OHS

OHS Risk assessment and control form

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UNSW THE UNIVERSITY OF NEW SOUTH WALES

For additional information refer to the OHS Risk Assessment and Control Procedure, the OHS Risk Rating Procedure and the Hierarchy of Risk Controls.

Faculty/Division: Science			**School/Unit:** First Year Physics	
Document number: OHS_RA_01	**Initial Issue date:** December 2011	**Current version:** 4)	**Current Version:** Issue date November 2016	**Next review date:** July 2017

Risk Assessment title:- Working in the First Year Physics Laboratory

Step 1: Identify the Activity and the location of the activity

Description of activity:- working in the first year physics laboratory, using standard laboratory equipment to complete learning activities, developing new learning activities to be undertaken by students, this risk assessment does not cover possible injury from office related activities conducted by the technical staff in the laboratory. See separate risk assessment on working in an office environment for this.

Description of the location of the activity:- First year physics lab, Old main building (main lab, annex and study area)

Step 2: Identify who may be at risk by the activity.

A number of people may be at risk from any activity. This may affect the risk controls needed. These people may include fellow workers, visitors, contractors and the public. The location of the activity may affect the number of people at risk

General staff; Part-time/ Casual staff; Academic staff; PhD students; Visitors to the School, undergraduate students

Steps 3 to 7: Identify the hazards, risks, and rate the risks

1. An activity may be divided into tasks. For each task identify the hazards and associated risks (Including the potential for emergencies)

2. List existing risk controls and determine a risk rating using the UNSW Risk Rating Procedure. (Include controls for emergencies)

3. Additional risk controls may be required to achieve an acceptable level of risk (Use hierarchy for risk controls). Re-rate the risk if additional risk controls used.

Tasks	*Hazards* (Step 3)	*Associated risks* (Step 4)	*Existing risk controls*	*Risk rating with existing controls ** (Step 5)			*Additional risk controls required* (Step 6)	*Risk Rating with additional controls ** (Step 7)		
				C	*L*	*R*		*C*	*L*	*R*
Working with power supplies	• Electrical • Heavy object	• Electrical shock • Fire • Burns, • Physical injury from tripping over cords • Crush injury	• Inspection, Testing and Monitoring Procedure • Testing and tagging program • RCD's on main switchboard checked by Facilities • Individual RCD's on specific equipment • Regular workplace inspections • Room for cords provided on the desks. • Wear covered shoes to protect feet	*2*	*E*	*Low*				
Working with photoelectric effect equipment	• Electrical • Heavy object • Hot object	• Electrical shock, • Fire • Burns, • Physical injury from tripping over cords • Crush injury • Burn from lamp	• Inspection, Testing and Monitoring Procedure • Testing and tagging program • RCD's on main switchboard checked by Facilities • Individual RCD's on specific equipment • Regular workplace inspections • Room for cords provided on the desks. • Wear covered shoes to protect feet • Turn light off when not in use to prevent it getting too hot. • Take care not to touch lamp when it is turned on.	*2*	*D*	*Low*				

Tasks	*Hazards* (Step 3)	*Associated risks* (Step 4)	*Existing risk controls*	*Risk rating with existing controls ** (Step 5)			*Additional risk controls required* (Step 6)	*Risk Rating with additional controls ** (Step 7)		
				C	*L*	*R*		*C*	*L*	*R*
Working with retort stands and spectrometers	Heavy object	• Damage foot or other body parts • Crush injury	• Instruct students in how to pick them up • Check the base is screwed to the rod as often as possible • Wear covered shoes to protect feet • Where possible leave equipment set up on table	*2*	*E*	*Low*				
Working with bars and hanging masses	Heavy object	• Damage foot or other body parts • Crush injury	• Wear covered shoes to protect feet • For masses 1kg or above perform experiment as close to floor as possible.	*1*	*E*	*Low*				
Working with sensors, logger-pros and wave generators	Electrical	• Electrical shock, • Fire, • Burns, • Physical injury from tripping over cords	• Inspection, Testing and Monitoring Procedure • Testing and tagging program • RCD's on main switchboard checked by Facilities • Individual RCD's on specific equipment • Regular workplace inspections • Room for cords provided on the desks.	*2*	*E*	*Low*				
Working with tracks	• Heavy object • Tripping hazard	• Could crush foot in fall • Could trip causing injury	• Wear covered shoes • Keep the track on the desk not the floor	2	E	Low				

Tasks	*Hazards* (Step 3)	*Associated risks* (Step 4)	*Existing risk controls*	*Risk rating with existing controls ** (Step 5)			*Additional risk controls required* (Step 6)	*Risk Rating with additional controls ** (Step 7)		
				C	*L*	*R*		*C*	*L*	*R*
Working with pins and probes	• Sharp objects	• Could cut skin	• Only pin into cork boards provided • Place on desk when not in use	1	E	Low				
Working with water	• Slips • Spills • Burns	• Physical injury • Burns when touching hot water	• Mop up any spills immediately with the paper towel found at the back of the lab • Warn others of spill prior to cleaning it up • Do not heat water above 50^{o} C	2	E	Low				
Working with resistors and capacitors	• Heat	• Burns touching hot surfaces	• Switch provided to turn resistor off when not in use • Workers reminded about hazard when working with resistors	2	E	Low				
Working with electrostatic field plotting equipment	• Electrical	• Electric shock	• Do not use a metal ruler to measure distance, use a plastic or wooden one	1	C	Low				

Tasks	*Hazards* (Step 3)	*Associated risks* (Step 4)	*Existing risk controls*	*Risk rating with existing controls ** (Step 5)			*Additional risk controls required* (Step 6)	*Risk Rating with additional controls ** (Step 7)		
				C	*L*	*R*		*C*	*L*	*R*
Working with lamps (spectral and other) and ray boxes	• Excessive heat • Bright light • Electrical • Heavy object • Glass	• Burns from touching hot surface • Eye damage from looking directly into light • Electrical shock, • Fire • Physical injury from tripping over cords • Crush injuries • Can be sharp if broken and cut	• Turn off when not in use to prevent overheating. • Do not look directly at light • Make sure all cords are on the desk • Report any damage to lamp to technical staff so that they can be fixed or taken out of use • Inspection, Testing and Monitoring Procedure • Testing and tagging program • RCD's on main switchboard checked by Facilities • Individual RCD's on specific equipment • Regular workplace inspections • Wear covered shoes to minimise damage if lamp falls on foot • Report broken glass to technical staff immediately so that it can be cleaned up • The ray boxes have been fitted with banana plugs so that it is now impossible to plug them into mains electricity.	2	E	Low				
Working with microwave transmitter Note: manual states "The output power of the Microwave Transmitter is well within standard safety levels."	• Electrical • Microwave radiation	• Electrical shock, • Fire, • Burns, • Physical injury from tripping over cords • Burns from microwaves	• Inspection, Testing and Monitoring Procedure • Testing and tagging program • RCD's on main switchboard checked by Facilities • Individual RCD's on specific equipment • Regular workplace inspections • Room for cords provided on the	2	E	Low				

Tasks	*Hazards* (Step 3)	*Associated risks* (Step 4)	*Existing risk controls*	*Risk rating with existing controls ** (Step 5)			*Additional risk controls required* (Step 6)	*Risk Rating with additional controls ** (Step 7)		
				C	*L*	*R*		*C*	*L*	*R*
			desks. • Do not look directly at microwave generator at close range when the generator is on							
Moving around the laboratory	Tripping over	Sustaining damage in fall	• Do not run in the laboratory to reduce this risk • Place all bags under the desks so that they are not in thoroughfares • Keep all equipment on the desk • Replace stools under desks when not in use to keep thoroughfares clear • Keep movable whiteboards pushed against walls to reduce tripping hazard	2	D	Low				

Step 8: List Emergency procedures and controls. List Emergency controls for how to deal with fires, spills or exposure to hazardous substances and/or emergency shutdown procedures

Fires: Evacuate personnel. Use the nearest fire extinguisher to control fire.

Spills: Water: clean up spills with supplied paper towel as soon as possible. Chemical spills: n/a. Hazardous spills: n/a.

Exposures to Hazardous substances: n/a.

Emergency Shutdown Procedure: To shutdown electricity supply if installed RCD switches do not work – hit the red button on the wall next to the equipment hatch to cut electricity supply to the lab area.

Step 9: Implement additional controls

Date all controls implemented:

I(name): **have implemented the controls identified in step 6 (signature)**

Di Edler Have placed banana plugs on all the ray boxes.

Step 10: List Legislation related to this document List legislation, standards and codes of practice relevant to this risk assessment

NSW OHS Act 2000, NSW OHS Regulation 2001, WorkCover Publication: Health and Safety in the Office Guide 2004 and ***National Code of Practice for the Prevention of Musculoskeletal Disorders Caused From Performing Manual Tasks*****,**

Step 11: Authorisation

Authorised by: **Date:** **Signature**:

Step 12: Acknowledgement of Understanding

All persons performing these tasks must sign that they have read and understood the risk assessment (as described in OHS329 Risk Assessment and Control Procedure).

Note: for activities, which are low risk or include a large group of people (e.g. open days, BBQ's, student classes etc), only the persons undertaking the key activities need to sign below. For all others involved in such activities, the information can be covered by other methods including for example a safety briefing, induction, and/or safety information sheet (ensure the method of communicating this information is specified in the risk assessment).

Risk assessment name and version number: **I have read and understand this risk assessment**

Name	Signature	Date
Name	**Signature**	**Date**

Name	**Signature**	**Date**
