Faculty of Science and Health

RISK ASSESSMENT PROCEDURE

Section 1 - Purpose

(1) In accordance with the Health, Safety and Wellbeing Policy, the CSU Risk Management Policy and the Work Health and Safety Act 2011 No.10 the Faculty of Science and Health (FOSH) shall provide a safe and healthy environment for staff, students, visitors and contractors. One mechanism for achieving this is by applying risk management principles. Risk Management is a logical and systematic method used to control risk in a structured manner. It does this by reducing the risk (likelihood and severity) of incidents, injury or damage resulting from specific activities. The FOSH uses a formal risk assessment document and a risk register to achieve this.

Scope

(2) All activities conducted in FOSH Facilities and off campus localities used for work, research or teaching (e.g. field sites and placement facilities).

Section 2 – Policy

(3) Risk management policy
(4) Risk Management Procedure
(5) FOSH Laboratory, Specialist Teaching Space and Field Work Undergraduate & Postgraduate Course Work Documentation Policy and Procedure
(6) FOSH Research WHS Requirements Policy and Procedure

Section 3 – Procedures

(7) A risk assessment should be completed for activities with potential hazard or risk conducted in FOSH facilities and off campus localities used for work, research or teaching (eg. field sites and placement facilities).
(8) Risk assessments should be completed by the person or persons who normally undertake the task in consultation with their colleagues, line manager and facility manager.

(9) A task/project risk assessment should be completed based on the activity type using the Generic Risk Assessment form.

(10) If a task/project risk assessment identifies that specialised risk assessments are required, specialised l risk assessments should be completed accordingly. Specialised risk assessments that may be required include:

i. Hazardous chemicals risk assessment
ii. Microorganism risk assessment

These specialised risk assessments provide a more detailed risk analysis and should accompany purchase orders in Unimarket for procurement of these hazardous materials.

(11) The risk assessment must be completed on the FOSH approved form and must:

a. identify the tasks – list the substances, equipment and methods that are going to be used for the job
b. identify the hazards associated with the task/s
c. identify and assess the risks associated with these hazards using the Risk Management guideline.
d. implement control measures to eliminate or minimise the risks
e. measure and evaluate the effectiveness of the controls

Identify the task

(12) In the risk assessment describe the work process or task and identify substances, equipment and methods that will be used in sufficient detail that the associated risks can be adequately assessed and approved.

a. Consult Safe Work Procedures (SWP) or develop if not available.

Identify the hazards

(13) A hazard is defined as something that has the potential to harm the health, safety and welfare of people at CSU, or damage property, equipment or the environment.

(14) Project/activity hazard identification – identify the potential hazards associated with the task or activity.

a. List all applicable hazards based on the activity/task, (including hazardous chemicals and microbiological which require an additional specialised risk assessment to be completed in more detail).
b. If activities will occur in multiple locations (e.g. laboratory for some activities and fieldwork for other activities, all hazards associated each location must be identified)

(15) Workplace conditions hazard identification – identify the potential hazards relating to the work environment where activity/task will occur.

a. If activities will occur in multiple locations (e.g. laboratory for some activities and fieldwork for other activities, all hazards associated each location should be identified)

(16) Environmental impacts hazard identification – identify potential hazards for the environment or property posed by the task/activity.

Identify and assess the risks

(17) Risk refers to the likelihood that a hazard will cause injury, illness or disease, and the severity of the injury, illness or disease that may result. Risk level may vary between employees depending on, for example, training, skills and experience, physical capabilities, environmental conditions and the number and complexity of tasks being carried out in unison.

Some considerations:

- Are there heavy or awkward lifting jobs?
- Are people properly trained?
- Do people follow correct work practices?
- Is there poor housekeeping?
- Look out for clutter, torn or slippery flooring
- Sharp objects sticking out
- What if equipment is misused?
- What might people do that they shouldn't
- How could someone be killed?
- How could people be injured?
- What may make people ill?
- Inadequate ventilation
- Isolation
- Accidental spill
- Equipment malfunction
- Working after hours or alone

Determine the consequences

(18) Assess the severity of the potential outcome from a hazard (table 1) and consult the CSU Risk Management Guidelines. Some potential outcomes include:

- Broken bones
- Eye damage
- Hearing problems
- Strains or sprains
- Cuts or abrasions
- Bruises
- Burns
- Lung problems
- Poisoning
- Inhalation
- Ingestion
- Eye contamination
- Skin exposure

Table 1 Consequences

Consequence	SAFETY	ENVIRONMENT	TRUST AND REPUTATION	REGULATORY	ASSET DAMAGE
INSIGNIFICANT	Illness or injury not requiring treatment	Negligible or no discharge to environment	Negligible or no damage or media	Non-compliance with best practice	Very minor damage and clean-up or restoration. Repair easy and low cost. <$2K
MINOR	Illness or injury requiring first aid	Small discharge to environment. No Damage. No remediation required	Minimal damage to relationships with local stakeholders or neighbours No media coverage	Non-compliance with standards	Minor damage, asset able to be repaired, restored. No noticeable or visible damage remaining. <$10K
MODERATE	Illness or injury requiring medical treatment or resulting in restricted work or lost time	Small discharge to environment. Simple remediation may be required	Some disruption to local operations. Impact on relationships with stakeholders or neighbours Short term local media coverage	PIN – Penalty Improvement Notice	Moderate damage Asset able to be repaired and reinstated to pre damage condition <$50K
MAJOR	Serious illness or chronic exposure resulting in a significant reduction to life expectancy One or more injuries resulting in permanent disability	Discharge with local medium-term impact. Remediation may be required	Damage to relationships with key stakeholders of material benefit to state-based operations. Prolonged local media coverage	Breach of regulation / licence with fine / prosecution	Major damage Asset able to be repaired but not able to be reinstated to full pre-damage condition. <$1M
CATASTROPHIC	Multiple Serious illness or chronic exposure resulting in a significant reduction to life expectancy One or more fatalities	Discharge with extensive impact. Possible evacuation	Damage to relationships with key stakeholders of material benefit to entity Limited interest group, outrage in all states Short term adverse national media coverage	Suspension of licence to operate	Severe damage, asset unable to be repaired, reinstated, or replaced. Priceless one of a kind.

Source Risk Assessment Form (csu.edu.au)

Determine the likelihood

(19) For the risks identified, assess the likelihood that the risk may occur and determine a Likelihood rating using Table 2.

Table 2 Likelihood

Risk Likelihood Ratings Guide		
Likelihood Rating	**Description**	**Indicative Frequency of Occurrence**
5. Almost Certain	The event will occur within the planning period.	Greater than 90% chance of occurring/known to occur every year.
4. Likely	The event is likely to occur within the planning period.	51% to 90% chance of occurring/once every 1-2 years.
3. Possible	The event may occur within the planning period.	30% to 50% chance of occurring/once every 2–3 years.
2. Unlikely	The event is not likely to occur in the planning period.	5% to 30% chance of occurring/once every 3–5 years.
1. Rare	The event will only occur in exceptional circumstances.	Less than 5% chance of occurring/once every 5–10 years.

Source Risk Management Guidelines

Risk Ratings Matrix

(20) Cross reference the consequences of an event with the likelihood of it occurring using the risk assessment matrix (table 3). This enables the level of risk associated with the hazard to be identified.

Table 3 Risk Ratings Matrix

Risk Ratings Matrix					
Risk Matrix	**1. Insignificant**	**2. Minor**	**3. Moderate**	**4. Major**	**5. Catastrophic**
5. Almost Certain	Medium	High	High	Very High	Very High
4. Likely	Medium	Medium	High	High	Very High
3. Possible	Low	Medium	Medium	High	High
2. Unlikely	Low	Low	Medium	Medium	High
1. Rare	Low	Low	Low	Low	Medium

Source Risk Management Guidelines

Interpreting the Matrix

(21) The process to be followed based on the risk matrix (table 3) is outlined in (table 4).

Table 4 Matrix Interpretation

Risk Rating	Attention	Actions	Process to be Followed
Very high	Urgent	Act now if a situation arises. Notify Supervisor immediately	The task **CANNOT PROCEED** without lowering the risk. Implement as many of the 'hierarchy of controls' as possible before re-determining the risk
High	High priority	Act now if situation arises. Notify Supervisor today	The proposed activity can proceed if **all the** following circumstances are met: I. The risk has been reviewed to get a ranking as low as possible using the hierarchy of controls II. The controls identified include those stated in the Codes of Practice, the Australian Standards and in relevant legislation III. The supervisor must review the document and the effectiveness of the implemented risk controls IV. SWP/s have been developed and implemented V. The risk assessment has been reviewed by the supervisor and the Facility Manager and approved as per Figure 1 Approval flow chart VI. All documents to be forwarded to Technical Support Unit for archiving in Unirecords VII.

Medium	Medium priority	Action required this week Task is acceptable provided current and additional controls are verified as effective and in place by the site, task or activity manager or their delegate. See process of be followed	The proposed activity can proceed under the following circumstances: I. The risk has been reviewed to get a ranking as low as possible using the hierarchy of controls VI. The risk assessment has been reviewed by the supervisor and the Facility Manager and approved as per Figure 1 Approval flow chart VII. SWP/s in place and implemented VIII. For hazardous chemicals approval may be obtained from Area Technical Manager
Low	Low priority	Hazard may not need immediate attention Manage with existing controls in place	Manage by implementation of documented procedure I. risk assessment approved as per Figure 1 Approval flow chart II. SWPs and Risk register and the use of the hierarchy of controls III. For hazardous chemicals approval may be obtained from Area Technical Manager

NOTE: All risk assessment documents must be signed and records kept. All risk assessments with a **Level of Very high or High must also be archived** in the University's Electronic Records management system. Risk assessments with very high or high risk ratings must be sent to Technical Support unit for archiving.

Determine control and implement measures

(22) Determine control measures (Table 5) to eliminate or minimise the risks and hazards wherever practicable. If it is NOT practicable to eliminate the risks, then the risks need to be reduced through substitution or engineering controls. Control measures are hierarchal and it is important for implementation to start at the highest level. The last level of control is to provide personal protective equipment (PPE) against the risk. PPE does nothing to minimise or alter the original risk, and any failure of the PPE exposes the wearer to the full hazard potential.

Table 5 - Hierarchy of Controls

Hierarchy	Control Measure	Detail
1	Elimination	Remove the hazard completely from the workplace or
2	Substitution	Substitute less hazardous materials, equipment, processes or substances
3	Isolate	Physically separate the source of harm from people
4	Engineering Controls	Redesign the work methods by using mechanical aids, use of tools or equipment (e.g. raise a bench to reduce bending)
5	Administrative Controls	Ensure safe work procedures are in place, registers, signage, training
6	Personal protective equipment	Use appropriately designed PPE for the task eg gloves, eye protection

(23) Standard risk controls for laboratory and fieldwork should be included in risk

assessment and implemented as standard practice. Where the standard risk control does not sufficiently address the hazard outlined in the risk assessment, additional controls may be required.

(24) Safe work procedures should be developed as an administrative level of control for commons tasks that involve risk.

a. Safe work procedures should identify the hazard and provide clear, concise instruction on how to perform a task to minimise the risk.
b. Safe work procedures should be written where possible by the person responsible for carrying out the task or by an individual with training/expertise in the procedure. Safe work procedures should be reviewed by the appropriate area technical manager and approved by the Faculty Executive Officer or delegate, (such as Head of School for research SWPs).
c. Safe work procedures should be use for training purposes to ensure consistent instruction.
d. Safe work procedures should be listed on associated risk assessments and added to the Safe Work Procedure register.

Approving the risk

(25) The risk assessment should be reviewed and signed by the appropriate authority as per the risk assessment approval flow diagram. (Figure 1). Where there is a disagreement about the level of risk, the assessment is referred to the Division of Safety Security and Wellbeing. The task cannot proceed until resolution is reached by all the parties.

(26) Hazardous chemical risk assessments may be approved by the Area Technical manager for low/medium risks as per table 4

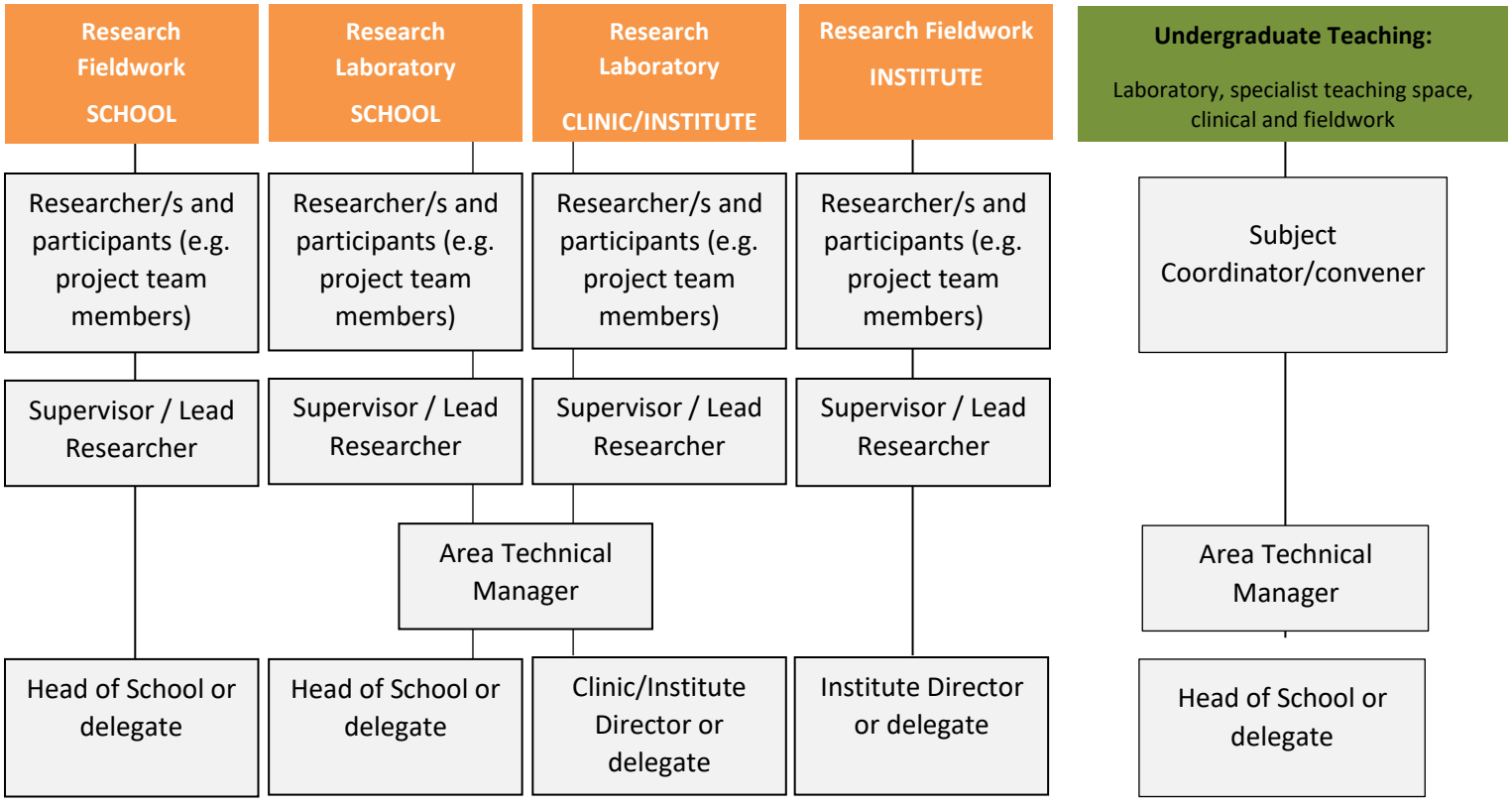

Figure 1: Risk assessment approval flow charts

Monitor and evaluate risk controls

(27) The effectiveness of controls needs to be measured and evaluated. The Facility Technical Manager should maintain a Risk Control Plan outlining the hazards, priorities, objectives, control measures, target dates, persons responsible, resources, performance indicators, review date and progress. Employees should be consulted and informed about any interim or final plans.

(28) Monitoring can be carried out by:

a. Inspecting and testing by the supervisor or through audits
b. consultation with employees
c. observation
d. relevant WHS complaints
e. relevant hazard reports
f. injury and illness records relating to the risks being controlled

(29) To prevent the introduction of new hazards into the workplace, risk management needs to be integrated into:

a. planning and design of the work environment and work tasks;
b. design and procurement of equipment; and
c. procurement of all other goods and services.

(30) The intended use and maintenance of facilities, equipment and systems should be considered. If a process, product or workplace is designed and built with health and safety in mind, the number of corrective measures required will be minimised. A checklist of essential and desirable features in new equipment/facilities should be developed in consultation with users and designers

WHS Risk Management Documentation

Record keeping

(31) Records for all stages of the risk management process need to be kept. This includes records where an assessment has been undertaken and the initial risk has been evaluated as acceptable or minimal, and no further action is going to be undertaken.

a. Printed risk assessments kept in the work area.
b. Soft copy saved to on S drive in an appropriate location.
c. Risk assessments of Very High and High archived in the University's Electronic Records management system, and a copy forwarded to Facility Technical Manager. Risk assessments of Very High and High risk should also be sent to Technical Support for archiving in the University Electronic records system.

Risk Assessments completed previously

(32) Where a risk assessment has been completed previously a copy of the approved risk assessment should be provided to individuals undertaking the work before commencement.

Where possible, all people carrying out a risk assessed activity should sign the approved risk assessment to acknowledge compliance.

(33) Where a generic assessment (where similar processes or procedures are being assessed) is available, care should be taken to ensure that all the tasks and hazards have been reviewed and reassessed prior to beginning.

Risk Register

(34) The Faculty of Science and Health has created a Faculty of Science and Health Risk Register Template] to encompass risk identification, assessment, treatment and reporting. Each School is required to maintain a risk register as outlined in the Risk Register Procedure.

Section 4 - Guidelines

(35) CSU Risk Register template
(36) CSU Risk Register Procedure
(37) Guide – How to write a Generic Risk Assessment
(38) Guide - How to write a Hazardous Chemical Risk Assessment
(39) Guide - How to write a Microbiological Risk Assessment

Section 5 - Glossary

(40) For the purpose of this policy, the following terms have the definitions stated:

a. Risk – refers to the likelihood that a hazard will cause injury, illness or disease, and the severity of the injury, illness or disease that may result

b. Hazard - is defined as something that has the potential to harm the health, safety and welfare of people at CSU, or damage property, equipment or the environment

c. Consequence - severity of the potential outcome from a hazard

d. Likelihood – a rating of how probable it is that an event will occur

e. Risk Assessment Matrix- a matrix used to cross reference the consequence of a hazard and the likelihood of the hazard occurring to determine the overall risk rating for the hazard identified.

f. Task – the activity (e.g undergraduate teaching, research, fieldwork, honours projects, post graduate research) being conducted in Faculty of Science and Health.

g. HOS – head of school

h. FTM – facility/faculty technical manager

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Unit Head	Faculty of Science and Health
Author	Amended J. Newman 2025
Enquiries Contact	FOSH-Tech-SupportUnit techsupportunit@csu.edu.au