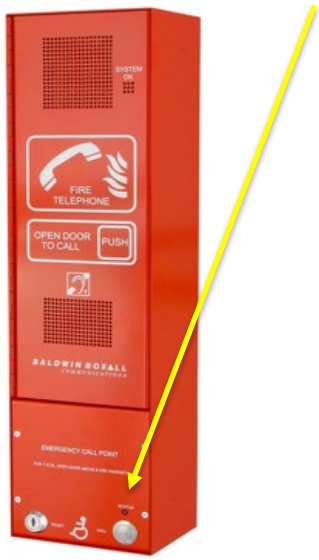
- Do not panic;
- Activate the nearest alarm call point or break glass unit, after which;
- Alert the front desk/reception or Emergency Services if possible;
- Fight the fire with the appropriate fire extinguisher **only** if it is safe to do so and you are trained; and
- Follow the evacuation procedure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

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
Hugh Gallagher	Tallaght	01-2207914	Hugh.gallagher@tudublin.ie
Darvree Downey	Tallaght	01-2207882	Darvree.downey@tudublin.ie
First-aiders are responsible for checking first-aid kits and equipment in their areas.			

FIRST-AIDERS			
Name	**Location**	**Contact Number**	**Email Address**
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 link.

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, 4th Floor
Rathdown House, Grangegorman	Room RD003, Ground Floor
Tallaght	Medical Centre, 1st 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 click here
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
Chaplaincy **City** **Tallaght** **Blanchardstown**	 (01) 2207076 (01) 220 7671 / 086 102 2698 (01) 220 7089 / 086 0671548
Security Control Centre 24 hour **(Grangegorman, Orchard House)**	(01) 220 7615 (01) 220 7616
Student Counselling Service	086 0820543
Corporate Employee Assistance Programme **(Spectrum Life)** **24 hours a day/365 days per year**	Call freephone **1800 814 243** or text "Hi" using WhatsApp or SMS to **087 369 0010** 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)** **Grangegorman, Rathdown House (First floor)** **Tallaght (Room 110, First Floor of Main Building)** **Blanchardstown (Room 108/109, First Floor Croí Building)**	 (01) 220 5700 (01) 220 5700 (01) 220 7739 (01) 220 8117/ 087 188 1336

External Emergency contact numbers		
Emergency Services	**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 Blanchardstown **Southside** (01) 401 3000 St. James Hospital (01) 414 2000 Tallaght Hospital	
Dublin City Council	(01) 222 22 22	
Garda Síochána	**Northside:** Bridewell: (01) 666 8200 Mountjoy Square: (01) 666 8600 Fitzgibbon Street: (01) 666 8400 Store Street: (01) 666 8000 Tallaght: (01) 666 6000 Blanchardstown: (01) 666 7000	**Southside:** Kevin Street: (01) 666 9400 Pearse Street: (01) 666 9000
Gas Networks Ireland 24-hour Emergency	1850 20 50 50	
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 week)	

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 here)
- 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 **ONLY** 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 here

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.***


Eye protection must be worn


Ear protection must be worn


Safety gloves must be worn


Safety overalls must be worn


Face protection must be worn


Safety harness must be worn

Chef Uniform

Laboratory Coat

Safety Shoes

Other, Please list

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 report form 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✓);***

☒Chemical ☒Gas ☒Biological ☐Laser ☒Machinery and plant

☐Working at heights ☒Child Protection Training ☒Other (please 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 SHW website and the HSA website. 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.

RISK FACTOR MATRIX		Severity (What could the impact be?) → → → →				
		1	2	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
5	**Certain** It will almost certainly occur?	5 LOW	10 MEDIUM	15 HIGH	20 HIGH	25 HIGH
4	**Frequent occurrence** It could occur on a regular basis?	4 LOW	8 MEDIUM	12 HIGH	16 HIGH	20 HIGH
3	**Likely occurrence** It could occur but not on a regular basis?	3 LOW	6 MEDIUM	9 MEDIUM	12 HIGH	15 HIGH
2	**Occasional occurrence** It is unlikely to occur but it is possible?	2 LOW	4 LOW	6 MEDIUM	8 MEDIUM	10 MEDIUM
1	**Improbable occurrence** It is very unlikely to occur?	1 LOW	2 LOW	3 LOW	4 LOW	5 LOW
RISK ACTION						

Severity (S) X Likelihood (L) = RISK FACTOR RATING (RFR) before risk controls.

After risk controls are applied = RESIDUAL RISK RATING (RRR)

1 - 5	Indicates a **LOW** risk	Proceed with caution as there could still be risks present
6 - 10	Indicates a **MEDIUM** risk	Proceed with caution as there are Medium risks still present. Improve control measures if reasonably practicable.
12 - 25	**Indicates a HIGH risk**	**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)*	**No**	**YES**	***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		✓	
Gases (natural gas, gases in cylinders and piped gases)		✓	
Lasers		✓	
Physical			
Manual handling		✓	
Display Screen Equipment/Visual Display Units (i.e. computers, laptops)		✓	
Equipment/Machinery		✓	

Electricity		✓	
Hand Tools		✓	
Heat Sources / High Temperatures / Hot Surfaces		✓	
Instrumentation		✓	
Lifting Equipment / Mechanical Aids Vehicles		✓	
Noise		✓	
Power Tools			
Pressure Systems		✓	
Machinery & Plant		✓	
Portable Electrical Appliances (Note: PAT risk assessment to be completed)		✓	
Radiation	x		
Vibration	x		
Working at Height (incl. use of ladders)	x		

Human Factors			
Sensitive Work Groups: Pregnant Employees /Students & Nursing Mothers		✓	
Young Persons, Students on Placement		✓	
People with Disabilities		✓	
Visitors		✓	
Contractors/ Service Providers		✓	
Out of hours access		✓	
Allergens		✓	
Psychosocial e.g. Violence, aggression, stress, bullying, harassment, horse play		✓	
OTHER HAZARDS / ANY OTHER RELEVANT INFORMATION :			

Risk Assessments Tallaght Campus

BIOLOGICAL- Laboratory Spaces	
Ref No/ ID number: TA01	**Date of Assessment: 27th July 27, 2023** **Review Date: 27th July 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)
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

		-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, people with disabilities ☐Other (please specify)						

OPERATIONAL- Laboratory Spaces						
Ref No/ ID number:TA02		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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 <u>implemented</u> 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): ☒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:TA03		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)

Psychosocial Hazard - Violence **Illness/injury to staff/students/visitors**	**-Physical harm or intimidation** **-Adverse clinical outcome** -Death	-Security at front desk -Regular patrol of the building -Incident/near miss reporting in place -Emergency numbers posted -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 nurse onsite	1X1 = 1 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)						

CHEMICAL						
Ref No/ ID number: TA04		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
Chemicals	• Skin Contact • Inhalation of dust / volative chemicals • Inhalation of solvent vapours • Accidental ingestion • Fire & explosion	-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 seggregation -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				

		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)						

PHYSICAL						
Ref No/ ID number: TA05		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
Gases	• Fire • Explosion • Asphyxiation • Cylinder with a damaged valve acting	-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 projectile • Personal injury moving cylinders	-Suitable PPE used, protective clothing, gloves, shoes & eye 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		currently in place		

		-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				
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)						

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

Hazard	**Risk(s) Associated/Description**	**Current Control measures**	**Risk Factor or 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)
Slips / Trips / Falls	• Physical Injury	-Good housekeeping in place -Reporting of hazards in place -Working at height not permitted by School staff https://www.hsa.ie/eng/publications_and_forms/publications/retail/gen_apps_work_at_height.pdf -Incident/near miss reporting in place 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	1X1 = 1 Low	• All control measures currently in use	Ongoing	Ongoing

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)

PHYSICAL- Laboratory Spaces						
Ref No/ ID number: TA07		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
Fire	• Personal Injury	• Good housekeeping in place • Extinguishers/blankets/call buttons in place and maintained.	5X1 = 5 Low	• All control measures currently in use	Ongoing	Ongoing

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

		• Solvent fire load kept to a minimum and stored in 90min flameproof cabinets when not in use • Staff trained in Emergency response				
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)						

PHYSICAL						
Ref No/ ID number: TA08		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)

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

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)

PHYSICAL- Laboratory Space						
Ref No/ ID number: TA09		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
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 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, people with disabilities ☐Other (please specify)						

PHYSICAL- Laboratory Spaces						
Ref No/ ID number: TA10		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
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

		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 Electric / phone cables should not trail or present as a trip hazard Good housekeeping and floor kept clear of obstructions 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): ☒Students ☒Staff members ☒Visitors ☒Contractors/ Service provider ☒Sensitive risk groups (young persons, pregnant women, people with disabilities ☐Other (please specify)						

PHYSICAL- Laboratory Space ~~- Draft~~						
Ref No/ ID number: TA11		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
Electricity	• Electric shock • Electric burns	Only qualified, authorized	5X2 = 10 Medium	• All control measures	Ongoing	Ongoing

	• Fire • Trips / falls • Death	personnel allowed to work with live 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		currently in use		

		No Cables left trailing on the ground. All electrical equipment to be grounded properly Flammable liquids not stored or used near live electrical parts.				
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)						

PHYSICAL-Laboratory Space ~~- Draft~~						
Ref No/ ID number: TA12		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
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

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)						

PHYSICAL- Laboratory Space						
Ref No/ ID number: TA13		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
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 Assessment available for pregnant ladies. -				
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)						

PHYSICAL- Laboratory Space ~~- Draft~~						
Ref No/ ID number: TA14		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
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 in a well-ventilated area				

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 – Laboratory Space

Ref No/ ID number:TA15

Date of Assessment: 27th July 2023
Review Date: 27th July 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)
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				
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 – Laboratory Space ~~– Draft~~						
Ref No/ ID number:TA16		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
Out of hours Working	**--Suffering an accident** **-Falling ill** **<u>Overcome by chemicals/gas</u>** **-Attack by another person**	-<u>Out of hours access must be approved</u> A register of out-of-hours access must be maintained at the main reception -Staff requiring access must book in advance, contacting estates manager, a copy sent to security personnel & permission	3X1 = 3 Low	None	N/A	Complete

		sought from line manager -On arrival, sign-in must carried out & sign out when departing				

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: TA17		**Date of Assessment: 27th July 2023** **Review Date: 27th July 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)
Chemical waste	• Skin Contact • Inhalation of dust / volative chemicals • Inhalation of solvent vapours • Accidental ingestion • Fire & explosion	-PPE must be worn worn -Undergraduate students are informed in pre-practical 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				

		disposing of waste, never lone working				

BIOLOGICAL- Laboratory Spaces						
Ref No/ ID number: TA18		**Date of Assessment: 27th July 27, 2023** **Review Date: 27th July 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)
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				

		removed after each laboratory session & autoclaved for 15 minutes, at 15psi at 121C & subsequently removed from site by waste contractors in wheeled bins -1% Virkon disinfectant solution is prepared freshly each Monday and available on every bench				
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)						

PHYSICAL	
Ref No/ ID number: TA19	**Date of Assessment: 31st July 2023** **Review Date: 31st July 20245** **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)
Slips, Trips, Falls	Personal injury Chemical spills	Good housekeeping in place Correct footwear Use of hazard warning signage where spills have occurred Carrying aids available e.g. bottle carriers, trollies etc. Spill kit available	5X1 = 5 Low	None	N/A	Ongoing
Fire	Personal Injury	Good housekeeping in place Chemical waste segregated to avoid adverse reactions Solvent fire load kept to a minimum and chemical waste stored in fume hoods in 10L drums prior to transport to waste IBC'c in a locked bunded container Extinguishers/fire blankets present and maintained. Fire drills at regular intervals	5X1 = 5 Low	None	N/A	Complete

		Staff trained in Emergency response				
Manual handling		**Staff training in place** **Lifting/carrying aids e.g. bottle carriers, trolleys etc.** **Maximum container size requiring lifting (10L/10kg)**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Working at height	**Falls, 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** **Steps available at the IBC's to decant off the waste containers** https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmSciences-AllStaff/Shared%20Documents/General/Health%20%26%20Safety/SOP%27s/Waste%20Disposal.docx?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**	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)						

OPERATIONAL						
Ref No/ ID number: TA20		**Date of Assessment: 31st July 2023** **Review Date: 31st July 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**
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: TA21	**Date of Assessment: 31st July 2023**

		Review Date: 31st July 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**	**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**
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: TA22		**Date of Assessment: 31st July 2023** **Review Date: 31st July 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 chemical waste** **Only UN approved transport containers are used for waste disposal** **Glass bottle bank on site for empty & clean chemical bottles.**	5X 1 = 5 Low	**None**	**N/A**	**Complete**

Stock piling	**Increased fire load**	**Waste/obsolete chemicals disposed of at least annually. More often where required.**	5X 1 = 5 Lo w	**None**	**N/A**	**Comp lete**
Spills	**Exposure to hazardous reagents**	**General chemical spill procedure in place** https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmSciences-AllStaff/Shared%20Documents/General/Health%20%26%20Safety/SOP%27s/Spillage%20containment.docx?d=wdd3f7819c66148f182b96e103c8a5088&csf=1&web=1&e=1HU1P7 **Spill kit onsite**	5X 1 = 5 Lo w	**None**	**N/A**	**Comp lete**
Chem ical Expos ure	**Adverse reaction/ch emical burn**	**Specific practical chemical risk 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** **Drench showers available in the labs** : 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%20wash%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**	5X 1 = 5 Lo w	**None**	**N/A**	**Comp lete**

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: TA23		**Date of Assessment: 31st July 2023** **Review Date: 31st July 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)
Spills	**Exposure to biohazardous materials**	**Howie style lab cost & glasses worn Appropriate PPE available, eg gloves. Pre-practical safety talks given to undergraduate students**	2X2 = 4 Low	**Ongoing**	**Ongoing**	**Ongoing**

		Eating & drinking in the lab prohibited **Only BSL 1&2 microorganisms onsite** **Hand wash facility available in all labs** **Drench showers available in the 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** **Nurse onsite** **Appropriate biological waste receptacles onsite for each waste type, 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)						

PHYSICAL						
Ref No/ ID number: TA24		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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)
Slips, Trips, Falls	**Personal injury**	**Good housekeeping in place.** **Supervision in place**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Carrying aids available e.g. bottle carriers, trollies etc. **No trailing cables**				
Manual handling	**Personal injury**	**Staff training in place** **Lifting/carrying aids e.g. bottle carriers, trolleys etc.**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Electrical	**Shock/Fire**	**Equipment is inspected for damage prior to use** **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**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		First aid supplies available in all labs **Emergency electrical Isolation push button in all labs**		Future consideration of linking a map to highlight location		
Hotplates	**Burns/Fire**	**Staff are trained.** **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**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Staff trained in Emergency response and Emergency First Aid **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						
Ref No/ ID number: TA25		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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 in undergraduate laboratories**	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)						

HUMAN FACTORS						
Ref No/ ID number: TA26		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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** Future consideration of linking the SOP for the locking procedure and control of keys	**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**
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: TA27		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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)
Contaminated equipment	**Exposure to hazardous reagents**	**Specific practical chemical risk assessment in place** **Equipment should be cleaned appropriately by the user at end of use with reference to the SDS and general chemical spill procedure**	5X1 = 5 Low	Future consideration to linking the risk assessments to this section ~~**None**~~	**N/A**	**Complete**

		Chemicals not stored on bench, only present during laboratory sessions				
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: TA28		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **Risk Assessor(s): Eleana Dunne**				
Hazard	**Risk(s) Associated/Description**	**Current Control measures**	**Risk Factor Rating**	**Further Control measures or**	**Action completed by**	**Status**

			(1-25) Severity (1-5) X Likelihood (1-5)	actions to be implemented to reduce the risk	whom and by when?	(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** **Gas taps are fitted with safety push down to turn on 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**				
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)						

PHYSICAL						
Ref No/ ID number: TA29		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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)
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**	5X1 = 5 Low	**None**	**Ongoing**	**Complete**

		Maximum container size requiring lifting (10L/10kg)				
Fire	**Personal Injury**	**Good housekeeping in place** **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.**	5X1 = 5 Low	**None-** Future consideration of linking the SOP	**N/A**	**Complete**

		Fire drills at regular intervals **Staff trained in Emergency response.**				
Working at height	**Falls, 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.** **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**	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)						

OPERATIONAL						
Ref No/ ID number: TA30		**Date of Assessment:** **Review Date:** **Risk Assessor(s):**				
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. Buddy system in operation**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Shared access to chemical waste receptacles between chemistry & biology laboratories	**Injury/Fire due to inappropriate storage/waste containers or infrequent disposal schedule**	**All waste containers used by the School are UN transport approved and are appropriately labelled** **10L containers used to house**	5X1 = 5 Low			

		waste generated during laboratories which are then decanted into IBC's in a locked bunded area				
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: TA31		**Date of Assessment:** **Review Date:** **Risk Assessor(s):**				
Hazard	**Risk(s) Associated/Description**	**Current Control measures**	**Risk Factor Rating**	**Further Control measures or**	**Action completed by**	**Status**

			(1-25) Severity (1-5) X Likelihood (1-5)	actions to be implemented to reduce the risk	whom and by when?	(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): ☐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: TA32		**Date of Assessment:** **Review Date:** **Risk Assessor(s):**				

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**	**Pre-practical safety talks for under-graduates includes instruction on appropriate waste disposal** **Segregation of incompatible waste**	5X1 = 5 Low	**None**	**Lead lectured & demonstrators**	**Ongoing**
Stockpiling waste	**Increased fire load**	**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, non-halogenated & inorganic waste is stored.**	5X1 = 5 Low	**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.** **Eating and drinking prohibited in laboratories.** **Containers ~~labeled~~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.**	5X1 = 5 Low	**None** Use of new laboratory management system may enhance safety controls	**Ongoing**	**In Progress** **In Progress**

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: TA33		**Date of Assessment:** **Review Date:** **Risk Assessor(s):**				
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)
Exposure to biohazardous agents	**Sickness / Illness**	**Good house-keeping in place.** **No eating / drinking in laboratories.** **PPE compulsory, Howie style lab coat & safety glasses.**	1X2 =2 Low	**N/A**	**Ongoing**	**Ongoing**

		Gloves used when handling biohazardous materials. Procedure for safe removal of contaminated gloves demonstrated to all undergraduate students. **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				
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)						

PHYSICAL	
Ref No/ ID number: TA34	**Date of Assessment: 31st July 2023**

		Review Date: 31st July 2024 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)
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** **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** **Buddy system in place to aid lifting items onto shelves**	5X1 = 5 Low	**None**	**N/A**	**Ongoing**
Cracked/broken glassware	**Cuts**	**Cracked, chipped or broken glassware should be disposed of**	2X1 = 2 Low	**None**	**N/A**	**Complete**
Overstocking of consumables?	**Reduced storage capacity thus increased materials to be lifted onto shelves, therefore more working above head-height**	**Bi- Annual consumable stocktake carried out** **Consumable not being used are disposed of**	2X1 = 2 Low	**None**	**N/A**	**Ongoing**

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 number: TA35		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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)
Lone working	**Injury**	**Lone working prohibited** **Buddy system in place**	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)

BIOLOGICAL						
Ref No/ ID number: TA36		**Date of Assessment: 31st July 2023** **Review Date:31st July 2024** **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)
Pests	**Illness and disease**	**Pest control measures in place (bait-boxes)** **No food or drink consumed in the consumable cage area**	1X1 = 1 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 number: TA37	**Date of Assessment: 31st July 2023** **Review Date: 31st July 2025** **Risk Assessor(s): Eleana Dunne**
PHYSICAL	

		Current Control measures	**Risk Factor Rating**			

Hazard	Risk(s) Associated /Description		(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	In lab training provided to students on the safe handling of sharps Cytotoxic sharps bins (yellow bin with purple lid) available for safe disposal of needles etc.	**1x1 = low**	N/A	Ongoing	Ongoing
Changing, using, fitting a needle.	Cuts/puncture 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				

Changing using, removing, fitting a scalpel blade	Cuts lacerations. Exposure to hazardous materials	In lab training provided to students on the safe handling of sharps		Draft an SOP and training to ensure best practice is being followed	Elena Dunne	**Outstanding** For completion by Sept 2023
Disposing of broken glass	Cuts lacerations. Exposure to hazardous materials	In lab training provided to students on the safe disposal of waste		Draft an SOP to ensure best practice is being followed	Elena Dunne	**Outstanding** For completion by Sept 2023
CHEMICAL						
Ref No/ ID number: TA38						

Date of Assessment: 31st July 2023
Review Date: 31st July 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)			

Chemical burns/CMR/Sensitiser exposure	Exposure to harmful substances	Technical staff familiar with the hazards of the chemicals in use	**5X1 = 5 Low**	N/A	N/A	N/A
		SDS for individual chemicals used in the laboratory are available from quartzy & manufactures website https://auth0.quartzy.com/u/login/identifier?state=hKFo2SBSNEFPVUtXRUdCMHpBRlEtb05BTkpJNWV4U0lUamZjLaFur3VuaXZlcnNhbC1sb2dpbqN0aWTZIEZQS3YtQUVzSHhLSTBPUV9VRXFHU2VPeVFoeEY2b1JSo2NpZNkgNWdUZDlDUWl2QVRpZnRWRnVTYnp5Vm91am5ldkpGODA		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: TA39

Date of Assessment: 31st July 2023
Review Date: 31st July 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)
Broken microscope slide	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

Ref No/ ID number: TA40

Date of Assessment: 31st July 2023
Review Date: 31st July 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)
Pregnant Employees /Students & Nursing Mothers Additional measures	• As per above • Harm to Mother, unborn child or breastfeeding baby • Physical risks • Chemical risks • Biological risks	• Pregnant staff member/student should inform Supervisor of pregnancy as soon as possible • Risk assessment carried out for pregnant employees/students and control measures implemented as identified	**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:** • **TU Dublin students** • **Transition Year Students**	• Injuries • Accidents and incidents • Lack of training and experience • Lack of familiarity with TU Dublin work environment, work practices and emergency plans • Physical risks • Chemical risks • Biological risks	• General induction process given by School • Training and supervision given	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

People with Disabilities		• TU Dublin Disability Office send 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 • Disability Support Service available • Induction/Elearning available from Health & Safety Office on request • Personal Emergency Egress Plans completed where required	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**
New Recruits: Full-time and part-time staff members	• Lack of experience • Lack of training	• Induction available (in person or online) from People Development Office	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

	• Injuries • Accidents and incidents • Lack of training and experience • Lack of familiarity with TU Dublin work environment, work practices and emergency plans	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	• Lack of experience • Lack of training • Injuries • Accidents and incidents • Lack of familiarity with TU Dublin work environment, work practices and emergency plans	• All work with chemicals is risk assessed prior to commencement • Induction available from the TU Dublin Health & Safety Office on request • E-learning available 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	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

		• Task-specific instructions/ demonstrations provided by staff where required • Supervision of students by staff members • Student support services available				
Postgraduates	• Lack of experience • Lack of training • Injuries • Accidents and incidents • Lack of familiarity with TU Dublin work environment, work practices and emergency plans	• 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 • School SOPs in place • Training and supervision in place by supervisor	**5X1 = 5 Low**	**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)						

PHYSICAL	
Ref No/ ID number: TA41	**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024**

		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)
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** **Chemicals are stored by Class with incompatible chemicals segregated further to avoid adverse reactions**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		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 Lifting/carrying aids e.g. bottle carriers, trolleys etc. Maximum container size requiring lifting (10L/10kg)**	5X1 = 5 Low	**None**	**N/A**	**Complete**
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 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 number: TA42		**Date of Assessment:** **Review Date:** **Risk Assessor(s):**				
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)

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)						

HUMAN FACTORS						
Ref No/ ID number: TA43		**Date of Assessment:** **Review Date:** **Risk Assessor(s):**				
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 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** **Staff trained and competent**	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 number: TA33		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2025** **Risk Assessor(s): Eleana Dunne**				

CHEMICAL						
Ref No/ ID number: TA44		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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**	**Obsolete chemicals disposed of at least annually. More often where required**	5X1 = 5 Low	New laboratory management system will assist ~~None~~	**N/A**	**Complete**
Spills	**Exposure to hazardous reagents**	**Chemical spill kits in-situ in the laboratories Fume hoods utilised when decanting /consolidating hazardous stock Weighsafe station, which contains a HEPA filter is used when weighing out hazardous materials**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Specific practical chemical risk assessment in place				
Chemical Exposure	**Adverse reaction/chemical burn**	**Specific practical chemical risk 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** **Point of use extract and fume cupboards available where required** **Eating and drinking prohibited in lab spaces** **Hand wash facility available in all labs and elbow activated sink available in the biology**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		laboratory 151 if necessary. **First aid supplies and eye wash stations /units available in all labs.** **Drench showers available in the laboratories** **Emergency first aid training in place** **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, pregnant women, people with disabilities ☒Other (please specify)						

BIOLOGICAL						
Ref No/ ID number: TA45		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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 whom and by when?**	**Status** (In progress/ Outstanding/ Complete)

			Severity (1-5) X Likelihood (1-5)	**implemented to reduce the risk**		
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 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** **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, pregnant women, people with disabilities ☐Other (please specify)						

PHYSICAL	
Ref No/ ID number: TA46	**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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)
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**	**Complete**
Fire	**Personal Injury**	**Good housekeeping in place** **SOP in place for storage and transport of chemicals** **Chemicals are stored by UN Class with incompatible chemicals segregated further to avoid adverse reactions**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		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				
Manual handling		**Staff training in place Lifting/carrying aids e.g. bottle carriers, trolleys etc. Maximum container size requiring lifting (10L/10kg)**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Working at height	**Falls, 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 pose a risk to**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		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, people with disabilities ☐Other (please specify)						

OPERATIONAL						
Ref No/ ID number: TA47		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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)
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)						

HUMAN FACTORS						
Ref No/ ID number: TA48		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **Risk Assessor(s):** Eleana Dunne				
Hazard	**Risk(s) Associated/Description**	**Current Control measures**	**Risk Factor Rating**	**Further Control measures or**	**Action completed by**	**Status**

			(1-25) Severity (1-5) X Likelihood (1-5)	actions to be implemented to reduce the risk	whom and by when?	(In progress/ Outstanding/ Complete)
Unauthorised access	**Injury, property damage**	**Digital access control in place Access can be further restricted with locked cabinets where required** **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**
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: TA 48		**Date of Assessment: 31st July 2023** **Review Date: 31st July 2024** **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)
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**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Obsolete chemicals disposed of at least annually. More often where required				
Spills	**Exposure to hazardous reagents**	**General chemical spill procedure in place** **Fume cupboard utilised when decanting/consolidating hazardous stock** **Specific practical chemical risk assessment in place** **Spill kits available in labs and location is labelled**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Chemical Exposure	**Adverse reaction/chemical burn**	**Specific practical chemical risk assessment in place** **Appropriate GHS labelling in place** **Lab coat and glasses mandatory in lab spaces** **PPE such as gloves available where identified**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		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)						

Risk Assessments City Campus

Risk Assessment General Spaces Central Quad

PHYSICAL	
Ref No/ ID number:	**Date of Assessment: June 2023**

		Review Date: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)
Slips, Trips & Falls	**Physical injury**	**Good housekeeping in place** **Reporting of hazards in place**	1X1 = 1 Low	**None**	**N/A**	**Complete**

		Working at height not permitted by School staff **Incident/near miss reporting in place** **Student lockers available**				
Fire	**Injury or death**	**Good housekeeping in place** **Regular fire drills and reviews carried out** **Fire extinguishers/blankets/call buttons in place and maintained**	1X5 = 5 Low	**None**	**N/A**	**Complete**

		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** **Fault/damage reporting in place** **Pest control in place**	1X5 = 5 Low	**None**	**N/A**	**Complete**
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**				
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 number:	**Date of Assessment: June 2023** **Review Date: July 2024**

		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 <u>implemented</u> 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** **Timetabling software in use**	1X1 = 1 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)						

HUMAN FACTORS	
Ref No/ ID number:	**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)
Violence	**Physical harm or intimidation**	**Security at front desk** **Access control to upper floors and rooms**	1X1 = 1 Low	**None**	**N/A**	**Complete**

		Regular patrol of the building **Incident/near miss reporting in place** **Emergency numbers posted**				
Illness/injury to staff/students/visitors	**Adverse clinical outcome** **Death**	**All laboratory staff in the School have emergency first aid training** **AEDs are available on**	1X1 = 1 Low	**Occupational first aid and AED training to be promoted to staff in the School**	**Head of School**	**In progress**

		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: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)
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: July 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 <u>implemented</u> to reduce the risk	Action completed by whom and by when?	Status (In progress/ Outstanding / Complete)
Pests	**Illness and disease**	**Waste bins changed regularly** **Rooms cleaned at regular intervals and on request** **Pest control measures in place (traps)**	1X1 = 1 Low	**None**	**N/A**	**Complete**

Viral outbreak	**Illness**	**Procedures in place to implement for Covid type outbreak**	1X1 = 1 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 Assessment Office Spaces Central Quad

PHYSICAL	
Ref No/ ID number:	**Date of Assessment: June 2023** **Review Date: July 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	**Physical injury**	**Good housekeeping in place** **Reporting of hazards in place**	1X1 = 1 Low	**None**	**N/A**	**Complete**

		Working at height not permitted by School staff **Incident/near miss reporting in place** **Lockers available**				
Fire	**Injury or death**	**Good housekeeping in place** **Regular fire drills and reviews carried out** **Fire extinguishers/blankets/call buttons in place and maintained**	1X5 = 5 Low	**None**	**N/A**	**Complete**

		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** **Fault/damage reporting in place** **Pest control in place**	1X5 = 5 Low	**None**	**N/A**	**Complete**
Manual handling		**Manual handling training in place** **TU Staff do not move furniture in rooms** **Rooms are laid out on request by building management company**	1X1 = 1 Low	**None**	**N/A**	**Complete**

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** **Appropriate lighting and task lighting provided** **Individual ergonomic assessment available if need identified**	1X1 = 1 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)						

OPERATIONAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> 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**
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: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)
Bullying/Harassment	**Poor mental health**	**Mandatory anti-bullying and harassment training in place** **Policy and protocol to deal with complaints in place**	5X1 = 5 Low	**None**	**N/A**	**Complete**

Violence	Physical harm or intimidation	Security at front desk Access control to upper floors and rooms Regular patrol of the building Incident/near miss reporting in place Emergency numbers posted	5X1 = 5 Low	None	N/A	Complete
Illness/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	1X1 = 1 Low	Occupational first aid and AED training to be promoted to staff in the School	Head of School	In progress

		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: July 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 <u>implemented</u> 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** **Good ventilation in place**	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)						

BIOLOGICAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding/ Complete)

Pests	**Illness and disease**	**Waste bins changed regularly** **Rooms cleaned at regular intervals and on request** **Pest control measures in place (traps)**	1X1 = 1 Low	**None**	**N/A**	**Complete**
Hygiene food prep areas	**Food poisoning/illness/pests**	**Food should not be consumed at desk** **Common food prep area/equipment should be cleaned regularly or after use as required**	1X1 = 1 Low	**None**	**N/A**	**Complete**

		Utensils and crockery should be cleaned after use **Household detergents available**				
Viral outbreak	**Illness**	**Procedures in place to implement for Covid type outbreak**	1X1 = 1 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 Assessment Laboratory Spaces

PHYSICAL	
Ref No/ ID number:	**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)
Slips, Trips, Falls	**Personal injury** **Chemical spills** **Stick injury with glassware**	**Good housekeeping in place** **Lockers available for student belongings** **Supervision in place**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Carrying aids available e.g. bottle carriers, trollies etc.				
Fire	**Personal Injury**	**Good housekeeping in place** **Incompatible chemicals stored separately** **Chemical waste neutralised/segregated to avoid adverse reactions** **https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmS**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		ciences-AllStaff/Shared%20Documents/General/Health%20%26%20Safety/SOP%27s/Waste%20Disposal.docx?d=w111f69f475f64794a5494c81c12cf1c7&csf=1&web=1&e=0FyqCc SOP disposal waste organic solvent 2024.doc **(City campus)** **Solvent fire load kept to a minimum and stored in 90min flameproof cabinets when not in use**				

		Extinguishers/fire blankets present and maintained **Fire drills at regular intervals** **Staff trained in Emergency response**				
Manual handling		**Staff training in place** **Lifting/carrying aids e.g. bottle carriers, trolleys etc.**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Maximum container size requiring movement (10L/10kg)				
Working at height	**Falls, 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 pose a risk to persons below due to their size/weight or contents**	5X1 = 5 Low	**None**	**N/A**	**Complete**

Piped gases	**Fire risk acetylene**	**Leak checked performed annually???** **Hydrocarbon sensor in place???** **Extract in place** **Gas line proving control and shut off in each lab**	5X1 = 5 Low	**None** Future consideration to link map with locations	**N/A**	**Complete**
	Fire risk hydrogen	**Leak checked performed annually???**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Hydrogen sensor in place??? **Extract in place** **Gas line proving control and shut off in each lab**				
	Fire risk natural gas	**Leak checked performed annually???** **Extract in place** **Gas line proving control and shut off in each lab**	5X1 = 5 Low	**None**	**N/A**	**Complete**

	Asphyxiation risk argon/helium/nitrogen	**Leak checked performed annually???** **Extract in place** **Gas line proving control and shut off in each lab**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Cracked/broken glassware	**Cuts, chemical exposure**	**Glassware should be 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 persons, pregnant women, people with disabilities ☐ Other (please specify)

OPERATIONAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 2025** **Risk Assessor(s): Brian Murphy**				
Hazard	**Risk(s) Associated/Description**	**Current Control measures**	**Risk Factor Rating**	**Further Control measures or**	**Action completed by**	**Status**

			(1-25) Severity (1-5) X Likelihood (1-5)	actions to be <u>implemented</u> to reduce the risk	whom and by when?	(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: July 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 <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** **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**
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: July 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 <u>implemented</u> 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** **Regular lab safety audit carried out**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		All fridges/freezers are spark proof design **Individual risk assessment carried out for each practical/project**				
Overstocking	**Increased fire load**	**Inventory list maintained** **https://app.quartzy.com/groups/193340/inventory**	5X1 = 5 Low	**None** New Lab safety Management system may assist in future	**N/A**	**Complete**

		Annual stocktake carried out **Waste/obsolete chemicals disposed of at least annually. More often if required**				
Spills	**Exposure to hazardous reagents**	**General chemical spill procedure in place** https://tudublin.sharepoint.com/:w:/r/sites/SchChemBioPharmSciences-AllStaff/Shared%20Documents/General/Health%20%26%20Safety/SOP%2	5X1 = 5 Low	**None**	**N/A**	**Complete**

		7s/Spillage%20containment.docx?d=wdd3f7819c66148f182b96e103c8a5088&csf=1&web=1&e=gtwXS3 **Specific practical chemical risk assessment in place** **Spill kits available in labs and location is ~~labeled~~labelled**				
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 **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: July 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 <u>implemented</u> 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 (young persons, pregnant women, people with disabilities ☐ Other (please specify)

Risk Assessment General Storage Spaces

PHYSICAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)

Slips, Trips, Falls	**Personal injury** **Stick injury with glassware**	**Good housekeeping in place** **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** **Extinguishers/fire blankets present and maintained**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Fire drills at regular intervals **Staff trained in Emergency response**				
Manual handling		**Staff training in place** **Lifting/carrying aids e.g. bottle carriers, trolleys etc.** **Maximum container size requiring movement (10L/10kg)**	2X1 = 2 Low	**None**	**N/A**	**Complete**

Working at height	**Falls, 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 pose a risk to persons below due to their size/weight or contents**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Cracked/broken glassware	**Cuts**	**Cracked, chipped or broken glassware should be disposed of**	2X1 = 2 Low	**None**	**N/A**	**Complete**

Overstocking	**Increased fire load**	**Inventory list maintained** **Annual stocktake carried out** **Waste/obsolete items disposed of at least annually. More often if required**	2X1 = 2 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)						

OPERATIONAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> 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)						

HUMAN FACTORS	
Ref No/ ID number:	**Date of Assessment: June 2023** **Review Date: July 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 <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**	1X1 = 1 Low	**None**	**N/A**	**Complete**
Behaviour	**Injury due to negligence/horseplay**	**Staff trained and competent**	1X1 = 1 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)

CHEMICAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 2025** **Risk Assessor(s): Brian Murphy**				
Hazard	**Risk(s) Associated/Description**	**Current Control measures**	**Risk Factor Rating**	**Further Control measures or**	**Action completed by**	**Status**

			(1-25) Severity (1-5) X Likelihood (1-5)	actions to be <u>implemented</u> to reduce the risk	whom and by when?	(In progress/ Outstanding / Complete)
N/A	**N/A**	**N/A**	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: July 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 <u>implemented</u> 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)**				
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 Hazardous Waste Storage Spaces (Central Quad)

PHYSICAL	
Ref No/ ID number:	**Date of Assessment: June 2023** **Review Date: July 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** **Chemical/waste spills/exposure**	**Good housekeeping in place** **Carrying aids available e.g. bottle carriers, trollies etc.**	5X1 = 5 Low	**None**	**N/A**	**Complete**

Manual handling	**Injury**	**Staff training in place** **Lifting/carrying aids e.g. bottle carriers, trolleys etc.** **Maximum container size requiring lifting (10L/10kg)**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Fire	**Personal Injury**	**Good housekeeping in place** **Assessment of capacity made prior to waste being brought to stores. Waste will remain in labs unless sufficient capacity available**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Chemical waste neutralised/segregated to avoid adverse reactions **Extinguishers/fire blankets present and maintained** **Fire drills at regular intervals** **Staff trained in Emergency response**				

Working at height	**Falls, 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 pose a risk to persons below due to their size/weight or contents**	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)						

OPERATIONAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (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** **Waste register for waste produced in the School is maintained**	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**

		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 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: July 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 <u>implemented</u> 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** Supervision	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)						

CHEMICAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> 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**	**Waste register in place** **Segregation of incompatible waste** **Solvent waste neutralised**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Stockpiling waste	**Increased fire load**	**Waste/obsolete chemicals disposed of at least annually. More often if required**	5X1 = 5 Low	**None**	**N/A**	**Complete**

Spills	**Exposure to hazardous reagents**	**General chemical spill procedure in place** **Spill kit and training** **Bunded pallet used to store solvent waste** **Elephant trunk extract in place**	5X1 = 5 Low	**Spill kit to be placed in storage area**	**Brian Murphy** **Oct 2023**	**In Progress**
Chemical Exposure	**Adverse reaction/chemical burn**	**Lab coat and glasses mandatory** **Point of use extract available**	5X1 = 5 Low	**Chemical resistant heavy duty gloves to be sourced**	**Brian Murphy** **Oct 2023**	**In Progress**

		Decanting of waste prohibited Eating and drinking prohibited in space Containers ~~labeled~~labelled appropriately Safety shower/First aid supplies and eye wash stations available in Goods Inwards Emergency first aid training in place		Signage required (PPE, flammable)	Brian Murphy Oct 2023	In Progress

		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: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)
N/A	**N/A**	**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)						

Risk assessment chemical waste, collection transport and disposal

PHYSICAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**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.**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Fire	**Personal Injury**	**Good housekeeping in place** **SOP in place for disposal of waste** **Chemical waste neutralised/segregated 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**	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** **Lifting/carrying aids e.g. bottle carriers, trolleys etc.**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Maximum container size requiring lifting (10L/10kg)				
Working at height	**Falls, 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 pose a risk to persons below due to their size/weight or contents**	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)						

OPERATIONAL						
Ref No/ ID number:		**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u>**	**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): ☒ 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: July 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 <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 or keyed** **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**
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: July 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 <u>implemented</u> 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 chemical waste** **Only UN approved transport containers are used for waste disposal** **Glass waste disposal bottles are prohibited** **Fume cupboard utilised when consolidating/ neutralising/packaging waste**	5X1 = 5 Low	**None**	**N/A**	**Complete**

Stockpiling	**Increased fire load**	**Regular lab safety audit carried out** **Waste/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** **Specific practical chemical risk assessment in place** **Spill kits and training available in labs and location is labelled**	5X1 = 5 Low	**None**	**N/A**	**Complete**

Chemical Exposure	**Adverse reaction/chemical burn**	**Specific practical chemical risk 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**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		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: July 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 <u>implemented</u> 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 (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: **Sharps2023**	**Date of Assessment: 09/11/23** **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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)
Manual handling	Heavy load causing injury when lifting	Trolleys used to move multiple containers Manual handling training and practical risk assessments completed/implemented	**2X1 = 2 Low**	N/A	N/A	N/A

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	B Murphy Additional sharps bins will need to be sourced, purchased and distributed 20 Feb 23	In Progress
		Full containers are transported on trolleys rather than by hand		Syringe/sharps resistant gloves to be sourced	B Murphy Sourced purchased and distributed 20 Feb 23	In Progress
		First aid stations are available in each laboratory		Training plan required for first aid training	Prof Declan McCormack On-site training for the School arranged for the 13-16th March 23	In Progress

Slips/Trips/Falls	Breakage and spillage of hazardous contents	Buddy system in operation Containers are sealed and transported by trolley.	**2X1 = 2 Low**	SOP to be updated to reflect spill kits to be transported with waste	B Murphy 20 Jan 23	Completed
House Keeping	Increased risk of trips falls Increased risk of hazardous material release during a fire	Waste levels are monitored and disposed of regularly	**2X1 = 2 Low**	Waste tag numbers will be recorded locally	B Murphy All waste tags going forward will be recorded locally. SOP to reflect this 20 Jan 23	Completed

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

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)

Chemical burns/CMR/Sensitiser exposure	Exposure to harmful substances	Technical staff familiar with the hazards of the waste being collected/transported	**5X1 = 5 Low**	SOP to reflect only the technical staff transporting the waste should travel in lift	B Murphy	Completed
		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)		Hard copy of risk assessments relevant to area of operation to be printed out and made accessible locally	Technical Staff To be completed by September 2023	In Progress
		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 harmed (please tick): ☒ Students ☒ Staff members ☐ Visitors ☐ Contractors/ Service provider ☒ Sensitive risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)						

BIOLOGICAL						
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)
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
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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)
Pregnant Employees /Students & Nursing Mothers	• Harm to Mother, unborn child or breastfeeding baby • Physical risks • Chemical risks • Biological risks	• Pregnant staff member/student inform Supervisor of pregnancy as soon as possible • Risk assessment carried out for pregnant employees/students and control measures implemented as	**5X1 = 5 Low**	N/A	N/A	N/A

		identified 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 • Room available ~~(Room CQ XXX~~, Central Quad, TU Dublin, Grangegorman) available for resting, breastfeeding and expressing milk • Follow medical advice				
Young Persons (<18 years of age on TU	• Injuries • Accidents and incidents • Lack of training and experience	• General induction process given by School	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

Dublin premises) **Circumstances include:** • **TU Dublin students** • **Transition Year Students**	• Lack of familiarity with TU Dublin work environment, work practices and emergency plans • Physical risks • Chemical risks • Biological risks	• Induction available from the Health & Safety Office on request • Elearning available from Health & Safety Office • Training and supervision given • TU Dublin emergency plans in place • All incidents are reported to TU Dublin				
People with Disabilities		• TU Dublin Disability Office send 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	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

		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	• Lack of experience • Lack of training • Injuries • Accidents and incidents • Lack of training and experience • Lack of familiarity with TU Dublin work environment, work	• 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	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

	practices and emergency plans	• Line Manager gives induction for School • Training and supervision in place by management				
Undergraduates	• Lack of experience • Lack of training • Injuries • Accidents and incidents • Lack of familiarity with TU Dublin work environment, work practices and emergency plans	• All work with chemicals is risk assessed prior to commencement • Induction available from the TU Dublin Health & Safety Office on request • E-learning available 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	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

		provided by staff where required • Supervision of students by staff members • Student support services available				
Postgraduates	• Lack of experience • Lack of training • Injuries • Accidents and incidents • Lack of familiarity with TU Dublin work environment, work practices and emergency plans	• 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 • Training and supervision in place by supervisor	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**
Personal Protective Equipment (PPE)	• Improper fit and use • Incorrect type • Poor maintenance • Lack of training • Exposure to physical or hazardous substances • Slips, trips and falls	• Appropriate selection of PPE • Consultation with staff • Inspection and maintenance of PPE • Students are responsible for	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

	• Lack of awareness of 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 risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)

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 <u>implemented</u> 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	**1x1**	N/A	N/A	N/A

		place Click here for SOP (City Campus) In lab training provided to students on the safe handling of sharps 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		SOP updated to reflect the "no recap/changing" policy in place Blunt fill/drawing up needle to replace "sharp" type needles to reduce risk of	B Murphy	**Completed** 2 May 2023 **Outstanding** Estimated delivery early May

				needle stick injury		
Changing using, removing, fitting a scalpel blade	Cuts lacerations. Exposure to hazardous materials	SOP for the safe use or scalpels in place In lab training provided to students on the safe handling of sharps		Review of SOP and training to ensure best practice is being followed	B Murphy	**Outstanding** For completion by Sept 2023
Disposing of broken glass	Cuts lacerations. Exposure to hazardous materials	SOP for disposal of waste in place In lab training provided to students on the safe disposal of waste		Review of SOP and training to ensure best practice is being followed	B Murphy	**Outstanding** For completion by Sept 2023

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

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

			Severity (1-5) X Likelihood (1-5)	d to reduce the risk		
Chemical burns/CMR/Sensitiser exposure	Exposure to harmful substances	Technical staff familiar with the hazards of the chemicals in use	**5X1 = 5 Low**	N/A	N/A	N/A
		SDS for individual chemicals used in the laboratory are available from manufactures website		N/A	N/A	N/A
		Risk assessments for each practical are available		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						

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)
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**	**Further Control measures or**	**Action completed by whom**	**Status**

			(1-25) Severity (1-5) X Likelihood (1-5)	actions to be <u>implemented</u> to reduce the risk	and by when?	(In progress/ Outstanding / Complete)
Pregnant Employees /Students & Nursing Mothers Additional measures	• As per above • Harm to Mother, unborn child or breastfeeding baby • Physical risks • Chemical risks • Biological risks	• Pregnant staff member/student should inform Supervisor of pregnancy as soon as possible • Risk assessment carried out for pregnant employees/students and control measures implemented as identified and necessary by Health & Safety Office • Risk assessment will be completed in conjunction with the Line Manager / a representative from the School where	**5X1 = 5 Low**	N/A	N/A	N/A

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

		• 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				
New Recruits: Full-time and part-time staff members	• Lack of experience • Lack of training • Injuries • Accidents and incidents • Lack of training and experience • Lack of familiarity with TU Dublin work environment, work	• 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	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

	practices and emergency plans	• Line Manager gives induction for School • Training and supervision in place by management				
Undergraduates	• Lack of experience • Lack of training • Injuries • Accidents and incidents • Lack of familiarity with TU Dublin work environment, work practices and emergency plans	• All work with chemicals is risk assessed prior to commencement • Induction available from the TU Dublin Health & Safety Office on request • E-learning available 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	**5X1 = 5 Low**	**N/A**	**N/A**	**N/A**

		provided by staff where required • Supervision of students by staff members • Student support services available				
Postgraduates	• Lack of experience • Lack of training • Injuries • Accidents and incidents • Lack of familiarity with TU Dublin work environment, work practices and emergency plans	• 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 • School SOPs in place • Training and supervision in place by supervisor	**5X1 = 5 Low**	**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)						

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 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 <u>implemented</u> 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**

		Carrying aids available e.g Dewars, trollies etc.				
Manual handling	**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.**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Maximum container size requiring lifting (10L)				
Extreme cold	**Cold burns**	**Lab coat and glasses must be worn** **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 doors**	5X1 = 5 Low	**None**	**N/A**	**Complete**
Oxygen depletion	**Asphyxiation**	**Cryogen dewars are filled in open air secure courtyard by gas supplier.**Click here for SOP (City Campus)	5X1 = 5 Low	**None**	**N/A**	**Complete**

		Dewars should not be accompanied in lifts. **Lifts should be secured at access and egress points with the Dewar transported unaccompanied.** **Large volumes of cryogen e.g. 200l 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**				

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 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**	**Further Control measures or**	**Action completed by**	**Status**

			(1-25) Severity (1-5) X Likelihood (1-5)	actions to be <u>implemented</u> to reduce the risk	whom and by when?	(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)						

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 <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 cabinets where required** **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 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 <u>implemented</u> 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): ☒ 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: 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 <u>implemented</u> 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 (young persons, pregnant women, people with disabilities ☐ Other (please 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 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 <u>implemented</u> 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 handling	**Personal Injury**	**SOP in place for collection transport and storage of bottled gases** **Staff training in place** **Lifting/carrying aids e.g. Dewars, trolleys etc.**	5X1 = 5 Low	**None**	**N/A**	**Complete**
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**				

		leak tested on installation and monitored thereafter Click here for SOP (City Campus)				
Oxygen depletion	**Asphyxiation**	**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/ 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 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 <u>implemented</u> 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)						

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 <u>implemented</u>**	**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/ 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: 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 <u>implemented</u> 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): ☒ 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: 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 <u>implemented</u> 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 (young persons, pregnant women, people with disabilities ☐ Other (please specify)						

Risk Assessment bench top equipment (including hotplates)

PHYSICAL	
Ref No/ ID number:	**Date of Assessment: June 2023** **Review Date: July 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 <u>implemented</u> 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.** **Supervision in place** **Carrying aids available e.g. bottle carriers, trollies etc.**	5X1 = 5 Low	**None**	**N/A**	**Complete**

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

		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** **Supervision in place**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		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 Aid **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	
Ref No/ ID number:	**Date of Assessment: June 2023**

		Review Date: July 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 <u>implemented</u> 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**

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: July 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 <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** **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**
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: July 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 <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**	**Specific practical chemical risk assessment in place**	5X1 = 5 Low	**None**	**N/A**	**Complete**

		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 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: July 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 <u>implemented</u> to reduce the risk**	**Action completed by whom and by when?**	**Status** (In progress/ Outstanding / Complete)

N/A	**N/A**	**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)						

Risk Assessment Flame Atomic Absorption Spectrometer

PHYSICAL						
Ref No/ ID number: **Atomic Absorption Instrument**		**Date of Assessment: 13.06.23** **Review Date: 13.06.25** **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 ***must*** be turned off after instrument use.	All Users	**COMPLETE**

		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): ☒ Students ☒ Staff members ☐ Visitors ☐ Contractors/ Service provider ☐ Sensitive risk groups (young persons, pregnant women, people with disabilities ☐ Other (please specify)						

OPERATIONAL	
Ref No/ ID number:	**Date of Assessment: 13.06.23**

Atomic Absorption Instrument		Review Date: 13.06.25 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 <u>implemented</u> 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. Burns: Risk of burns if any part of the body is placed 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 All users trained how to operate instrument and informed of	2X2 = 4 Low	No further measures needed.	All users	**COMPLETE**

• Burns		hazard prior to use.				
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:** **Review Date:** **Risk Assessor(s):**				
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)
• **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	**COMPLETED**

		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)						

OLLSCOIL TEICNEOLAÍOCHTA
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TECHNOLOGICAL
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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.