

University of Otago Occupational Health and Safety Risk Register

For use in conjunction with OHS risk management procedure

Category	Description of Hazard/Risk	Risk Rating	Legislation	Standards/Codes/Guidance	University Policies/Procedures	Controls	Residual Risk Rating
1. Chemical	<ul style="list-style-type: none"> ● Chemical exposure - acute or chronic <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - air - water - soil/ground 	VH	<ul style="list-style-type: none"> ● H&S in Employment Act & Regulations ● HSNO Act & Regulations ● Land Transport Rule: Dangerous Goods 2005 ● Land Transport Rule: Dangerous Goods Amendment 2010 	<ul style="list-style-type: none"> ● HSNO Exempt Laboratories Approved code of practice ● AS/NZS 1020 The control of undesirable static electricity ● AS/NZS 1596: The storage and handling of LP Gas ● AS/NZS 2229 Fuel dispensing equipment for explosive atmospheres ● AS/NZS 2243.2: Safety in laboratories – Part 2: Chemical aspects ● AS/NZS 2243.10: Safety in laboratories – Part 10: Storage of chemicals ● AS/NZS 3833: The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers ● AS/NZS 4081: The storage and handling of liquid and liquefied polyfunctional isocyanates ● 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) 	<ul style="list-style-type: none"> ● University of Otago HSNO Exempt Laboratory Compliance Manual ● Hazardous Substances and Radiation Committee (HSRC) oversight ● Statutory budget committee and process documents 	<ul style="list-style-type: none"> ● ChemWatch – MSDS database ChemGold FFX ● Chemical Risk Assessments ● Risk assessments that include chemical use ● Compliant laboratories – statutory budget upgrade process ● Local area standard operating procedures ● Licensing agreements and requirements ● Engineering controls such as: <ul style="list-style-type: none"> - fume cupboards - mechanical ventilation - extraction - atmospheric monitoring ● Purpose built storage areas for cylinders and compressed gases ● Restricted access to authorised personnel ● Correct labeling, storage and segregation ● Time sensitive chemicals dated ● Emergency procedures for accidental release/spillage ● Employee health monitoring ● Chemical Management Training ● Gas Safety Training ● Personal protective equipment 	M

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				<ul style="list-style-type: none"> NZ55433.1 & 2 – 2012: Transport of Dangerous Goods on Land Parts 1&2 		<ul style="list-style-type: none"> Hazardous waste removal, trade waste agreements Internal chemical experts H&S web site 	
2. Biological Research & Activities	<ul style="list-style-type: none"> Biological exposure/contamination Release of biological agent into uncontrolled environment Importation and exportation of biological materials Infectious wastes 	VH	<ul style="list-style-type: none"> HSNO Act 1996 Biosecurity Act H&S in Employment Act & Regulations IATA Guidelines 	<ul style="list-style-type: none"> MAF Biosecurity Authority NZ Standard: 154.02.08 Transitional and Containment facilities for Invertebrates. MAF Biosecurity Authority NZ Standard: 154.03.03 Containment Facilities for Vertebrate Laboratory Animals MAF Biosecurity Authority NZ and EMRA NZ Standard: Facilities for Microorganisms and Cell Cultures: 2007a (Micro:2007a) MAF Biosecurity Authority of NZ and ERMA NZ Standard: Containment Facilities for Plans: 2007 (Plants: 2007) (including Herbarium) Standard 154.02.17 Transitional Facilities for Biological Products AS/NZS 3816 Management of Clinical and Related Wastes AS/NZS 4261 Reusable Containers for the Collection of Sharp Items Used in Human and Animal Medical Applications AS/NZS 2243.3 Safety in Laboratories – Microbiological Aspects and Containment facilities IATA Guidelines Import health Standards as listed on permits 	<ul style="list-style-type: none"> Containment and Transitional Facilities Facility Manuals Institutional Safety Biological Committee (IBSC) University MPI Approved Operator University non-compliance policies 1. for new organisms/unwanted organisms/biological products 2 for vertebrate laboratory animals 	<ul style="list-style-type: none"> Biological Compliance web site Restricted access to authorised personnel Risk assessments Local area standard operating procedures Biohazard Laboratory Practice Training Controlled shipping and movement of infectious substances, diagnostic specimens and genetically modified organisms Engineering controls such as laminar flow cupboards, class II cabinets, negative pressure ariflows for laboratories Complaint containment facilities through the Statutory Budget process Scheduled workplace inspections for laboratories, internal IBSC audits and external MPI audits Staff training Personnel protective equipment Employee health monitoring Personal protective equipment 	M

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Commented [MM2]: This only applies to work with new organisms. Work with infectious microorganisms not regulated by EPA/MPI is not subject to inspection and is probably a weakness in our system e.g. Listeria, influenza etc that aren't modified. Some will be covered in the updated Biohazard manual I think. Do we have some separate procedures for infectious waste –have the biohazard procedures but this doesn't cover dental school and student health waste

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						<ul style="list-style-type: none"> • Biohazard waste management guidelines 	
3. Animal related work	<ul style="list-style-type: none"> • Animal research • Biological exposure/contamination • Zoonosis • Laboratory Animal Allergies • Animal related injuries 	VH	<ul style="list-style-type: none"> • Health and Safety in Employment Act and regulations • Animal Welfare Act • HSNO Act 1996 • Biosecurity Act 	<ul style="list-style-type: none"> • MAF Biosecurity Authority NZ Standard: 154.03.03 Containment Facilities for Vertebrate Laboratory Animals • MPI Import Health Standard Laboratory Animals and Laboratory Animal Germplasm LABABICAL 2013 • AS/NZS 3816 Management of Clinical and Related Wastes • AS/NZS 4261 Reusable Containers for the Collection of Sharp Items Used in Human and Animal Medical Applications • AS/NZS 2243.3 Safety in Laboratories – Microbiological Aspects and Containment facilities • AS/NZS 3816 Management of Clinical and Related Wastes • AS/NZS 3825 Procedures and Devices for the Removal and Disposal of Scalpel blades from scalpel handles • AS/NZS 1716 Respiratory Protective Devices • AS/NZS 1715 Selection, Use, and Maintenance, of Respiratory Protective Devices • IATA Guidelines 	<ul style="list-style-type: none"> • Animal Ethics Committee • Animal Welfare Office • Code of Conduct for the Use of Animals in Research, teaching and testing. • Operating Procedures Manual for the use of RVM • Animal Ethics Committees • Laboratory Animal Allergy Policy and Guidelines • Containment manual 	<ul style="list-style-type: none"> • Laboratory Animal Allergy policy and procedure • Animal facility upgrades statutory budget process • Occupational health monitoring • Vaccinations • Risk assessments • Local area standard operating procedures • Animal immunization • Restricted access • Quarantine areas • Appropriate animal housing/farming • Standard operating procedures • Health screening and monitoring • Personal protective equipment 	M
4. Laboratories	<ul style="list-style-type: none"> • Hazards associated with the work/research undertaken in the laboratory chemical 	VH	<ul style="list-style-type: none"> • HSNO Act 1996 & Regulations 	<ul style="list-style-type: none"> • HSNO Exempt Laboratory Approved Code of Practice • AS 2982: Laboratory Design and Construction 	<ul style="list-style-type: none"> • University of Otago HSNO exempt laboratory compliance manual 	<ul style="list-style-type: none"> • Laboratory risk assessments • Local area standard operating procedures • Restricted access 	M

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	<ul style="list-style-type: none"> - microbiological - ionising radiation - non-ionising radiation - mechanical aspects - electrical aspects <ul style="list-style-type: none"> • Refer to specific hazard categories • Hazards associated with using plant and equipment. For example: <ul style="list-style-type: none"> - centrifuge - autoclave - microscope - pipette - fume hoods - biological cabinets - refrigerators/freezers - cage washer • Generation of wastes as per specific hazard category 		<ul style="list-style-type: none"> • Health and Safety in Employment Act & regulations 	<ul style="list-style-type: none"> • AS 2243 (series): Safety in Laboratories • AS/NZS 60079.10.1: Explosive Atmospheres – Classification of Areas – Explosive Gas Atmospheres (IEC 60079-10-1 Ed 1.0 [2008] MOD) • AS/NZS 1020 The control of undesirable static electricity • AS/NZS 1596: The storage and handling of LP Gas • AS/NZS 2243.2: Safety in laboratories – Part 2: Chemical aspects • AS/NZS 2243.10: Safety in laboratories – Part 10: Storage of chemicals • AS/NZS 4757 Handling and destruction of drugs 		<ul style="list-style-type: none"> • Compliant laboratories through the statutory budget process • Area (laboratory) inductions • Scheduled laboratory inspections • Personal protective equipment • Equipment SOPS • Equipment maintenance and inspections • Training and authorized users of equipment • Refer to specific hazard category for required controls 	
5. After Hours On Campus	<ul style="list-style-type: none"> • Working alone • Reduction in emergency assistance and support 	H	<ul style="list-style-type: none"> • Health and safety in employment Act & Regulations 		<ul style="list-style-type: none"> • Laboratories - After hours risk management procedure 	<ul style="list-style-type: none"> • Risk assessments for high risk procedures includes working alone controls • Local area standard operating procedures • Staff training • Restricted access to University buildings and property • 24 hour security support 	L
6. Ionising Radiation	<ul style="list-style-type: none"> • Working with ionising radiation (including different types of ionising radiation) • Ionising radiation storage and transport 	VH	<ul style="list-style-type: none"> • Health and safety in employment Act and Regulations 	<ul style="list-style-type: none"> • AS 2243.4: Safety in Laboratories – Part 4: Ionizing Radiations • NRL Code of safe practice for the use of X-rays in Dentistry (NRL C7 1991) 	<ul style="list-style-type: none"> • University of Otago Radiation Safety Plan • Radiation Safety Advisor • Hazardous Substances and Radiation Committee 	<ul style="list-style-type: none"> • Department/School radiation safety plans • Register Ionising Radiation Sources • University Radiation Advisor • Departmental Radiation Safety Officers 	M

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	<ul style="list-style-type: none"> Ionising radiation wastes Deterministic and stochastic injuries/ill health 		<ul style="list-style-type: none"> Radiation Protection Act 1964 	<ul style="list-style-type: none"> NRL code of safe practice for the use of Unsealed radioactive materials in medical diagnosis, therapy and research (NRL C3 1994) NRL Code of safe practice for the use of X-rays in medical diagnosis (NRL C5 1994) Code of Practice for the use of Industrial Gauges Containing Sealed Radioactive Sources (NRL C19 2005) NRL Code of safe practice for the use of Sealed Radioactive Materials in Industry (NRL C2 1997) 		<ul style="list-style-type: none"> Secured radiation storage area(s) Personal monitoring (badges) Risk assessments Staff area induction and training Ionising Radiation Training Contamination environmental monitoring Hazardous waste removal Personal protective equipment 	
7. Non-Ionising Radiation (excluding outdoors)	<ul style="list-style-type: none"> Excessive exposure to non-ionising radiation Hazards associated different types of non-ionising radiation including: <ul style="list-style-type: none"> UV lasers microwaves infrared magnetic resonance high frequency low frequency 	VH	<ul style="list-style-type: none"> Health and Safety in Employment Act and Regulations 	<ul style="list-style-type: none"> AS/NZS 1338.2: Filters for Eye Protectors – Part 2: Filters for Protection Against Ultraviolet Radiation AS/NZS 2211 (series): Safety of Laser products AS 2243.5: Safety in Laboratories – Part 5: Non-Ionising Radiations – Electromagnetic, Sound and Ultrasound 	<ul style="list-style-type: none"> Safe Use of Lasers manual (Draft) Hazardous Substances and Radiation Committee 	<ul style="list-style-type: none"> University Radiation Advisor Local Laser Safety Officers Risk assessments Local area standard operating procedures Staff area induction and training Laser Training Non-Ionising Radiation Training Safe operating procedures Personal protective equipment 	M
8. Electrical Equipment	<ul style="list-style-type: none"> Use of faulty equipment/appliances Use of uncertified electrical equipment/appliances Incorrect and/or faulty electrical installation 	VH	<ul style="list-style-type: none"> Health and safety in employment Act and Regulations 	<ul style="list-style-type: none"> AS/NZS 1660 (series): Test Methods for Electric Cables, Cords and Conductors AS 2243.7: Safety in Laboratories – Part 7: Electrical Aspects AS/NZS 3000: Electrical Installations (known as the Australian/New Zealand Wiring Rules) 	<ul style="list-style-type: none"> Portable Electrical Equipment policy and guidelines Lock out, tagging and isolation procedure 	<ul style="list-style-type: none"> Scheduled testing and tagging of portable electrical equipment Pre-purchase checklist – Electrical Equipment Certificates of Electrical Safety 	M

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	<ul style="list-style-type: none"> Use electrical equipment/appliances that do not meet relevant Standards and Codes 			<ul style="list-style-type: none"> 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 3760:2010. In-service safety inspections and testing of electrical equipment. 	<ul style="list-style-type: none"> Purchasing - HS requirements procedure 	<ul style="list-style-type: none"> Electrical installation by licensed electrician Use of RCDs RCD testing 	
9. Purchasing	<ul style="list-style-type: none"> Introducing new or uncontrolled hazards into the workplace: <ul style="list-style-type: none"> personal protective equipment office furniture and equipment chemicals and substances radiation sources plant and equipment (including electrical) 	H	<ul style="list-style-type: none"> Health and Safety in Employment Act and regulations 	<ul style="list-style-type: none"> Refer to specific hazard category for Standards/Codes/Guidance 	<ul style="list-style-type: none"> Purchasing - OHS requirements procedure 	<ul style="list-style-type: none"> Pre-purchasing checklists for: <ul style="list-style-type: none"> personal protective equipment office furniture and equipment chemicals and substances radiation sources plant and equipment (including electrical) Preapproved University provider(s) Refer to specific hazard category for controls 	L
10. Manual Handling	<ul style="list-style-type: none"> Hazardous manual handling tasks/activities that include: <ul style="list-style-type: none"> the following characteristics; repetitive or sustained application of force 	H	<ul style="list-style-type: none"> Health and Safety in Employment Act and Regulations 	<ul style="list-style-type: none"> SAA/SNZ HB 96:1997 - Guidelines for mobile shelving for archives, libraries and museums 	<ul style="list-style-type: none"> Manual handling and ergonomic risk management procedure 	<ul style="list-style-type: none"> Office Ergonomics - University web site & habitatwork Manual handling training Workstation Ergonomic Assessment Training 	M

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	<ul style="list-style-type: none"> - repetitive or sustained awkward posture - repetitive or sustained 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 					<ul style="list-style-type: none"> • Manual handling risk assessments • Mechanical aids and lifting devices <ul style="list-style-type: none"> - trolleys - forklifts - pedestrian stackers and walkers - platform ladders - hoists • Work station risk assessments (Keyboard and Work Station Checklists) • Pre-purchase checklists • Internal ergonomic and manual handling expert • Induction Compliance Checklist 	
11. Psychosocial	<ul style="list-style-type: none"> • Occupational stress • Workplace bullying and harassment • Occupational violence • Fatigue 	H	<ul style="list-style-type: none"> • Health and Safety in Employment Act and Regulations 	<ul style="list-style-type: none"> • Workplace Bullying Guidelines (WorkSafeNZ) 	<ul style="list-style-type: none"> • Stress and Mental Fatigue Guidelines • Ethical Behaviour Policy 	<ul style="list-style-type: none"> • Staff training • EAP • Conditions of Employment • Promotional material • Better@Work • Emergency Procedures • Healthy University Advisory Group Initiative 	M
12. Travel and Off campus Activities	<ul style="list-style-type: none"> • Domestic travel • Overseas travel • Remote locations • Field trips and activities 	VH	<ul style="list-style-type: none"> • Health and Safety in Employment Act and regulations 		<ul style="list-style-type: none"> • Off campus activities Policy and Guidelines • Travel Policy FSD 	<ul style="list-style-type: none"> • Field trip Risk Assessment and Plan • MFAT & ISOS warnings • Occupational Health for travel vaccinations and medications 	M

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	<ul style="list-style-type: none"> Driving and travel arrangements Inadequate communication Unexpected events/emergencies 					<ul style="list-style-type: none"> Travel to high risk destinations risk assessment & authorization by Senior Management 	
13. Smoking	<ul style="list-style-type: none"> Passive smoking Fires Generation litter/butts 		<ul style="list-style-type: none"> Health and Safety in Employment Act and regulations Smokefree Environments Act 		<ul style="list-style-type: none"> Smoke Free campus policy 	<ul style="list-style-type: none"> No smoking on campus No smoking in vehicles Signage 	L
14. Alcohol and Drugs	<ul style="list-style-type: none"> Inappropriate behavior Injury Discarded needles: <ul style="list-style-type: none"> occupational injury/disease generation litter 		<ul style="list-style-type: none"> Health and Safety in Employment Act and regulations 	<ul style="list-style-type: none"> Student code of conduct 	<ul style="list-style-type: none"> Campus Watch and security 	<ul style="list-style-type: none"> Responsible alcohol service requirements Conditions of Employment Risk assessments Local area standard operating procedures Litter removal 	M
15. Plant and Equipment	<ul style="list-style-type: none"> Lack of operator competency/training Unassessed plant and equipment Lack of/inappropriate guarding Unrestricted access Poorly maintained plant Adverse impact on the environment: 		<ul style="list-style-type: none"> Health and Safety in Employment Act and regulations Electricity Act 		<ul style="list-style-type: none"> Personal protective equipment – OHS requirements procedure OHS risk management procedure – hazard register and plant checklists Lock out, tagging and isolation - OHS requirements procedure Unsafe plant and equipment: OHS requirements procedure 	<ul style="list-style-type: none"> Plant Hazard and Risk Assessments Guarding and engineering controls Emergency stops Training and supervision Restricted access Scheduled maintenance Standard Operating Procedures for plant/equipment Plant Registers 	L

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	<ul style="list-style-type: none"> - waste generation from plant - decommissioning and removal of plant • Refer to "Ionising Radiation" category for specific information • Refer to "Non-Ionising Radiation" category for specific information 				<ul style="list-style-type: none"> • Refer to "Electrical" category for University electrical radiation policies and procedures • Refer to "Ionising Radiation" category for University ionising radiation policies and procedures • Refer to "Non-Ionising Radiation" category for University non-ionising radiation policies and procedures 	<ul style="list-style-type: none"> • Pre-purchasing checklist - plant and equipment • Personal protective equipment • Refer to "Electrical" category for specific electrical controls • Refer to "Ionising Radiation" category for specific ionising radiation controls • Refer to "Non-Ionising Radiation" category for specific non-ionising radiation controls 	
16. Diving	<ul style="list-style-type: none"> • Adverse diving conditions • Dangerous marine flora and fauna • Diver poor swimming skills • Diving associated conditions (eg bends) • Faulty equipment • Operating/using boat and equipment 		<ul style="list-style-type: none"> • Health and safety in employment act 2002 and amendments 	<ul style="list-style-type: none"> • WorksafeNZ Occupational Diving Guidelines • AS/NZS 	<ul style="list-style-type: none"> • Scuba Diving Policy • Code of Practice for Diving at University of Otago 	<ul style="list-style-type: none"> • University of Otago Dive Officer • Field trip Risk Assessment and Plan • Diver competency assessments • Diver training and qualifications records • Dive plans • Risk assessments • Diver induction • Diver training • Diving teams • Maintenance of equipment • University of Otago Diver Register 	M
17. Confined Spaces	<ul style="list-style-type: none"> • Unrestricted access to confined spaces 		<ul style="list-style-type: none"> • Health and Safety in Employment Act 	<ul style="list-style-type: none"> • AS 2865: Confined Spaces 	<ul style="list-style-type: none"> • Confined spaces risk policy and management procedure 	<ul style="list-style-type: none"> • Confined space entry permit system • Confined space entry training 	M

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	<ul style="list-style-type: none"> Inadequate risk assessment of confined space Inadequate identification of confined space Poorly ventilated workplaces suffocation, asphyxiation, crushing – from collapsing walls (trenches) – slips and trips (exacerbated by limited work space) 				<ul style="list-style-type: none"> OHS risk management procedure Signage – WorkSafe. requirements procedure 	<ul style="list-style-type: none"> Confined space emergency procedures Confined Spaces Permit issuers Confined space permit receivers Safety signage Confined space risk assessments and safe work method statements for every confined space entry Confined spaces register and all to be lockable or (as a minimum) isolated Restricted access 	
18. Working at Heights	<ul style="list-style-type: none"> Fall from height Item falling from height on to others. Unprotected edges. Unsuitable working environment: <ul style="list-style-type: none"> slippery roof brittle roof adverse weather conditions (wind and run) Unsecured equipment Inappropriate use of access and/or fall arrest equipment: <ul style="list-style-type: none"> ladders scaffold elevated work platform harnesses and lanyards anchor points\ sky lights steep pitch 		<ul style="list-style-type: none"> Health and Safety in Employment Act and Regulations 	<ul style="list-style-type: none"> AS/NZS 1576 (series): Scaffolding AS/NZS 1891 (series): Industrial Fall-Arrest Systems and Devices AS/NZS 1892 (series): Portable Ladders Basic Steps For Preventing Falls from Heights (Vic) AS/NZS 4576: Guidelines for Scaffolding Worksafe guidance documents Factsheets AS/NZS 1657 	<ul style="list-style-type: none"> Working at heights risk management procedure, permit to work at height (>5m) Personal protective equipment – OHS requirements procedure OHS risk management procedure 	<ul style="list-style-type: none"> Roof risk assessments Permit to work at height Risk assessments Standard operating procedures Height safety training Fall arrest training Fall protection: <ul style="list-style-type: none"> handrails and barriers elevated work platforms scaffolding fall arrest and anchor point systems Restricted access and entry points Ladder training Elevated work platform training Barricading 	M



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<p>19. Asbestos and Hazardous Materials</p>	<ul style="list-style-type: none"> ● Exposure to hazardous materials: <ul style="list-style-type: none"> – asbestos – lead – synthetic mineral fibres – polychlorinated biphenyl ● Asbestos and hazardous material waste ● Associated health risks: (Mesothelioma; Lung cancer; Asbestosis, Pleural thickening) 		<ul style="list-style-type: none"> ● Health and Safety in Employment act ● Health and Safety in Employment Asbestos regulations 		<ul style="list-style-type: none"> ● Asbestos survey and labelling ● Notification process ● Asbestos Management Plan 	<ul style="list-style-type: none"> ● Hazardous materials survey and risk assessment ● Engage licensed asbestos contractors/removalist ● Asbestos and hazardous materials register ● Asbestos management plan ● Signage ● Restricted access 	M
<p>20. Workplace Environment and Facilities</p>	<ul style="list-style-type: none"> ● Poor ergonomic and work station layout ● Poor storage and office space ● Poor environmental characteristics: <ul style="list-style-type: none"> – thermal discomfort – nuisance noise – inadequate lighting – glare ● Poorly maintained equipment ● Office waste ● Access to facilities including: <ul style="list-style-type: none"> – toilets – washing facilities – drinking water – dining facilities 		<ul style="list-style-type: none"> ● health and safety in employment act and regulations 	<ul style="list-style-type: none"> ● AS/NZS 1668 (series): The Use Of Ventilation And Air Conditioning In Buildings ● AS/NZS 2107: Acoustics - Recommended Design Sound Levels and Reverberation Times for Building Interiors ● AS/NZ 2982: Laboratory design and construction ● AS/NZS 4438: Height Adjustable Swivel Chairs ● AS/NZS 4442: Office Desks ● AS/NZS 4443: Office Panel Systems – Workstations ● Safe use of visual display units (Worksafe NZ) 	<ul style="list-style-type: none"> ● Housekeeping – OHS requirements procedure ● Temperature extremes risk management procedure ● OHS risk management procedure 	<ul style="list-style-type: none"> ● Scheduled workplace inspections ● Work station ergonomic assessments and use of habitatwork ● Pain and Discomfort procedures ● Refer to portable electrical equipment policy and guidelines for electrical controls ● Provision of facilities: <ul style="list-style-type: none"> – toilets – washing facilities – eating and drinking facilities ● Risk assessments ● Office waste removal and recycling initiatives ● Internal ergonomic and manual handling expert – Occupational Health Nurse ● Recruitment and Selection – Induction University web site ● Induction Compliance Checklist 	L

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<p>21. Workplace Design and Construction</p>	<ul style="list-style-type: none"> ● Introduction hazards/risks at design ● Hazards/Risks associated with construction works: <ul style="list-style-type: none"> - electrical - plant - fall from heights - chemicals - manual handling - noise - changing environment - unauthorised access ● Hazardous materials removal ● Impact on campus traffic management plan 		<ul style="list-style-type: none"> ● Health and safety in Employment Act and regulations 	<ul style="list-style-type: none"> ● AS/NZS 1576 (series): Scaffolding ● AS/NZS 3017: Electrical Installations - Verification Guidelines ● AS/NZS 3019: Electrical Installations - Periodic Guidelines ● Building Code 	<ul style="list-style-type: none"> ● Project Management and Design Standards ● OHS risk management procedure ● Signage - OHS requirements procedure ● Refer to specific hazard category for policies and procedures 	<ul style="list-style-type: none"> ● Project Managers ● Risk assessments ● Restricted/authorised access: <ul style="list-style-type: none"> - temporary fencing - signage ● Site and contractor induction ● H&S approved contractors ● Refer to specific hazard category for controls 	M
<p>22. Noise</p>	<ul style="list-style-type: none"> ● Noise in excess of the exposure standards ● Distracting noise ● Noise impact on surrounding community 		<ul style="list-style-type: none"> ● Health and safety in employment Act and regulations 	<ul style="list-style-type: none"> ● AS/NZS 1269 (series): Occupational Noise Management ● AS/NZS 2107: Acoustics - Recommended Design Sound Levels and Reverberation Times for Building Interiors ● AS/NZS 1269.4:2014 ● Occupational noise management - Part 4: Auditory assessment 	<ul style="list-style-type: none"> ● Personal protective equipment - OHS requirements procedure ● OHS risk management procedure ● Signage - OHS requirements procedure 	<ul style="list-style-type: none"> ● Purchasing less noisy plant and equipment ● Pre-purchasing checklist ● Acoustic engineering controls ● Noise Risk Assessments, specialist occupational Health advisors ● Audiometric screening ● Personal protective equipment ● Hearing protection training ● Signage 	
<p>23. Working Outdoors</p>	<ul style="list-style-type: none"> ● Exposure to adverse weather conditions: <ul style="list-style-type: none"> - thermal (heat cold) - rain - ultraviolet light exposure - wind - uncontrolled environment 		<ul style="list-style-type: none"> ● Health and Safety in Employment Act and regulations 	<ul style="list-style-type: none"> ● 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 	<ul style="list-style-type: none"> ● OHS risk management procedure ● Personal protective equipment - OHS requirements procedure ● Local working outdoors policies and procedures 	<ul style="list-style-type: none"> ● Risk assessments ● Scheduled work at appropriate times, seasons and weather conditions ● Local area standard operating procedures ● Personal protective equipment: <ul style="list-style-type: none"> - wet weather gear - long sleeved summer clothing 	

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					<ul style="list-style-type: none"> Fieldwork and off campus policy and guidelines 	<ul style="list-style-type: none"> sunhats sunglasses Sunscreen 	
24. Firearms, Regulated and Prescribed Weapons	<ul style="list-style-type: none"> Accidental shooting Theft and misuse 		<ul style="list-style-type: none"> Health and Safety in Employment Act and regulations 	<ul style="list-style-type: none"> New Zealand Arms Code (NZ) 	<ul style="list-style-type: none"> OHS risk management procedure Personal protective equipment – OHS requirements procedure Local University firearms policies and procedures 	<ul style="list-style-type: none"> Licensed and trained personnel with access to firearms Risk assessments Personal Protective Equipment – hearing and eye protection Gun safes – Campus Watch register Licenses Emergency procedures Local area standard operating instructions 	L
25. Contractors	<ul style="list-style-type: none"> Unfamiliar with University OHS procedures Work that adversely impacts on the University environment and/or staff Conducting work unsafely or in conflict University procedures High risk and/or specialised tasks 		<ul style="list-style-type: none"> Health and Safety in Employment Act and regulations 		<ul style="list-style-type: none"> H&S Approved Contractors policy and procedures. 	<ul style="list-style-type: none"> Pre-work H&S approved contractors compliance assessment process Contractor agreed scope of works and/or contracts prior to commencing work Register of H&S Approved Contractors Contractor performance monitoring and reviews Contractor OHS plans Risk assessments Contractor induction and training Refer to specific hazard category for controls (e.g.: Laboratories) 	M
26. Clients, Customers and General Public	<ul style="list-style-type: none"> Unfamiliar with University OHS procedures Activities that adversely impact on the University staff/students 		<ul style="list-style-type: none"> Health and safety in employment Act and Regulations 		<ul style="list-style-type: none"> OHS risk management procedure Smoke Free Campus Signage, pathways and access maintenance 	<ul style="list-style-type: none"> Risk assessments Restricted access to University buildings and property 24 hour security support 	

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					<ul style="list-style-type: none"> Local University policies and procedures 	<ul style="list-style-type: none"> Local visitor inductions and checklists Visitor cards 	
27. Hot Work	<ul style="list-style-type: none"> Fire and/or explosion Injury and/or property damage Burns, scalds, eye injury, flux inhalation Mechanical injuries. 		<ul style="list-style-type: none"> Health and Safety in Employment Act and regulations 	<ul style="list-style-type: none"> AS/NZS 1338.1: Filters for Eye Protectors – Part 1: Filters For Protection Against Radiation Generated In Welding And Allied Operations AS/NZS 1554 (series): Structural Steel Welding 	<ul style="list-style-type: none"> OHS risk management procedure Hot work permit to work procedures Lock out/tag out procedures 	<ul style="list-style-type: none"> Hot work risk assessments Hot work permit system Safe work method statements Trained operators Hot Work permit issuers & permit receivers Hot Work Emergency Plans Scheduled maintenance for hot work plant and equipment PPE RCDs Licensing of people Certifications of equipment Tag-out/lock out procedures 	
28. Traffic	<ul style="list-style-type: none"> Speeding Shared vehicles and pedestrians areas Uncontrolled vehicle access on campus Unauthorised and/or unsafe parking 		<ul style="list-style-type: none"> Health and Safety in Employment Act and regulations 		<ul style="list-style-type: none"> OHS risk management procedure Signage – OHS requirements procedure Site visitor contractor pamphlet 	<ul style="list-style-type: none"> Controlled access of vehicles onto the campuses H&S Approved Contractor process Traffic management plans: <ul style="list-style-type: none"> speed limits on campus designated delivery points traffic signs designated parking spaces walkways and pathways Risk assessments Standard operating procedures Designated parking 	

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						<ul style="list-style-type: none"> • Mobile plant training 	
29. Infectious Diseases	<ul style="list-style-type: none"> • Working in health care facilities, services and environment • Working childcare facilities • First aid activities • Infectious wastes 		<ul style="list-style-type: none"> • Health and Safety in Employment Act and regulations 	<ul style="list-style-type: none"> • NZ National Immunization Programme 	<ul style="list-style-type: none"> • Biohazard Safety Manual • Health monitoring – OHS requirements procedure • OHS risk management procedure • Biohazard waste management guidelines • Local policies and procedures 	<ul style="list-style-type: none"> • Risk assessments • Local area standard operating procedures • Employee health monitoring • Occupational Health Services • Immunisation programs • Universal Standard precautions • Personal protective clothing and equipment • Staff training in standard precautions • First aid training • Infectious waste removal 	L
30. Emergency Incident	<ul style="list-style-type: none"> • Uncontrolled emergency incident leading to adverse outcomes: <ul style="list-style-type: none"> – Loss of life – injury or illness – Property damage • Loss of communication • Breakdown in emergency procedures 		<ul style="list-style-type: none"> • Health and Safety in Employment Act and regulations • Building Act 	<ul style="list-style-type: none"> • AS/NZS 1841 (series): Portable Fire Extinguishers 	<ul style="list-style-type: none"> • Emergency preparedness and response procedure • First aid – OHS requirements procedure • OHS risk management procedure • OHS incident, injury and hazard reporting and investigation procedure • Earthquake building assessment procedure and earthquake strengthening programme 	<ul style="list-style-type: none"> • Crisis and Emergency Management Group • Trained first aiders and building wardens • Scheduled building evacuations • Emergency management exercises • Campus specific Emergency Management Plans • Crisis Management Plan • Building essential services and ongoing maintenance of those services • Building specific emergency procedures and plans • Task/activity specific emergency procedures and plans • Breathing apparatus training 	

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						<ul style="list-style-type: none"> • Staff training (evacuation drills, fire extinguisher training) • Emergency pager system • Emergency Procedure 'Flipcharts' 	
31. Legal Compliance	<ul style="list-style-type: none"> • Injury and/or property damage • Prosecution and fines • Intervention programs • Reputation damage to the University • Loss of funding: <ul style="list-style-type: none"> - Government - private sector • Loss of certification • Loss of self-insurance 		<ul style="list-style-type: none"> • Health and Safety in Employment Act and regulations 	<ul style="list-style-type: none"> • AS/NZS 4804 (series); Occupational Health and Safety Management Systems 	<ul style="list-style-type: none"> • OHSMS documentation 	<ul style="list-style-type: none"> • Occupational Health and Safety Management System • Risk assessments • Licenses, Permits and Agreements • Records management and data control • University Operational Health and Safety Committee • DHSOs and Health and Safety Representatives • Internal auditing • External auditing • Incident Reporting, Recording and Management 	
32. Material Storage and Handling	<ul style="list-style-type: none"> • Overloading of shelving/storage leading to: <ul style="list-style-type: none"> - Shelving collapse - Falling loads • Structurally unsound shelving/racking systems • Labelling missing or incorrect on storage and transfer systems • Storage and transfer systems not maintained • Difficult access to material storage areas 		<ul style="list-style-type: none"> • Health and Safety in Employment Act and regulations 		<ul style="list-style-type: none"> • Refer to "Chemical" category for specific information • Refer to "Biological Research and Activities" category for specific information • Refer to "Ionising Radiation" category for specific information • Refer to "Manual Handling" category for specific information • Refer to "Plant" category for specific information 	<ul style="list-style-type: none"> • Load rating displayed on shelving and racking • Storage and handling risk assessments • Local area standard operating procedures for shelving/storage • Procurement considerations and pre-purchase checklist for shelving/storage • Installation, inspection and maintenance procedures for shelving/storage • Labelling and identification of transfer and storage systems • Inspection and maintenance of storage and transfer systems 	

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	<ul style="list-style-type: none"> • Impact protection not provided in shared storage/delivery areas • Incorrect/unsuitable storage of goods and materials <ul style="list-style-type: none"> – Refer to "Chemical" category for specific information – Refer to "Biological Research and Activities" category for specific information – Refer to "Ionising Radiation" category for specific information • Incorrect selection and use of lifting devices including: <ul style="list-style-type: none"> – Trolleys – Pallet jacks/lifters – Cranes, winches and lifting slings, chains etc. – Forklifts • Refer to "Manual Handling" category for specific information • Refer to "Plant" category for specific information 					<ul style="list-style-type: none"> • Chemical management training • Ionising radiation training • Manual handling training • Manual handling risk assessments • Mechanical aids and lifting devices <ul style="list-style-type: none"> • trolleys • forklifts • pedestrian stackers and walkers • platform ladders • hoists • Refer to "Chemical" category for specific information • Refer to "Biological Research and Activities" category for specific information • Refer to "Ionising Radiation" category for specific information • Refer to "Manual Handling" category for specific information • Refer to "Plant" category for specific information 	
33. Commercial Kitchens - equipment	<ul style="list-style-type: none"> • Machinery: <ul style="list-style-type: none"> ○ Entanglement ○ Fractures ○ Lacerations ○ Amputations ○ Electrocutation 	VH	Health and Safety in Employment Act and regulations		<ul style="list-style-type: none"> • Machine guarding guidelines and requirements • Portable electrical equipment testing 	<ul style="list-style-type: none"> • Trained operators only • supervision • Maintenance of plant • Repurchase risk assessments • PPE 	
34. Workshops	<ul style="list-style-type: none"> • Injury • Illness 		<ul style="list-style-type: none"> • Health and Safety in Employment Act and regulations 	<ul style="list-style-type: none"> • Worksafe NZ. Safe use of machinery toolkit. 	<ul style="list-style-type: none"> • Portable electrical equipment policy and guidelines 	<ul style="list-style-type: none"> • Emergency procedures • PPE 	

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	<ul style="list-style-type: none"> • Fire • Unauthorised access 			<ul style="list-style-type: none"> • Worksafe NZ Guidelines for the provision of facilities and general safety in the construction industry • Guidelines for guarding principles and general safety for machinery 	<ul style="list-style-type: none"> • Purchasing – Health and Safety requirement procedures • Signage, pathways and access maintenance 	<ul style="list-style-type: none"> • Environmental and Personal monitoring • Refer to Health and Safety website • Specialised training with documented records • Restricted access 	
35. Boat Operation	<ul style="list-style-type: none"> • Capsize, loss of life or loss of vessel at sea • Boat collision • Injury or illness from boat operations 		<ul style="list-style-type: none"> • Health and Safety in Employment Act and regulations • Maritime Transport legislation and associated rules. • 	<ul style="list-style-type: none"> • Maritime NZ rules and guidance material 	<ul style="list-style-type: none"> • Small Boat (<7m) code of practice • Small boat policy • Maritime Transport Operations Certificate • Maritime Transport Operations Plan 	<ul style="list-style-type: none"> • Code of practice • Departmental Boat Officers • University Boat Officer • Safe Ship Management plans and audits • Certificates of Competency • Cruise and Fieldwork plans and approvals process • Training and coaching for boat operators. • Delegated Authorities for issuing COC. 	