

Hazard identification and risk assessment

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1.0 Purpose

As per Section 19 of the Safety, Health and Welfare at Work Act 2005, all employers are required to identify hazards in their places of work, assess the risk, and document the risk assessment. The purpose of this procedure is to outline the methods by which compliance with this regulation can be achieved.

2.0 Scope

This Procedure applies to all units of the university, both academic and support, including the campus companies and research centres. These are all hereinafter collectively referred to as the 'university'.

The scope of the procedure includes:

- 5.0 Responsibilities
- 6.0 Procedure
 - 6.1 Hazard identification and Risk Assessments templates
 - 6.2 Creating a school/unit/department Hazard identification &Risk Assessment
 - 6.3 Pregnancy Risk Assessment
 - 6.4 Biological Agent Risk Assessment
 - 6.5 Chemical Risk Assessment
 - 6.6 Equipment Risk Assessment
- 7.0 Records

3.0 References

- > Safety Health & Welfare at Work Act 2005
- DCU Framework Safety Statement
- > DCU Local Safety Statement Template

4.0 Definitions

<u>Hazard:</u> source with a potential to cause injury and/or ill health

<u>Risk</u>: is the likelihood that a person may be harmed or suffers adverse health effects if exposed to a **hazard**





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<u>Risk Rating</u>: a combination of the likelihood of occurrence of a work-related hazardous event or exposure(s) and the severity of injury and/or ill health that can be caused by the event or exposure(s)

<u>Control measures</u> include actions that can be taken to reduce the potential of exposure to the hazard, or the **control measure** could be to remove the hazard or to reduce the likelihood of the risk of the exposure to that hazard being realised.

5.0 Responsibilities

Head of School/Unit should;

- ➤ Ensure that a thorough Hazard Identification process has been conducted for the school/unit.
- ➤ Carry out and arrange for the preparation of documented Risk Assessments for all hazards identified. This process should be carried out by a person familiar with the hazard. Additional training is provided by the Health & Safety Office.
- In order to reduce the level of risk associated with the hazard, ensure a program for the implementation of identified additional control measures is put in place
- Monitor control measures on an ongoing basis to ensure their effectiveness
- Review Risk Assessments annually and revise as required.
- ➤ Ensure content of Safety Statement and Risk Assessments are communicated to employees.
- Organise appropriate training as identified by risk assessment to mitigate hazards.

Researchers / research supervisors are responsible as far as practical for the safety of those post-doctoral research staff, technical staff, postgraduate and undergraduate students working under their direction. In particular the Principal Investigators are responsible for the following;

- To ensure that the hazards associated with the research project have been identified and assessed in writing and that adequate control measures are in place to minimise or eliminate the risk and that the results of the risk assessment are available to all in the research group or others who may be affected by the work of the group.
- > To ensure that members of the research group have received appropriate information and training to carry out tasks safely.
- > To ensure that potentially hazardous equipment associated with the project is inspected tested and maintained as necessary and records of inspection, test and maintenance are retained.
- > To ensure that all accidents and near misses are reported and investigated and corrective action is taken to prevent recurrence.
- To ensure that hazardous waste is disposed of safely.





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6.0 Procedure

The University has established this procedure to implement and maintain process(es) for hazard identification that are on-going and proactive. The hazard identification and risk assessment process(es) shall take into account but not be limited to:

- a) routine and non-routine activities and situations, including consideration of:
 - 1) infrastructure, equipment, materials, substances and the physical conditions of the workplace;
 - 2) product and service design, research, development, testing, production, assembly, construction, service delivery, maintenance or disposal;
 - 3) human factors;
 - 4) how the work is actually done;
- b) past relevant incidents, internal or external to the organization, including emergencies, and their causes;
- c) how work is organized, social factors (including workload, work hours, harassment and bullying), leadership and the culture in the organization;
- d) emergency situations;
- e) people, including consideration of:
 - 1) those with access to the workplace and their activities, including workers, contractors, visitors and other persons;
 - 2) those in the vicinity of the workplace who can be affected by the activities of the organization;
 - 3) workers at a location not under the direct control of the organization;

6.1 Hazard identification and Risk Assessment Templates

DCU Health and Safety Office have created and populated Hazard identification and Risk Assessment templates for the most commonly occurring hazards. These are available for download on the <u>DCU</u> Health and Safety Office webpage.

How to complete Hazard identification and Risk Assessment templates:

- 1. Download the applicable risk assessment template and save to a local folder as follows: DCU-School/unit acronym-number XXX e.g. DCU-HSO-001 Office Safety
- 2. Note: areas shaded in pink are pre-populated by DCU Health and Safety Office and should not be edited or deleted.
- 3. On the spreadsheet input the date of completion. Input a review date which should be a maximum of 1 year from date of completion.





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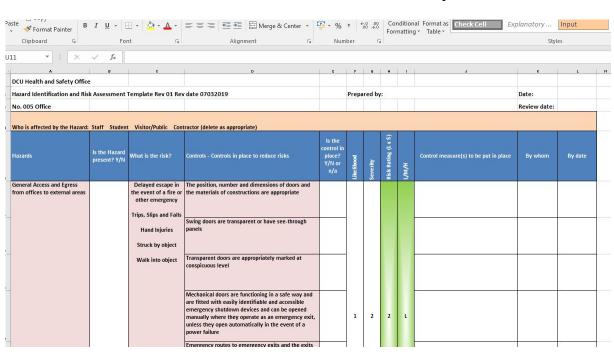
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- 4. Column A Hazards. Assess if the hazard is applicable to your department. If the hazard is present add "Y" to "column B. If the hazard is not present enter "N" and move onto the next hazard.
- 5. Evaluate the control. Review the control measures presented in column "D" If the control is in place insert "Y" to "column "E" and move onto evaluating the next control. If the control is not currently in place insert "N". There may be controls that are not applicable to the particulars of the school/unit, if this is the case insert "n/a". Note procedures that provide guidance on the control measure can be referenced and linked by inserting the procedure number.
- 6. Only when all controls for the Hazard have been evaluated should the level of risk can be determined.



Risk = Likelihood x Severity

7. The risk rating should be assessed using the guidelines provided in the table below. Likelihood and severity are assessed with the control measures in place. When the likelihood and severity risk rating have been entered, the template is formatted to automatically calculate the risk rating, column "H" as rate as high, medium or low, column "I".





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		Severity of the potential injury or damage				
		1	2	3	4	5
0-3 Low risk 4-12 Medium risk 13-25 High risk		Minor First	Minor Injury	Serious	Major	Fatal,
		Aid,	(< 3 days),	Injury/III	Injury/III	catastrophic
		insignificant	slight	health (>3	health,	loss of
		damage to	damage to	days), limited	critical	business
		property and or	property and or	damage to property and	damage to property	
		equipment	equipment	or equipment	and or	
		equipment	equipment	or equipment	equipment	
Likelihood of the hazard occurring	5 Certain	5	10	15	20	25
	4					
	Very likely	4	8	12	16	20
	3 Likely	3	6	9	12	15
	2 Abnormal conditions	2	4	6	8	10
	1 Very unlikely	1	2	3	4	5

8. The risk rating calculated will determine the next steps:

Low Risk - Maintain existing control measures, managed by documented routine procedures

Medium Risk - the proposed activity can only proceed provide that;

- the Risk Level has been reduced to as low as is reasonably practicable
 (ALARP) or as low as reasonably achievable (ALARA) using the hierarchy of
 risk controls;
- II. the risk controls must include those identified in legislation, standards, Codes of Practice etc
- III. the risk assessment has been reviewed and approved by the supervisor and
- IV. a safe working procedure or Safe Work Method has been prepared, approved and communicated.

High Risk – The proposed task or process activity must not proceed. Steps must be taken to lower the risk level to ALARP/ALARA using the hierarchy of risk controls.

If a control measure is not in place and the risk rating is **high**, a plan to implement same should be inputted in Column "J", "K" and "I".





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If a control measure is not in place and the risk rating is medium, consideration should be given to implementing additional controls to reduce the risk to as low as is reasonably practicable.

Column "K", by whom should refer to job titles and not specific names.

Column "L" by date should refer to expected date of implementation of the control measure by quarter and year i.e. Q1 2019, Q4 2019

9. On completion, the hazard identification and risk assessment can be printed as a PDF and a link inserted into the Local Safety Statement.

6.2 Creating a school/unit specific Risk Assessment.

There may be school/unit/department specific scenarios for which a template has not been created that need to be assessed. A blank Risk Assessment template is available from the Health and Safety webpage and should be completed as follows;

Download the blank risk assessment template and save to a local folder as follows: DCU-School/unit acronym-number XXX e.g. DCU-HSO-001 Office Safety

Column A – Specify the particular hazard

Column B – Specify if the hazard is present

Column C – Identify the risk associated with the hazard

Column D – List the controls that are necessary to mitigate the hazards. The controls should draw on legislation, codes of practice, industry best practice and local experience.

Column E – Enter whether the controls listed in D are in place, Y or N?

Column F and G – Assess the likelihood and severity of incident/injury with current controls in place.

Column J – Specify additional controls required to further reduce risk

6.3 Pregnancy Risk Assessment

Regulation 149 of the Safety, Health and Welfare at Work (General Application) Regulations 2007 specify that once an employee has informed her employer about her pregnancy the employer must conduct a Risk Assessment to ensure the employee is not exposed to anything that may endanger her, or the health of her baby.

The Risk Assessment must assess any hazard, resulting from a work activity, that may involve a risk of exposure to any agent, process or working conditions. The nature, degree and duration of hazardous activities must be assessed. Appropriate preventive and protective measures must be implemented to protect the employee and her baby.





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DCU Health and Safety Office have an online <u>Pregnancy Risk Assessment</u> that all pregnant employees should complete. This is a provisional assessment to notify the HSO of the pregnancy. A more detailed risk assessment may be completed if deemed necessary.

6.4 Biological Risk Assessment

The Faculty of Science and Health has appointed a Biological Safety Advisor who should be contacted in advance of completing a Biological agent risk assessment (bio.safety@dcu.ie).

The Faculty of Science and Health's <u>webpage</u> contains information pertaining to planned work with Biological Agents. All queries regarding biological risk assessments should be directed to <u>bio.safety@dcu.ie</u>

A Biological Safety Committee convenes regularly to review risk assessment documents submitted.

6.5 Chemical Risk Assessment

Schools and Research centres that use chemicals must create a procedure to assess the use of chemicals for the entirety of their life cycle from purchase to disposal. A Hazardous Substances Assessment Form (HSAF) or equivalent should be completed prior to purchase and approved by the nominated responsible person in the school.

6.6 Equipment Risk Assessment

Prior to new equipment being purchased a Preliminary Equipment Risk Assessment Form (DCU HSO F005) should be completed. This will assist in identifying hazards associated with the delivery, installation, use and disposal of the equipment. The findings of the Preliminary Equipment Risk Assessment may be such that full Equipment Risk Assessment (DCU HSO F006) will be required. These forms are available by contacting safety@dcu.ie. The Preliminary Equipment Hazard identification and risk assessment should be completed and submitted, prior to placing the order, to the Health & Safety Office and the unit/School who has oversight of the area to which the equipment may be installed.

6.7 Radiation Risk Assessment

Any work with radiation sources must comply with the <u>DCU Radiation Safety Procedures for the Use of Sources of Ionising Radiation</u>. Further information including information related to registering work with ionising radiation sources and training is available at <u>DCU Radiation Safety Webpage</u>.

7.0 Records

All risk assessments are included in the school/unit/department Safety Statement. The safety statement is reviewed annually and revised as required.

All risk assessments should be stored in a location readily accessible for all staff.





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8.0 Contact

DCU Health and Safety Office CG10 Henry Grattan Building, DCU Glasnevin Campus Dublin 9 01 700 8678

9.0 Document Control

Revision No: Date:		Purpose of Revision:	
01	Jan 2021	New SOP	





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Training acknowledgement

I confirm that I have read, and understood the standard operating procedure, and I understand that as an employee, it is my responsibility to work in accordance with the procedure.

If I have questions about the procedure, I understand it is my responsibility to seek clarification from my supervisor.

PRINT NAME	School/Unit	Signature	Date

