HEALTH & SAFETY

School of Physics - RISK REGISTER

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| **Category** | **Description of Hazard/Risk** | **Inherent Risk Analysis** | **Inherent Risk Rating** | **Legislation** | **Standards/Codes/Guidance** | **University Policies/Procedures** | **Controls** | **Residual Risk Rating** |
| **L** | **C** |
| 1. School of Physics General office-based activities:
 | Refer separate risk register for generic offices in Physics.Possible risk/hazard: * electrical, manual handling and furniture related.
* Poor ergonomic and workstation layout
* Poor storage and office space
* Poor environmental characteristics:
	+ thermal discomfort
	+ nuisance noise
	+ inadequate lighting
	+ glare
* Poorly maintained equipment
* Office waste
* Access to facilities including:
	+ toilets
	+ washing facilities
	+ drinking water
	+ dining facilities
 | **Unlikely**  | **Minor** | **Low** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic)

Refer to ***Electrical*** category for electrical legislation  | * AS 1680 (series) Interior lighting
* AS/NZS 2107 Acoustics - Recommended design sound levels and reverberation times for building interiors
* AS/NZS 1668 (series) The use of ventilation and air conditioning in buildings
* AS/NZS 4438 Height Adjustable swivel chairs
* AS/NZS 4442 Office desks
* AS/NZS 4443 Office panel systems – Workstations

AS 3755: Acoustics - Measurement of airborne noise emitted by computer and business equipment* AS 3756: Acoustics - Measurement of high- frequency noise emitted by computer and business equipment
* AS 3757: Acoustics - Declared noise emission values of computers and business equipment
* AS/NZ 2982: Laboratory design and construction
* AS 4775: Emergency eyewash and shower equipment
* OfficeWise A guide to health and safety in offices (Vic)
* Compliance code. Workplace amenities and work environment (Vic)
* Safe design (SafeWork Australia web site)
* Building Code of Australia (Cth)

Refer to ***Electrical*** category for electrical Standards/codes/guidance | * *Health & Safety: Housekeeping requirements*
* *Health & Safety: Temperature extremes requirements*
* *Health & Safety: Facilities and amenities requirements*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Waste management requirements*
* *Health & Safety: Hazardous manual handling requirements*

*Health & Safety: Ergonomic requirements** *Recruitment and appointment policy (MPF1152)*

Refer to ***Electrical*** category for electrical University policies/procedures | * Risk assessment,
* Training and instruction,
* Ergonomic assessment course available.
* Scheduled workplace inspections
* Workstation ergonomic assessments
* Preapproved University Providers
* Provision of facilities:
	+ toilets
	+ washing facilities
	+ eating and drinking facilities
* Office waste removal and recycling initiatives
* University Services ergonomic and manual handling subject matter expert
* Get Ready to Work and onboarding University web site
* Local area induction
* Hazardous waste removal procedures and processes
* Equipment such as ladders, stepstools, anti-slip mats, handrails, anti-slip paints, cable conduits.
* Safety signage:
	+ wet surface
	+ cleaning in progress
	+ rerouting for emergency exits
 | **Low** |

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| 2. Contractor | * Unfamiliar with University health and safety procedures
* Work that adversely impacts on the University environment and/or staff/students
* Conducting work unsafely or in conflict University procedures
* High risk and/or specialised tasks
* Introduced hazards into the workplace
 | **Possible** | **Severe** | **Extreme** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.6 High Risk Work
* *Occupational Health and Safety Regulations 2017* (Vic) Part 5.1 Construction
 | * AS 4301 General conditions of tendering and tender form for design and construct contract
* Contractor guidelines (Vic)
* Information on engaging a contractor (Vic)
* Checklist – Contractor, subcontractor (Vic)
 | * *Health & Safety: Risk management requirements*
* *Health & Safety: Contractor (service provider) requirements*
 | * Contractor agreed scope of works and/or contracts prior to commencing work
* Contractor performance monitoring and reviews
* Contractor health and safety questionnaire
* Contractor health and safety plans
* Risk assessments
* Standard operating procedures
* University contact person:
	+ Contract Manager
	+ Project Manager
* University of Melbourne contractor induction
* Local area contractor induction
 | **Medium** |

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| 3. EventsOpen Day | * Equipment hire
* Unknown and introduced risks
* Large numbers of people/public
* Inadequate venue
* Uncontrolled events
* One-off events
* Inappropriate behaviours
* Traffic hazards

Refer to ***Contractors*** category for contractor hazards/risksRefer to ***Hazardous Manual Handling*** for hazardous manual handling hazards/risksRefer to ***Alcohol*** category for alcohol hazards/risks | **Unlikely** | **Severe** | **High** | * *Occupational Health and Safety Act 2004*
* *Equipment (Public Safety) Regulations 2017* (Vic)

Refer to ***Contractors*** category for contractor legislationRefer to ***Hazardous Manual Handling*** for hazardous manual handling legislationRefer to ***Alcohol*** category for alcohol legislations | * Major events, advice for managing safely (Vic)
* Non-profit fundraising events: alcohol, safety and event management (Qld)
* Traffic management guide – events (Cth)

Refer to ***Contractors*** category for contractor Standards/codes/guidanceRefer to ***Hazardous Manual Handling*** for hazardous manual handling Standards/codes/guidanceRefer to ***Alcohol*** category for alcohol Standards/codes/guidance | * *Alcohol policy (MPF1267)*
* *Appropriate workplace behaviour policy (MPF1328)*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Contractor management requirements*

Refer to ***Contractors*** category for contractor University policies/proceduresRefer to ***Hazardous Manual Handling*** for hazardous manual handling University policies/proceduresRefer to ***Alcohol*** category for alcohol University policies/procedures | * Events management web site
* Event team
* Events guidance
* Risk assessments
* Event management processes
* Events management – Health and safety

information* Standard operating procedures for setting up events

Refer to ***Contractors*** category for contractor controlsRefer to ***Hazardous Manual Handling*** for hazardous manual handling controlsRefer to ***Alcohol*** category for alcohol controls | **Medium** |

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| **L** | **C** |
| 4 Hazardous manual handling | * Hazardous manual handling tasks/activities that include the following characteristics:
	+ repetitive or sustained application of force
	+ repetitive or sustained awkward posture
	+ repetitive movement
	+ application of high force
	+ exposure to sustained vibration
	+ handling of a person or an animal
	+ handling of unstable or unbalanced loads or loads which are difficult to grasp or hold
 | **Possible** | **Major** | **High** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.1 Hazardous Manual Handling
 | * Your health and safety guide to manual handling (Vic)
* Model code of practice. Hazardous manual tasks (Cth)
* Manual handling risk assessing and controlling (Vic)
* Manual handling risk management in a large organisation (Vic)
* Compliance code. Hazardous manual handling (Vic)
* OfficeWise A guide to health and safety in offices (Vic)
 | * *Health & Safety: Hazardous manual handling requirements*
* *Health & Safety: Ergonomic requirements*
* *Health & Safety: Risk management requirements*
* *Recruitment and appointment policy (MPF1152)*
 | * Office Ergonomics University web site
* Manual handling training
* Workstation ergonomic assessment training
* Manual handling risk assessments
* Mechanical aids and lifting devices
	+ trolleys
	+ forklifts
	+ pedestrian stackers and walkers
	+ platform ladders
	+ hoists
* Work station risk assessments (keyboard and work station checklists)
* Pre-purchase assessments
* University Services ergonomic and manual handling subject matter expert
* Recruitment and selection – Induction University web site
* Risk assessments
* Standard operating procedures
* Induction
 | **Medium** |

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| 5. Travel and Off Campus | * Domestic travel
* Overseas travel
 | **Unlikely** | **Major** | **High** | * *Occupational Health and Safety Act 2004* (Vic)
 | * Outdoor Council of Australia web site
* Outdoors Victoria (Vic)
 | * *Health & Safety: Travel and off campus requirements*
 | * UniTravel booking system
 | **Medium** |
|  6. Activities and Placements | * Remote locations
* Field trips and activities
* Driving and travel arrangements
* Inadequate communication
* Unexpected events/emergencies
* Fatigue
* Placements
	+ Students in buildings/locations not controlled by the University
	+ Staff in buildings/locations not controlled by the University
 |  |  |  | * *Road Safety Act 1986* (Vic)
* *Road Safety (Drivers) Regulations 2009* (Vic)
* *Road Safety (Road Rules) Regulations 1999* (Vic)
 | * Adventure activity standards (Vic)
* Travel (DFAT Cth web site)
* National guidelines for working alone or in a remote locality [Cth Safety Management Forum]
* Fatigue (SafeWork Australia web site)
* Placing workers in safe workplaces. Safety management systems guide for labour hire agencies (Vic)
* Safety when working off site (NSW)
 | * *Health & Safety: Vehicle use requirements*
* *Health & Safety: Risk management requirements*
* *Student travel and transport policy (MPF1209)*
* *Alcohol policy (MPF1267)*
 | * Travel Service Provider – initial response for adverse events
* Field trip risk assessment
* Field trip plan
* DFAT warnings
* University of Melbourne Health Services
* Travel to high risk destinations risk assessment
* Non-UniTravel risk assessments
* Medical declaration
* Placement contracts/agreements
* Local induction
* Provision of information (eg handbook)
* Host organisation information
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| 7. Asbestos and Hazardous Materials | * Exposure to hazardous materials:
	+ asbestos
	+ lead
	+ synthetic mineral fibres
	+ polychlorinated biphenyl
* Asbestos and hazardous materials waste
 | **Rare** | **Major** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 4.3 Lead
* *Occupational Health and Safety Regulations 2017* (Vic) Part 4.4 Asbestos
 | * Compliance code. Managing asbestos in the workplace (Vic)
* Model code of practice. How to manage and control asbestos in the workplace (Cth)
* AS 2601 The Demolition of structures
* Asbestos (WorkSafe Vic web site)
 | * *Health & Safety: Asbestos and hazardous materials requirements*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Signage requirements*
* *Health & Safety: Waste management requirements*
 | * Division 5 asbestos survey and risk assessment
* Division 6 asbestos survey and risk assessment
* Engage hygienists with knowledge and skills in asbestos and hazardous materials surveys and management plans
* Engage licensed asbestos contractors/removalist
* Asbestos and hazardous materials register
* Asbestos management plan
* Signage and labelling
* Signage and Labelling Information training
* Restricted access
* Hazardous waste removal procedures and

processes | **Low** |

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|  |  | **L** | **C** |  |  |  |  |  |  |
| 8. Alcohol and Drugs | * Inappropriate behaviour
* Injury
* Discarded needles:
	+ occupational injury/disease
* operating plant/equipment whilst impaired
* working in potentially hazardous environments whilst impaired
 | **Rare** | **Moderate** | **Low** | * *Occupational Health and Safety Act 2004* (Vic)
 | * Australian Drug Information network web site (Cth)
* Guide to developing a workplace alcohol and other drugs policy (Vic)
* Alcohol (WorkSafe Vic web site)
 | * *Alcohol Policy (MPF1267)*
* *Student conduct policy (MPF1324)*
* *Health & Safety: Risk management requirements*
 | * Responsible alcohol service requirements
* Conditions of employment
* University of Melbourne event authorisation process
* University events involving alcohol: management and safety checklist
* Risk assessments
* Event management
* Local area procedures and processes
* Immunisation
* Sharps disposal facilities
 | **Low** |

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| **L** | **C** |
| 9. ConfinedSpaces | * Unrestricted access to confined spaces
* Inadequate risk assessment of confined space
* Inadequate identification of confined space
* Poorly ventilated workplaces
 | **Rare** | **Severe** | **High** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.4 Confined Spaces
 | * AS 2865 Confined spaces
* HB 213 Guidelines for Safe working in a confined space
* Compliance code. Confined spaces (Vic)
* Confined spaces, shafts, tunnels and trenches (Vic)
* The dangers of poorly ventilated workplaces (Vic)
 | * *Health & Safety: Confined spaces requirements*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Signage requirements*
 | * Confined space entry permit system
* Confined space entry training
* Confined space emergency procedures
* Confined spaces authorising officers
* Safety signage
* Confined space risk assessments
* Safe work method statements
* Confined spaces register
* Restricted access
 | **Low** |

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| **L** | **C** |
| 10. Cooling Towers | * Legionella bacteria in cooling tower system
* Access to roofs
* Access to plant
* Use of chemicals
* Working at heights

Refer to ***Plant*** category for plant hazards/risksRefer to ***Chemical*** category for chemical hazards/risksRefer to ***Working at Heights*** category for working at heights hazards/risks | **Rare** | **Major** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
* *Building Act 1993* (Vic)
* *Public Health and Wellbeing Act*

2008 (Vic)* *Public Health and Wellbeing Regu*lations *2009 (*Vic)
* *Building (Legionella Risk Management) Regulations 2001* (Vic)
* *Health (Legionella) Regulations 2001* (Vic)

Refer to ***Plant*** category for plant legislationRefer to ***Chemical*** category for chemical legislationRefer to ***Working at Heights*** category for working at heights legislation | * AS/NZS 3666: (Series) Air-handling and water systems of buildings - Microbial control - Operation and maintenance
* Guide to developing risk management plans for cooling tower systems (Vic)
* Victorian Government Department of Health Legionella web site (Vic)
* Cooling towers and recycled water (Vic)

Refer to ***Plant*** category for plant Standards/codes/guidanceRefer to ***Chemical*** category for chemical Standards/codes/guidanceRefer to ***Working at Heights*** category for working at heights Standards/codes guidance | * *Health & Safety: Cooling tower risk requirements*
* *Health & Safety: Risk management requirements*

Refer to “Plant” *category* for University plant policies/proceduresRefer to “Chemical” *category* for University chemical policies/proceduresRefer to “Working at Heights” *category* for University working at heights policies/procedures | * Cooling tower risk assessments and plans
* Cooling tower system registration
* Scheduled maintenance and management of cooling towers as per the risk management plans
* Cooling tower audit
* Restricted access to authorised personnel

Refer to ***Plant*** category for plant controlsRefer to ***Chemical*** category for chemical controlsRefer to ***Working at Heights*** category for working at heights controls | **Low** |
| 11. Emergencyand critical Incident | * Uncontrolled emergency incident leading to adverse outcomes:
	+ loss of life
	+ injury or illness
	+ property damage
	+ continued unsafe environment
* Loss of communication
* Breakdown in emergency procedures
* Failure to identify critical incident
* Uncontrolled critical incident leading to adverse outcomes:
	+ human life, safety and wellbeing
	+ animal life, safety and wellbeing
	+ environmental protection
	+ the protection of property interests;
 | **Rare** | **Major** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
 | * Building Code of Australia
* AS 3745 Emergency control organisation and procedures for buildings, structures and workplaces
* AS 1603 (series) Automatic fire detection and alarm systems
* AS 1670 (series) Fire detection, warning, control and intercom systems
* AS/NZS 1841 (series) Portable fire extinguishers
* AS/NZS ISO 31000 Risk management – Principles and guidelines
* AS/NZS 5050 Business continuity – Managing disruption-related risk
* Compliance Code. First aid (Vic)
 | * *Health & Safety: Emergency preparedness and response requirements*
* *Health & Safety: First aid requirements*
* *Health & Safety: Risk management requirements*
* [*Health & Safety: incident, injury and hazard reporting and investigation requirements*](http://safety.unimelb.edu.au/publications/procedure/incident/)
* *Risk management policy (MPF1194)*
* Enterprise risk management system (ERMS) incident and hazard reporting
 | * Trained first aiders and building wardens
* Inductions
* Scheduled building evacuations
* Campus/building specific Emergency management plans
* Building essential services and ongoing maintenance of those services
* Task/activity specific emergency procedures and plans
* Breathing apparatus training
* Staff/student training and instruction (evacuation drills, fire extinguisher training)
* University of Melbourne Incident Management System
* University of Melbourne Incident Management System resourcing – personnel and resourcing
* Security systems and support
 | **Low** |

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| **L** | **C** |
| 12. Ionisingradiation | * Unintentional exposure to:
	+ open sources
	+ emitting apparatus
* Ionising radiation storage and transport:
	+ Loss of source
	+ Incorrect storage
	+ Loss of control (eg leakage)
* Ionising radiation wastes
* Deterministic and stochastic injuries/ill health
* Musculoskeletal injury from lifting heavy equipment/plant (Refer to “Manual Handling” *category*)

Refer to ***Plant*** category for plant hazards/risksRefer to ***Hazardous Manual Handling*** *category* for hazardous manual handling hazards/risks | **Rare** | **Moderate** | **Low** | * *Occupational Health and Safety Act 2004* (Vic)
* *Radiation Act 2005* (Vic)
* *Radiation Regulations* 2007 (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.5 Plant

Refer to ***Plant*** category for plant legislationRefer to ***Hazardous Manual Handling*** *category* for hazardous manual handling legislation | * Australian dangerous goods transport code Edition 7
* AS 2243.4 Safety in laboratories – Ionizing radiations
* HB 9 Occupational personal protection
* Recommendations for Limiting exposure to ionizing radiation and national standard for limiting occupational exposure to ionizing radiation (Cth)
* Code of practice for the safe transport of radioactive material (Cth)
* Safety guide for the safe transport of radioactive material (Cth)
* Recommendations for the Discharge of patients undergoing treatment with radioactive substances (Cth)
* Code of Practice and safety guide for portable density/moisture gauges containing radioactive sources (Cth)
* National directory for radiation protection (Cth)
 | * *Health & Safety: Ionising radiation requirements*
* *University of Melbourne Radiation Management Plan*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Waste management requirements*

Refer to ***Plant*** category for University plant policies/proceduresRefer to ***Hazardous Manual Handling*** *category* for hazardous manual handling University policies/procedures | * University of Melbourne Management Licence
* School/Division Radiation Management Plan
* Register Ionising Radiation Sources
* University Radiation Advisor and subject matter expert
* Departmental Radiation Safety Officers
* Secured radiation storage area(s)
* Personal monitoring (badges)
* Risk assessments
* Standard operating procedures
* Local area induction and training
* Ionising Radiation training
* Use licences
* Security Plan
* Certificate of Compliance
 | **Low** |

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| **L** | **C** |
|  |  |  |  |  |  | * Recommendations for intervention in emergency situations involving radiation exposure (Cth)
* Code of practice for the exposure of humans to ionizing radiation for research purposes (Cth)
* Code of practice and safety guide for radiation protection and radioactive waste management in mining and mineral processing (Cth)
* Code of practice and safety guide for radiation protection in dentistry (Cth)
* Code of practice for the security of radioactive sources (Cth)
* Radiation protection standard for occupational exposure to ultraviolet radiation (Cth)
* Code of practice and safety guide for safe use of fixed radiation gauges (Cth)
* Code of practice for radiation protection in the medical applications of ionizing radiation (Cth)
* Safety guide for radiation protection in diagnostic and interventional radiology (Cth)
* Safety guide for radiation protection in nuclear medicine (Cth)
* Safety guide for radiation protection in radiotherapy (Cth)
* Safety guide for the management of naturally occurring radioactive material (NORM) (Cth)
* Safety guide for the predisposal management of radioactive waste (Cth)
* Code of Practice and safety guide for radiation protection in veterinary medicine (Cth)
* Code of practice for radiation protection in the application of ionizing radiation by chiropractors (Cth)

Refer to ***Plant*** category for plant Standards/codes/guidanceRefer to ***Hazardous Manual Handling*** *category* for hazardous manual handling Standards/codes/guides |  | * Contamination environmental monitoring
* Hazardous waste removal procedures and processes
* Personal protective equipment
* Laboratory certification

Refer to ***Plant*** category for plant controls Refer to ***Hazardous Manual Handling***category for hazardous manual handling controls |  |

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| 13. LegalCompliance | * Injury and/or property damage
* Prosecution and fines
* Intervention programs
* Enforceable undertaking
* Reputational damage to the University
* Loss of funding:
	+ government
	+ private sector
	+ other
* Loss of certification
* Restrictions/conditions to or loss of self- insurance approval
 | **Rare** | **Major** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic)
* *Workplace Injury Rehabilitation and Compensation Act 2013* (Vic)
 | * NAT – National Audit Tool
* AS/NZS 4804 Occupational health and safety management systems – General guidelines on principles, systems and supporting techniques
* AS/NZS 4801 Occupational health and safety management systems – Specification with guidance for use
* AS/NZS ISO 31000 Risk management – Principles and guidelines
 | * *Health and Safety Policy (MPF1205)*
* *Health & Safety: Management system documentation requirements*
* *Health & Safety: Management system review and audit requirements*
* [*Health & Safety: Responsibilities and legal requirements*](http://safety.unimelb.edu.au/publications/procedure/responsibilities-legal/)
* *Health & Safety: Consultation representation and committee requirements*
* *Health & Safety: Risk management requirements*
* [*Health & Safety: Incident, injury, hazard reporting and investigation requirements*](http://safety.unimelb.edu.au/publications/procedure/incident/)
 | * Health and Safety Management System
* Risk assessments
* Licenses, permits and agreements
* Authorising Officers
* Records management and data control
* University Health and Safety Committee
* Health and safety management representatives
* Health and safety representatives and designated work groups
* Internal auditing
* External auditing
* Incident investigation and corrective actions
* Enterprise Risk Management System reporting for incidents and hazards
* Health and safety resourcing – personnel and infrastructure
* WorkCover injury management and rehabilitation resourcing – personnel and infrastructure
* WorkCover case managements
* Return-to work coordinator
* Rehabilitation services
 | **Low** |
| 14. Noise/Sound Pressure | * Noise greater than the exposure standards
* Distracting/nuisance noise
* Noise impact on surrounding work areas
* Deafness
 | **Possible** | **Moderate** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.2 Noise
 | * AS 1055 (series) Acoustics – Description and measurement of environmental noise
* AS/NZS 1269 (series) Occupational noise management
* AS 2822 Acoustics – Methods of assessing and producing speech privacy and speech intelligibility
* AS/NZS 2107 Acoustics – Recommended design sound levels and reverberation times for building interiors
 | * *Health & Safety: Personal protective equipment requirements*
* *Health & Safety: Non-ionising radiation requirements*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Signage requirements*
 | * Purchasing less noisy plant and equipment
* Pre-purchase assessment
* Acoustic engineering controls
* Noise risk assessments
* Audiometric screening
* Personal protective equipment
* Hearing protection training
 | **Low** |

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| **L** | **C** |
|  |  |  |  |  |  | * HB 9 Occupational personal protection
* Compliance code. Noise
* Noise problems at work – Guide for assessing and fixing (Vic)
* Noise – Buy quiet guidelines (Vic)
* Model code of practice: Managing noise and preventing hearing loss at work
* OfficeWise A Guide to health and safety in offices (Vic)
* Sound practice – Health handbook for

orchestra/musicians (University of Sydney) |  | * Signage
 |  |
| 15. Non-Ionising Radiation (excluding outdoors) including UV and LASERs | * Excessive exposure to non-ionising radiation
* Hazards associated different types of non-ionising radiation including:
	+ UV
	+ lasers
	+ microwaves
	+ infrared
	+ magnetic resonance
	+ high frequency
	+ low frequency
* Laser pointers
	+ possible prohibited weapon (>1 mW)

Refer to **Plant** category for plant hazards/risks | **Unlikely** | **Major** | **High** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.5 Plant
* *Telecommunications Act 1997* (Cth)
* *Control of Weapons Regulations 2011* (Vic)

Refer to **Plant** category for plant legislation | * AS 1337 (series) Personal eye protection
* AS 2243.5 Safety in laboratories – Non- ionising radiations – Electromagnetic, sound and ultrasound
* AS 2397 Safe Use of lasers in the building and construction industry
* AS/NZS 1337 (series) Eye and face protection

- Lasers* AS/NZS 1338.2 Filters for eye protectors - Filters for protection against ultraviolet radiation
* AS/NZS IEC 60825.1 Safety of laser products

– Equipment classification and requirements* AS/NZS Safety of laser products – A user’s guide
* HB 9 Occupational personal protection
* Radiation protection standard for maximum exposure levels to radiofrequency fields – 3kHz to 300GHz (Cth)
* Radiation protection standard for occupational exposure to ultraviolet radiation (Cth)

Refer to **Plant** category for plant Standards/codes/guidance | * *Health & Safety: Non-ionising radiation requirements*
* *Health & Safety: Risk management requirements*
* Refer to **Plant** category for plant University policies/procedures
 | * University Radiation Advisor and subject matter expert
* Local Laser Safety Officers
* Risk assessments
* Local area standard operating procedures
* Local area induction and training
* Laser training
* Non-Ionising Radiation training
* Non-ionising radiation plant register
* Standard operating procedures
* Personal protective equipment

Refer to **Plant** category for plant controls | **Low** |
| 16. Plant andEquipment | * Lack of operator competency/training
* Unassessed plant and equipment
* Lack of/inappropriate guarding
* Unrestricted access
* Poor management of registrable plant
* Poorly maintained plant
* Plant maintenance and other non- routine activities:
	+ stored energy
	+ entrapment
	+ malfunction
* Poor ergonomic design
	+ unintuitive operational control
	+ difficult to operate
	+ noisy
 | **Unlikely** | **Major** | **High** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic Part 3.5 Plant)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.6 High Risk Work
* *Equipment (Public Safety) Regulations 2017* (Vic)

Refer to ***Electrical*** category for electrical legislationRefer to ***Ionising Radiation*** category for ionising radiation legislation | * AS 3892 Pressure equipment – Installation
* AS 4024 (series) Safety of Machinery
* AS 1200 Pressure equipment
* AS 2243.6 Safety in laboratories – Mechanical aspects
* AS 2971: Serially produced pressure vessels
* AS 1893 Code of Practice for the guarding and safe use of metal and paper cutting guillotines
* AS 1418 (series) Cranes, Hoists and winches
* AS 1353 (series) Flat synthetic-webbing slings
* AS 1380 (series) Fibre-rope slings
* AS 1438 (series) Wire-coil flat slings
* AS 4497 (series) Roundslings—Synthetic fibre
 | * *Health & Safety: Regulated plant requirements*
* *Health & Safety: Personal protective equipment requirements*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Lock out, tagging and isolation requirements*
* *Health & Safety: Unsafe plant and equipment requirements*
* *Health & Safety: Waste management requirements*

Refer to ***Electrical*** category for electrical University policies/procedures | * Plant risk assessments
* Guarding and engineering controls
* Emergency stops
* Training and supervision
* Restricted access
* Scheduled maintenance
* Standard operating procedures
* Plant registers
* Pre-purchase assessment – plant and equipment
* Personal protective equipment
* Hazardous waste removal procedures and

processes | **Low** |
| **Category** | **Description of Hazard/Risk** | **Inherent Risk Analysis** | **Inherent Risk Rating** | **Legislation** | **Standards/Codes/Guidance** | **University Policies/Procedures** | **Controls** | **Residual Risk Rating** |
| **L** | **C** |
|  | * awkward postures when operating
* Inappropriately used
* Inappropriately located
	+ dark area – difficult to see
	+ impacting adversely on surrounding activities
	+ unstable footing
* Operated in inappropriate environment
* Falling objects (including unpiloted craft eg drones)

Refer to ***Electrical*** category for hazards/risks with using electrical equipmentRefer to ***Ionising Radiation*** for hazards/risks informationRefer to ***Non-Ionising Radiation*** for hazards/risks information |  |  |  | Refer to ***Non-Ionising Radiation*** category for non-ionising radiation legislation | * AS 1473 (series) Guarding and safe use of woodworking machinery
* AS/NZS 1576 (series) Scaffolding
* Model code of practice. Managing risks of plant in the workplace
* Compliance code. Plant (Vic)
* Machinery and equipment safety – an introduction (Vic)
* Clearing sales – Improving safety in used agricultural machinery and equipment sales (WorkSafe Vic web site)
* Flying drones/remotely piloted aircraft in Australia (Civil Aviation Safety Authority web site)

Refer to ***Electrical*** category for electrical Standards/codes/guidanceRefer to ***Ionising Radiation*** category for ionising radiation Standards/codes/guidanceRefer to ***Non-Ionising Radiation*** category for non-ionising radiation Standards/codes/guidance | Refer to ***Ionising Radiation*** category for ionising radiation University policies/proceduresRefer to ***Non-Ionising Radiation*** category for non-ionising radiation University policies/procedures | * Removal of decommissioned plant
* Plant Safety training

Refer to ***Electrical*** category for electrical controlsRefer to ***Ionising Radiation*** category for ionising radiation controlsRefer to ***Non-Ionising Radiation*** category for non-ionising radiation controls |  |
| 17. Procurement of Goods and Services | * Introducing new or uncontrolled hazards into the workplace:
	+ personal protective equipment
	+ office furniture and equipment
	+ chemicals and substances
	+ radiation sources
	+ plant and equipment (including electrical)
* Introducing new and/or uncontrolled wastes

Refer to specific hazard category for hazards/risks including:* + chemical
	+ biological (and other pathogens)
	+ ionising radiation
	+ working with animals

Refer to ***Contractors*** category for contractor hazards/risks | **Possible** | **Minor** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)

Refer to specific hazard category for legislation including:* + chemical
	+ biological (and other pathogens)
	+ ionising radiation
	+ working with animals

Refer to ***Contractors*** category for contractor legislation | Refer to specific hazard category for Standards/codes/guidance including:* chemical
* biological (and other pathogens)
* ionising radiation
* working with animals

Refer to ***Contractors*** category for contractor Standards/codes/guidance | * *Health & Safety: Risk management requirements*
* *Health & Safety: Purchasing requirements*

Refer to specific hazard category for University policies/procedures including:* + chemical
	+ biological (and other pathogens)
	+ ionising radiation
	+ working with animals

Refer to ***Contractors*** category for contractor policies/procedures | * Pre-purchasing assessments for:
	+ personal protective equipment
	+ office furniture and equipment
	+ chemicals and substances
	+ radiation sources
	+ plant and equipment (including electrical)
* Preapproved University provider(s)
* Hazardous waste removal procedures and processes

Refer to specific hazard category for controls including:* + chemical
	+ biological (and other pathogens)
	+ ionising radiation
	+ working with animals

Refer to ***Contractors*** category for contractor controls | **Low** |
| 18. Psychosocial | * Occupational stress
* Workplace bullying and harassment
* Occupational violence
* Fatigue
 | **Rare** | **Severe** | **High** | * *Occupational Health and Safety Act 2004* (Vic)
 | * Stresswise - Preventing work-related stress a guide for employers in the public sector (Vic)
* Workplace bullying – prevention and response (Vic)
* A guide to employer: Preventing and responding to work-related violence (Vic)
* Code of practice. Working hours (WA)
 | * *Health & Safety: Risk management requirements*
* *Appropriate workplace behaviour (MPF1328)*
* *Work hours and related conditions (MPF1173)*
* *Workplace relations policy (MPF1179)*
* *Student conduct policy (MPF1324)*
* [*Student complaints and grievances policy*](http://policy.unimelb.edu.au/UOM0402)

*(MPF1066)* | * Staff Assist Hotline
* Counseling services
* Employee Assistance Program
* Conditions of employment
* *Diversity and inclusion* web site
* Risk assessments
* Mental health training
* Safer Community Program
 | **Low** |

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| **Category** | **Description of Hazard/Risk** | **Inherent Risk Analysis** | **Inherent Risk Rating** | **Legislation** | **Standards/Codes/Guidance** | **University Policies/Procedures** | **Controls** | **Residual Risk Rating** |
| **L** | **C** |
| 19. Working in isolation | * Absence of availability of others for assistance and support:
	+ during an activity
	+ for first aid and emergencies
* Increased severity/consequence from an incident
* Reduction in emergency assistance and support
* Absence of or distant supervision
 | **Rare** | **Major** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
 | * Guidance note. Working alone (WA)
* Code of practice. Working hours (WA)
* Working alone (WorkSafe Vic web site)
 | * *Health & Safety: Working in isolation requirements*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Signage requirements*
 | * Risk assessments
* Local area standard operating procedures
* Restricted access to University buildings and property
* After hours sign in books
* 24-hour security support
* Working in isolation guidance
* Duress alarms
* Security monitoring/cameras
 | **Low** |
| 20. WorkplaceDesign and Construction | * Introduction hazards/risks at design
* Hazards/Risks associated with construction works:
	+ electrical
	+ plant
	+ fall from heights
	+ chemicals
	+ manual handling
	+ noise
	+ changing environment
	+ unauthorised access
* Hazardous materials removal
* Impact on campus traffic management plan
* Poor ergonomic design
* Design faults

Refer to **Contractors** category for contractor hazard/risks | **Unlikely** | **Moderate** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.6 High Risk Work
* *Occupational Health and Safety Regulations 2017* (Vic) Part 5.1 Construction

Refer to **Contractors** category for contractor legislation | * AS 1345 Identification of the contents of pipes, conduits and ducts
* AS/NZS 3017 Electrical Installations – Verification guidelines
* AS/NZS 3019 Electrical Installations – Periodic guidelines
* AS/NZS 1576 (series) Scaffolding
* AS 1657 Fixed platforms, walkways, stairways and ladders – Design, construction and installation
* AS 2436 Guide to noise control on construction, maintenance and demolition sites
* Building Code of Australia (Cth)
* Construction (SafeWork Australia web site)
* Safe design (SafeWork Australia web site)

Refer to **Contractors** category for contractor Standards/codes/guidance | * *Project Management and Design Standards*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Signage requirements*
* *Health & Safety: Ergonomic requirements*

Refer to **Contractors** category for contractor University policies/procedures | * Project managers
* Project management
* Risk assessments
* Restricted/authorised access:
	+ temporary fencing
	+ signage
* Site and contractor induction
* Preferred contractors
* Hazardous waste removal procedures and processes

Refer to **Contractors** category for contractor controls | **Low** |
| 21. WorkplaceEnvironment and Facilities | * Poor ergonomic and work station layout
* Poor storage and office space
* Poor environmental characteristics:
	+ thermal discomfort
	+ nuisance noise
	+ inadequate lighting
	+ glare
* Poorly maintained equipment
* Office waste
* Access to facilities including:
	+ toilets
	+ washing facilities
	+ drinking water
	+ dining facilities
 | **Rare** | **Moderate** | **Low** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic)

Refer to ***Electrical*** category for electrical legislation | * AS 1680 (series) Interior lighting
* AS/NZS 2107 Acoustics - Recommended design sound levels and reverberation times for building interiors
* AS/NZS 1668 (series) The use of ventilation and air conditioning in buildings
* AS/NZS 4438 Height Adjustable swivel chairs
* AS/NZS 4442 Office desks
* AS/NZS 4443 Office panel systems – Workstations
* AS 3755: Acoustics - Measurement of airborne noise emitted by computer and business equipment
 | * *Health & Safety: Housekeeping requirements*
* *Health & Safety: Temperature extremes requirements*
* *Health & Safety: Facilities and amenities requirements*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Waste management requirements*
* *Health & Safety: Hazardous manual handling requirements*
* *Health & Safety: Ergonomic requirements*
 | * Scheduled workplace inspections
* Work station ergonomic assessments
* Preapproved University Providers
* Provision of facilities:
	+ toilets
	+ washing facilities
	+ eating and drinking facilities
* Risk assessments
* Office waste removal and recycling initiatives
* University Services ergonomic and manual handling subject matter expert
 | **Low** |

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| **Category** | **Description of Hazard/Risk** | **Inherent Risk Analysis** | **Inherent Risk Rating** | **Legislation** | **Standards/Codes/Guidance** | **University Policies/Procedures** | **Controls** | **Residual Risk Rating** |
| **L** | **C** |
|  | * Poor housekeeping:
	+ blocked emergency exits
	+ blocked emergency equipment
	+ waste accumulation
	+ electrical cable trip hazards
	+ trip hazards
	+ slips, trips and falls

Refer to ***Electrical*** category for electrical hazards/risks |  |  |  |  | * AS 3756: Acoustics - Measurement of high- frequency noise emitted by computer and business equipment
* AS 3757: Acoustics - Declared noise emission values of computers and business equipment
* AS/NZ 2982: Laboratory design and construction
* AS 4775: Emergency eyewash and shower equipment
* OfficeWise A guide to health and safety in offices (Vic)
* Compliance code. Workplace amenities and work environment (Vic)
* Safe design (SafeWork Australia web site)
* Building Code of Australia (Cth)

Refer to ***Electrical*** category for electrical Standards/codes/guidance | * *Recruitment and appointment policy (MPF1152)*

Refer to ***Electrical*** category for electrical University policies/procedures | * Get Ready to Work and onboarding University web site
* Local area induction
* Hazardous waste removal procedures and processes
* Equipment such as ladders, stepstools, anti-slip mats, handrails, anti-slip paints, cable conduits.
* Safety signage:
	+ wet surface
	+ cleaning in progress
	+ rerouting for emergency exits

Refer to ***Electrical*** category for electrical controls |  |
| 22. WorkingOutdoors | * Exposure to adverse weather conditions:
	+ thermal (heat cold)
	+ rain
	+ ultraviolet light exposure
	+ wind
	+ uncontrolled environment
 | **Rare** | **Minor** | **Low** | * *Occupational Health and Safety Act 2004* (Vic)
 | * AS/NZS 1338.2: Filters for eye protectors- Filters for protection against ultraviolet radiation
* AS/NZS 4399: Sun protective clothing - Evaluation and classification
* AS/NZS 4501.2: Occupational protective clothing - General requirements
* AS/NZS 1067.1: Eye and face protection - Sunglasses and fashion spectacles - Requirements
* Radiation protection standard for occupational exposure to ultraviolet radiation (Cth)
* Sun protection for construction and other outdoor workers (Vic)
* Working in heat (Vic)
* HB 9 Occupational Personal Protection
 | * *Health & Safety: Risk management requirements*
* *Health & Safety: Personal protective equipment requirements*
 | * Risk assessments
* Scheduled work at appropriate times, seasons and weather conditions
* Local area standard operating procedures
* Personal protective equipment:
	+ wet weather gear
	+ long sleeved summer clothing
	+ sunhats
	+ sunglasses
* Sunscreen
 | **Low** |

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| **Category** | **Description of Hazard/Risk** | **Inherent Risk Analysis** | **Inherent Risk Rating** | **Legislation** | **Standards/Codes/Guidance** | **University Policies/Procedures** | **Controls** | **Residual Risk Rating** |
| **L** | **C** |
| 23. Chemical | * Chemical exposure - acute or chronic:
	+ inhalation
	+ absorption
	+ ingestion
	+ injection
* Fire and/or explosion through incorrect storage, handling, labeling or mixing of chemicals
* New chemicals with uncertain properties arising from research and subsequent health affects
* Time sensitive chemicals that can become unstable during storage
* Production of hazardous wastes
* Contamination due to accidental leakage, spills, emissions:
	+ air
	+ water
	+ soil/ground
* Engineered nanoparticles
 | **Possible** | **Severe** | **Extreme** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 4.1 Hazardous Substances and Materials
* *Occupational Health and Safety Regulations 2017* (Vic) Part 4.2 Scheduled Carcinogenic Substances
* *Dangerous Goods Act 1985* (Vic)
* *Dangerous Goods (Storage and Handling) Regulations 2012* (Vic)
* *Drugs Poisons and Controlled Substances Regulations 2017* (Vic)
* *Drugs Poisons and Controlled Substances (Precursor Chemicals) Regulations 2007* (Vic)
* *Drugs Poisons and Controlled Substances (Volatile Substances) Regulations 2007* (Vic)
* *Therapeutic Goods Act 2010* (Vic)
* *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995* (Cth)
* *Weapons of Mass Destruction 1995*

(Cth)* *Agricultural and Veterinary Chemicals (Victoria) Act 1994* (Vic)
 | * Australian dangerous goods transport code Edition 7
* AS/NZS 1020 The control of undesirable static electricity
* AS 1216: Class labels for dangerous goods
* AS 1345 Identification of the contents of pipes, conduits and ducts
* AS/NZS 1596: The storage and handling of LP Gas
* AS 1894 The storage and handling of non- flammable cryogenic and refrigerated liquids
* AS 1940; The storage and handling of flammable and combustible liquids
* AS 1940: The storage and handling of flammable and combustible liquids
* AS/NZS 2022: Anhydrous ammonia - Storage and handling
* AS/NZS 2229 Fuel dispensing equipment for explosive atmospheres
* AS/NZS 2243.2: Safety in laboratories – Chemical aspects
* AS/NZS 2243.10: Safety in laboratories – Storage of chemicals
* AS 2507: The storage and handling of agricultural and veterinary chemicals
* AS 2567: Laminar flow cytotoxic drug safety cabinets
* AS 2714: The storage and handling of organic peroxides
* AS/NZS 2927: The storage and handling of liquefied chlorine gas
* AS 3780: The storage and handling of corrosive substances
* AS/NZS 3833: The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers
* AS 3961: The storage and handling of liquefied natural gas
* AS/NZS 4081: The storage and handling of liquid and liquefied polyfunctional isocyanates
* AS 4326: The storage and handling of oxidizing agents
* AS 4332: The storage and handling of gases

in cylinders | * *Health & Safety: Chemical management requirements*
* *Health & Safety: Regulated plant requirements*
* *Health & Safety: Personal protective equipment*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Workplace inspection requirements*
* *Health & Safety: Waste management requirements*
* *Health & Safety: Spill management requirements*
 | * GoldFFX – SDS repository, chemical manifest and inventory system
* Chemical Management University web site
* Chemical management guidelines
* Chemical risk assessments
* Risk assessments that include chemical
* Local area standard operating procedures
* Pre-purchase assessment – chemicals
* Licensing agreements and requirements
* Engineering controls such as:
	+ fume cupboards
	+ mechanical ventilation
	+ extraction
	+ atmospheric monitoring
* Purpose built storage areas for cylinders and compressed gases
* Restricted access to authorised personnel
* Correct labelling, storage and segregation
* Scheduled workplace assessments that include chemical assessment
* Time sensitive chemicals dated
* Emergency procedures for accidental release/spillage
* Emergency showers and eye wash
* Employee health monitoring
* Chemical Management training
* Gas Safety training
* Personal protective equipment training
* Personal protective equipment
* Hazardous waste removal procedures and processes
* University Services chemical subject matter expert
 | **Medium** |

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| **Category** | **Description of Hazard/Risk** | **Inherent Risk Analysis** | **Inherent Risk Rating** | **Legislation** | **Standards/Codes/Guidance** | **University Policies/Procedures** | **Controls** | **Residual Risk Rating** |
| **L** | **C** |
|  |  |  |  |  |  | * AS/NZS 4452: The storage and handling of toxic substances
* AS/NZS 4681: The storage and handling of Class 9 (miscellaneous) dangerous goods and articles
* AS/NZS 4757 Handling and destruction of drugs
* AS/NZS 5026: The storage and handling of Class 4 dangerous goods
* AS/NZS 60079.10.1 Explosive atmospheres – classification of areas – Explosive gas atmospheres (IEC 60079-10-1 ed 1.0 [2008) mod)
* HB 9 Occupational Personal Protection
* Model Code of Practice. Preparation of safety data sheets (Cth)
* Model Code of Practice. Labelling workplace chemicals (Cth)
* Globally Harmonised System for the Classification and Labelling of Chemicals (GHS) information sheet (Cth)
* Standard for the uniform scheduling of drugs and poisons (Cth)
* Hazardous Chemical Information System (HCIS)
* National Industrial Chemical Notification and Assessment Scheme (NICNAS)
* Model Code of Practice: Managing risks of hazardous chemicals in the workplace (Cth)
* Hazardous Substances Information System (HSIS) web site (Cth)
* Guidelines for Health Surveillance NOHSC:7039 [1995])
* Compliance code. Hazardous substances (Vic)
* Engineered nanomaterials: Investigating substitution and modification options to reduce potential hazards (Safe Work Australia)
* Work Health and safety assessment tool for handling engineered nanomaterials (Safe Work Australia)
* National hazard exposure worker surveillance: Exposure to dust, gases, vapours, smoke and fumes and the provision of controls for these airborne hazards in Australian workplaces

(Cth) |  |  |  |

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| **Category** | **Description of Hazard/Risk** | **Inherent Risk Analysis** | **Inherent Risk Rating** | **Legislation** | **Standards/Codes/Guidance** | **University Policies/Procedures** | **Controls** | **Residual Risk Rating** |
| **L** | **C** |

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| 24. Laboratories | * Hazards associated with the work/research undertaken in the laboratory
	+ chemical
	+ biological (and other pathogens)
	+ ionising radiation
	+ non-ionising radiation
	+ mechanical aspects
	+ electrical aspects
* Hazards associated with plant and equipment. For example:
	+ centrifuge
	+ autoclave
	+ microscope
	+ pipette
	+ fume hoods
	+ biological cabinets
* refrigerators/freezers
* cage washer
* Generation of wastes as per specific hazard category
	+ chemical
	+ biological (and other pathogens)
	+ radiological
	+ infectious diseases

Refer to specific hazard category for hazards/risks including:* + chemical
	+ biological (and other pathogens)
	+ ionising radiation
	+ non-ionising radiation
	+ plant and equipment
	+ electrical aspects
 | **Unlikely** | **Major** | **High** | * *Occupational Health and Safety Act 2004* (Vic)

Refer to specific hazard category for legislation including:* + chemical
	+ biological (and other pathogens)
	+ ionising radiation
	+ non-ionising radiation
	+ plant and equipment
	+ electrical aspects
 | * AS 1319 Safety signs for the occupational environment
* AS 2982 Laboratory design and construction
* AS 4775 Emergency eyewash and shower equipment
* AS 2243 (series) Safety in laboratories
* HB 9 Occupational personal protection

Refer to specific hazard category for Standards/codes/guidance including:* + chemical
	+ biological (and other pathogens)
	+ ionising radiation
* non-ionising radiation
* plant and equipment
* electrical aspects
 | * *Health & Safety: Laboratory requirements*
* *Health & Safety: Personal protective equipment requirements*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Workplace inspection requirements*
* *Health & Safety: Signage requirements*
* *Health & Safety: Waste management requirements*
* *Health & Safety: Spill management requirements*

Refer to specific hazard category for University policies/procedures* chemical
* biological (and other pathogens)
* ionising radiation
* non-ionising radiation
* plant and equipment
* electrical aspects
 | * Laboratory risk assessments
* Local area standard operating procedures
* Restricted access
* Area (laboratory) inductions
* Scheduled laboratory inspections
* Personal protective equipment
* Refer to specific hazard *category* for required controls
* Hazardous waste removal procedures and processes

Refer to specific hazard category for controls:* chemical
* biological (and other pathogens)
* ionising radiation
* non-ionising radiation
* plant and equipment
* electrical aspects
 | **Low** |

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| **Undergraduate Laboratories*** **Part I, II, & III**
* **Lecture Demonstrations**

Student laboratories hosting practical classes which are also used by other faculties. | Each practical exercise is designed for minimum hazards and low-level risks. These include: * Slips and trips
* electrical,
* chemical,
* Mechanical sharps, collisions.
* Radiation Ionizing & Non-Ionizing
* Workplace and environment and Facilities Procurement of Goods and Services
* Travel and Off Campus Activities and Placements
* Contractor
* Events related such as Large numbers of people/public
* Noise/Sound Pressure
 | **Possible** | **Moderate** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.6 High Risk Work
* *Occupational Health and Safety Regulations 2017* (Vic) Part 5.1 Construction
* *Road Safety Act 1986* (Vic)
* *Road Safety (Drivers) Regulations 2009* (Vic)
* *Road Safety (Road Rules) Regulations 1999* (Vic)
* *Equipment (Public Safety) Regulations 2017* (Vic)
 | * AS/NZS 3000 Electrical installations (Australian/New Zealand Wiring Rules)
* Refer to AS/NZS 3000 wiring rules Appendix A referenced documents
* AS/NZS 3105 Approval and test specification – Electrical and portable outlet devices
* AS/NZS 3199 Approval and test specification – Cord extension sets
* AS/NZS 3200: (Series) Approval and test specification - Medical electrical equipment
* AS/NZS 3760 In-service safety inspection and testing of electrical equipment
* AS/NZS 3112 Approval and test specification – Plug and socket outlets
* AS/NZS 1660 (series) Test methods for electric cables, cords and conductors
* Model code of practice. Managing Electrical risks in the workplace
* Electrical Equipment and safety guidelines (Vic)
 | * Liaise with Faculty Safety Manager and Radiation Officers.
* Health & Safety: Risk management requirements
* Health & Safety: Contractor (service provider) requirements
* Refer to specific hazard category for University policies/procedures
	+ chemical
	+ ionising radiation
	+ non-ionising radiation
	+ plant and equipment
	+ electrical aspects
* *Health & Safety: Personal protective equipment requirements*
* *Health & Safety: Chemical management requirements*
* *Health & Safety: Regulated plant requirements*
* *Health & Safety: Personal protective equipment*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Workplace inspection requirements*
* *Health & Safety: Waste management requirements*

*Health & Safety: Spill management requirements* | * Risk assessments;
* SOPs
* training and instruction and inductions,
* workplace inspection, onsite training,
* inductions, and supervision
* signage.
 | **Low** |

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| **Category** | **Description of Hazard/Risk** | **Inherent Risk Analysis** | **Inherent Risk Rating** | **Legislation** | **Standards/Codes/Guidance** | **University Policies/Procedures** | **Controls** | **Residual Risk Rating** |
| **L** | **C** |

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| **Laser Optics Research Labs**: Experimental research in physical optics including several optical technologies. | * Radiation – Laser.
* Electrical. Some equipment has been specially built but Physics has access to trained engineers in the SFTW
* Manual Handling
* Ergonomic related
* Chemical
 | **Possible** | **Moderate** | **Medium**  | * *Occupational Health and Safety Act 2004* (Vic)
* *Marine Act 1988* (Vic)
* *Marine Regulations 1999* (Vic)
 | * AS/NZS 3000 Electrical installations (Australian/New Zealand Wiring Rules)
* Refer to AS/NZS 3000 wiring rules Appendix A referenced documents
* AS/NZS 3105 Approval and test specification – Electrical and portable outlet devices
* AS/NZS 3199 Approval and test specification – Cord extension sets
* AS/NZS 3200: (Series) Approval and test specification - Medical electrical equipment
* AS/NZS 3760 In-service safety inspection and testing of electrical equipment
* AS/NZS 3112 Approval and test specification – Plug and socket outlets
* AS/NZS 1660 (series) Test methods for electric cables, cords and conductors
* Model code of practice. Managing Electrical risks in the workplace

Electrical Equipment and safety guidelines (Vic) | * *Health & Safety: Scientific diving requirements*
* *Health & Safety: Risk management requirements*

Guided by the Universities Radiation Officer, the Schools Radiation Officers.Controlled by P&CS test tag; RCD testing, general earthing testingTraining Matrix and “Manual Handling” session where appropriateEHS safety web-site.See Training Matrix and determine necessity for Chemical Management Training | * Risk assessments; training and instruction, workplace inspection, onsite training, inductions, supervision, and signage. Engineering, PPE, administrative, isolation (interlock) controls.

Risk assessments and advice from SFTW. Advice from OHS group where necessary.Engineering: use of appropriate equipment.Elimination if possible by using modern equipment (low weight alternatives)Ergonomic training available to implement appropriate controls.Uni supplied waste-removal.Engineering (fume-hoods).PPE (gloves and eye ware).SOPs and RAs.* These are used extensively and hence the need for an on-site Radiation Officer
 | **Low** |

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| **L** | **C** |
| **X-ray Optics Labs:** This is using the new commissioned x-ray apparatus | Radiation (ionizing)ElectricalSounds/ noise | **Possible** | **Moderate** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
* *Electrical Safety Act 1998* (Vic)
* *Electrical Safety (Equipment) Regulations 1999* (Vic)
* *Electricity Safety (Management) Regulations 2009* (Vic)
* *Electricity Safety (Installations) Regulations 2009* (Vic)
 | * AS/NZS 3000 Electrical installations (Australian/New Zealand Wiring Rules)
* Refer to AS/NZS 3000 wiring rules Appendix A referenced documents
* AS/NZS 3105 Approval and test specification – Electrical and portable outlet devices
* AS/NZS 3199 Approval and test specification – Cord extension sets
* AS/NZS 3200: (Series) Approval and test specification - Medical electrical equipment
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* AS/NZS 1660 (series) Test methods for electric cables, cords and conductors
* Model code of practice. Managing Electrical risks in the workplace
* Electrical Equipment and safety guidelines (Vic)
 | * *Health & Safety: Risk management requirements*
* *Health & Safety: Electrical inspection and testing requirements*
* *Health & Safety: Isolation, lock out, tag out requirements*
* *Health & Safety: Unsafe plant and equipment requirements*
* *Health & Safety: Purchasing requirements*

Extensive use of on-site Radiation Officer for advice. | * Risk Assessment
* Monitoring using counters and dosage badges.
* Engineering: interlocks
* Isolation: lead-shielding
 | **Low** |
| **ECMP research laboratories**: This is including the ‘Pelletron’ labs, Vapour-Deposition labs and materials labs. The Micro Analytical Research Centre covers many areas with liaison with non-Physics groups | * Electrical
* Manual Handling
* Prevention of falls
* Working in confined spaces
* Radiation (ionizing)
* Chemical
* Pressurized equipment.
* Large Pelletron tank housing SF6.
 | **Possible** | **Moderate** | **Medium** | * *Occupational Health and Safety Act 2004*
* *Equipment (Public Safety) Regulations 2017* (Vic)
 | * AS/NZS 3000 Electrical installations (Australian/New Zealand Wiring Rules)
* Refer to AS/NZS 3000 wiring rules Appendix A referenced documents
* AS/NZS 3105 Approval and test specification – Electrical and portable outlet devices
* AS/NZS 3199 Approval and test specification – Cord extension sets
* AS/NZS 3200: (Series) Approval and test specification - Medical electrical equipment
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* Model code of practice. Managing Electrical risks in the workplace
* Electrical Equipment and safety guidelines (Vic)
 | * *Appropriate workplace behaviour policy (MPF1328)*
* *Health & Safety: Risk management requirements*
* *Health & Safety: Contractor management requirements*

*P&CS inspections.**Training Matrix to determine exposure.**Use of P&CS for advice.**Requires OHS recommendation**Radiation badging necessary with external processing.**Inspection by Uni Radiation Safety Officer**See Training Matrix and determine necessity for Chemical Management Training**P&CS schedule and external certification.* | * SOPs, RAs. Engineering: all equipment to be suitably earthed and isolated
* Administrative: regular test & tag.
* Engineering: use suitable equipment available from SFTW.
* Engineering: protective coatings and hand-rails
* Training, engineering, administrative and possible PPE. RA and SOPs to be written
* Engineering, some lead shielding to reduce radiation to negligible with regular monitoring.
* Uni Supplied waste-removal.
* Engineering (fume-hoods).
* PPE (gloves and eyeware).
* SOPs and RA.
* Training for safe gas-handling. Engineering overpressure devices for excess pressure. RAs and SOPs. Single operator policy.
 | **Low** |

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| **L** | **C** |
| **Experimental Particle Physics Lab**: This area is to be reworked with room marked for clearing.* Contains residual unused equipment. Currently used for conferencing in main ‘office’ type space. Occupied by post-docs who work with outside agencies – eg the Synchrotron.
 | Electrical | **Possible** | **Moderate** | **Medium** | * *Occupational Health and Safety Act 2004* (Vic)
* *Occupational Health and Safety Regulations 2017* (Vic) Part 3.1 Hazardous Manual Handling
 | * AS/NZS 3000 Electrical installations (Australian/New Zealand Wiring Rules)
* Refer to AS/NZS 3000 wiring rules Appendix A referenced documents
* AS/NZS 3105 Approval and test specification – Electrical and portable outlet devices
* AS/NZS 3199 Approval and test specification – Cord extension sets
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* AS/NZS 1660 (series) Test methods for electric cables, cords and conductors
* Model code of practice. Managing Electrical risks in the workplace

Electrical Equipment and safety guidelines (Vic) | * *Health & Safety: Hazardous manual handling requirements*
* *Health & Safety: Ergonomic requirements*
* *Health & Safety: Risk management requirements*

P&CS scheduled test and tag | * via RAs and SOPs.
 | **Low** |