School of Engineering

Dept of Engineering Trades Carpentry and Joinery

Health and Safety File

Workshop & Labs S131, S135

File 1

Rev: April 2016

School of Engineering

Dundalk Institute of Technology

Ancillary Safety Statement

April 2016

This Ancillary Safety Statement is to be read in conjunction with the Parent Safety Statement of Dundalk Institute of Technology

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1. Introduction

Under the provisions of The Safety, Health and Welfare at Work Act 2005, Dundalk Institute of Technology is required to ensure so far as is reasonably practicable the health, safety and welfare of all its employees and students engaged in work or study, and all visitors to the Institute premises.

In view of the recent extensive expansion that has taken place on the campus and in order to comply with the requirements of the 2005 Act, the Institute has decided to review and update its Safety Statement. Dundalk Institute of Technology's safety management programme consists of a Parent Safety Statement supplemented by seven ancillary Safety Statements, which apply to different functional areas of the Institute. These ancillary Safety Statements take account of the diverse range of activities, which apply across the Institute.

The Institute's overall Safety Statement is comprised of the following documents:

- Parent Safety Statement
- Ancillary Safety Statement – School of Business & Humanities
- Ancillary Safety Statement – School of Health & Science
- **Ancillary Safety Statement – School of Engineering**
- Ancillary Safety Statement – School of Informatics & Creative Arts
- Ancillary Safety Statement – Secretary/Financial Controller's Functional Area
- Ancillary Safety Statement – Registrar's Functional Area
- Ancillary Safety Statement – Regional Development Centre Functional Area
- Emergency Evacuations Procedures Manual

The purpose of the Ancillary Safety Statements is to provide details of the specific hazards and control measures which apply in these areas. Each Ancillary Safety Statement should be read in conjunction with the Parent Safety Statement.

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2. General Statement of Policy within the School of Engineering

The School of Engineering Functional Area is committed to ensuring that high standards of health and safety are achieved and maintained throughout all areas under our control. The key mechanism for achieving and maintaining safety is Risk Assessment, by which we identify hazards, which have the potential for harming health or causing accidents, evaluate the risks arising and select and implement appropriate precautions.

Throughout the School of Engineering Functional Area, Risk Assessments are carried out in all areas under our control periodically. Risk Assessments must take account of any changes with regard to the structure of the organization, Academic Staff, work practices; use of machinery, design techniques or equipment all may necessitate periodic changes to this document as well as any periodical amendments or updates to legislation.

It is essential that all staff and students contribute and cooperate to this process, thus ensuring that the School of Engineering Functional Area's stated objective of providing in so far as is reasonably practicable a safe place of work is achieved. Employees are encouraged to contribute to the improvement of health and safety by making suggestions to their departmental manager. The success of this policy depends on the co-operation of all staff and students, and it is therefore extremely important that staff:

Read and understand the safety information provided

Know their role and responsibilities.

Always abide by the arrangements the Institute has put in place to ensure their health, safety welfare, and that of their colleagues and others.

The process of Risk Assessment in the School of Engineering Functional Area enables us to take all relevant precautions to ensure that Dundalk Institute of Technology's legal standard as an employer is fulfilled particularly in relation to:

- Exercising all due care
- Putting in place necessary protective and preventative measures
- Identifying hazards and assessing risks likely to result in accidents or ill-health
- Not being required to take further measures where these would be grossly disproportionate having regard to the unusual, unforeseeable and exceptional nature of the circumstances.

Health and Safety is overseen in the School by the Functional Area Safety Committee which contains representatives from all of the areas within the School (See Appendix I for membership details)

Signed on behalf of School of Engineering, Dundalk Institute of Technology,

_____

Mr. Eugene Roe
Head of School of Engineering

3.0 School of Engineering Functional Safety Area: Description

The School of Engineering is divided into Four Departments, one Research Centre.

1. Department of Electronic & Mechanical Engineering
2. Department of the Built Environment
3. Department of Engineering Trades
4. Centre for Renewable Energy at DkIT(CREDIT)

The School of Engineering is predominantly located in the following areas of the Institute:

Location	Description	Primary Activity
North Block	Dept. Electronic & Mechanical Engineering	○ Lecture rooms ○ Computer Labs ○ Office based activities ○ Work Placements ○ Laboratories ○ Workshops
North Block South Block	Dept. of the Built Environment	○ Lecture rooms ○ Computer Labs ○ Office based activities ○ Laboratories ○ Fieldwork
North Block South Block The Carroll's Building	Dept of Engineering Trades	○ Lecture Rooms ○ Computer Labs ○ Office based activities ○ Drawing Offices ○ Motor Engineering Workshop ○ Plumbing Workshops ○ Carpentry Workshops ○ Electrical Workshops ○ Motor Engineering Lab ○ Electrical Lab ○ Plumbing Lab

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Risk Assessment is carried out at least once per year in each location in the School of Engineering functional area under the direction of the Head of School, Mr. Eugene Roe who is the responsible person.

The wide range of workplace activities and the associated risks to health, safety and welfare within the School of Engineering can be broadly categorized as follows:-

- Offices, (Administration and Lecturing Staff) – low to medium risk.
- Lecture Rooms, Drawing Offices, Computer Labs. – low to medium risk
- Workshops – low to high risk

Refer to Appendix II for School of Engineering safety management organizational layout.

Hard copies of this Functional Area Ancillary Safety Statement are available at the following locations:

1. Administration Office, School of Engineering
2. Workshop locations
3. Laboratories

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4.0 School of Engineering – Overview of Risk Assessment Process.

This Ancillary Safety Statement covers all activities carried out by the School of Engineering, and should be read in conjunction with the Institute Parent Safety Statement.

Dundalk Institute of Technology will adapt the "General principles of prevention" as outlined in the 2005 Act Schedule 3

When a hazard is identified and the risk assessed, the necessary arrangements are put in place to protect safety and health.

Dundalk Institute of Technology will utilize the hierarchy of controls A series of common sense steps for hazard control (often called hierarchy of control) **where elimination of the risk is not reasonably practical**,.

These steps are:

1. Substitute the hazard (e.g. use a less harmful substance).
2. Isolate the hazard.
3. Use engineering controls (e.g. Physical controls).
4. Put in safe work practices (e.g. Instruction, training, supervision).
5. Use Personal Protective Equipment (PPE) such as gloves / overalls.

If a hazard cannot reasonably be eliminated it is the policy to work through this list to minimise exposure to risks. For example, the Institute will try to substitute the hazard first. If this is not possible, will go to the next step and so on. In some cases it may be appropriate to implement a combination of the steps e.g. Steps 3, 4 and 5.

The list above indicates an "order of priority" for remedial measures for any hazard situation which Dundalk Institute of Technology will adapt.

The process of Risk Analysis is by numerical format.

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

The above risk analysis is incorporated into the School's **Safe Work Practice Sheets**

The Analysis takes into account who is exposed
The initial Risk Rating before controls are implemented
The Reduction Risk Rating after controls is in place

A risk is the probability or likelihood of a hazard actually causing a degree of injury or damage.

A hazard is anything that can potentially cause harm.

After a hazard has been identified, it is evaluated in order to assess what its impact would be if steps to control it were not taken. In practical terms, one determines the likelihood of an accident happening and the consequences of it happening.

There are inevitable difficulties in assessing risks. Some risks such as exposure to e.g.- Chemicals / Manual Handling / Lone Workers / Trainees may require physical or organisational measurements to be taken. Risk depends on many (often related) circumstances:-

Is anyone exposed to the hazard? Is the hazard likely to cause injury?
Is the hazard well controlled? Is the level of supervision adequate?
How long people are exposed and what are are the levels of exposure that should not be exceeded (e.g. Equipment, chemicals, poor lifting techniques)

Risk Assessment will be carried out at least once a year in all of the different sites in the School. The Risk Assessment process adopted by the School of Engineering identifies hazards posed by activities within the School and quantifies the risk posed by same.

In most cases these hazards can be controlled by adhering to procedures detailed in the School's **Safe Work Practice Sheets** (Appendix III) which are developed on an as-needed basis and identified through regular area-by-area risk assessment / Inspection. As part of the annual Risk Assessment process, all Safe Work Practice Procedure Sheets will be reviewed and updated to ensure that they take account of any changing circumstances that have arisen during the course of the year, any changes to work practices, introduction of equipment, changes in legislation will also require updating as is necessary.

Safe Work Practice Sheets are available in the School of Engineering Administrative office, Heads of Departments, Workshop Locations, Laboratories and on the Institute's website

The list of these SWPS is also included in Appendix III of this document. More generic college wide SWPS are also to be adhered to and are available at:

The primary objective of the Safe Work Practice procedures is to eliminate, reduce or control any risks posed as a result of the hazards that exist throughout the School. These Safe Work Practice Procedures are also made available to all staff and students operating in any lab, workshop or classroom environment that is the subject of a risk assessment and safe work practice procedures.

Adherence to the Safe Work Practice Procedures is the primary means of risk control in the School of Engineering. However, hazards may arise from time to time, which are not covered by

these procedures. Under Section 13 (h)(i - iii) of the 2005 Safety, Health & Welfare at Work Act, all staff are required to report any hazards that they notice or observe to their employer. Within the School of Engineering, any hazard noted or observed by any member of staff must be reported to their immediate superior.

Incidents and Dangerous Occurrences must be notified to the relevant supervisor using the forms included in Appendix IV.

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5.0 Functional Area Safety Records

Functional Area safety records include but are not limited to the following documents:

1. Ancillary Safety Statement, including Safe Work Practice Sheets
2. Health and Safety Training Records
3. Accident, Incident and Near Miss Dangerous Occurrence Reports
4. Functional Area Safety Committee Meeting Records
5. Inspection Certificates (where applicable)

(1-5) can be located as follows for:

(a) **The School of Engineering**

Record Type	Building	Room No.	Contact
Ancillary Safety Statement, including Safe Work Practice Sheets	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894
		Offices	
	North Block	Mr. Eugene Roe (HOS) NC126	eugene.roe@dkit.ie ext. 2893
		Mr. Simon O'Neill (HOD) NC124	simon.oneill@dkit.ie ext. 2847
		Mr. Noel McKenna (HOD) NC127	noel.mckenna@dkit.ie ext. 2891
		Mr. Pat McCormick (HOD) NC128	pat.mccormick@dkit.ieext. 2551
		Mr. Padraig McGuigan (Section Head) NW207	padraig.mcguigan@dkit.ie ext. 2698
		Mr James Mulvany (Section Head) NW216	james.mulvany@dkit.ie ext 2520
	South Block	Mr. John Doherty (Section Head) S120	john.doherty@dkit.ie ext. 2692
Training Records	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894
Incident & Accident Reports	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894
FASC Meeting Records	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894
Inspection Certificates	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894

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APPENDICES

Appendix I

Functional Area Safety Committee 2015/2016

1. Eugene Roe, Head of School of Engineering (Chairperson)
2. Simon O'Neill, Head of Department of Engineering Trades
3. Pat McCormick, Head of Department of Mechanical and Electronic Engineering
4. Padraig McGuigan, Head of Section: Mechanical Engineering
5. James Mulvany, Head of Section: Electronic Engineering
6. Noel McKenna, Head of Department of the Built Environment
7. John Doherty, Head of Section Carpentry/ Joinery / Plumbing
8. Orlagh Devine, Senior Administration
9. Jim Connolly, Senior Technical Officer
10. Paul Egan, Lecturer
11. William Lyons, Lecturer
12. Brendan Walsh, Lecturer
13. Dermot Clarke, Lecturer
14. Paul Durcan, Lecturer

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Appendix II

List of Responsible Persons within the School of Engineering

Head of School	**Mr. Eugene Roe**
Head of Dept of Mechanical & Electronic Engineering	**Mr. Pat McCormick**
Head of Section: Mechanical Engineering	**Mr. Padraig McGuigan**
Head of Section: Electronic Engineering	**Mr. James Mulvany**
Head of Dept of the Built Environment	**Mr. Noel McKenna**
Head of Dept of Engineering Trades	**Mr. Simon O'Neill**
Head of Section: C&J and Plumbing	**Mr. John Doherty**
Centre for Renewable Energy at Dundalk Institute of Technology (CREDIT)	**Dr. Tom Dooley**

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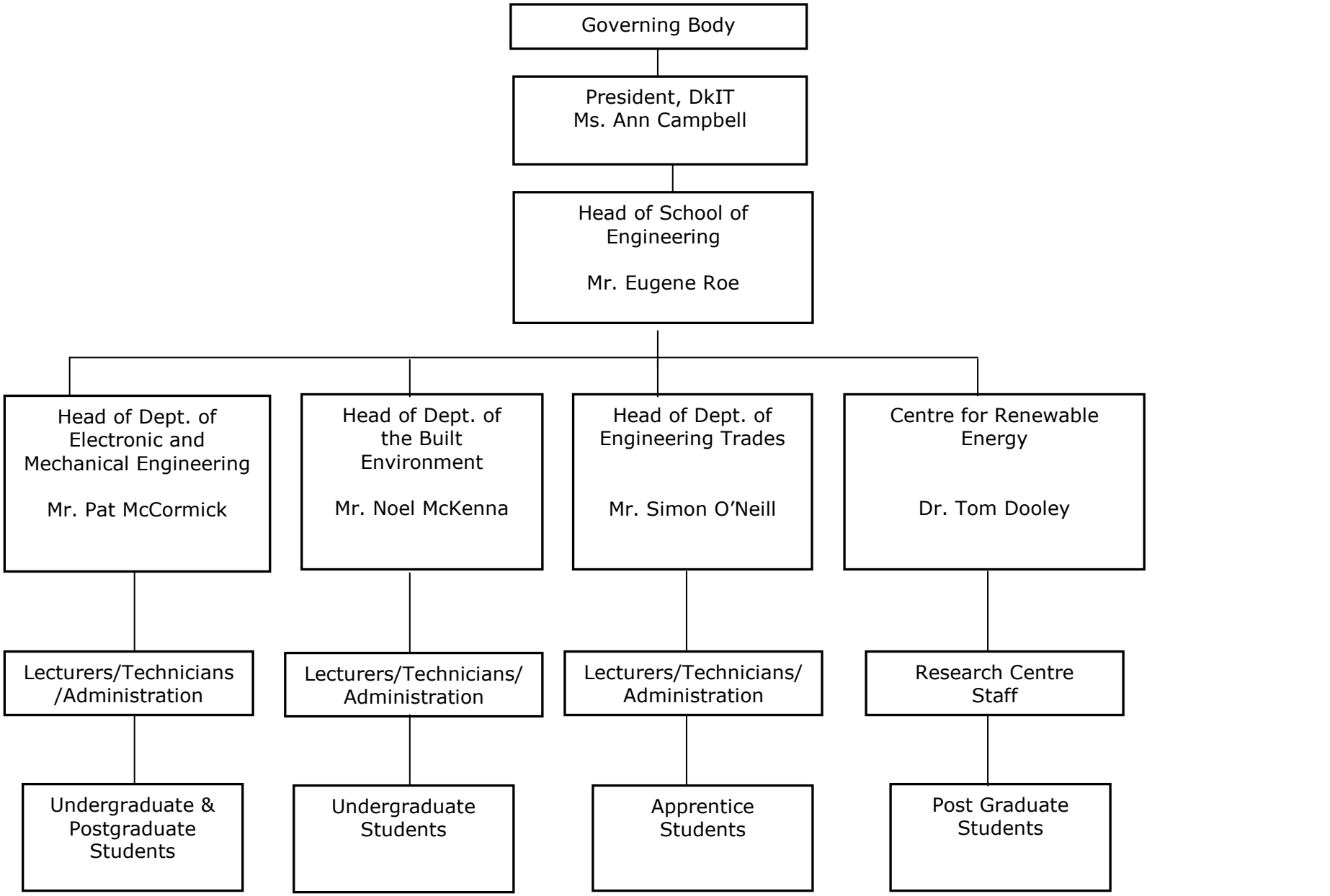

School of Engineering
Safety Management Organisation Chart

Appendix III

Safe Work Practice Sheets

SWPS ID **Carpentry-Joinery Workshops/Lab S131, S135**

General Routine Safe Work Practice Sheets Used in this Area:

GEN 001	General Rules
GEN 002	Access and Egress
GEN 003	Fire Safety
GEN 008	Electrical Safety
GEN 005	Chemical Agents Risk Assessments
SWPS 009	Slips, Trips and Falls
SWPS 010	Lone Person Working
SWPS 09	Manual Handling
SWPS 019	Storage Areas
SWPS 026	Use of Hand Tools
SWPS 007	Safe Use of Ladders / Stepladders
SWPS 027	Cutters, Scalpels and Stanley Knives
SWPS 028	Circular Saw

Engineering Specific Safe Work Practice Sheets Used in this Area:

C/J 001	Woodworking General Requirements
C/J 002	Manually Operated Mortising Machine
C/J 003	Woodworking Panel Saw
C/J 004	Band Resaw
C/J 005	Centauro 600 & FBR 400 Wood WorkIng Bandsaws
C/J 006	Wadkin Bursgreen Planer Machine
C/J 007	Wood Working Lathe
C/J 008	Portable Woodworking Routers Trend (PRT), Festool (Basis PLus), Trend (Router)
C/J 009	Single ended Tenoner Machine Concept 4
C/J 010	Woodworking Machine Fourcutters Quattromat 23P
C/J 011	CB Wood Working Sander
C/J 012	Spindle Mini Max T45F (Curved Cutting X2)
C/J 013	CNC Machine
C/J 015	Wadkin Bursgreen Woodworking Thicknessing Machine
C/J 016	Carpentry Joinery Hand Tools
C/J 017	Spindle Mini Max T45F (Straight Cutting X2)
C/J 018	Wilson Spindle Machine
C/J 019	Tormek 200 Grinder
C/J 020	Viceroy Sharpedge Grinder TDS 12/16
C/J 021	Centauro CBO Mortising Machines
C/J 022	Startrite Mercury (MARK II) Pillar Drilling Machine
C/J 023	Viceroy Pedestal Grinding Machine
C/J 024	Graule Grinding Machine
C/J 025	Grifo Grinding Machine
C/J 026	LG - 150 Disc and Belt Sander
C/J 027	Wadkin Bursgreen Cross Cut
C/J 028	Ingersoll Rand Compressor
C/J 029	Pneumatic Nailer & Stapler Hand tools
C/J 030	Corded and Cordless Hand Held Drills

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Appendix III

General Routine Safe Work Practice Sheets

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Safe Work Practice Sheet General Rules	Ref: SWPS 001
	Date: July 09
	Assessed by: E.Roe

Hazards

There is always an ever-present risk of accidents occurring due to lack of vigilance and awareness of staff and students

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Everyday working environment

Controls

- Smoking, eating and drinking is prohibited in all areas other than designated
- areas. Smoking is prohibited in all areas.
- Exercise care when opening or closing doors on entering or leaving rooms. Never run.
- Conduct yourself in a responsible manner and do not act in a way that could be dangerous to yourself or others. Refrain from indulging inappropriate behavior as it could have serious consequences.
- No student or member of staff should ever work alone in a Laboratory, Workshop, Service Duct or Plant Room, without prior notification to Line Manager.
- All bags and coats are to be left in designated areas. All work and teaching areas should be kept tidy when in use and left tidy when finished.
- All accidents however minor must be reported to immediate superior.
- No member of staff or student is to interfere with any workplace equipment.
- Report any malfunctioning or dangerous or defective equipment to immediate supervisor without delay. Never attempt to effect repairs, no matter how trivial.
- Become familiar with position and use of safety equipment for each area in which you work.
- Study carefully and obey the Safe Work Practice Sheets for any area in which you are required to work.
- Co-operate with Employer in fulfilling duties imposed under Section 13(1)(a- h) of the Safety, Health & Welfare Act 2005

Checks & Inspections

Constant vigilance and awareness

Information, Instruction & Training

Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 high risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 low / medium risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Access and Egress	Ref: SWPS 002
	Date: July 09
	Assessed by: E.Roe

Hazards

Inadequate access and egress in the workplace can result in slips, trips and falls. Obstructed access roads and paths can also pose a risk of injury to pedestrians and to vehicle operators and can also delay emergency escape and emergency vehicle access.

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Everyday working environment on campus

Controls

1. All doorways and access points in the workplace must be kept clear of obstructions.
2. All passageways and pedestrian routes must be kept clear from obstructions.
3. Materials must be stored in designated areas away from pedestrian and vehicular routes.
4. All stairways with more than 3 steps should be provided with handrails and maintained in good condition.
5. Adequate lighting must be provided throughout the Institute at all entry points, exit points and along corridors and passageways.
6. Workplaces must be kept clean and tidy at all times.
7. All spillages must be cleaned up immediately.
8. All cabling and hosing must be neatly tied off or ramped in order to prevent tripping.
9. Workplace floors must be kept in a level and even condition where possible in so far as is practicable. All holes and trip hazards should be removed, filled in or covered.
10. Trip hazards which cannot be removed must be clearly visible or signed as such.
11. Chairs, desks or drawers should never be used to access shelving or any other elevated area.
12. Stepladders or kick stools must always be used.
13. Vehicle drivers must exercise extreme caution when driving on Institute site.

All defects in flooring, lighting, stairwells, etc must be reported to the Estates Office via the Maintenance Request online system.

Checks & Inspections

Constant vigilance and awareness.

Information, Instruction & Training

Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Fire Safety	Ref: SWPS 003 Date: July 09 Assessed by: E.Roe

Hazards

The outbreak of fire can lead to:

- Serious bodily injury or fatality
- Damaged property or plant
- Disruption of premises causing loss of facilities **Person**

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

There is always an ever-present risk of fire occurring in all workplaces. Common fire hazards include improperly stored combustible or flammable materials, the use of naked flames, faulty electrical equipment, the use of flammable fuels, the use of inappropriate equipment, the build up of flammable materials or wastes in the workplace and smoking in undesignated areas. The accidental release of chemical material may also lead to the outbreak of fire, especially if the material is pyrophoric, extremely flammable or is a strong oxidiser.

Controls

The Institute is committed to providing a fire safety programme that guards against the outbreak of fire in all areas and also makes provisions for the safety of all persons in the event of a fire. The Institute would like to reiterate to all staff at this point that every employee has a responsibility to guard against the outbreak of fire in the workplace through the implementation of good fire safety practises and where applicable the adherence to the control measures outlined below.

Employees should also refer to specific fire risk assessments that apply to their specified places / type of work.

Fire Detection, Equipment & Emergency Lighting

Layout drawings, detailing the location of the fire detection and alarm systems, throughout the campus have been prepared by the Estates Office. Copies of these drawings are held by members of the Caretaking Staff, to assist in the identification of the location of any alarm signal.

Fire detection and alarm systems are installed and maintained in accordance with current standards. Emergency lighting systems are in operation in all parts of the Campus. These are installed to and regularly

maintained in accordance with current standards.

Fire mains and Hydrants and Fire Hose Reels are inspected and maintained in accordance with current standards The date of the most recent inspection is noted on each hose reel. Test reports on ring mains and hydrants are held in the Estates Office and Fire Registers.

Portable fire extinguishers are inspected and maintained in accordance with current standards. The date of testing is noted on each extinguisher.

Copies of all testing and certificates are held in Estates Office in the Fire Register.

Emergency Response

1. Each building has in place an emergency plan detailing the reponse to be taken in the event of the sounding of a fire alarm or the discovery of a fire. Refer to http://ww2.dkit.ie/about_dkit/health_safety/emergency_evacuations_procedures_manual for further details.
2. Fire response procedures are displayed in prominent locations within the area covered by their provisions.
3. Emergency response procedures are tested at least annually by use of a fire drill.

Procedural Controls

1. It is prohibited to use a naked flame (outside of a laboratory area) or to engage in 'hot' work (outside of designated workshops) anywhere within the Institute without first obtaining a 'Hot Work Permit' from the Institute Estates Office. Hot work is defined as grinding, welding (all types), hot cutting, and any other work with the potential to generate a spark or an ignition source.
2. It is prohibited to disengage a fire detection device, remove a fire extinguisher from its designated location or to isolate a component of a fire safety system without the express permission of the Institute Estates Office.

Training

1. It is the responsibly of individuals within the Institute to ensure that they are familiar with the provisions of any relevant emergency procedures.
2. Fire safety training is available through the Staff Training & Development Officer for all interested parties.

Means Of Escape

1. All Institute premises will be provided with clearly signed suitable means of escape and emergency exits for use in the event of a fire.
2. All escape routes and emergency exits throughout a building / premises must be kept clear at all times.
3. It is the responsibility of all Institute employees to ensure that escape routes and emergency exits in their working area are kept free from obstruction.
4. No individual may obstruct or remove from service an escape route or emergency exit without prior arrangement with the Institute Estates Office.
5. In the event that employees have a concern regarding means of escape then they must contact their manager immediately. Urgent concerns can be conveyed directly to the Institute Estates Office.

Hazardous Agents

1. As part of a hazardous agent risk assessment fire safety provisions for handling the agent(s) in question must be detailed.

2. Flammable materials may only be handled and stored in accordance with the requirements of their Material Safety Data Sheets, with due regard being paid to their fire risks.
3. Flammable materials must be stored in a suitable storage area. The requirement for low voltage or flame proof wiring should be considered.
4. The large scale storage of flammable materials (>200l / kg) in a single location requires completion of a specific risk assessment prior to storage taking place.

1. Where new buildings are constructed by the Institute or existing buildings are substantially modified the requirements of Part B of the Building Regulations (1997) Technical Guidance Documents will be adhered to.
2. Smoking is prohibited in all indoor workplaces within the Institute.
3. Employees are encouraged to make themselves familiar with the location of alarm activation points and escape routes in their working areas.
4. Employees must not attempt to repair any electrical equipment unless they are competent to do so. All electrical repairs and installations within the University must only be completed by a competent person, following the rules laid down in the National Rules for the Electrical Installations, as prepared by the Electro-Technical Council of Ireland.
5. The amount of combustible materials stored within the workplace should be kept to a minimum.
6. In the event of an evacuation all persons must leave the workplace without exception and assembly at their designated assembly point.
7. Employees must adhere to any instructions given by Institute Fire Wardens or emergency services personnel in the event of an emergency.
8. Persons must not fight workplace fires unless they have been trained to do so and it is safe to do so.

All employees are reminded of their statuary obligation to protect their own and their co-workers safety by guarding against the outbreak of fire in the workplace through the use of safe systems of work

Checks & Inspections

Information, Instruction & Training

- Fire Drills
- Fire Warden Training
- Use of fire fighting equipment

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability : **2** x Severity **3** = Risk Factor **6 high risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

Risk Assessment Review – *As and when process changes or yearly* Back to Content Page

Safe Work Practice Sheet Electrical Safety	Ref: SWPS 08
	Date: 30/03/2011
	Assessed by: P. Killeen Approved by: E. Roe

Hazards

- Electrocution
- Electric shock
- Burns
- Inadvertent starting of machines

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

A range of electrical appliances are used in the Institute. This Safe Work Practice Sheet covers Portable Appliance Testing and general electrical safety

Controls

- **General**
- Installation or repair work may only be carried out by qualified electricians.
- New installations will comply with the requirements of the General Application Regulations and the Electro-Technical Council of Ireland publication 'National Rules for Electrical Installations.
- Flexible cables will be adequately protected against external mechanical and heat damage.
- Flexible cables should not be run across floors or walkways. Where electrical cables have to be run across open floor areas ramps will be placed over them to prevent the tripping and damage to cables.
- Adequate fusing or excess protection, e.g. circuit breakers, must be provided for all fixed and portable equipment.
- RCDs should be tested at the beginning of each term.
- Areas around fuse boards will be kept clear of flammable materials and the fuse board cabinets will be kept closed at all times.
- Work on electrical appliances by contractors or work requiring isolation of electrical supplies requires an Electrical Work Permit. Buildings and Estates must be contacted.
- Staff must report defective equipment and take out of service Portable AC electrical appliances that may be subject to deterioration as a result of their use such as power supplies and oscilloscopes must be visually inspected and tested at regular intervals. The schedule of testing should be determined by following the Electrical Technical Councils guidelines available at www.etci.ie/docs/ET215(2008).pdf. A record of testing and inspection must be kept by the relevant departments.
- Live working is prohibited except in circumstances where it is not possible to carry out the work in any other manner.

The following precautions must include as appropriate;

- the use of people who are properly trained and competent to work safely on live equipment
- the provision of adequate information to the person carrying out the work, about the live parts involved, the associated electrical installation and the likely risks, the use of suitable tools including insulated tools, equipment and protective clothing
- For example, insulating gloves, insulating boots and insulating rubber matting, the use of suitable insulated barriers or screens,
- the use of suitable instruments and test probes,
- accompaniment by a second person who is trained and able to act in an
- emergency, e.g. switch off power and give first aid treatment for electric shock,
- effective control of any area where there is danger from live parts.
- A safe system of work must be drawn up.

Checks & Inspections

• Portable appliance testing must be carried out on certain portable AC electrical equipment
• RCDs tested once per term
• Electrical circuits tested every 3 years

Information, Instruction & Training

- Trained First Aider/CPR (available when live working is carried out)

Personal protective equipment required (last resort)

Safety boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Chemical Agents	Ref: SWPS 05 Date: 20/04/2011 Assessed by: P. Killeen Approved by: E. Roe

Hazards

Exposure to certain chemical agents can cause a range of injuries from minor to serious long term damage. Exposure may be through ingestion, inhalation, skin absorption, absorption through the mucous membranes.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Staff and students may be exposed to a range of chemicals in the School including but not limited to;

- Petrol
- Cutting/cooling fluids
- Ferric chloride
- Solder
- Glues
- Cement/ Bitumen
- Hardwood dust
- Welding fume

Exposure frequency and duration is variable depending on the activity.

Controls

- Material safety data sheets are obtained for all potentially hazardous chemicals or chemical agents and hard copies are kept with the School Safety Statement.
- A chemical agents risk assessment form (attached to this Safe Work Practice Sheet) is completed for each activity involving the use of chemicals as required by the Chemical Agents Regulations.
- Where a number of chemicals are associated with an activity they must be assessed together.
- The hazards associated with each chemical substance and the precautions that must be taken are brought to the attention of the users through the chemical agents risk assessment form.
- Where necessary local exhaust ventilation is installed and maintained.
- Appropriate personal protective equipment (PPE) is provided for staff. Students are alerted to the requirement for PPE.
- Hazardous chemicals are stored in accordance with the requirements set out in the Material Safety Data Sheet. Chemicals re not decanted into unmarked containers. Where chemicals are placed in other containers an appropriate hazard warning label is attached.

Checks & Inspections

- Local exhaust ventilation should be checked annually to ensure it is extracting efficiently.

Information, Instruction & Training

The hazards associated with each chemical substance are brought to the attention of the users (Senior technical staff are responsible for informing other technical staff, lecturers are responsible for informing students)

Personal protective equipment required (last resort)

Care must be taken in the selection of personal protective equipment, e.g. select the correct glove to ensure that the chemical does not readily break through

Personal protective Equipment should be CE marked.

Initial Risk Rating (without any control measures)

Probability : **2-3** x Severity **2-3** = Risk Factor **4-9**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **variable** x Severity **variable** = Risk Factor **variable**

Risk Assessment Review

As and when process changes or yearly

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Form 2: DKIT School of Engineering Chemical Agents Risk Assessment.
Wood Dust (Soft Wood / Hardwood)

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1. Location : Carpentry / Joinery Workshop – Workroom S131, S135

2. Assessment carried out by: Paula Killeen

3. Date 28/03/2011

4. Short description of the process involving the use of the chemical(s) –

Various tasks performed in the woodwork room, from cutting wood materials for project work;

Machining (e.g use of routers, planers, lathes, saws) to hand sanding and maintenance operations. The duration and frequency of exposure can vary – from a four hour exposure time to daily/weekly exposure.

Collection of dust bags from dust collection unit/silo to waste disposal area.

5. Hazardous Chemical Agent **Amount** **Physical Form**

Wood Dust - Light to dark colored, granular solid. Color and odor are dependent on the wood species and time since dust was generated.	**Varied/**	**Solid**

6. Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

7. Indicate Hazard Classification (for all chemicals used)

Explosive: ☐ Oxidising: ☐ Extremely Flammable: ☑

Highly Flammable: ☐ Flammable: ☐ Very Toxic: ☐ Toxic: ☐

Harmful: ☐ Irritant: ☑ Sensitiser: ☐ Known Human Carcinogen ☑

Corrosive: ☐ Teratogen: ☐ Hazardous to the environment: ☐

8. Potential routes of exposure
Inhalation: ☑ Skin Contact: ☑ Ingestion: - Not an anticipated route of exposure

9. Control Measures to ensure safe use of chemicals

9.1. PPE Required: Gloves: ☑ Safety Glasses: ☑ Safety Goggles: ☑ Respiratory Protection ☑ ***gloves, goggles, or safety glasses and approved dust respirators depending upon dust conditions***.

Lightweight powered full face mask to spec* EN 12941 - TH2 *whilst entering and collecting dust bags from dust collection unit/silo to waste disposal area. The manufacturer's recommendations should be followed on visual inspections, fitting procedure, routine checks, storage and replacement of filters/ parts.

The respirator should be cleaned and disinfected after each use or at least once in every working day with soap and lukewarm water recommended by manufacturer.

9.2. Engineering Controls: Fume Hood: ☐ Local Exhaust Ventilation ☑ Dust Collection Points ☑

(a) Special storage arrangements:

No bulk storage permitted in the carpentry / woodwork room. Avoid contact with oxidizing agents and drying oils.

9.3. Emergency Response

(a)Fire *(consult relevant MSDS for further information)*

Extinguishing Media: - ***Water, Carbon Dioxide, Sand***

Use water to wet down wood dust to reduce the likelihood of ignition or dispersion of dust into air. Remove burned or wet dust to open area after fire is extinguished. Wood dust may present a strong to severe explosion hazard if dust cloud contacts an ignition source.

(b)First Aid *(consult relevant MSDS for further information)*

An MSDS must accompany all victims of exposure when seeking medical advice. Always consult an MSDS following an exposure to a hazardous agent.

Eye Contact - ***Flush with water to remove dust particles. Get medical help if irritation persists***

Skin Contact -***Wash with water to remove dust particles. Seek medical advice if a rash, persistent irritation or dermatitis occurs***.

Inhalation - ***Wood dust may cause unpleasant obstruction in the nasal passages, resulting in dryness of nose, dry cough, sneezing and headaches. remove to fresh air.***

9.4. Further Risk Control Measures required

e.g. isolation of ignition sources; use of warning signage; the use of additional safety equipment; implementation of safe handling , transport and storage arrangements; availability of appropriate first aid equipment / antidotes, exclusion zones

No additional requirements

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 high risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1 -2	x	Severity	2	=	Risk Factor	3 - 4 Low / Medium risk

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Safe Work Practice Sheet Slips, Trips & Falls	Ref: SWPS 009
	Date: July 09
	Assessed by: E.Roe

Hazards

Slips are caused by the presence of substances such as water, grease, oil, fats, soaps, granules, plastic sheets, packaging, leaves, ice etc deposited on the floor arising from the working conditions or in some cases the weather. Slip hazards can be found on both wet and dry surfaces.

Trips can be caused by such features as electric cables or compressed-air lines across walkways, curled-up or worn carpets, uneven floor surfaces and steps, or discarded work items.

Falls may be caused by slips or trips or when adjacent surfaces are at different levels leading to persons losing their balance because they had not anticipated the change in level. Slips or trips on stairs are particularly dangerous.

The hazards listed above are so ordinary and commonplace that people often accept them as part of normal living until they or someone close to them has an accident and is seriously hurt.

Person Exposed to Risk

✓ Students ✓ Employees ✓Public ✓ Contractors ✓ Visitors

Work Description
Everyday activity on campus

Controls

Observe & Adhere to Health & Safety Authority Guidelines as below

- The starting point lies with everybody becoming aware of these hazards and taking appropriate action.
- Management must take responsibility for controlling these hazards and must assign appropriate responsibilities to staff. Clear policies should address what people need to do to identify and monitor slip, trip and fall hazards and the action to take once they identify a hazard.
- Slips, trips and falls must be considered in the workplace hazard assessment that is required by law. This assessment should take account of:
- The type of hazard including how likely it is to occur
- Characteristics of the workplace such as the nature and condition of floor surfaces, quality
- of lighting
- Influence of the weather (e.g. rain, frost or leaves)
- Maintenance and cleaning procedures
- Workplace users
- Where workplaces are being modified or constructed there is an excellent opportunity to prevent slips and trips by selecting appropriate floor materials that are slip resistant and
- installed so as to minimise trip hazards.

Nature of the hazard

In some work areas such as certain food processing activities slip hazards may not always be completely avoidable and the control measures will need to assume the hazard is always present.

- In other situations the floor surface may be non-slippery for most of the time but leaks from
- plant or bad weather may lead to the creation of a slip hazard. It only takes a small amount
- of liquid on a smooth floor to create a hazard. In these situations the immediate control
- measures will focus upon detection of liquids and the actions to be taken to remove the hazard or

reduce it by the provision of warnings and cordoning off areas.
- Permanent trip hazards should be removed as far as possible by such measures as the rerouting of pipes or cables, provision of more sockets to reduce long cable lengths, use of battery powered tools and the repair of uneven floor and stair surfaces.
- A good housekeeping regime will go a long way to reduce intermittent hazards from badly stored or discarded items. Materials should never be left or stored on stairs.
- Where changes in floor level cannot be avoided they should be clearly marked and the provision of handrails to control the movement of persons may be appropriate.
- Changes in level should not take people by surprise.

Characteristics of your workplace

- It is better to eliminate slip hazards by choosing a suitable surface rather than depending on cleaning regimes to keep a floor safe. Building designers should ensure that the intended appearance of a building does not compromise the choice of inherently safer floor options.
- Macro-rough surfaces (i.e. those that contain an aggregate) are recommended for areas that are expected to experience high levels of contamination. Floors that have hard particles throughout their thickness can maintain their slip resistance throughout their life but floors with a superficial layer of grit or slip resistant paint can become slippery as the layer is worn away.
- Profiled floors (ridges or blisters) are sometimes used in areas subject to slip hazards but these can become slippery over time as the profile becomes worn and contaminants can be left trapped within the profiles.
- Carpets or mats placed on smooth floors can pose both slip and trip hazards and, if used, should be securely fixed to the floor at their edges and at any joints.
- The slip resistance of steps is improved by the fitting of nosings which protect the edge of the step from wear and help users to the place their feet more accurately on it. Care has to be taken that the nosing itself does not constitute a hazard.
- The design of stairways in buildings will need to take account of Technical Guidance Documents B (Fire Safety), K (Stairways, etc) and M (Access for People with Disabilities) produced by the Department of Environment, Heritage and Local Government.
- Adequate lighting, including the avoidance of glare and shadows, is necessary to expose slip /trip hazards. Higher lighting levels are needed where older people are present.
- Poorly sited or excessive signage can distract people who are then less likely to notice slip or trip hazards.
-

The weather

- Building entrances can become slippery due to the ingress of moisture, mud and debris in bad weather. Measures such as having a slightly higher internal air pressure in the vestibule or the provision of a suitably designed shelter or canopy above the entrance can reduce the ingress of rain. Another simple measure is the installation of doors that do not blow open in the wind.
- Where matting is provided it should be aligned with the way pedestrians use the entrance. It should be laid immediately inside the door entrance and extend across the full width of the door. The existence of wet footprints beyond the entrance or matting is usually a sign that existing controls are not sufficient.
- Where mats in mat-wells are prone to becoming waterlogged the provision of drainage holes should be considered.

Maintenance and cleaning procedures

- Floor cleaning procedures should be incorporated in the operation and maintenance procedures for a company. The procedure should specify the methods and materials to be used as the use of the wrong cleaning method can increase the area of hazard and level of risk. The cleaning agent used should be suitable for the floor surface and the type of contamination encountered. A build -up of

polish or detergent residues should be avoided. The drying of floors after cleaning is most important for the control of slip hazards. Staff should be informed, trained and supervised with regard to:

- Cleaning and drying floors
- Importance of dealing with spillages/leaks

"Cleaning as you go"

- Reporting hazards as they arise and any equipment defects contributing to slip hazards or problems with the cleaning equipment itself
- Prompt incident reporting
- Use of suitable footwear
- Cleaning should, where practical, be carried out when there are less people around.
- Cleaning activity should be organised so as to provide dry paths through areas being cleaned. It is better to restrict access to areas that are being cleaned by the use of barriers rather than depending on the use of cones or signs alone.
- Research has shown that forewarning people of a hazard can lead them to modifying their gait so as to anticipate the situation but attention must be paid to removing signs when the hazard has been dealt with; otherwise people will tend to ignore them if their experience tells them that the signs are always displayed irrespective of the conditions underfoot.
- Where existing unsuitable floor surfaces are identified, the hazard can be reduced by controlling contamination, using mats, treating the surface or in some cases replacing it altogether with a safer material.

Workspace users

- Where there is control over access to the workspace, the risk of falls can be reduced by the introduction of a "sensible shoe" policy i.e. no high heels or loose fitting shoes. In addition: Shoe soles should have deep cleating and a well defined tread pattern.
- Safety footwear may not always be slip-resistant and purchasers should check that it is suitable for the conditions under which it is going to be used.
- Slip resistant shoes will not remain so if they become worn or contaminated underfoot.
- The risk of slipping while barefoot is often greater than when wearing shoes, so this factor needs to be taken into account in shower areas and in other tiled areas associated with swimming pools, etc
- Disposable plastic overshoes can have poor resistance on smooth floors
- In other workspaces where there is general public access there will greater dependence on the selection of floor material in combination with maintenance regimes to control slip, trip and fall hazards.

Checks & Inspections

- Visual checks and Risk Assessments as required in each Functional Area

Information, Instruction & Training

Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 High RISK

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **2** = Risk Factor **2 Low Risk**

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Lone Person Working	Ref: SWPS 010
	Date: March 09
	Assessed by: E.Bell

Hazards

- Persons working alone using hazardous chemicals or equipment may not be able to summons
- help in the event of an accident or spillage.
- Certain exit routes may not be available during out of hours working.
- Entrapment in areas or spaces due to negligence or accident

Person Exposed to Risk

☐ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Definition of lone working

Lone working/out of hours working is defined as follows:

Any Laboratory / Experimental work carried outside of 9 am - 5 pm Monday – Friday when there are no persons aware of your work within calling distance.

Any other work undertaken outside of 7 am-10 pm Monday – Friday and during the hours of 9am - 6pm on Saturday, Sunday & Bank Holidays.

All buildings must be vacated by 6pm on Saturdays, Sundays and Bank holidays to allow for full lock up. At Christmas & Easter the campus will close down for a specified number of days and access will only be granted under exceptional circumstances .

Lone working includes carrying out field work in hazardous terrain or in areas where there is a risk to personal safety.

Lone working may also include carrying out routine maintenance work in isolated areas such as roofs or plant-rooms.

Controls

General

- Lone working in laboratories is not permitted unless a risk assessment has been carried out in conjunction with an academic supervisor and the risk is deemed to be low. Typical work that may be allowed includes work on PCs, microscope work, viewing plates, taking items in and out of incubator.
- The supervisor may allow working on high risk activities if the person is competent (typically an experienced member of staff) and a buddy is in attendance.
- The supervisor may allow work on medium risk activities for competent researchers (with or without a buddy present).
- Where a person is working alone without other persons within shouting distance then a phone or mobile phone must be readily available. They must also notify a colleague of their intention, how long they intend to be working in the isolated area, and check back with the colleague at an agreed, pre-determined time, when the work in the isolated area is complete.
- Field work in hazardous terrain or where there is a risk of personal injury as a result of confrontation must not be carried out alone (see SWPS Fieldwork).
- Hazardous experiments must not be left unattended overnight.

Out of hours access

- If out of hours work is required permission must be sought from the Head of Department.
- All persons requiring 'Out of Hours' access must be aware of what to do in the event of an emergency, i.e. what emergency exit doors are available, how to raise the alarm, where to go etc.
- The Head of School must provide Security with the names and locations of persons working out of hours. The person must contact Security on leaving the building.
- Persons authorised to work out of hours must not admit any other person to the building out of hours. Persons claiming to be authorised but without a swipe access card or key should be referred to Security for access.
- Where the fire alarm is activated in the building after hours, those evacuating the building must assemble at the building fire assembly point. Otherwise emergency services will assume that they are still in the building.
- Researchers or Staff members who in exceptional circumstances, due to the nature of their research work, require access during 'Lock-Up' must seek authorisation for such access from Buildings and Estates.

Checks & Inspections

Visual checks and Risk Assessments as required in each Functional Area

Information, Instruction & Training

Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2-3	=	Risk Factor	4-6

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2-3	=	Risk Factor	2-3

Risk Assessment Review

As and when process changes or yearly

Lone working/Out of Hours working

	Name	Position	Date
Prepared by			
Reviewed by:			
Approved by			

Revision	Date	By	Description
1			
2			
3			

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Safe Work Practice Sheet Manual Handling	Ref: SWPS 09 Date: 30/03/2011 Approved by: E. Roe

Hazards

Incorrect method of lifting
Attempting to lift something which is to heavy
Lifting sharp/awkward shapes
The main injuries associated with manual handling and lifting are:
Back strain, slipped disc, hernia,
Lacerations, crushing of hands or fingers.
Repetitive Strain Injury.
Bruised or broken toes or feet.
Various sprains, strains, etc.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Staff and students may be required to lift or move heavy items from time to time including large pieces of wood, bags of aggregate, metal piping, moving rotating electrical boards, pushing/pulling trolleys and lifting engines and transmissions and various motor parts

Controls

- Risk assessments must carried out on manual handling tasks normally performed by staff As a rule of thumb an assessment is required where weights are above the guideline weights set out by the Health and Safety Authority and reproduced overleaf in figure 1. The assessment should be in writing and set out on form 1 Manual handling assessment attached to this procedure.
- Manual handling will be avoided where possible. Mechanical or other means of moving or lifting will be used such as trolleys and winches.
- Staff will be provided with manual handling training where manual handling is a regular part of their job.
- Seek assistance where possible when lifting heavy items.

Consideration must be given to the arrangement of stored items so that heavier items are not stored near floor or above shoulder height.

Risks

The injuries associated with objects involving, lifting, lowering, manoeuvring and handling objects are:

- Back injury, including slipped disks. The effect of the injury may be cumulative over a period of years (as with chronic backache).
- Pulled muscles and strained ligaments.
- Note: once the back or any other part of the body "goes", then it is easier to go again.

Primary controls

- Trained in the correct manual handling techniques and requirements
- Whenever and wherever possible and practicable use the correct mechanical means to lift, lower or manoeuvre heavy or awkwardly shaped loads.
- Split large loads into several smaller loads if possible.

Basic controls

1 Assessment

Carry out the following assessment process before you begin:

- Is it too heavy, too large, unwieldy or unstable?
- Will it require an unstable body posture position?
- Is the ground, floor or surface uneven or slippery?
- Are you able to maintain good posture while lifting?
- Will it require excessive lifting, lowering or carrying distances?
- Are you physically suited to carry out the task (e.g. physique, fitness, body strength)?
- Are you wearing suitable PPE (e.g. gloves, safety footwear)?

2 Safe to Manual Handle

When your assessment indicates that you can safely undertake the manual handling task, then proceed as detailed in section 3

Even when considered safe you should still use the correct mechanical means whenever and wherever possible and practicable.

3 ***If there is no alternative way then:***

Protect your back

- If you must lift, carry and move an object yourself or with others, then you must do so in accordance with the correct techniques that you have learned in training. These correct techniques are summarised as follows:
- Lifting: Stand close to the load, bend the knees, not the back. Get a firm grip of the load and rise up straight.
- Carrying: Keep the load close to the body, with back straight, and turn by pivoting your feet.
- Lowering: Lower the entire body bending the knees, with back straight.

Special Controls
Loading, transporting
& off-loading materials

- Use mechanical means to load heavy and awkward loads
- Wear gloves and boots to protect body from getting trapped between the load and any other surface.
- Secure and store safely on the transport vehicle

Checks & Inspections

- Senior technician to monitor that correct manual handling technique is being used.
- Trolleys should be visually checked before use. Trolleys with damaged wheels should be taken out of service.

Information, Instruction & Training

- Manual Handling Training provided to relevant staff. Manual Handling activities are monitored and refresher training and /or reinstruction is an integral part of the safety management programme.

Personal protective equipment required (last resort)

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **2** x Severity **1-2** = Risk Factor **2-4 Low-medium risk**

Risk Assessment Review

As and when process changes or yearly

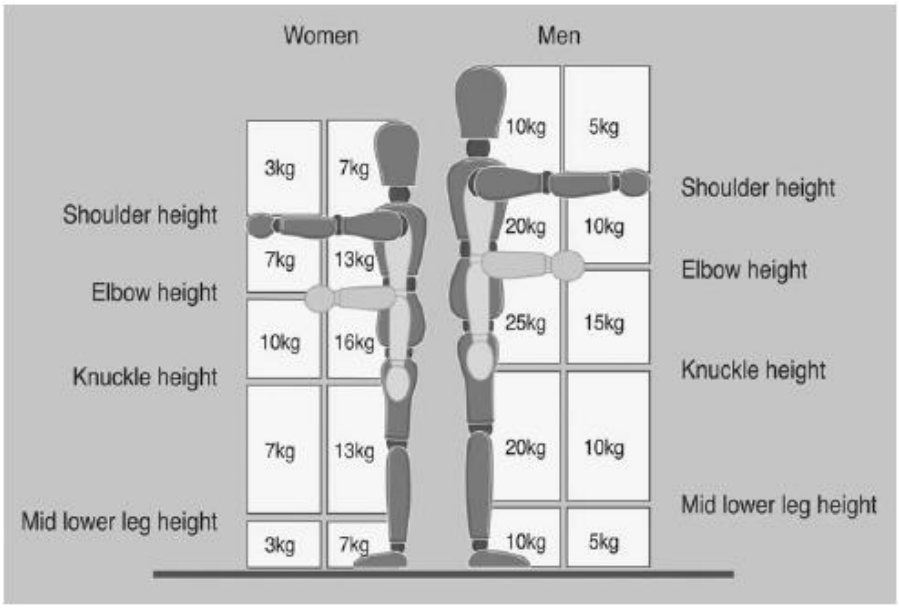

Figure 1. Guideline weights issued by the Health and Safety Authority.

Form 1 Manual handling risk assessment

Section A – Preliminary *** Circle as appropriate**

Job Description Factors beyond the limits of the guideline weights? (See SWPS Manual handling)	Is an assessment needed? (i.e. Is there a potential risk for injury, and are the factors beyond the limits of the guidelines?) Yes / No*

If 'yes' continue. If 'no' the assessment need go no further.

Operations covered by this assessment (detailed description): Locations: Personnel involved: Date of assessment:	Diagrams or other information:

Section B – See over for detailed analysis

Section C – Overall assessment of the risk of injury? Low/Med/High*

Section D – Remedial action to be taken:

Remedial steps that should be taken, in order of priority: 1. 2. 3. 4. 5. 6. 7. 8.
Date by which action should be taken:
Date for reassessment:
Assessor's name: Signature:

Section B – More detailed assessment, where necessary:					
Questions to consider:	If yes, tick appropriate level of risk			Problems occurring from the task (Make rough notes in this column in preparation for the possible remedial action to be taken).	Possible remedial action (Possible changes to be made to system/task, load, workplace/space, environment. Communication that is needed.
	Low	Med	High		
The tasks – do they involve: • holding loads away from trunk? • twisting? • stooping? • reaching upwards? • large vertical movements? • long carrying distances? • strenuous pushing or pulling? • unpredictable movement of loads? • repetitive handling? • insufficient rest or recovery? • a work rate imposed by a process?					
The loads – are they: • heavy? • bulky / unwieldy? • difficult to grasp? • unstable / unpredictable? • intrinsically harmful (e.g. sharp / hot)?					
The working environment – are there: • constraints on posture? • poor floors? • variations in levels? • hot/cold humid conditions? • strong air movements? • poor lighting conditions?					
Individual capability – does the job: • require unusual capability? • hazard those with a health problem? • hazard those who are pregnant? • call for special information / training?					
Other factors: Is movement or posture hindered by clothing or personal protective equipment?	YES / NO				

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Safe Work Practice Sheet Storage Areas	Ref: SWPS 019
	Date: July 09
	Assessed by: E.Roe

Hazards

Slips, trips, falls
Cut
Back Injury
Sprains
Falling object
Fire

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Storage of hazardous and non-hazardous substances and materials

Checks & Inspections

- Keep all pathways clear
- Do not climb on shelves or storage racks
- Do not climb on shelves to reach heights – use stepladders only
- Keep aisleways clear
- Do not keep any hazardous materials and substances in general storage areas – they must be kept in designated protected store located in Maintenance Building.
- Store heavy items at low level.
- Store medium weight items on middle shelves.
- Store light items on high shelves.
- Store items on shelves in such a way that they can not fall off.
- Keep all hazardous materials and substances, papers, boxes, etc. away from electric heaters.
- Store material lengths or racking parallel to the aisle.
- Storage areas to be kept locked at all times.
- Only authorized personnel are allowed access to Storage Areas.
- Do not attempt to lift any loads unless you have received appropriate training in safe manual handling techniques.
- Smoking, eating and drinking is prohibited in all storage areas.

Information, Instruction & Training

Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Use of hand tools	Ref: SWPS 026
	Date: Aug 09
	Assessed by: E.Roe

Hazards

Cuts
Ejection of material
Eye damage
Stab injuries
Head injuries

Person Exposed to Risk

☐ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Using hand tools such as chisels, Stanley knives, hammers, drills etc.

Controls

- Only staff with appropriate training or experience may use hand tools.
- The tools should be checked before use for signs of wear and tear. Damaged items should be taken out of service for repair or replacement.
- No power tools or electrical equipment of greater voltage than 110 volts shall be used in external locations.
- Where power tools have to be used off the main supply the source of supply must be fitted with residual current devices (ELCB) rated at 30 mAmps at 30 msecs.
- All cable connections must be properly made; under no circumstances is insulation tape to be used for any repair or joint in extension.
- Power tools must be maintained in good condition with casing intact and label fitted showing voltage and other information. An annual formal documented inspection should be carried out by a competent person.
- Mains operated equipment must be electrically tested.
- Where there is a risk of particles hitting the eye, eye protection must be worn.
- Ear defenders will not normally be required as the duration of exposure is expected to be low and infrequent.
- Tools should not be left unattended in public areas when going for breaks.
- Staff should not repair tools unless they are trained to do so.
- Only use tools in the manner in which they were designed to be used.
- Return tools to the workshop at the end of each day.

Checks & Inspections

- Check all tools before each use.
- Annual electrical test for mains operated equipment.

Information, Instruction & Training

- Only trained staff may operate equipment. Training may be provided in house by another
- competent member of staff.

Personal protective equipment required (last resort)

Personal protective equipment varies with tool being used. Where there is a risk of flying particles then eye protection should be worn.

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Use of Ladders / Stepladders	Ref: SWPS 007
	Date: 10/05/2011
	Assessed by: P. Killeen Approved by: E. Roe

Hazards

- Physical injury due to fall of persons from ladder
- Objects dropped by ladder / stepladder user

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

NOTE:
The use of Ladders / stepladders is restricted to activities where the risk is deemed to be low (that it would be unlikely to cause injury), the work is of short duration (30mins max) or brief periods at a time, and where the risk assessment shows the use of other work equipment (e.g. working platforms) is not justified.

Low Risk is considered when: where the operator can maintain a handhold / grip on stile whilst placing a box on a shelf and where the user's both feet are fully supported on the same step / rung.

Ladders/ stepladders are not suitable for strenuous or heavy work or where the work involves carrying awkward objects, tools or equipment.

Work Description

The use of Ladders / Stepladders by staff is infrequent. As part of their work technicians on occasions access shelving and storage areas to gain access to materials or parts.

Controls

- Ladder work is restricted to work which can be carried out using one hand only and of short duration.
- The base of the ladder must be on firm and level ground.
- For extension ladders they must be at the correct angle of rest 75 degrees or a base to height ratio of 1:4 (1 out to every 4 units up) and made secured (tying at the top or bottom)
- Stepladders must be fully opened out.
- There must be no sideways loading.
- Maintain 3 points of contact (both feet on the same rung, firm grip on the stile or handrail)
- Over reaching from ladders / stepladders will be avoided.
- Do not work on the top 3 rungs of a ladder, or top 2 steps for stepladders (regardless of length)
- Do not straddle (or sit at the top) of an A frame ladder.

Checks & Inspections

- Ladders will be checked for the correct type of equipment for the job at hand.
- Ladders / Stepladders must be visually inspected before use.

- Inspection of ladders must be recorded on form GA3 for every 7 day of use or used for the first time.

Information, Instruction & Training

- Operatives will be instructed to the safe use of ladders and the hazards which are to be avoided.
- Operatives to follow the controls
- Operatives to report any defects
- A further risk assessment will be necessary where the work activity is deemed to be medium or a high risk.

Personal protective equipment required (last resort)

- PPE may be a requirement dependant on the Risk Assessment

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2

Risk Assessment Review

Risk Assessment will be reviewed periodically

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Safe Work Practice Sheet **Use of cutters, scalpel and stanley knives**	Ref: SWPS 027
	Date: March 09
	Assessed by: E. Bell

Hazards

- Cuts when taking blades in and out of handle
- Cuts while using equipment
- Cleaning staff receiving cuts if blades disposed of to general waste
- Eye injury if blade breaks while used with force for tasks other than cutting

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

A range of cutting equipment is used in some areas by staff and students

Controls

- Where possible retractable blades or safety knives will be used.
- Blades must be disposed of to a designated sharps bin with a closable lid. Blades must never be disposed of to general waste.
- Users should use only sharp blades – blunt blades require more force and their use may result in injury
- Users should cut away from the body keeping the restraining hand well away from the blade.
- Unsheathed blades must never be carried in pockets or bags.
- Unsheathed blades must not be left in drawers or toolboxes.

Checks & Inspections

- Knives cutters used in classroom situations should be visually checked annually and damaged equipment removed from circulation.

Information, Instruction & Training

Students receive specific instruction on safe use of blades

Personal protective equipment required (last resort)

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	**6 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2-3	=	Risk Factor	2-3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Use of circular saw	Ref: SWPS 028
	Date: March 09
	Assessed by: E. Bell

Hazards

Severe cuts or amputation of fingers
Electrocution
Unauthorised use of equipment by untrained persons
Inhalation of dust

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Use of circular saw by staff

Controls

- Only authorised trained persons may use the saw.
- The equipment should be CE marked.
- Before use checks carried out to ensure that
  - all guards and covers are in place
  - there are no visible faults on the machine
  - all fixed tools are secured properly
  - cables free from damage
  - there are no signs of non-standard joints or over heating
  - there are no exposed wires showing on entry to plug or equipment
  - Faults recorded in a logbook.
  - Ensure any previous faults have received attention

- Bottom guard should be fixed (removable only with the use of a tool).
- Crown guard should extend from the top of the riving knife to a point above and as close as practicable to the work piece. The crown guard should extend down each side of the saw blade and the adjustment ensures that the roots of the teeth are covered at all times.
- Riving knife should be securely fixed and adjusted so that it does not exceed 8mm from the blade at bench level. Distance must be between 3-8mm.
- If extension table is provided then a minimum distance of 1200mm between the up running part of the saw blade and the further edge of the extension table is provided for use when cutting large materials.
- Rip fence should be in place which is adjustable at right angles to the saw blade.
- The Braking time (Run-down-time) should be < 10 seconds.
- In the event of power supply interruption, after restoration of the voltage automatic restart should be prevented.
- Machine is fitted with an emergency-stopping device (mushroom type emergency stop control in an appropriate location, which is easily accessible in an emergency).

- Machine securely fixed to the floor/bench
- Work piece can be securely fixed in place.
- The operational area around the machine demarcated with a space of at least 500mm between the machine table at the extreme ends of its travel and any fixed object.
- Appropriate dust extraction is provided.
- Hair tied back, no dangling jewellery, clothes, scarves.
- Equipment locked out when not in use

Checks & Inspections

- Check before use as above. Safety stop should be checked every six months. Records of servicing must be kept for 5 years.

Information, Instruction & Training

- Only trained staff may operate equipment. Training may be provided in house by another competent member of staff.

Personal protective equipment required (last resort)

Safety boots. Eye protection provided to BS EN 166:2002 Personal eye-protection standard
Respiratory protective equipment used during changing of filter bag

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3

Risk Assessment Review

As and when process changes or yearly

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Appendix III

Specific Safe Work Practice Sheets

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Safe Work Practice Sheet Woodworking General Requirements	Ref: SWPS C/J 001
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with electricity can result in electric shock, death or minor injuries. First, second or third degree burns. Secondary injuries resulting in musculoskeletal injuries, cuts and bruises, broken limbs and or broken fingers.

Mechanical
Contact with moving parts can cause entanglement, entrapment, struck by, pinch points and result in death, severing of limbs, severe cut and bruises.

Noise
Can result in acute (temporary hearing loss, discomfort) and/or chronic permanent hearing loss and discomfort.

Fire
Fire can be caused by dust and build-up of dust resulting in death, first, second and/or third degree burns.

Chemicals
Dust and liquid chemicals can cause upper respiratory damage that may affect an individual acutely (wheezing) or chronically (Cancer of the lungs or nasal passage, asthma). Chemicals may also result in in skin irritation (contact dermatitis).

Pneumatics
Flying projected missiles may cause loss of sight, major and minor cuts and bruises.

Manual Handling
Lifting of heavy loads can cause acute or chronic musculoskeletal injury and damage to the lower back.

Slips Trip & Falls
Can result in broken limbs, cuts, bruises and lower back pain and discomfort.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☑Visitors

Work Description
Various tasks performed

Controls

- On induction students must be informed by the lecturer of the work shop hazards.
- Do not use machinery if electrical cables are damaged or defected in any way.
- Horse play must not be allowed in the Work shop.

- Food or drink is not permitted in the work shop.
- Long hair must be tied back neatly.
- Loose clothing is not permitted.
- Relevant PPE must be worn (See PPE Requirements)
- Ensure there is sufficient dust extraction (no build-up of dust within extract hose or ducting)
- Machine area must be clearly marked out.
- Area around machines must be maintained in a non-slip condition.
- Floor must remain free from off cuts and waste (All waste wood must be placed into the bin).
- Timber must be stacked neatly and safely.
- Walk ways must be kept clear.
- Machine operator must not be distracted.
- Main power supply to be switched off when all machines are not in use.
- Authorised and trained personnel may use machines.
- Never leave machine whilst in motion.
- Push sticks must be provided and used when required.
- No queues to form while waiting for a machine to come free.
- Ensure tool in machines is secure in chuck of cutter block.
- All defective machinery, equipment must be reported to the lecturer / technician.
- Students must not use defective or damaged machinery, equipment.
- Students must not attempt to carry out repairs on machinery or equipment.
- Repairs to defective, damaged machinery or equipment must only be carried out by a competent person.
- Ensure material is clamped whenever possible and firmly controlled.
- Place waste material in designated container.
- Sweep down machine beds after use and only when moving parts stop.
- Consult MSDS/SDS of chemicals when in use.
- Machine must not be left unattended when running.
- Turn off the machine when no longer required.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's instructions and inspections in accordance with Work Equipment Regulations 2007. Records kept by the School
- Ensure Safety Devices, guarding on Machines are in place
- Lecturer and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

Any person approaching or moving around machinery, while in operation, may be in danger of suffering serious injury through entanglement or by coming in contact with the moving parts of the machine. Workshop machinery can be regarded as presenting a high risk if the prescribed control measures as outlined are not adhered to.

Students may operate machinery under the supervision of the lecturer and technician.

- Manual Handling
- PPE Training
- Chemical Training
- MSDS

Personal protective equipment required (last resort)

Safety boots, hearing protection, glasses / goggles and hand protection, dust mask when required.

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Manually Operated Mortising Machine	Ref: SWPS C/J 002
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with poorly maintained, loose, damaged electrical cables can result in electric shock, death or minor injuries. First, second or third degree burns. Secondary injuries resulting in musculoskeletal injuries, cuts and bruises, broken limbs and or broken fingers.

Mechanical
Contact with moving parts can cause entanglement, entrapment, struck by, pinch points and, severing of fingers, severe cut and bruises.

Noise
Noise cab result in acute (temporary hearing loss, discomfort) and/or chronic permanent hearing loss and discomfort.

Fire
Fire can be caused by dust and build-up of dust in contact with an ignition source resulting in death, first, second and/or third degree burns.

Wood Dust
Inhalation of wood dust and can cause upper respiratory damage that may affect an individual acutely (wheezing) or chronically (Cancer of the lungs or nasal passage, asthma). Skin irritation (contact dermatitis).

Manual Handling
Lifting of heavy wooden loads can cause musculoskeletal injury and damage to the lower back.

Slips Trip & Falls
Untidy workspace and trailing of electrical leads can result in broken limbs, cuts, bruises and lower back pain and discomfort.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

This machines cuts mortises into timber of various sizes

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- On induction students must be informed by the lecturer of the work shop hazards.

- Do not use machinery if electrical cables are damaged or defected in any way.
- Food or drink is not permitted in the work shop.
- Long hair must be tied back neatly.
- Loose clothing is not permitted.
- Machine cutting tool must be checked for defects by operator prior to use. Do not use any damaged cutting tool. Request the lecturer / technician to replace damaged cutting tool.
- Chisel and bit must be correctly mounted and secured in the machine.
- Work piece must be securely clamped against fence.
- Chisel and bit must be correctly mounted and secured in machine.
- Never place hands or arms between moving parts of the machine.
- Protruding end/s of work piece must be supported when required.
- Plunge lever must be returned to the vertical position when not required.
- Remove materials only when cutter stops.
- Provide adequate support under work piece.
- Work space around machine must be maintained free from clutter and rubbish and personal belongings.
- Ignition sources must not be used at or near the machine.
- Dust or chipping must not be allowed to accumulate around the machine (clean regularly).
- Machine must not be left unattended when running.
- Turn off the machine when no longer required.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices / Guarding in place.
- Lecturer and technicians must monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Only trained operators are permitted to operate this machinery. Students must be trained by the lecturers.
- Manual Handling
- PPE Training
- Chemical Training
- MSDS

Personal protective equipment required (last resort)

Safety boots, hearing protection, eye protection, dust mask when required

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Wood Working Panel Saw	Ref: SWPS C/J 003 Date: 17/07/2014 Revision No. 001 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with damaged, poorly maintained or fitted electrical cables can result in electric shock, death or minor injuries. First, second or third degree burns. Secondary injuries resulting in musculoskeletal injuries, cuts and bruises, broken limbs and or broken fingers.

Mechanical
Contact with rotating saw blades can cause entanglement, entrapment, struck by, pinch points and result in death, severing of limbs, fingers, severe lacerations, minor cuts and bruise.

Noise
Machine and cutting timber generate noise, long term use can result in acute (temporary hearing loss, discomfort) and/or chronic permanent hearing loss and discomfort.

Fire
Build-up of dust in contact with an ignition source can result in a fire first, second and/or third degree burns.

Wood dust
Respiratory tract illness affecting an individual acutely (wheezing) or chronically (Cancer of the lungs or nasal passage, asthma). Chemicals may also result in in skin irritation (contact dermatitis).

Manual Handling
Lifting of heavy wooden loads can cause musculoskeletal injury and damage to the lower back and neck injuries.

Slips Trip & Falls
Untidy workspace and trailing of electrical leads can result in broken limbs, cuts, bruises and lower back pain and discomfort.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

This machine cuts various flat boards and underscores to prevent chipping. There are two saw blades on the machine; the underscore saw blade cuts into the wood on the bottom prior to the main saw blade.

Controls

- On induction students must be informed by the lecturer of the work shop hazards.
- Do not use machinery if electrical cables are damaged or defected in any way. Competent person/s must carry out electrical repairs.
- Food or drink is not permitted in the work shop.
- Long hair must be tied back neatly.
- Loose clothing is not permitted.
- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Never pass hands over saw blades.

- Never machine short pieces of timber.
- Use push stick as required and as instructed by lecturer / technician.
- Use crown guard for all work. (Crown guard to cover the entire cutter head).
- Keep work space around machine tidy and free from clutter at all times.
- Follow the manual handling training guidelines at all times. Seek assistance when lifting heavy pieces planks of wood.
- Ignition sources are not permitted at or near the machine.
- Pass work piece under crown guard, crown guard should be at maximum clearance of 10mm.
- Cross cut fence must be returned to shortest length when not in use.
- Ensure sufficient extra space when operating machine.
- Off cut pieces of cut timber waste must be disposed of into designated bins.
- Machine to be cleaned down by the technician / Class assistant at the end of every day or as required.
- Machine must never be left unattended when running.
- Machine must be switched off when not in use.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices / Guarding in place.
- Lecturer and technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Only trained Operators are permitted to operate this machinery. Students are allowed to use this machine under the supervision of Lecturer / technician.
- Manual Handling
- PPE Training
- Chemical Training
- MSDS

Personal protective equipment required (last resort)

Safety boots, hearing protection, eye protection, dust mask when required.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Band Resaw	Ref: SWPS C/J 004
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with damaged, poorly installed electrical cables can result in electric shock, death or minor injuries. First, second or third degree burns. Secondary injuries resulting in musculoskeletal injuries, cuts and bruises, broken limbs and or broken fingers.

Pneumatics
Damaged or loose airlines can result in whipping action and cause loss of sight in one or both eyes, and minor cuts and bruises.

Mechanical
Contact with rotating blade or feeder can cause entanglement, entrapment, struck by, pinch points and result in death, severing of limbs, fingers, severe lacerations, minor cuts and bruise.

Noise
Long term use of machining pieces of timber can result in acute (temporary hearing loss, discomfort) and/or chronic permanent hearing loss and discomfort.

Fire
Fire can be caused by dust in contact with an ignition source resulting in death, first, second and/or third degree burns.

Wood dust
Inhalation of wood dust can cause respiratory illness wheezing or Cancer of the lungs or nasal passage, asthma. Handling wood dust can result in minor skin irritation.

Manual Handling
Lifting of heavy wooden loads can cause musculoskeletal injury and damage to the lower back.

Slips Trip & Falls
Untidy workspace and trailing of electrical leads can result in broken limbs, cuts, bruises and lower back pain and discomfort.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description
This machine cuts timber to various shapes

Controls

- On induction students must be informed by the lecturer of the work shop hazards.
- Do not use machinery if electrical cables are damaged or defected in any way. Competent person/s must carry out electrical repairs.
- Food or drink is not permitted in the work shop.
- Long hair must be tied back neatly.
- Loose clothing is not permitted.
- Students are not permitted to use this machine.

- Ensure blade is in good condition.
- Blade tension must be manually set.
- Ensure emergency cord stop button is operational.
- Provide out feed support when operating machine by lowering out feed table from machine (key to lock on out feed table is held by the technician). Out feed table must be returned to folded position and locked when machine is not in use.
- Blade guard must not interfere with the power feed.
- Follow the manual handling training guide lines at all times.
- Fence must be tightened to correct material size.
- Ensure adequate dust extraction.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables.
- Machine must be turned off when not in use and never left unattended when running.
- Machine to be cleaned down at the end of the day or when required.

Checks & Inspections

- Regular inspections and maintenance to be carried out. Records kept by the School and in accordance with Work Equipment Regulations 2007.
- Ensure Safety Devices and guarding is checked.
- Lecturer and technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Only trained operators (Technician) are permitted to operate this machine.
- Manual handling
- PPE Training
- Chemical Training
- MSDS

Personal protective equipment required (last resort)

Safety boots, hearing protection, Eye Protection, Respiratory Protection

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Centauro 600, FBR 400 Wood Working Bandsaws	Ref: SWPS C/J 005
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose or damaged electrical cables can result in electrocution-death or first, second and or third degree burns.

Mechanical Hazards
Contact with rotating saw blade could result in loss of hands or fingers. Entanglement of loose clothing, long hair with rotating fly wheel and moving parts resulting in cuts and bruises. Crushing of fingers with moving parts.

Dust
Inhalation of wood dust can cause acute respiratory illness (wheezing, coughing tec.) and or chronic disease (cancer) and illness. Build-up of dust can result in a fire or explosion when in contact with ignition source causing first, second and or third degree burns or impact injuries.

Noise
Incorrectly fitted or maintained saw blade can result in noisy machinery and acute temporary ringing in the ears or chronic hearing loss from long term exposure.

Slips Trip & Falls
Untidy workspace, personal belongings, and trailing electrical cables can result in tripping causing fall impact injuries and broken limbs, cuts, bruises. Wood dust on the floor can result in slipping causing fall impact injuries.

Falling Material
Pieces of timber being cut can fall & cause impact injuries to the lower legs and feet.

Manual Handling
Lifting holding and carrying pieces of timber can result in lower back and musculoskeletal injuries.

Sharps
Touching or brushing hands against stopped saw blade can result in lacerations to the hands and fingers.

Ejected Debris
Saw blade breaks, ejecting metal debris causing loss of sight.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

This machine cuts timber to various shapes

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Group gathering is not permitted around the machine unless under the lecturers supervision.
- Ensure that all electrical cable and plugs are free from damage and defects prior to using the machine. Do not use the machine if electrical cables damaged in any way.
- Competent person/s must carry out electrical repairs.
- Loose clothing must not be worn when operating the machine.
- Long hair must neatly tied back or a well fitted cap worn.
- Ensure the workshop dust extraction unit is running when operating the machine & ensure the machine extraction port is open.
- Do not allow dust to build up on the machinery or the workshop, clean as required.
- Check tracking and tensioning of blade.
- Use ear and eye protection at all times when operating the machine.
- Set roller guides and thrust bearing as close as possible.
- Thrust bearing and guides to be set correctly below the table.
- All moving parts to be fully enclosed.
- Enclose blade with guard except for operating position.
- Keep hands clear of the blade at all times.
- Remove waste timber from around saw blade with push stick.Guards or micro switches must not be tampered with.
- Never leave the machine running unattended & ensure all moving parts are stopped before leaving machine.
- Maintain good housekeeping at all times and work space free from personal belongings.
- Securely hold cutting material when operating the machine.
- Follow the manual handling training guidelines at all times.
- Follow the manufacturer's machine operating instructions all times.

Checks & Inspections

- Regular Inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding are checked
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Only trained operators are permitted to operate this machine trained by Technician's.
- Material Safety Data Sheets.
- Manual Handling Training
- Chemical Handling Training.
- MSDS for wood being machined

Personal protective equipment required (last resort)

Safety boots, hearing protection, Eye Protection, Respiratory Protection and overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Wadkin Bursgreen Planer Machine	Ref: SWPS C/J 006
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose, damaged cables can result in electrocution or first, second and or third degree burns.

Manual Handling
Lifting, carrying & holding wooden planks for planer machine, moving benches for greater free space can result in lower back injury.

Mechanical
Crushing of fingers when adjusting suvamatic guard. Machine panels open, resulting in severing of fingers with pinch point on machine belt drive. Entanglement of long hair loose clothing in spinning blade resulting in asphyxiation, cuts and bruises. Pinch point with belt drive, guard panel not in place, severing of fingers.

Dust
Inhalation of wood dust can cause acute respiratory illness (wheezing, coughing tec.) & or chronic disease (cancer) & illness. Build-up of dust can result in a fire or explosion when in contact with ignition source causing first, second & or third degree burns or impact injuries.

Noise
Operating the machine for extended periods of time can result in acute temporary ringing (Tinnitus) in the ears or chronic hearing loss from long term exposure.

Slips Trip & Falls
Untidy workspace, personal belongings, and trailing electrical cables can result in tripping causing fall impact injuries and broken limbs, cuts, bruises. Wood dust on the floor can result in slipping causing fall impact injuries.

Falling Material
Pieces of timber being cut can fall & cause impact injuries to the lower legs and feet.

Sharps
Touching or brushing hands against rotating or stopped planer blade can result in lacerations to the hands and fingers.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

This machine planes & straightens timber to the desired thicknesses

Controls

- Students are not permitted to use this machine.
- Ensure that all electrical cable and plugs are free from damage and defects prior to using the machine. Do not use the machine if electrical cables damaged in any way.
- Competent person/s must carry out electrical repairs.
- Follow the manual handling training guidelines when machining timber.
- Seek assistance if required to move benches or carry, lift etc. heavy pieces of timber.
- Do not place hands or fingers between moving parts,
- Where applicable use the piece of timber for machining to adjust the Suvamatic guard.
- Ensure all machine guards and panels are in place and closed prior to operating the machine.
- The wearing of loose clothing is not permitted when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Ensure the workshop dust extraction unit is on when operating the machine.
- Ensure the machine extraction port is open.
- Do not allow dust to build up on the machinery or the workshop, clean as required.
- Ignition sources are not permitted at or near the machine.
- Wear the appropriate PPE when operating the machine.
- Avoid the trailing of power cables.
- Maintain good housekeeping at all times and work area free from personal belongings.
- Ensure to hold pieces of timber for machining securely when handling.
- Never pass hands over cutters.
- Never machine short pieces of timber
- Use push stick at all times.
- Use bridge guard for all work. (Bridge guard to cover the entire cutter head).
- Pass work piece under guard when facing, maximum clearance 10mm.
- Pass work piece past the end of guard when edging.
- Set end of bridge guard against fence when surfacing.
- Set end of bridge guard close to work piece when edging, maximum clearance 10mm.
- Front and rear tables must be properly positioned and aligned.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding are checked prior to using the machine.
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Only trained operators (Technician's) are permitted to operate this machine
- MSDS for wood being machined

Personal protective equipment required (last resort)

Safety boots, hearing protection, Eye Protection, Respiratory Protection and overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet Wood Working Lathe	Ref: SWPS C/J 007 Date: 17/07/2014 Revision No 001 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly maintained, damaged electrical cable and plugs can result in electrocution-death or first, second and or third degree burns.

Manual handling
Lifting pieces of timber for machining, adjusting the tail stock and chuck tool rests can result in lower back and or musculoskeletal injuries.

Mechanical
Entanglement of loose clothing, jewellery, long hair with rotating timber, mounting plates, head stock, maintaining or adjusting machine chain belt resulting in asphyxiation. Severing of fingers when adjusting chain belt speed. Pinching, crushing of fingers on tool rest when operating cutting tools or adjusting the tail stock, tool rest.

Dust
Generation of dust from various timbers causing acute respiratory illness (wheezing, coughing) or chronic respiratory illness disease and or death.

Flying material
Cutting various rotating timber can result in flying chippings of wood and cause loss of sight.

Falling Machine Parts
Handling the tool rest, chuck, tail stock and other removable machine parts, holding more than one part can fall and cause lower leg and feet impact and crush injuries.

Slips Trip and Falls
Trailing electrical cables, poor housekeeping, personal belongings, build-up of dust and waste material on the ground can cause tripping and slipping resulting in head impact injuries, cuts and bruises.

Sharps
Touching or brushing against the tail stock centre or cutting tools can cause lacerations to the hands & fingers.

Fire
Build-up of dust, waste materials can catch fire when in contact with ignition source causing burns to the body.

Vibration
Machining timber for long periods of time can result in hand arm vibration syndrome causing musculoskeletal injuries.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

This machine turns timber to be shaped by various lathe chisels

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Ensure that the machine electrical power cable and plug are in good working order prior to use.
- Do not use the machine if the electrical power cable or plug is damaged in any way.
- Any electrical repairs must be carried out by a competent person (Electrician).
- Follow the manual handling training guidelines at all times when adjusting the tail stock, chuck, tool rests, lifting pieces of timber and any other machine parts.
- Loose clothing or jewellery must not be worn when operating or maintaining the lathe.
- Long hair must be neatly tied back or a well fitted cap worn.
- Ensure the machine interlock device and guards are in place when running the machine.
- Never interfere with the machine guards or interlocks.
- Training must be provided before individuals are allowed to operate the lathe.
- When adjusting the tail stock or tool rests, do not place your hands or fingers in between the closing gap.
- Wear a face shield if flying chippings are being produced.
- Maintain a secure hold of machine parts when removing and replacing.
- Never carry or hold more than one machine part at a time.
- Maintain good housekeeping and workspace free from personal belongings at all times.
- Dust and all wood waste material must not be allowed to accumulate at or around the machine floor space.
- Avoid the trailing of power cables by plugging the machine into a wall socket at the back of the machine.
- Keep hands and fingers clear of tail stock centre, never brush against.
- Do not touch cutting tool bevelled head with bare hands. Always use the handle to hold the tool.
- Do not machine pieces of timber for long periods of time.
- Ignition sources are not permitted at or near the machine.
- Lathe must be set at correct speed for work piece diameter.
- Material must be securely held.
- Always rotate stock manually to check clearance before starting machine.
- Tool rest must be positioned correctly.
- Use correct tool for job in hand.
- Use eye protection, dust masks and hand protection.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding are checked.
- Technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- trained operators are permitted to operate this machine under the lecturer and Technician's supervision
- MSDS

Personal protective equipment required (last resort)

- Safety boots.
- Hand Protection.
- Safety glasses.

- Face Shield.
- Respiratory Protection (Dust mask)
- Overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet **Portable Wood Working Routers Trend (PRT), Festool (Basis Plus), Trend (Router Rack)**	Ref: SWPS C/J 008 Date: 17/07/2014 Revision No. 0001 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly maintained, damaged electrical cable or plugs can result in electrocution-death or first, second and or third degree burns.

Mechanical
Entanglement of loose clothing, jewellery, long hair with rotating cutting tool or motor shaft resulting in asphyxiation. Contact with rotating cutting tool when machining timber resulting in lacerations to the hands and fingers.

Sharps
Removing, replacing cutting tool or touching in situ resulting in lacerations to the hands and fingers.

Ejected Materials
Work pieces not inserted the correct way, too abruptly, cutting tools incorrectly fitted, resulting in ejected material causing puncture wounds and impact blunt force blows to the body.

Falling Machinery / Materials
Machine not securely fixed to the work top, falling and causing lower leg and feet, crush and impact injuries. Unsecure hold of timber materials for machining, falling causing lower leg and feet impact injuries.

Dust
Machining timber generates dust, and may cause acute respiratory illness (coughing, wheezing), chronic disease or illness lung or nasal cancer.

Fire
The build of dust and wood waste can catch fire when in contact with ignition sources causing first, second and third degree burns to the body.

Slips, Trips and Falls
Poor housekeeping, personal belongings, trailing power cables, dust build up, waste materials can result in tripping and slipping causing fall impact head and body impact injuries, cuts and bruises.

Noise / Vibration
The rotating motors of the machine and machining timber generates noise and using for extended periods of time may cause acute hearing discomfort, chronic effects may result in hearing impairment. Hand machining pieces of timber for long periods of time can result in hand arm vibration syndrome.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Cutting/routing of timber pieces

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Ensure that the machine electrical power cable and plug are in good working order prior to use.
- Do not use the machine if the electrical power cable or plug is damaged in any way.
- Any electrical repairs must be carried out by a competent person (Electrician).
- Loose clothing or jewellery must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch the machine rotating cutting tool.
- Never handle or touch a cutting tool by its cutting edge.
- Always insert timber for machining in the correct direction and never abruptly.
- Competent persons must only remove and replace cutting tools on the machine.
- Ensure that the machine is bolted fixed to the worktable prior to use.
- Maintain a secure hold of timber pieces when holding for machining.
- Ensure that the router extract vacuum system is turned on before operating the machine.
- Wear a dust mask when routing materials.
- Dust and wood waste must not be allowed to build up, regular machine cleaning must be maintained.
- Ignition sources are not permitted at or near the machine.
- Maintain good housekeeping at all times and work area free from personal belongings.
- Machinery must be plugged into sockets mounted on the wall behind the machine.
- Ear defenders must be worn when operating the machines.
- Do not machine pieces of timber for extended periods of times, tend to other duties for periods of rest.
- Use standard cutters only.
- Fences and guards must be in position.
- Cutter must be correctly secured in chuck.
- 'No volt release' switch must be operational.
- Use additional temporary fences/jigs where appropriate.
- Depending on the work being performed use the spring Guards to guide work piece.
- A push stick must be used at all times.
- The machine must be set at the correct speed for the cutter being used.
- The machine must be secured in a safe location. [casters locked].
- Use eye and ear protection when using machine.
- Never modify any machine cutting tool.

Checks & Inspections

- Regular Inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding is checked.
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Only trained operators are permitted to operate this machine
- MSDS

Personal protective equipment required (last resort)

- Safety Boots
- Eye Protection,
- Respiratory Protection
- Overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet Single Ended Tenoner Machine Concept 4	Ref: SWPS C/J 009 Date: 17/07/2014 Revision No 001 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with poorly maintained, damaged or loose electrical machine cables and plugs can result in electrocution-death or first, second and or third degree burns.

Manual Handling
Removing, replacing the cutting heads for use or maintenance, adjusting the machine timber clamp, machining pieces of timber can result in lower back and or musculoskeletal injuries.

Sharps
Inspecting, removing and replacing and setting the cutter block and saw blade can result in lacerations to the hands and fingers and other body parts.

Mechanical
Pinching of fingers and hands when closing the material clamp, severing of limbs with rotating saw blade or rotating cutting block. Entrapment of hand or arm with rotating cutting block, automatic descending cutting guard hood. Entanglement of loose clothing, long hair or jewellery.

Noise
Using the machine for long periods of times can cause acute temporary hearing discomfort and or chronic permanent hearing loss

Fire
Machining pieces of timber generates wood shavings and dust around, in or on the machine, ignition sources may ignite waste materials and cause a fire resulting in first, second and or third degree burns.

Dust
Machining timber generates dust, inhalation of wood dust may cause acute or chronic respiratory illness,

Pneumatics
Leaking, damaged airline may result in whipping airline and result in loss of sight and or minor cuts and bruises.

Slips trips and falls
Poor housekeeping, personal belongings, trailing power cables, pieces of timber & dust shavings lying on the floor can cause tripping and slipping resulting falling impact head injuries.

Falling materials
Removing saw blades and cutters, or pieces or timber from the machine can result in falling materials causing lower leg and feet crush and impact injuries, major cuts and bruising.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

This machine cuts tenons and scribes shoulders on various timber items i.e. Door and Window stiles

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Group gatherings are not permitted at the machine unless under the lecturer of technicians supervision.
- The wearing of loose clothing or jewellery is not permitted when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn when operating the machine.
- Ensure that the machine electrical cable and plugs are free from damage and defects prior to operating the machine.
- Do not use the machine if electrical cables and plug are damaged in any way.
- Competent persons must only carry out electrical repairs.
- Follow the manual handling training guide lines at all times.
- Wear gloves when inspecting, removing, replacing and setting the cutter block and saw blade.
- Ensure all cutter blocks are secured correctly.
- Ensure cutter blocks are set at correct size.
- Ensure saw blade is set correctly at required length.
- Check that all automatic guards are functioning properly before starting the machine.
- Never interfere with or modify the machine guards or micro switches.
- Never place hands or fingers in between automatic descending cutting guards.
- Ensure that fingers and hands are clear of closing metal clamp when clamping materials for machining.
- Wear ear defenders at all times when the machine is running.
- Do not use ignition sources (lighters, open flames etc.) at or near the machine.
- Turn on the dust extract system when the machine is running.
- Wear a dust mask when operating the machine.
- Inspect the pneumatic external airlines for damage or defects prior to using the machine, do not use the machine if airline is damaged in any way. Competent person/s must carry out airline repairs.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of power cables and use the sockets on the wall at the back of the machine.
- Dust and wood shavings must not be allowed to build up around the surrounding machine floor space.
- Pieces of timber must not be stored or left lying on floor walkway around the machine.
- Maintain a secure hold of any items being lifted to or from the machine.
- Ensure all isolating switches and emergency stop buttons are functioning correctly.
- Isolate machine for all maintenance and setting.
- Always operate the machine as per manufacturers operating procedures.
- Turn off the machine when it is no longer required.

Checks & Inspections

- Regular Inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding is checked.
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Only trained operators are permitted to operate this machine
- Manual handling training
- PPE training

Personal protective equipment required (last resort)

Safety boots, Hearing Protection, Eye Protection, Respiratory Protection and overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet Woodworking Machine Fourcutters Quattromat 23P	Ref: C/J 010 Date: 17/07/2014 Revision No. 001 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with poorly maintained, damaged or loose electrical machine cables and plugs can result in electrocution-death or first, second and or third degree burns.

Manual Handling
Removing, replacing the cutting heads for use or maintenance, adjusting the machine timber clamp, machining pieces of timber can result in lower back and or musculoskeletal injuries.

Sharps
Inspecting, removing and replacing and setting the cutter block and saw blade can result in lacerations to the hands and fingers and other body parts.

Mechanical
Entrapment of hands and fingers with machine guide roll can result in crushed hands or fingers, Entanglement of loose clothing, long hair or jewellery with machine parts can result in asphyxiation, Pinching of fingers when adjusting the guide roll.

Noise
Using the machine for extended periods of time can cause acute temporary hearing discomfort and or chronic permanent hearing loss

Fire
Machining pieces of timber generates wood shavings and dust around, in or on the machine, ignition sources may ignite waste materials and cause a fire resulting in first, second and or third degree burns.

Dust
Machining timber generates dust, inhalation of wood dust may cause acute or chronic respiratory illness,

Pneumatics
Leaking, damaged airline may result in whipping airline and result in loss of sight and or minor cuts and bruises.

Slips trips and falls
Poor housekeeping, personal belongings, trailing power cables, pieces of timber & dust shavings lying on the floor can cause tripping and slipping resulting falling impact head injuries.

Falling materials
Removing saw blades and cutters, or pieces or timber from the machine can result in falling materials causing lower leg and feet crush and impact injuries, major cuts and bruising.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

This machine is used to fine surface and mold, if required, the four sides of timber in one pass

Controls

Carry out pre operational checks

- Students are not permitted to operate the machine.
- Group gatherings are not permitted at the machine unless under the lecturer of technicians supervision.
- The wearing of loose clothing or jewellery is not permitted when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn when operating the machine.
- Ensure that the machine electrical cable and plugs are free from damage and defects prior to operating the machine.
- Do not use the machine if electrical cables and plug are damaged in any way.
- Competent persons must only carry out electrical repairs.
- Follow the manual handling training guide lines at all times.
- Wear gloves when inspecting, removing, replacing and setting the cutter block and saw blade.
- Ensure all cutter blocks are secured correctly.
- Ensure cutter blocks are set at correct size.
- Ensure saw blade is set correctly at required length.
- Check that all automatic guards are functioning properly before starting the machine.
- Never interfere with or modify the machine guards or micro switches.
- Maintain fingers clear from machine guide roll handle when adjusting
- Wear ear defenders at all times when the machine is running.
- Do not use ignition sources (lighters, open flames etc.) at or near the machine.
- Turn on the dust extract system when the machine is running.
- Wear a dust mask when operating the machine.
- Inspect the pneumatic external airlines for damage or defects prior to using the machine, do not use the machine if airline is damaged in any way. Competent person/s must carry out airline repairs.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of power cables and use the sockets on the wall at the back of the machine.
- Dust and wood shavings must not be allowed to build up around the surrounding machine floor space.
- Pieces of timber must not be stored or left lying on floor walkway around the machine.
- Maintain a secure hold of any items being lifted to or from the machine.
- Ensure all isolating switches and emergency stop buttons are functioning correctly.
- Isolate machine for all maintenance and setting.
- Always operate the machine as per manufacturers operating procedures.
- Turn off the machine when it is no longer required.
- Cutter blocks must be correctly tightened on shafts.
- Feed rollers must not be obstructed.
- Heads must be set to correct sizes.
- All safety doors of machine to be closed before activating switches.
- Adjustment tools and cutters to be stored in designated press.
- Never place your hands past the feed pressure guide roller.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding is checked.
- Technicians to monitor compliance with control measures

- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Only trained operators (Technicians) are permitted to operate this machine.

Personal protective equipment required (last resort)

Safety boots, Hearing Protection, Eye Protection, Respiratory Protection and overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Risk Assessment CB Wood Working Sander	Ref: SWPS C/J 011
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with poorly maintained, damaged or loose electrical machine cables and plugs can result in electrocution-death or first, second and or third degree burns.

Manual Handling
Lifting, holding and carrying pieces of timber for sanding can result in acute or chronic lower back and or musculoskeletal injuries.

Mechanical
Entanglement of loose clothing, long hair or jewelry with rotating height adjustment wheel resulting in asphyxiation, cuts and bruises. Entrapment of hands and arms, crushing of hands and arms with feed roller. Abrasion burns to the hands and fingers with rotating sander. Severing of fingers with nipping point on rotating sander or machine drive belt.

Noise
Using the machine for long periods of times can cause acute temporary hearing discomfort and or chronic permanent hearing loss

Fire
Machining pieces of timber generates wood dust around, in or on the machine, ignition sources may ignite waste materials and cause a fire resulting in first, second and or third degree burns.

Dust
Sanding timber generates dust, inhalation of wood dust may cause acute or chronic respiratory illness,

Pneumatics
Leaking, damaged airline may result in whipping airline and result in loss of sight and or minor cuts and bruises.

Slips trips and falls
Poor housekeeping, personal belongings, trailing power cables, pieces of timber & dust lying on the floor can cause tripping and slipping resulting falling impact head injuries.

Falling materials
Removing, lifting, holding pieces or timber from the machine, can result in falling materials causing lower leg and feet crush and impact injuries, major cuts and bruising.

Ejected Material
Incorrect feeding of material for machining can result in ejected materials causing blunt force injuries to the machinist or bystanders.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The machine is used to smoothen wooden surfaces by abrasion of a sand paper belt,

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.

- Group gatherings are not permitted at the machine unless under the lecturer of technicians supervision.
- The wearing of loose clothing or jewellery is not permitted when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn when operating the machine.
- Ensure that the machine electrical cable and plugs are free from damage and defects prior to operating the machine.
- Do not use the machine if electrical cables and plug are damaged in any way.
- Competent persons must only carry out electrical repairs.
- Follow the manual handling training guide lines at all times.
- Wear gloves when inspecting, removing, replacing and setting the cutter block and saw blade.
- Check that all guards and interlocks are functioning properly before starting the machine.
- Never interfere with or modify the machine guards or interlocks.
- Wear ear defenders at all times when the machine is running.
- Do not use ignition sources (lighters, open flames etc.) at or near the machine.
- Turn on the dust extract system when the machine is running.
- Wear a dust mask when operating the machine.
- Inspect the pneumatic external airlines for damage or defects prior to using the machine, do not use the machine if airline is damaged in any way. Competent person/s must carry out airline repairs.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of power cables and use the sockets on the wall at the back of the machine.
- Dust and wood shavings must not be allowed to build up around the surrounding machine floor space.
- Pieces of timber must not be stored or left lying on floor walkway around the machine.
- Maintain a secure hold of any items being lifted to or from the machine.
- Ensure all isolating switches and emergency stop buttons are functioning correctly.
- Isolate machine for all maintenance and setting.
- Always operate the machine as per manufacturers operating procedures.
- Turn off the machine when it is no longer required.
- Do not try to retract material once process commences.
- Keep hands clear of the machine rotating table.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding is checked.
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Only trained operators or persons with correct instruction of how to use of the machine are permitted to operate the machine.

Personal protective equipment required (last resort)

Safety boots, Hearing Protection, Eye Protection, Respiratory Protection and overalls.

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

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Safe Work Practice Sheet Spindle Mini Max T45F (Curved Cutting X2)	Ref: SWPS C/J 012
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose or damaged machine electrical cables can result in electrocution or first, second and or third degree burns.

Manual Handling
Lifting, carrying & holding wooden planks for machining can result in acute or chronic lower back and or musculoskeletal injuries.

Mechanical
Entanglement of long hair or loose clothing with rotating cutting tool causing asphyxiation.

Sharps
Touching or brushing hands against rotating or stopped cutting tool, removing and replacing cutting tool can result in lacerations to the hands and fingers.

Noise
Operating the machine for extended periods of time can result in acute temporary ringing (Tinnitus) in the ears or chronic hearing loss from long term exposure.

Dust
Cutting of various woods can result in the Inhalation of wood dusts and cause acute respiratory illness (wheezing, coughing) & or chronic disease (cancer) & asthma.

Slips Trip & Falls
Untidy workspace, personal belongings, and trailing electrical cables, wood dust or wooden parts can result in tripping causing fall impact injuries and broken limbs, cuts, bruises.

Ejected Material / Falling material
Timber inserted incorrectly can result in an ejected piece of timber resulting in blunt force striking injuries to bystanders or machinist. Pieces of timber being machined or manually handled can fall causing minor impact injuries to the lower legs and feet.

Vibration
Manually operating the machine for extended periods of time can result in hand arm vibration (white finger) syndrome.

Fire
Dust in contact with ignition source may result in fires and first, second and or third degree burns.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is used to shape curved pieces of timber.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Inspect the machine electrical cable and plugs prior to operating the machine.
- Do not use the machine if the electrical cable or plug is damaged in any way.
- Competent person/s must only carry out electrical repairs.
- Follow the manual handling training guidelines at all times when machining pieces of timber.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch or place hand or fingers near the machine rotating cutting tool. Always wait for the cutting to come to a complete stop before adjusting, maintaining or removing cutting tool or timber.
- Never leave the machine running unattended.
- Always wear hearing protection when operating the machine.
- Ensure the extract system is turned on prior to operating the machine. Ensure extract system is properly connected to the machine (wear a dust mask where required).
- Maintain good housekeeping and area free from personal belongings at all times.
- Wood dust or wooden parts must not be allowed to build up around, on or inside the machine.
- Maintain a secure hold of timber for machining at all times during handling.
- All timber being machined must be fed from the right hand side to the left hand side of the cutter tool.
- Avoid operating the machine for long periods of time, tend to other duties for periods of rest.
- Always use the machine and tools as intended by the manufacturer.
- Adjust the guards with the front and side flanges prior to operating the machine.
- Ensure the work piece is securely held prior to cutting.
- Maintain thumbs tucked into the side of the hands and not spread out over the work piece.
- Where possible in cutting curves, use a curved or straight template fixed to the work piece and guide pins fixed to the adjustable guard and let guard pin run on the template.
- Never start the machine under load by placing the work piece against the cutter block.
- Never queue up to use the machine or stand close by the machinist.
- Set the guard as close as possible to the material being machined.
- Never use a blunt cutter block.
- Always use the correct tool for the job in hand.
- Inspect tools and equipment for damage prior to use. Do not use if damaged in any way and report to the lecturer of technician for safe removal and replacement.
- Always isolate the machine from mains electricity prior to carrying out maintenance.
- Ensure that the emergency stop button is good working order.
- Ignition sources are not permitted at or near the machine.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding are checked prior to using the machine.
- Lecturers and technicians to monitor compliance with control measures
- Lecturer and technicians to monitor the condition of cutting block, templates and jigs. .
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Only trained operators are permitted to operate this machine and those with correct instruction and

under supervision.

- MSDS for wood being machined.
- Manual handling training
- PPE training
- Chemical handling training

Personal protective equipment required (last resort)

- Safety boots
- Hearing protection,
- Eye Protection
- Respiratory Protection
- Overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet CNC Machine	Ref: SWPS C/J 013
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with poorly installed, maintained or damaged cables can result in electrocution-death or first, second and or third degree burns. Secondary injuries resulting in cuts and bruises.

Chemicals
The generation of dust from rotating cutters on timber can cause acute (wheezing) or chronic respiratory (asthma) if inhaled.

Pneumatics
Whipping airline may result from loose airline or build-up of pressure and cause irreversible damage to the eyes, cuts and bruises to the face and hands.

Slips trips and falls
Poor housekeeping, personal belongings, wooden materials, dust lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Mechanical hazards
Contact with rotating cutters can lead to death, severed arm/s, hands, and fingers or sever cuts. Ejection of work piece cutter or material can cause loss of sight, puncture wound to the body. Trapping and crushing can be caused by the moving tables or machining heads and result in death or serious bodily injury. Unexpected machine movement may result in death, major or minor injuries if in contact with the machine.

Noise
Acute damage to hearing may occur, temporary discomfort, ringing, tinnitus in ears or chronic damage, loss of hearing.

Fire
Fire may occur from the build-up of dust and cause first, second or third degree burns.

Manual Handling
Lifting heavy parts arts of machinery or pieces of work material cause acute or chronic lower back or muscular skeletal injuries.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Cutting/routing of large timber pieces.

Controls

- Food or drink is not permitted beside or on machine.
- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- The machine can operate in two zones. It is possible to load one zone while the other zone is operational. **Students are only permitted to operate one zone**.
- Inspect the electrical cables of the machine for damage or defects prior to use prior to use. Do not use machinery if electrical cables are damaged or defected in any way.
- Competent person/s must carry out electrical repairs.
- Loose clothing is not permitted when using machine.
- Long hair must be tied back.
- Ensure only trained operators use the machine.
- Ensure all guards are in place prior to commencing work.
- Ensure dust is extracted by local exhaust ventilation.
- Ensure interlocks and automatic shutdown sensors are operational before use.
- Care should be taken to keep the area around the pressure mat clear.
- Staff and students are prohibited from walking around the back of the machine while it is operating.
- Work pieces must not be retrieved while the machine is in motion.
- In order to retrieve a piece the programme must be stopped not just the machine.
- Use correct manual handling techniques when manoeuvring large timber pieces into the machine, seek assistance if required.
- Dust should be cleaned away from the machine on a regular basis. If using compressed air see Safe Work Practice Sheet Compressed air.
- Emergency stop buttons must be unobstructed and tested each term.
- A lock-out tag-out system must be enforced when maintenance is being performed on the machine or when the access to moving parts is required.
- Machine must not be left unattended when running.
- Turn off the machine when no longer required.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturers recommendations and in accordance with the Work Equipment Regulations 2007.Records kept by the School
- Ensure interlocks and automatic shutdown sensors are checked each term
- Lecture and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE
- Observe spatial surrounding when operating as it is possible to be hit/cut at the corner of the pressure mat.
- Ensure pressure mats are free from obstruction prior to use.

Information, Instruction & Training

- Only trained operators are permitted to operate this machine.
- Students can use this machine but only under the supervision of the Lecturer / Technician supervision.
- Manual Handling
- PPE Training
- Chemical Training
- MSDS

Personal protective equipment required (last resort)

Safety boots, hearing protection, Eye Protection, dust mask when required.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low risk

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Safe Work Practice Sheet	Ref: SWPS C/J 015
	Date: 17/07/2014
Wadkin Bursgreen Thicknessing Machine	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose, damaged cables can result in electrocution or first, second and or third degree burns.

Manual Handling
Lifting, carrying & holding wooden planks, lifting machine blade lid, moving benches for greater free space can result in lower back and or musculoskeletal injuries.

Mechanical
Crushing of fingers when closing blade lid. Machine panels open, resulting in severing of fingers with pinch point on machine belt drive. Entanglement of long hair loose clothing with spinning blade or grinding stone resulting in asphyxiation, cuts and bruises. Entrapment of fingers with in feed of the machine and ascending table. Pinch point, machine guard panels not in place, loss of fingers.

Flying debris
Disintegrated grindstone when sharping thicknessing blade can result in flying debris, loss of sight, skin puncture wounds, minor cuts and bruises.

Dust
Inhalation of various wood dusts can cause acute respiratory illness (wheezing, coughing) & or chronic disease (cancer) & illness. Build-up of dust can result in a fire or explosion when in contact with ignition source causing first, second & or third degree burns or impact injuries.

Noise
Operating the machine for extended periods of time can result in acute temporary ringing (Tinnitus) in the ears or chronic hearing loss from long term exposure.

Slips Trip & Falls
Untidy workspace, personal belongings, and trailing electrical cables can result in tripping causing fall impact injuries and broken limbs, cuts, bruises. Wood dust on the floor can result in slipping causing fall impact injuries.

Falling Material
Pieces of timber being cut can fall & cause impact injuries to the lower legs and feet.

Sharps
Touching or brushing hands against rotating or stopped planer blade can result in lacerations to the hands and fingers.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

This machine planes pieces of timber to the desired thicknesses.

Controls

- Students are not permitted to use this machine.
- Ensure that all electrical cable and plugs are free from damage and defects prior to using the machine. Do not use the machine if electrical cables damaged in any way.
- Competent person/s must carry out electrical repairs.
- Follow the manual handling training guidelines when machining timber.
- Use both hands when lifting lid of the machine.
- Seek assistance if required to move benches or carry, lift etc. heavy pieces of timber.
- Do not place hands or fingers between moving parts.
- Ensure all machine guards, panels and lid are in place and closed prior to operating the machine.
- The wearing of loose clothing is not permitted when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Ensure the workshop dust extraction unit is on when operating the machine.
- Ensure the machine extraction port is open.
- Do not allow dust to build up on the machinery or the workshop, clean as required.
- Wear the appropriate PPE when operating the machine.
- Ensure that the machine grind stone is free from damage or defects prior to use. Do not use if damaged in any way
- Avoid the trailing of power cables.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Ensure to hold pieces of timber for machining securely when handling.
- Never pass hands over rotating cutters or touch static cutter.
- Never machine short pieces of timber
- Never place fingers into the in feed of the table, use push stick at all times.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding are checked prior to using the machine.
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Only trained operators are permitted to operate this machine.
- Abrasive wheel training in accordance with S.I. No. 30/1982 - Safety in Industry (Abrasive Wheels) Regulations, 1982.
- MSDS for wood being machined.
- Chemical Handling training
- PPE training

Personal protective equipment required (last resort)

Safety boots, hearing protection, Eye Protection, Respiratory Protection and overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 016
	Date: 17/07/2014
Carpentry Joinery Hand Held Tools	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Sharps
Incorrect handling and misuse of saws, chisels, & marking cutting tools can result in lacerations to hands and fingers

Damaged Tools
Poor storage, misuse, wear and tear of tools can result in damage to the handles resulting in minor cuts and blisters to hands and fingers. Repairing or replacing damaged cutting tools, saw blades etc. can result in lacerations the hands and fingers.

Adjustment of Hand Tools
Adjustment of various hand tools can result in minor cuts to the hands and fingers.

Falling Hand Tools
Incorrect hold of, tool lying at the workbench edge, tool not placed securely in the holding trolley, carrying too many at a time can result in a falling hand tool causing lower leg and feet puncture wounds, cuts and bruises.

Slips Trips and Falls
Poor Housekeeping, personal belongings, hand tools lying on the ground can result in slips, trips and fall impact head injuries.

Ergonomics
Using tools for extended periods of time can result in work related upper limb disorder.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Hand held tools are used to carry out precision carpentry and joinery. Tools in use can include chisels, marking & mortise gauges, Tenon saws & saws, spoke shaves, planers, mallets, screw drivers, hammers etc.

Controls

- Students are permitted to use hand tools, under correct instruction and the lecturer of technician's supervision.
- Al persons must be trained in the safe use of hand tools.
- Always lift or carry a hand tool by its handle.
- All hand tools must be used in accordance with the manufacturers intended use and design.
- Hand tools must be stored on mobile racks or shelving when not in use.
- Tools must be inspected for damage or defects prior to use.
- Damaged or defected tools must be handed to the lecturer or technician for removal from use.
- Students are not permitted to carry out repair to damaged tools. All repairs must be carried out by a

competent person.

- Maintain hands and fingers free from metal sharps when adjusting or using a hand tool.
- Never carry too many hand tools from the storage trolleys or shelving.
- Hand tools resting on workbenches must be mounted in from the edge of the workbench.
- Ensure that all tools when no longer required are returned securely to their storage holding space.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Hand held tools must not be left lying on the ground at any stage of their use.
- Avoid working in the same position for extended periods of times, tend to other duties where possible or take a small break from the work in hand.

Checks & Inspections

- Inspect tools for damage or defects prior to use

Information, Instruction & Training

- How to use hand held tools

Personal protective equipment required (last resort)

- Wear safety glasses, boots and gloves when cleaning in operation

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 Low Risk

Risk Assessment Review

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Safe Work Practice Sheet	Ref: SWPS C/J 017
	Date: 17/07/2014
Spindle Mini Max T45F (Straight Cutting X2)	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose or damaged machine electrical cables or plugs can result in electrocution or first, second and or third degree burns.

Manual Handling
Lifting, carrying & holding wooden planks for machining can result in acute or chronic lower back and or musculoskeletal injuries.

Mechanical
Entanglement of long hair or loose clothing with rotating cutting tool or power feed rotating feed rollers causing asphyxiation. Entrapment with power feed rollers resulting on crushing of fingers or hands cuts. Crushing of fingers when adjusting the power feed.

Sharps
Touching or brushing hands against rotating or stopped cutting tool, removing or replacing cutting tool can result in lacerations to the hands and fingers.

Noise
Operating the machine for extended periods of time can result in acute temporary ringing (Tinnitus) in the ears or chronic hearing loss from long term exposure.

Dust
Cutting of various woods can result in the Inhalation of wood dusts and cause acute respiratory illness (wheezing, coughing) & or chronic disease (cancer) & asthma.

Slips Trip & Falls
Untidy workspace, personal belongings, and trailing electrical cables, wood dust or wooden parts can result in tripping causing fall impact injuries and broken limbs, cuts, bruises.

Ejected Material / Falling material
Timber inserted incorrectly to the cutting tool can result in an ejected piece of timber resulting in blunt force striking injuries to bystanders. Pieces of timber being machined or manually handled can fall causing minor impact injuries to the lower legs and feet.

Vibration
Manually operating the machine for extended periods of time can result in hand arm vibration (white finger) syndrome.

Fire
Dust in contact with ignition source may result in fires and first, second and or third degree burns.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is used to shape straight pieces of timber.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Inspect the machine electrical cable and plugs prior to operating the machine.
- Do not use the machine if the electrical cable or plug is damaged in any way.
- Competent person/s must only carry out electrical repairs.
- Follow the manual handling training guidelines at all times when machining pieces of timber.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch or place hand or fingers near the machine rotating cutting tool. Always wait for the cutting to come to a complete stop before adjusting, maintaining or removing cutting tool or machined timber.
- Never place hands or fingers under the power feed.
- Do not place hands and fingers in between power feed and fence when adjusting.
- Ensure the power feed is locked into position when operating the machine.
- Never leave the machine running unattended.
- Always wear hearing protection when operating the machine.
- Ensure the extract system is turned on prior to operating the machine. Ensure extract system is properly connected to the machine (wear a dust mask where required).
- Maintain good housekeeping and area free from personal belongings at all times.
- Wood dust or wooden parts must not be allowed to build up around, on or inside the machine.
- Maintain a secure hold of timber for machining at all times during handling.
- All timber being machined must be fed from the right hand side to the left hand side of the cutter tool.
- Avoid operating the machine for long periods of time, tend to other duties for periods of rest.
- Always use the machine and tools as intended by the manufacturer.
- Adjust the guards with the front and side flanges prior to operating the machine.
- Ensure the work piece is securely held prior to cutting.
- Maintain thumbs tucked into the side of the hands and not spread out over the work piece.
- Where possible when cutting curves, use a curved or straight template fixed to the work piece and guide pins fixed to the adjustable guard and let guard pin run on the template.
- Never start the machine under load by placing the work piece against the cutter block.
- Never queue up to use the machine or stand close by the machinist.
- Set the guard as close as possible to the material being machined.
- Never use a blunt cutter block.
- Always use the correct tool for the job in hand.
- Inspect tools and equipment for damage prior to use. Do not use if damaged in any way and report to the lecturer of technician for safe removal and replacement.
- Always isolate the machine from mains electricity prior to carrying out maintenance.
- Ignition sources are not permitted at or near the machine.
- Ensure that the emergency stop button is in good working order.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.
- Ensure Safety Devices and guarding are checked prior to using the machine.
- Lecturers and technicians to monitor compliance with control measures
- Lecturer and technicians to monitor the condition of cutting block, templates and jigs. .

- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Only trained operators are permitted to operate this machine and persons under supervision.
- MSDS for wood being machined.
- Manual handling training
- PPE training
- Chemical handling training

Personal protective equipment required (last resort)

- Safety boots
- Hearing protection,
- Eye Protection
- Respiratory Protection
- Overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 018
	Date: 17/07/2014
Wilson Spindle Machine	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose or damaged machine electrical cables or plugs can result in electrocution or first, second and or third degree burns.

Manual Handling
Lifting, carrying & holding wooden planks for machining, operating the dove tail gig, removing and replacing cutting tools, jigs cutter shafts and fences can result in lower back and or musculoskeletal injuries.

Mechanical
Entanglement of long hair or loose clothing with rotating cutting tool or power feed rotating feed rollers causing asphyxiation. Entrapment with power feed rollers resulting on crushing of fingers or hands cuts. Crushing of fingers when adjusting the power feed or when using various jigs.

Sharps
Touching or brushing hands against rotating or unguarded stopped cutting tool, removing or replacing cutting tool can result in lacerations to the hands and fingers.

Noise
Operating the machine for extended periods of time can result in acute temporary ringing (Tinnitus) in the ears or chronic hearing loss from long term exposure.

Dust
Cutting of various woods can result in the Inhalation of wood dusts and cause acute respiratory illness (wheezing, coughing) & or chronic disease (cancer) & asthma.

Slips Trip & Falls
Untidy workspace, personal belongings, and trailing electrical cables, wood dust or wooden parts can result in tripping causing fall impact injuries and broken limbs, cuts, bruises.

Ejected Material / Falling material
Timber inserted incorrectly to the cutting tool can result in an ejected piece of timber resulting in blunt force striking injuries to bystanders. Pieces of timber being machined or manually handled can fall causing minor impact injuries to the lower legs and feet.

Vibration
Manually operating the machine for long periods of time can result in hand arm vibration (white finger) syndrome.

Fire
Dust in contact with ignition source may result in fires and first, second and or third degree burns.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is used to shape straight or curved pieces of timber.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer of technician's supervision.
- Inspect the machine electrical cable and plugs prior to operating the machine.
- Do not use the machine if the electrical cable or plug is damaged in any way.
- Competent person/s must only carry out electrical repairs.
- Follow the manual handling training guidelines at all times when machining pieces of timber or removing or changing the machine jigs, cutting tools, fences cutter shafts etc.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch or place hand or fingers near the machine rotating cutting tool. Always wait for the cutting to come to a complete stop before adjusting, maintaining or removing cutting tool or machined timber.
- Ensure dove tail jig is placed over cutter tool when not in use.
- Exercise caution when operating the machine cutter tool.
- Never place hands or fingers under the power feed.
- Never place hands or fingers between jig clamping devices.
- Do not place hands and fingers in between power feed and fence when adjusting.
- Ensure the power feed is locked into position when operating the machine.
- Never leave the machine running unattended.
- Always wear hearing protection when operating the machine.
- Ensure the extract system is turned on prior to operating the machine. Ensure extract system is properly connected to the machine (wear a dust mask where required).
- Maintain good housekeeping and area free from personal belongings at all times.
- Wood dust or wooden parts must not be allowed to build up around, on or inside the machine.
- Maintain a secure hold of timber for machining at all times during handling.
- All timber being machined must be fed from the right hand side to the left hand side of the cutter tool.
- Avoid operating the machine for long periods of time, tend to other duties for periods of rest.
- Always use the machine and tools as intended by the manufacturer.
- Adjust the guards with the front and side flanges prior to operating the machine.
- Ensure the work piece is securely held prior to cutting.
- Maintain thumbs tucked into the side of the hands and not spread out over the work piece.
- Where possible in cutting curves, use a curved or straight template fixed to the work piece and guide pins fixed to the adjustable guard and let guard pin run on the template.
- Never start the machine under load by placing the work piece against the cutter block.
- Never queue up to use the machine or stand close by the machinist.
- Set the guard as close as possible to the material being machined.
- Never use a blunt cutter block.
- Always use the correct tool for the job in hand.
- Inspect tools and equipment for damage prior to use. Do not use if damaged in any way and report to the lecturer of technician for safe removal and replacement.
- Always isolate the machine from mains electricity prior to carrying out maintenance.
- Ignition sources are not permitted at or near the machine.
- Ensure that the emergency stop button is in good working order.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations and in compliance with Work Equipment Regulations 2007. Records kept by the School.

- Ensure Safety Devices and guarding are checked prior to using the machine.
- Lecturers and technicians to monitor compliance with control measures
- Lecturer and technicians to monitor the condition of cutting block, templates and jigs. .
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Only trained operators are permitted to operate this machine and persons under supervision.
- MSDS for wood being machined.
- Manual handling training
- PPE training
- Chemical handling training

Personal protective equipment required (last resort)

- Safety boots
- Hearing protection,
- Eye Protection
- Respiratory Protection
- Overalls.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 019
	Date: 17/07/2014
Tormek 200 Grinder	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose or damaged machine electrical cable can result in electrocution-death or first, second and or third degree burns.

Manual Handling
Lifting, carrying or holding the machine when moving to location can result in lower back and or musculoskeletal injuries.

Mechanical
Entanglement of long hair or loose clothing with rotating sharpening stone resulting in asphyxiation, minor cuts and bruises. Entrapment of fingers with rotating grindstone and tool rest resulting in abrasions to the hands and fingers.

Sharps
Touching or brushing hands or fingers against hand tool edge can result in lacerations to the hands or fingers.

Slips Trip & Falls
Untidy workspace, personal belongings, trailing machine electrical cable, water on the floor can result in tripping or slipping causing fall impact head and body injuries and broken limbs, cuts, bruises.

Falling machine / tools
Machine mounted at the edge of the table, not level on the table, unsecure hold of when carrying, carrying handle fails can result in a falling machine causing lower leg and feet crushing and impact injuries. Unsecure hold of tool for sharpening, tool on edge of table can fall resulting in puncture wound to the legs or feet, minor cuts.

Vibration
Manually operating the machine for long periods of time can result in hand arm vibration (white finger) syndrome.

Ejected Material
Damaged grindstone may result in ejected parts from the stone when sharpening tools causing loss of sight and or minor cuts and bruising.

Chemicals
Using abrasive paste or WD40 when grinding may result in contact dramatis to the hands and fingers or acute respiratory illness from the inhalation of aerosols or fumes.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The grinder is used to sharpen hand edge tools.

Controls

- Operators that have received formal abrasive wheel training may only operate this machine.
- Students are not permitted to operate this machine.
- Competent persons must only carry out mounting of an abrasive wheel.
- Group gatherings are not permitted at or around the machine when in use.
- Ensure the cutting tool for sharpening is set up at correct cutting angle prior to operating the grinder.
- Inspect the grindstone for any damage or defects prior to use. Do not use the machine if the grindstone is damaged in any way. Request the lecturer or technician to remove it from use.
- Lecturer/s or technicians must only carry out dressing of the grindstone.
- Inspect the machine electrical cable and plugs prior to operating the machine.
- Do not use the machine if the electrical cable or plug is damaged in any way.
- Competent person/s must only carry out electrical repairs.
- Follow the manual handling training guidelines at all times when moving the machine.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never place hands or fingers in between the rotating grindstone and tool rest.
- Never leave the machine running unattended.
- Never touch the rotating grindstone with hands and fingers.
- Never touch edge of hand tools with bare hands or fingers before or after sharpening.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Always connect the machine power cable into a wall socket behind the machine.
- Always fill the machine water reservoir to the level indicated on the reservoir.
- Clean up any spilled water from the floor immediately.
- Never operate the machine for long periods of time, tend to other duties for periods of rest.
- Ensure the machine is mounted level on the table and in from the edge.
- When transporting the machine maintain a secure hold of it by using the carrying handle.
- Inspect the carrying handle prior to transporting.
- Maintain a secure hold of hand tool when sharpening.
- Do not place hand tools on the edge of tables or work benches.
- Always use the machine and tools as intended by the manufacturer.
- Isolate the machine from the mains electricity prior to carrying out maintenance.
- Safety glasses must be worn at all times when operating the grindstone.
- Ensure there is good ventilation when using aerosols of abrasive paste.
- Apply aerosol oil or abrasive past sparingly.
- Ensure that the emergency stop button is in good working order.
- Thoroughly wash your hands when grinding is completed.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations & records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Abrasive wheel training in accordance with S.I. No. 30/1982 - Safety in Industry (Abrasive Wheels) Regulations, 1982.

- Manual handling training
- PPE training

Personal protective equipment required (last resort)

- Safety boots
- Eye Protection

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

Risk Assessment Review

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Safe Work Practice Sheet	Ref: SWPS C/J 020
	Date: 17/07/2014
Viceroy Sharpedge TDS 12/16	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose or damaged machine electrical cable can result in electrocution-death or first, second and or third degree burns.

Mechanical
Entanglement of long hair or loose clothing with rotating sharpening stone resulting in asphyxiation, minor cuts and bruises.

Sharps
Touching or brushing hands or fingers against hand tool edge can result in lacerations to the hands or fingers.

Slips Trip & Falls
Untidy workspace, personal belongings, trailing machine electrical cable, oil on the floor can result in tripping or slipping causing fall impact head and body injuries and broken limbs, cuts, bruises.

Falling tools
Unsecure hold of tool for sharpening, tool resting on the edge of machine or table can fall resulting in puncture wound to the legs or feet, minor cuts.

Vibration
Manually operating the machine for long periods of time can result in hand arm vibration (white finger) syndrome.

Ejected Material
Damaged grindstone may result in ejected parts from the stone when sharpening tools causing loss of sight and or minor cuts and bruising.

Chemicals
Handling oil for topping the machine up with, touching the grindstone or grinded tools can result in contact dermatitis to the hands and fingers.

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The grinder is used to sharpen hand edge tools.

Controls

- Operators that have received formal abrasive wheel training may only operate this machine.
- Competent persons must only carry out mounting of an abrasive wheel.
- Group gatherings are not permitted at or around the machine when in use.
- Ensure that the machine panels and guards are in place prior to operating the machine.
- Ensure the cutting tool for sharpening is set up at correct cutting angle prior to operating the grinder.
- Inspect the grindstone for any damage or defects prior to use. Do not use the machine if the grindstone is damaged in any way. Request the lecturer or technician to remove it from use.
- Trained persons must only carry out dressing of or grindstone wheel replacement.
- Inspect the machine electrical cable and plugs for damage or defects prior to operating the machine.
- Do not use the machine if the electrical cable or plug is damaged or defected in any way.
- Competent person/s must only carry out electrical repairs.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never leave the machine running unattended.
- Never touch the rotating grindstone with hands and fingers.
- Never touch edge of hand tools with bare hands or fingers before or after sharpening.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Always connect the machine power cable into a wall socket behind the machine.
- Always fill the machine water reservoir to the level indicated on the reservoir.
- Clean up any spilled or splashed oil from the floor immediately.
- Do not operate the machine for extended periods of time, tend to other duties for periods of rest.
- Maintain a secure hold of hand tool when sharpening.
- Do not place hand tools on machine, the edge of tables or work benches.
- Always use the machine and tools as intended by the manufacturer.
- Isolate the machine from the mains electricity prior to carrying out maintenance.
- Safety glasses must be worn at all times when operating the grindstone.
- Wear safety gloves when topping the machine up with oil or handling the grindstone.
- Ensure that the emergency stop button is in good working order.
- Thoroughly wash your hands when grinding is completed.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations & records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Abrasive wheel training in accordance with S.I. No. 30/1982 - Safety in Industry (Abrasive Wheels) Regulations, 1982.
- PPE training
- MSDS

Personal protective equipment required (last resort)

- Safety boots
- Eye Protection
- Safety Glove

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet Centauro CBO Mortising Machines	Ref: SWPS C/J 021 Date: 17/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly installed, loose or damaged machine electrical cable can result in electrocution-death or first, second and or third degree burns.

Mechanical
Entrapment of hand with descending cutting tool, pneumatic clamp resulting in crushing, broken bones, cuts and bruises. Pinching of fingers when adjusting the cross and top slide of the machine resulting in cut to the fingers.

Pneumatics
Damaged, defected, poorly fitted or loose air hose feed or machine airline can result in a whipping airline causing loss of sight, minor cuts and bruises. Dust projectile from cleaning down the machine resulting in loss of sight or eye irritation.

Sharps
Touching or brushing hands or fingers against hand tool edge can result in lacerations to the hands or fingers.

Slips Trip & Falls
Untidy workspace, personal belongings, trailing machine electrical cable or air lines, work pieces lying on the floor, waste wood chipping on the floor can result in tripping or slipping causing fall impact head and body injuries and broken limbs, cuts, bruises.

Noise
Operating the machine for extended periods of time can result in acute temporary hearing discomfort.

Falling material
Unsecure hold of work piece for machining or machined can fall resulting in in lower leg or feet impact or crush injuries.

Vibration
Manually operating the machine for extended periods of time can result in hand arm vibration (white finger) syndrome.

Manual handling
Loading and unloading the machine with material for machining can result in acute or chronic lower back or musculoskeletal injuries.

Fire
Waste material build up around the machine in contact with ignition sources can catch fire causing first, second and or third degree burns

Person Exposed to Risk

☑ Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is used to cut mortises into pieces of timber.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer of technician's supervision.
- Inspect the machine electrical cable and plugs prior to operating the machine.
- Do not use the machine if the electrical cable or plug is damaged in any way.
- Competent person/s must only carry out electrical repairs.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never leave the machine running unattended.
- Do not place hands or fingers in between the descending cutting tool.
- Do not place hands and fingers between the pneumatic clamping devices when loading with timber.
- Keep hand and fingers clear from the top and cross slide when adjusting the machine.
- Ensure that all airlines and hoses are in good working order and connected properly prior to operating the machine.
- Do not use the machine if airlines are leaking, report to the lecturer or technician for repair.
- Air hose and gun for blowing debris down from the machine must be stored away in the stores. Operators of the machine must request it from the technician or lecturer.
- Air gun must be fitted on to a coiled airline.
- Do not use air line for cleaning down the machine where bystanders are nearby.
- Only use the airline and air gun as intended by manufacturer and never place at or near the skin.
- Return the airline and air gun to the technician for safe storage when no longer required.
- Do not touch the cutting tool of the machine with bare hands or fingers.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Connect the machine power cable into a wall socket behind the machine.
- Ensure that the pneumatic air feed is connected from the back of the machine to the wall.
- Never leave work pieces machined or for machining lying on the ground beside the machine.
- Wear ear defenders when operating the machine.
- Avoid operating the machine for extended periods of time and tend to other duties for periods of rest.
- Maintain a secure hold of work material when loading or unloading the machine.
- Follow the manual handling training guidelines at all times and seek assistance if required.
- Do not allow waste material to build up around the machine.
- Ignition sources are not permitted at or near the machine.
- Always use the machine as intended by the manufacturer.
- Isolate the machine from the mains electricity prior to carrying out maintenance.
- Never interfere with the machine interlocks or micro switches.
- Safety glasses must be worn at all times when operating the machine.

Checks & Inspections

- Regular inspections and maintenance to be carried out according to manufacturer's recommendations & records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Only trained operators are permitted to operate this machine.
- PPE training

- Manual handling training

Personal protective equipment required (last resort)

- Safety boots
- Eye Protection
- Ear protection

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet **Startrite Mercury (MARK II) Pillar Drilling Machine**	Ref: SWPS C/J 022 Date: 17/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged machine power cables can result in electrocution-death and or first second and third degree burns.

Mechanical
Loose clothing, long hair can result in entanglement with rotating drill causing cuts and bruises to the head and arms. Contact with rotating drill piece can result in cuts to the hands and fingers. Entrapment of hand and arm with descending cutting tool and base table, vice or work piece. Crushing of fingers when adjusting the table height of the machine.

Slips, trips and falls
Poor housekeeping, personal belongings, waste material, trailing power cables on the ground can cause trips and slips resulting in fall impact head injuries.

Flying Debris / Objects
Waste drilled pieces of wooden material, disintegrated cutting tool can create flying debris and result in loss of sight. Unsecured work piece or clamp/vice can result in flying object and cause impact injuries to the head and body parts.

Sharps
Contact with rotating drill piece can result in lacerations to the hands and fingers.

Fire
Ignition sources in contact waste drilled material can result in a fire causing first, second and third degree burns to the skin or respiratory illness from inhalation of smoke.

Manual Handling
Adjusting the machine table height to the required working position, carrying heavy loads for drilling can result in lower back and or musculoskeletal injuries.

Falling Machine
Drilling machine not securely fixed to the work bench, topples over and falls causing lower leg and feet crushing injuries.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The machine is used cutting holes into wood of varying sizes and shapes.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Inspect the machine power cable and plug prior to use. Do not use if damaged in any way and report to the lecturer or technician for removal from use.
- Electrical repairs must be carried out be a competent person.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a cap worn.
- Hands or arms must never come between the descending drill piece and material for cutting.
- Follow manual handling training guidelines at all times.
- Always use both hands to support and adjust the table height.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Ensure that the machine is plugged into the wall socket above the workbench.
- Ensure all machine guards are in place prior to use.
- Safety glasses must be worn at all times when operating the machine.
- Inspect the cutting tool prior to use, do not use if damaged, hand back damaged cutting tool and request a new one from the lecturer / technician.
- Ensure to hold the work material firmly or clamp the work piece securely when operating the machine.
- Lecturer and technicians are only permitted to carry out repairs on cutting tools.
- Never blow or use air to remove drilled waste wood, Use a brush to clean or remove unwanted drilled wooden material.
- Ensure the machine working table is adjusted to the required working height prior to use.
- Ignition sources (naked flames, lighters, hot materials etc.) are not permitted at or near the machine.
- Ensure that the machine is fixed bolted to the workbench.
- Never leave the machine running unattended.
- Always wait for the machine to come to a complete stop before adjusting or removing drilled material or parts.
- Switch off the machine when it is no longer required for use.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Manual handling training
- PPE training

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 023
	Date: 17/07/2014
Viceroy Pedestal Grinding Machine	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged machine power cables can result in electrocution-death and or first second and third degree burns.

Mechanical
Loose clothing, long hair can result in entanglement with rotating grinding stones/shaft and result in asphyxiation. Contact with rotating grinding stones can result in loss of fingers or abrasions to the hands and fingers.

Flying Debris / Objects
Ejection of damaged rotating stone or cutting tool or parts can result in loss of sight and or facial and bodily puncture wounds.

Sharps
Contact with the edge of the cutting tool or grinding stone can result in lacerations or abrasions to the hands and fingers.

Fire
Build-up of wood dust or shavings etc., flammable materials in contact with sparks from grinding can result in first, second and third degree burns to the skin or respiratory illness from inhalation of smoke.

Slips, trips and falls
Poor housekeeping, personal belongings, waste material, water and trailing power cables lying on the ground can cause trips and slips resulting in fall impact head injuries.

Vibration
Grinding cutting tools for extended periods of time can result in hand arm vibration causing white finger and damage to the nerves of the fingers.

Noise
Machine grinding metal edge tools generates noise and may result in temporary acute hearing discomfort or chronic permanent hearing loss.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The machine is used for sharpening various edge tools.

Controls

- Operators that have received formal abrasive wheel training may only operate this machine.

- Competent persons must only carry out mounting of an abrasive wheel.
- Group gatherings are not permitted at or around the machine when in use.
- Inspect the machine power cable and plug prior to use. Do not use if damaged in any way and report to the lecturer or technician for removal from use.
- Electrical repairs must be carried out be a competent person.
- Loose or nylon clothing must not be worn when operating the machine.
- Jewellery must not be worn when operating the machine.
- Ensure all machine guards are in place prior to operating the machine.
- Long hair must be neatly tied back or a cap worn.
- Never touch the rotating grinding stones with hands or fingers.
- Ensure to use the machine tool rests when grinding tools and that they are set at the correct angle.
- Inspect the grinding stone for damage or defects prior to use. Do not use if defected or damaged in any way and remove from use.
- All repairs or replacement of grinding stones must only be carried out by a competent person/s.
- Securely hold the tool for sharpening when grinding on the machine.
- Never touch the tool cutting edge with hands or fingers.
- Always hold or carry the tool for or after grinding by its handle.
- Wood dust or shavings must not be allowed to accumulate on the machine or around the floor of the machine.
- Flammable liquids or materials must never be stored at or near the machine
- Maintain good housekeeping and work area free from personal belongings at all times.
- Ensure that the machine is plugged into the wall socket at the back of the machine.
- Ensure that cooling water for the cutting tool is held in a leak free container and supported firmly on the table, water lying on the ground must be cleaned immediately
- Do not operate the grinder for extended periods of time, tend to other duties where possible.
- Hearing protection must be worn when operating the grinding machine.
- Safety glasses must be worn at all times when operating the machine.
- Never leave the machine running unattended.
- Always wait for the machine to come to a complete stop before adjusting or removing drilled material or parts.
- Switch off the machine when it is no longer required for use.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training.
- Abrasive wheel training in accordance with S.I. No. 30/1982 - Safety in Industry (Abrasive Wheels) Regulations, 1982.

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Hearing protection

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 024
	Date: 17/07/2014
Graule Grinding Machine	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged machine power cables can result in electrocution-death and or first second and third degree burns.

Mechanical
Loose clothing, long hair can result in entanglement with rotating grinding disc and result in asphyxiation. Contact with rotating grinding disc can result in loss of fingers or abrasions to the hands and fingers. Crushing of hands with sliding top slide and motor height adjustment.

Flying Debris / Objects
Ejection of damaged rotating disc or cutting tool or parts can result in loss of sight and or facial and bodily puncture wounds.

Sharps
Contact with the edge of the cutting tool for grinding or rotating cutting disc can result in lacerations to the hands and fingers.

Fire
Build-up of wood dust or shavings etc. around the machine, flammable materials in contact with sparks from grinding can result in first, second and third degree burns to the skin or respiratory illness from inhalation of smoke.

Slips, trips and falls
Poor housekeeping, personal belongings, waste material, and trailing power cables lying on the ground can cause trips and slips resulting in fall impact head injuries.

Noise
Machine grinding metal edge tools generates noise and may result in temporary acute hearing discomfort or chronic permanent hearing loss.

Falling Machine
Machine topples on the work bench and falls off causing crush and impact injuries to the lower legs and feet.

Dust
Disc grinding cutting tools can generate dust causing acute or chronic respiratory illness if inhaled.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The machine is used for sharpening various edge tools.

Controls

- Operators that have received formal abrasive wheel training may only operate this machine.
- Competent persons must only carry out mounting of an abrasive wheel.
- Group gatherings are not permitted at or around the machine when in use.
- Inspect the machine power cable and plug prior to use. Do not use if damaged in any way and report to the lecturer or technician for removal from use.
- Electrical repairs must be carried out be a competent person.
- Loose or nylon clothing must not be worn when operating the machine.
- Jewellery must not be worn when operating the machine.
- Ensure all machine guards are in place prior to operating the machine.
- Long hair must be neatly tied back or a cap worn.
- Never touch the rotating grinding disc with hands or fingers.
- Ensure to use the machine tool rests when grinding tools and that they are set at the correct angle.
- Inspect the grinding disc or cutting tool being sharpening for damage or defects prior to use. Do not use if defected or damaged in any way and remove from use.
- All repairs or replacement of grinding disc must only be carried out by a competent person/s..
- Never place hands or fingers in between the sliding top slide of the machine or when adjusting the height of the motor.
- Never touch the cutting tool (for grinding) edge with hands or fingers.
- Always hold or carry the cutting tool by the opposite end of the cutting part
- Wood dust or shavings must not be allowed to accumulate on the machine or around the floor of the machine.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Ensure that the machine is plugged into the wall socket at the back of the machine.
- Hearing protection must be worn when operating the grinding machine.
- Safety glasses must be worn at all times when operating the machine.
- Never leave the machine running unattended.
- Always wait for the machine to come to a complete stop before adjusting or removing drilled material or parts.
- Ensure the cutting disc is rotating in the correct direction.
- Ensure the machine is fixed bolted to the workbench.
- Ensure there is adequate ventilation when operating the machine, wear a dust mask if required.
- Switch off the machine when it is no longer required for use.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training.
- Abrasive wheel training in accordance with S.I. No. 30/1982 - Safety in Industry (Abrasive Wheels) Regulations, 1982.

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Hearing protection
- Dust Mask

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 025
	Date: 17/07/2014
Grifo Grinding Machine	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged machine power cables can result in electrocution-death and or first second and third degree burns.

Mechanical
Loose clothing, long hair can result in entanglement with rotating grinding disc or stone and result in asphyxiation. Contact with rotating grinding disc can result in loss of fingers or abrasions to the hands and fingers.

Dust
Sharpening planer and cutting blades on the grinder generates metal dust and can result in respiratory illness if inhaled.

Flying Debris / Ejected Missiles
Grinding metal cutting tools will result in the generation flying metal parts and can cause loss of sight. Ejection of damaged shattered rotating grind stone or cutting tool can result in loss of sight and or facial and bodily puncture wounds.

Fire
The build-up of wood dust, shavings, storage of fuel sources come into contact with an ignition source or sparks can result in a fire death or first, second and or third degree burns.

Slips Trips and falls
Poor housekeeping, personal belongings, trailing power cable, wood dust or metal filing on the ground can result in tripping and slipping causing fall impact head and body injuries.

Sharps
Loading and unloading the machine with planer blades and cutter tools for grinding can result in deep lacerations to the hands and fingers or the severing of finger tips.

Hot Surfaces
Grinding pieces of metal generates heat and can result in minor burns to the hands and fingers when handled.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The machine is used for sharpening planer blades and cutting blocks

Controls

- Operators that have received formal abrasive wheel training may only operate this machine.
- Wear safety glasses and a safety mask when operating the machine.
- Abrasive wheel training must be provided for operators of the machine.
- Competent persons must only carry out mounting of an abrasive wheel.
- Group gatherings are not permitted at or around the machine when in use.
- Inspect the machine power cable and plug prior to use. Do not use if damaged in any way and report to the lecturer or technician for removal from use.
- Electrical repairs must be carried out be a competent person.
- Loose or nylon clothing must not be worn when operating the machine.
- Jewellery must not be worn when operating the machine.
- Ensure all machine guards are in place prior to operating the machine.
- Long hair must be neatly tied back or a cap worn.
- Never touch the rotating grinding disc or stone with hands or fingers.
- Ensure to use the machine tool rests when grinding planer blades and cutters and that they are set at the correct angle.
- Use the handles on the machine to slide or advance sharpening blades or cutters towards grinders.
- Inspect the grinding disc or grind stone for damage or defects prior to use. Do not use if defected or damaged in any way and remove from use.
- All repairs or replacement of grinding stone or disc must be carried out by a competent person/s.
- Naked flames or ignition sources must not be used at or near the machine.
- Fuel sources must never be stored at or near the machine.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Wood dust, shavings or metal filings must be cleaned from around and on top of the machine regularly or before use of the machine commences.
- Ensure that the machine is plugged into the socket on the wall at the back of the machine.
- Never touch a planer or cutter tool blade before or after sharpening with bare hands.
- Use gloves when handling the planer and cutting tools.
- Allow grinded pieces of metal to cool down sufficiently before handling or wear heat resistant gloves.
- Never leave the machine running unattended.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training.
- Abrasive wheel training in accordance with S.I. No. 30/1982 - Safety in Industry (Abrasive Wheels) Regulations, 1982.

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Dust Mask
- Safety Gloves

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 026
	Date: 17/07/2014
LG – 150 Disc and Belt Sander	Assessed by: G. Caffrey Approved by: E Roe

Hazards

Electricity
Incorrectly wired, damaged machine power cables can result in electrocution-death and or first second and third degree burns.

Manual Handling
Pulling, pushing or dragging the machine to and from storage can result in acute or chronic lower back and or musculoskeletal injury.

Mechanical
Entanglement of long hair or loose clothing when in contact with rotating disc, bobis shaft or sand belt resulting in asphyxiation. Entrapment of fingers or hands with disc wheel or sander belt resulting in abrasions to the hands or fingers.

Slips Trips and Falls
Poor housekeeping, personal belongings, dust on the floor trailing power cable, floor access panels, wooden parts can result in slipping and tripping causing fall impact head and body injuries.

Dust
Sanding pieces of wood will generate dust and may cause acute or chronic respiratory illness.

Flying Missiles
Unsecure hold of piece of timber for sanding fly's from operator hands and strikes nearby person causing blunt force injuries to the head or body parts.

Fire
Wood dust from the timber comes into contact with an ignition source and catches fire, resulting in first, second and or third degree burns.

Falling Machine
The wheels of the stand fail causing the machine to fall resulting in feet crushing injuries.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is used for sanding small pieces of wood.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Inspect the electrical power cable and plug for damage or defects prior to use. Do not use the machine if the power cable or plug is damaged in any way and remove from use for repair.
- Competent person/s must carry out all electrical repairs.
- Follow the manual handling training guidelines when moving the machine to and from storage.
- Ensure that the wheels of the machine are in good working rolling order when moving the machine.

- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn when operating the machine.
- All machine guards and fencing are in place and adjusted correctly prior to operating the machine.
- Ensure that the machine is rotating in the correct direction prior to operating the machine.
- Never touch the rotating sand belt or disc sander with bare hands or fingers.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Never leave or store wooden parts on the ground around the machine.
- Avoid the trailing of electrical power cables when setting up the machine.
- Wear a safety dust mask when operating the machine.
- Ensure that the sander is connected to the in-house extract system when in use.
- Maintain a secure hold of timber piece being sanded at all times.
- Naked flames or ignition sources must never be used at tor near the machine.
- Ensure that the sander belt is correctly tracked when using the machine.
- Never overreach across the sand belt to turn on or off the machine.
- Never leave the machine running unattended.
- Always allow for the machine to come to a natural stop and never assist in stopping the machine.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training.
- Manual Handling
- Chemical handling training

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Dust Mask

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

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Safe Work Practice Sheet	Ref: SWPS C/J 027
	Date: 17/07/2014
Wadkin Bursgreen Cross Cut	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged machine power cables or plugs can result in electrocution-death and or first second and third degree burns.

Manual Handling
Lifting, carrying or holding pieces of timber for or after machining can result in acute or chronic lower back and or musculoskeletal injuries.

Slips Trips and Falls
Poor housekeeping, personal belongings, trailing electrical cables on the ground, saw dust and timber off cuts lying on the ground can cause tripping and slipping resulting in falls and head and body impact injuries.

Mechanical
Entanglement of long hair or loose clothing with rotating shaft of saw blade resulting in death or loss of limbs. Severing of limbs with rotating saw blade when cutting pieces of timber. Impact injury to the hands, arms or abdomen from the ejection of the sliding handle and saw mechanism.

Noise / Vibration
Running the machine and cutting pieces of timber generates noise and can result in acute temporary hearing discomfort. Using the machine for extended periods of time can result in hand arm vibration and cause temporary hand arm discomfort.

Dust
Machining pieces of timber will generate dust and cause acute and or chronic respiratory discomfort and or illness.

Sharps
Removing and replacing the cutting blade of the machine or touching the teeth of the blade when on the machine.

Fire
Wood dust in contact with an ignition source can ignite and result in a fire and first, second and or third degree burns to the body.

Collapsing roller table
Legs of the roller table collapse and result in feet crush injury.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The machine is used for cutting pieces or planks of timber.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Inspect the electrical power cable and plug for damage or defects prior to use. Do not use the machine if the power cable or plug is damaged in any way and remove from use for repair.
- Competent person/s must carry out all electrical repairs.
- Follow the manual handling training guidelines when handling pieces of timber for and after machining and seek assistance if required.
- Use the machine roller tables when machining pieces of timber.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Saw dust and timber off cuts must be swept and cleaned up from the ground as soon as possible.
- The machine electrical power cable must be plugged into the socket mounted on the wall socket behind the machine.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Ensure all machine guards are in place prior to operating the machine.
- Ensure that the machine is correctly set up prior to operating the machine.
- Ensure the saw blade is rotating in the correct direction prior to operating the machine.
- Ensure the emergency stop buttons and devices are working properly prior to operating the machine.
- Group gatherings are not permitted around this machine when it is in use.
- Maintain a secure hold of the machine saw sliding handle when operating the machine.
- Wear safety ear protection when operating the machine.
- Avoid using the machine for extended periods of time, tend to other duties for periods of rest.
- Switch on the workshop extract system prior to operating the machine and wear a dust mask if required.
- Wear gloves when removing or replacing the saw blade of the machine.
- Never touch the teeth of the saw blade with bare hands or fingers.
- Ignition sources or naked flames are not permitted at or near the machine.
- Wood dust must be cleaned from the machine when work is complete.
- Inspect the legs of roller tables for damage or defects prior to operating the machine. Do not use if defected or damaged in any way and remove from use for repair.
- Never overreach across the saw blade of the machine.
- Never leave the machine running unattended.
- Always use the brake handle on the machine to assist in stopping the rotating saw blade.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training.
- Manual Handling
- Chemical handling training

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Dust Mask
- Hearing protection

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

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Safe Work Practice Sheet	Ref: SWPS C/J 028
	Date: 17/07/2014
Ingersoll Rand Compressor	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Damaged, loose, poorly connected electrical cable and plugs of the machine can result in elocution–death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings, leaking water from the compressor when emptying or coolant, dust build up materials stored around the machine can cause slipping and tripping resulting fall head and body impact injuries.

Hot Surfaces
Contact with the coolant reservoir, filter or coolant pipe work during or after the machine was running can result in first or second degree burns to the hands or fingers

Fire
Dust build up on the machine can catch fire resulting in inhalation of smoke and respiratory illness, death, or first second and or third degree burns.

Nosie
Working beside the machine when it is running may result in acute temporary hearing discomfort or ringing in the ears.

Chemicals
Contact with leaking coolant fluid or when topping up can result in minor irritation to the hands and fingers.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The compressor is used to supply air to various workshop machines and tools that are wholly or partially pneumatically operated.

Controls

- Students are not permitted to turn on the compressor.
- The lecturer or technician must turn on the machine when it is required.
- Inspect the machine electrical cable and plugs for damage or defects prior to use.
- Do not use the machine if the electrical cable or plugs are damaged or defected in any way and remove from use for repair.
- Competent person/s must carry out all electrical repairs.
- Maintain good housekeeping and machine area free from personal belongings at all times.
- Clean up any water spills or leaks on the ground immediately after emptying the machine.
- Regularly clean up any wood dust from the floor space or on top of the machine.

- Never store materials on, around or against the machine.
- Ensure that the compressor hood is fully closed prior to operating the machine.
- Allow the compressor coolant system to adequately cool prior to handling or maintaining.
- Wear ear protection if required to work beside the compressor.
- Never touch coolant fluid with bare hands.
- Use safety gloves if required to handle coolant fluid and safely dispose of.

Checks & Inspections

Information, Instruction & Training

- Chemical Handling training.
- PPE training.
- MSDS

Personal protective equipment required (last resort)

- Safety Gloves
- Hearing Protection
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 029
	Date: 17/07/2014
Pneumatic Nailer & Stapler Hand tools	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Pneumatics
Loos air hose fitting or damaged hose can result in a whipping air line and cause loss of sight, lacerations and bruising to body parts.

Flying Debris
Exhaust air from the hand tool can result in blowing flying debris into the air and cause acute or chronic respiratory illness or permanent or temporary loss of sight.

Ergonomics
Holding the hand tool for extended periods of time can result in work related upper limb disorder causing or musculoskeletal injuries.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing pneumatic hose or hand tool lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Falling Tool
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Nosie
Operating the hand tools can result in the generation of noise and cause acute temporary or chronic hearing discomfort.

Vibration / Kickback
Operating the nailing or stapling gun will generate vibration and periods of prolonged use can result in hand arm vibration minor injuries, kick back can result from nailing or stapling pieces of timber together and cause sprain injuries to the upper limbs.

Impalement
The operator or bystander comes in between the staple or nail and object for joining together and becomes impaled resulting in major bone or hand and body injuries.

Ejected Missiles
Nailing or stapling pieces of timber together can result in ejected missiles and cause death or puncture wounds to body parts.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The hand tools are used for nailing or stapling pieces of timber together through the use of pneumatics.

Controls

- Students are permitted to use the equipment, under correct instruction and the lecturer or technicians supervision.
- Check the air line hose and fittings of the hand tool for damage or defects prior to using.
- Do not use the hand tool if hose or fittings are defected or damaged in any way and remove from use for repair by a competent person.
- Ensure that the tool is disconnected from the sir supply prior to loading with nails or staples.
- Never leave a connected tool to the air supply unattended.
- Wear safety glasses when operating the hand tool.
- Wear a safety mask if required.
- Do not use the hand tool for extended periods of time and tend to other duties for periods of rest or split the work load with another work colleague if possible.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of hose lines where possible.
- Never leave a hand tool lying on the ground, use a nearby work bench to rest it on.
- Maintain a secure hold of the hand tool when operating it.
- Always place the hand tool in from the edge of a work bench when not in use.
- Wear ear safety protection when operating the hand tools.
- Always stand behind the tool when operating it.
- Never press the tool against any part of the body.
- Never support the back of any piece of timber being joined together with any body part.
- By standers are not permitted when the tool is in operation
- Ensure that the tool always used as intended by the manufacturer.
- Trained operators must only use the tool.
- Ensure that the safety guard device is in place prior to using the tool.
- Return the tool to storage when it is no longer required.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training.
- Safe use of operating the tool.

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Dust Mask
- Hearing protection

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet Corded and Cordless Hand Held Drills	Ref: SWPS C/J 030 Date: 17/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly or incorrectly connected, fitted, damaged or defected electrical cables and plugs can result in electrocution-death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing electrical cable, hand tool lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Mechanical
Entanglement of long hair or loose clothing with rotating tool or chuck head can result in minor cuts and bruises. Cuts to hands and fingers when in contact with rotating cutting tools.

Ergonomics
Operating the tool in crunched awkward positions and for extended periods of time can result in acute or chronic lower back and or upper body musculoskeletal injuries**.**

Vibration / Torque
Drilling various materials can result in vibration and cause hand and vibration injuries (white finger). Drilling various materials can result in sprains to the wrist and elbow when the drill comes to a sudden stop.

Flying Debris
Drilling various materials can generate flying debris (swarf) and result in loss of sight, drill bits can shatter when in use and fly resulting in loss of sight or minor cuts.

Noise
Drilling various materials can result in the generation of noise and cause temporary hearing discomfort**.**

Sharps
Drill bits can contain sharps and result in minor lacerations to the hands and fingers when handled.

Falling Machine
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The hand tools are used for drillings holes or screws into or cleaning down various materials.

Controls

- Students are permitted use of the equipment, under the lecturer or technicians supervision.
- Where possible always use a battery operated or 110v drill. If required to use a 240v drill ensure that it is plugged in to a socket with a Residual Control Device (RCD).
- 240v power tools are not permitted to be used for external work.
- Inspect the electrical cable, plugs and drill for damage or defects prior to use.
- Do not use if cable or drill is defected or damaged in any way and remove from use for repair by a competent person or safe disposal of.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables where possible.
- Never leave a hand tool lying on the ground, use a nearby work bench to rest it on.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch a rotating cutting tool.
- Never assist in stopping or slowing down a rotating tool or chuck head.
- Do not use the hand tool for extended periods of time and tend to other duties for periods of rest or split the work load with another work colleague if possible.
- Maintain a firm and secure hold of the hand tool when drilling materials.
- Always place the hand tool in from the edge of a work bench when not in use.
- Wear safety glasses when drilling materials.
- Never touch swarf with bare hands.
- Wear safety hearing protection when required.
- Always use the drill as intended by the manufacturer.
- Never hold or handle a drill bit by its cutting tool head, wear gloves if required.
- Never leave a drill unattended and return to storage when no longer required.
- Always hold the tool with both hands when drilling materials.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training.
- Safe use of operating the tool.

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Safety Gloves
- Hearing protection

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet Corded and Cordless Hand Held Skill Saws	Ref: SWPS C/J 031 Date: 17/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly or incorrectly connected, fitted, damaged or defected electrical cables and plugs can result in electrocution-death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing electrical cable, saw dust and hand tool lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Mechanical
Entanglement of long hair or loose clothing with rotating blade can result in death or major and minor cuts and bruises. Severing of limbs when in contact with rotating saw blade.

Ergonomics
Operating the tool in crunched awkward positions and for extended periods of time can result in acute or chronic lower back and or musculoskeletal injuries**.**

Vibration / Kickback
Sawing various materials can result in vibration and cause hand arm vibration injuries (white finger). Sawing various materials can result in kickback and sprains to the wrist and elbow or major cut to the body.

Flying Debris
Sawing various materials can generate small flying wooden chips and result in loss of sight.

Noise
Sawing various wooden materials can result in the generation of noise and cause acute temporary hearing discomfort**.**

Sharps
Saw blades can contain sharps and result in minor lacerations to the hands and fingers when handled during removal and replacement.

Falling Machine
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Dust
Sawing various wooden materials will result in the generation of dust and cause acute or chronic respiratory illness.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The hand tools are used for drillings holes or screws into or cleaning down various materials.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Where possible always use a battery operated or 110v saw. If required to use a 240v drill ensure that it is plugged in to a socket with a Residual Control Device (RCD).
- 240v power tools are not permitted to be used for external work.
- Inspect the machine saw blade for damage or defects prior to use, do no use is damaged or defected in any way. A competent person must remove and replace the saw blade.
- Inspect the electrical cable, plugs and saw for damage or defects prior to use.
- Do not use if cable or saw is defected or damaged in any way and remove from use for repair by a competent person or safe disposal of. A competent person must carry out repairs.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables where possible.
- Always cut away from machine electrical power cable.
- Clean up saw dust from the ground as soon as possible.
- Never leave a hand tool lying on the ground, rest it on in from the edge of a nearby workbench.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch a rotating saw blade.
- Never assist in stopping or slowing down a rotating saw blade.
- Ensure the machine safety guard is in place and operational prior to using the machine.
- Ensure that the riving knife is in place prior to operating the machine.
- Do not use the hand tool for extended periods of time and tend to other duties for periods of rest or split the work load with another work colleague if possible.
- Always work away from the body when cutting wooden material.
- Never place free hand in the direction or line of the cutting blade.
- Maintain a firm and secure hold of the hand tool when sawing wooden materials.
- Wear safety glasses when sawing materials.
- Wear safety hearing protection when required.
- Always use the saw as intended by the manufacturer.
- Never hold or handle a saw blade by its cutting teeth, wear gloves if required removing or replacing the blade.
- Never leave a saw unattended and return to storage when no longer required.
- Wear a safety mask when sawing wooden materials.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training
- Safe use of operating the tool

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Safety Gloves

- Hearing protection
- Dust Mask

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 032
	Date: 17/07/2014
Corded Hand Held Jig Saws	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly or incorrectly connected, fitted, damaged or defected electrical cables and plugs can result in electrocution-death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing electrical cable, saw dust and hand tool lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Mechanical
Severing of fingers when in contact with line of reciprocating blade or when hands or fingers underneath the material for cutting.

Ergonomics
Operating the tool in crunched awkward positions and for extended periods of time can result in acute or chronic lower back and upper body musculoskeletal injuries**.**

Vibration / Kickback
Sawing various materials can result in vibration and cause hand and vibration injuries (white finger). Sawing various materials can result in kickback and sprains to the wrist and elbow or major cut to the body.

Flying Debris
Sawing various materials can generate small flying wooden pieces and result in loss of sight.

Noise
Sawing various wooden materials can result in the generation of noise and cause acute temporary hearing discomfort**.**

Sharps
Saw blades can contain sharps and result in minor lacerations to the hands and fingers when handled during removal and replacement.

Falling Machine
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Dust
Sawing various wooden materials will result in the generation of dust and cause acute or chronic respiratory illness.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The hand held jig saw is used for precision cutting, intricate curves and patterns in thin sheets of wood..

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Ensure that the saw is plugged in to a socket with a Residual Control Device (RCD).
- Inspect the machine saw blade for damage or defects prior to use, do no use is damaged or defected in any way. A competent person must remove and replace the saw blade.
- 240v power tools are not permitted to be used for external work.
- Inspect the electrical cable, plugs and saw for damage or defects prior to use.
- Do not use if cable or saw is defected or damaged in any way and remove from use for repair by a competent person or safe disposal of. A competent person must carry out electrical repairs.
- Always cut away from machine electrical power cable.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables where possible.
- Clean up saw dust from the ground as soon as possible.
- Never leave a hand tool lying on the ground, rest it on in from the edge of a nearby workbench.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch a reciprocating saw blade.
- Always work away from the body when cutting material.
- Never place hands or fingers under materials being cut.
- Ensure that free hand is never in line with the direction of the cutting blade.
- Always make cutting turns slowly and use a narrow blade for curved work.
- Always wait for the reciprocating blade to stop before removing the tool from the materials being cut.
- Ensure the cutting blade in in good working order prior to use.
- Never assist in stopping or slowing down a reciprocating saw blade.
- Ensure the machine safety guard is in place and operational prior to using the machine.
- Do not use the hand tool for extended periods of time, tend to other duties for periods of rest or split the work load with another work colleague where possible.
- Maintain a firm and secure hold of the hand tool when sawing wooden materials.
- Wear safety glasses when sawing materials.
- Wear safety hearing protection when required.
- Always use the saw as intended by the manufacturer.
- Never hold or handle a saw blade by its cutting teeth, wear gloves if required to remove or replace the blade.
- Never leave a saw unattended and return to storage when no longer required.
- Wear a safety mask when sawing wooden materials.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training
- Safe use of operating the tool

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Safety Gloves
- Hearing protection
- Dust Mask

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

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Safe Work Practice Sheet	Ref: SWPS C/J 033
	Date: 17/07/2014
Hand Held Belt Sanders	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly or incorrectly connected, fitted, damaged or defected electrical cables and plugs, sanding over the power cable can result in electrocution-death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing electrical cable, saw dust and hand tool lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Mechanical
Entanglement of loose clothing, long hair with rotating sand belt can result in major abrasions to body parts. Severe abrasions to the hands and fingers when in contact with the rotating sand belt.

Ergonomics / Manual Handling
Operating the tool in crunched awkward positions for extended periods of time can result in acute or chronic lower back and or upper body musculoskeletal injuries**.** Lifting the machine to and from storage and when operating it can result in acute or chronic lower back and musculoskeletal injuries

Vibration / Acceleration
Sanding materials for extended periods of time can result in hand vibration injuries (white finger). Sanding materials can result in an accelerated hand tool pulling an individual forward, resulting in in acute lower back injuries.

Falling Machine
Unsecure hold of machine, placed on the workbench edge can result in a falling machine, lower leg and feet impact injuries.

Noise
Sanding various wooden materials will generate noise and cause acute temporary hearing discomfort**.**

Falling Machine
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Dust Chemicals
Sanding various wooden materials will generate dust & cause acute or chronic respiratory illness or irritation to the eyes.

Fire
Ignition sources in contact with dust, metal parts in wood can spark & result in a fire causing first second and or third degree burns.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The belt sanders are used to smoothen rough pieces of wood.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Ensure that the sander is plugged in to a socket with a Residual Control Device (RCD).
- 240v power tools are not permitted to be used for external work.
- Where possible ensure to clamp material for sanding.
- Use both hands to operate the sander.
- Inspect the electrical cable, plugs and sander for damage or defects prior to use.
- Do not use if cable or sander is defected or damaged in any way and remove from use for repair by a competent person or safe disposal of. A competent person must carry out electrical repairs.
- Always work away from machine electrical power cable.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables where possible.
- Clean up saw dust from the ground as soon as possible.
- Never leave a hand tool lying on the ground, rest it on in from the edge of a nearby workbench.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch the rotating sander of the machine and allow to come to a complete stop.
- Always work away from the body when sanding materials.
- Maintain hands and fingers clear from material being machined.
- Ensure the sand belt in in good working order prior to use.
- Never assist in stopping or slowing down the rotating sander.
- Avoid using the hand tool for extended periods of time, tend to other duties for periods of rest or split the work load with another work colleague where possible.
- Follow the manual handling training guidelines at all times when using the machine.
- Maintain a firm and secure hold of the hand tool when sanding materials.
- Turn on the sander prior to placing on the material for machining.
- Always place the sander in from the workbench edge when not in use.
- Wear safety glasses when sanding materials.
- Wear safety hearing protection when required.
- Always use the sander as intended by the manufacturer.
- Never leave a sander unattended and return to storage when no longer required.
- Wear a safety mask when sanding wooden materials.
- Turn on the extract system when using the sander, use a sander machine dust bag where possible.
- Avoid the build of dust and clean the sander and surrounding area regularly.
- Ignition sources are not permitted at or near the material being sanded.
- Remove all metal materials from material being sanded where possible.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training
- Safe use of operating the tool
- Chemical handling training
- Manual handling training
- MSDS

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Hearing protection
- Dust Mask

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet	Ref: SWPS C/J 034
	Date: 17/07/2014
Hand Held Orbital Sanders	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly or incorrectly connected, fitted, damaged or defected electrical cables and plugs, sanding over the power cable can result in electrocution-death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing electrical cable, saw dust and hand tool lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Ergonomics / Manual Handling
Operating the tool in crunched awkward positions and for extended periods of time can result in lower back and upper body musculoskeletal injuries**.** Lifting the machine to and from storage and when operating it can result in acute or chronic lower back and musculoskeletal injuries

Vibration
Sanding materials for extended periods of time can result in hand and vibration injuries (white finger).

Falling Machine
Unsecure hold of machine, placed on the workbench can result in a falling machine, lower leg and feet impact injuries

Noise
Sanding various wooden materials will generate noise and cause acute temporary hearing discomfort**.**

Falling Machine
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Dust Chemicals
Sanding various wooden materials will generate dust & cause acute or chronic respiratory illness or irritation to the eyes.

Fire
Ignition sources in contact with dust, metal parts in wood can spark & result in a fire causing first second and or third degree burns.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The orbital sanders are used for fine smoothing pieces of wood.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Ensure that the sander is plugged in to a socket with a Residual Control Device (RCD).
- 240v power tools are not permitted to be used for external work.
- Ensure that the machine is switched off prior to connecting to the electricity supply.
- Inspect the electrical cable, plugs and sander for damage or defects prior to use.
- Do not use if cable or sander is defected or damaged in any way and remove from use for repair by a competent person or safe disposal of. A competent person must carry out repairs.
- Always sand away from the machine electrical power cable.
- Where possible ensure to clamp material for sanding.
- Use both hands to operate the sander.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables where possible.
- Clean up saw dust from the ground as soon as possible.
- Never leave a hand tool lying on the ground, rest it on in from the edge of a nearby workbench.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Always work away from the body or electrical cables when sanding materials.
- Maintain hands and fingers clear from material being machined.
- Avoid using the hand tool for long periods of time, tend to other duties for periods of rest or split the work load with another work colleague where possible.
- Follow the manual handling training guidelines at all times when using the machine.
- Maintain a firm and secure hold of the hand tool when sanding materials.
- Turn on the sander prior to placing on the material for machining.
- Always place the sander in from the workbench edge when not in use.
- Wear safety glasses when sawing materials.
- Wear safety hearing protection when required.
- Always use the sander as intended by the manufacturer.
- Never leave a sander unattended and return to storage when no longer required.
- Wear a safety mask when sanding wooden materials.
- Turn on the extract system when using the sander, use a sander machine dust bag where possible.
- Avoid the build of dust and clean the sander and surrounding area regularly.
- Ignition sources are not permitted at or near the material being sanded.
- Remove all metal materials from material being sanded where possible.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training
- Safe use of operating the tool
- Chemical handling training

- Manual handling training
- MSDS

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Hearing protection
- Dust Mask

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet	Ref: SWPS C/J 035
	Date: 17/07/2014
Portable Chop Saws	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly or incorrectly connected, fitted, damaged or defected electrical cables and plugs, sanding over the power cable can result in electrocution-death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing electrical cable, saw dust and hand tool lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Mechanical
Entanglement of loose clothing, long hair with rotating cutting tool resulting in severing of fingers. Kick back of machine handle when in contact with a nail or knot causing impact head and arm injuries

Ergonomics / Manual Handling
Operating the saw in crunched awkward positions and for extended periods of time, lifting the machine to and from storage and can result in acute or chronic lower back and musculoskeletal injuries.

Vibration / Acceleration
Sanding materials for extended periods of time can result in hand and vibration injuries (white finger). Sanding materials can result in an accelerated hand tool pulling an individual forward, resulting in in lower back injuries.

Falling Machine
Machine not placed on the workbench level can result in a falling machine, lower leg and feet impact injuries

Noise
Sanding various wooden materials will generate noise and cause acute temporary hearing discomfort**.**

Falling Machine
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Fire, Dust Chemicals
Ignition sources, metal parts in wood (sparking) can ignite wood dust & result in a fire & first second and or third degree burns. Sawing wood generates wood dust & can cause acute or chronic respiratory illness or irritation to the eyes

Sharps
Removing and replacing the cutting tool can result in lacerations to the hands and fingers.

Ejected materials
Cutting pieces of timber can result in flying materials that cause blunt force injury to the operator or bystanders.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The machine is used for planing pieces of timber to a required thickness and flat surface.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Ensure that the saw is plugged in to a socket with a Residual Control Device (RCD).
- 240v power tools are not permitted to be used for external work.
- Inspect the electrical cable, plugs and saw for damage or defects prior to use.
- Do not use if cable or sander is defected or damaged in any way and remove from use for repair by a competent person or safe disposal of. A competent person must carry out repairs.
- Always work away from machine electrical power cable.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables where possible.
- Never leave a hand tool lying on the ground, rest it on and in from the edge of a nearby workbench.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch the rotating saw blade and allow to come to a natural complete stop.
- Never place free hand in line with the cutting blade.
- Never assist in stopping or slowing down the rotating saw blade.
- Avoid using the hand tool for extended periods of time, tend to other duties for periods of rest or split the work load with another work colleague where possible.
- Follow the manual handling training guidelines at all times when using the machine.
- Maintain a firm and secure hold of the handle of the machine when sawing materials.
- Where possible remove any metal materials from wood being machined.
- Always place the saw firm, flat and in from the workbench edge.
- Wear safety glasses when sawing materials.
- Wear safety hearing protection.
- Always use the saw as intended by the manufacturer.
- Never leave a saw unattended and return to storage when no longer required.
- Wear a safety mask when sawing wooden materials.
- Turn on the extract system when using the machine.
- Avoid the build of wood dust and clean the saw and surrounding area regularly.
- Ignition sources are not permitted at or near the material being sanded.
- Wear gloves when required to remove and replace the saw blade.
- Competent person/s must only remove and replace saw blades.
- Ensure that bystanders are a safe distance from the machine when in use.
- Group gatherings are not permitted around the machine.
- Maintain a secure hold of the timber being machined.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training
- Safe use of operating the tool

- Chemical handling training
- Manual handling training
- MSDS

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Hearing protection
- Dust Mask
- Safety Gloves

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet	Ref: SWPS C/J 036
	Date: 17/07/2014
Hand Held Planers	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly or incorrectly connected, fitted, damaged or defected electrical cables and plugs, planning over the power cable can result in electrocution-death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing electrical cable, saw dust and hand tool lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Mechanical
Entanglement of loose clothing, long hair with rotating cutting tool resulting in severing of fingers. Kick back when in contact with a nail causing hand and arm injuries

Ergonomics / Manual Handling
Operating the planer in crunched awkward positions and for extended periods of time, lifting the machine to and from storage and can result in acute or chronic lower back and musculoskeletal injuries.

Vibration / Acceleration
Planning materials for extended periods of time can result in hand and vibration injuries (white finger). Machining materials can result in an accelerated hand tool pulling an individual forward, resulting in in lower back injuries.

Falling Machine
Machine not placed on the workbench level can result in a falling machine, lower leg and feet impact injuries.

Noise
Operating the machine will generate noise and may cause acute temporary hearing discomfort**.**

Falling Machine
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Fire, Dust Chemicals
Ignition sources, metal parts in wood (sparking) can ignite wood shavings & result in a fire & first second and or third degree burns. Planing wood can generate wood dust & can cause acute or chronic respiratory illness or irritation to the eyes

Sharps
Removing and replacing the cutting tool can result in lacerations to the hands and fingers.

Ejected materials
Cutting pieces of timber can result in flying materials that cause blunt force injury to the operator or bystanders.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The machine is used for planing pieces of timber to a required thickness.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Ensure that the planer is plugged in to a socket with a Residual Control Device (RCD).
- 240v power tools are not permitted to be used for external work.
- Inspect the edge of the cutting tool for damage or defects prior to use. Do not use if damaged or defected in any way and remove from use for repair and replacement by a competent person.
- Inspect the electrical cable, plugs and planer for damage or defects prior to use.
- Do not use if cable or planer is defected or damaged in any way and remove from use for repair by a competent person or safe disposal of. A competent person must carry out repairs.
- Always work away from the machine electrical power cable.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables where possible.
- Never leave a hand tool lying on the ground, rest it on and in from the edge of a nearby workbench.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch the rotating cutting tool.
- Before handling the cutting tool allow to come to a natural complete stop.
- Never place free hand in line with the cutting tool.
- Never assist in stopping or slowing down the rotating cutting tool.
- Avoid using the hand tool for extended periods of time, tend to other duties for periods of rest or split the work load with another work colleague where possible.
- Follow the manual handling training guidelines at all times when using the machine.
- Maintain a firm and secure hold of the handle of the machine when cutting materials.
- Where possible ensure that material being cut is clamped securely.
- Do not rest the machine cutting tool on the timber being machined prior to starting the machine, place the front of the machine on the edge of the timber.
- Use both hands to operate the machine.
- Where possible remove any metal materials from wood being machined.
- Always place the planer firm, flat and in from the workbench edge.
- Wear safety glasses when planing materials.
- Wear safety hearing protection.
- Always use the planer as intended by the manufacturer.
- Never leave a planer unattended and return to storage when no longer required.
- Wear a safety mask when cutting wooden materials.
- Turn on the extract system when using the machine.
- Avoid the build of wood shaving and clean the machine and surrounding area regularly.
- Ignition sources are not permitted at or near the material being cut.
- Ensure that bystanders are a safe distance from the machine when in use.
- Where possible remove all metal parts from materials being machined.
- Group gatherings are not permitted around the machine.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures

- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training
- Safe use of operating the tool
- Chemical handling training
- Manual handling training
- MSDS

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Hearing protection
- Dust Mask
- Safety Gloves

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet	Ref: SWPS C/J 037
	Date: 17/07/2014
Hand Operated Clamps	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling
Lifting and carrying clamps to and from storage, over loading the body with several clamps can result in acute or chronic lower back and or musculoskeletal injuries

Falling Clamp
Unsecure hold of clamp when moving to and from storage, clamp not secure on worktable or storage, carrying to many clamps at a time can fall and result in lower leg and or feet impact injuries.

Slips Trips and Falls
Poor housekeeping, personal belongings, clamps and wooden pieces lying on the ground can result in slipping and tripping and cause head and body impact fall injuries.

Sharps and failed clamp
Clamps can contain metal sharps from impact damage and result in major and minor lacerations to the hands and fingers.

Clamping Materials
Closing the clamp to hold materials to a work bench or together can result in entrapment and pinching and crushing of fingers or hands and result in broken bones cuts and bruises.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The clamps are used for clamping pieces of timber of varying sizes together or to a workbench.

Controls

- Students are permitted use of the clamps, under the lecturer or technicians supervision.
- Students must request the clamp from the lecturer or technician.
- Ensure to use the correct clamp for the job in hand, never use more clamps than is necessary.
- Always use the clamp as instructed and intended by the manufacture.
- Follow the manual handling training guidelines at all times when transporting clams.
- Ensure to maintain a secure and firm hold of the clamp when transporting.
- Never carry more clamps than you can maintain a secure hold of.
- Clamps not in use must be stored away neatly in the stores.
- Always place the clamp in from the work bench edge.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Never place clamps or wooden work pieces on the ground, use a nearby work bench.
- Inspect the clamp for damage or defects prior to use, do not use if damaged or defected in an way and remove from use for repair or safe disposal of.
- Return to storage when no longer required.

- Never place hands or fingers in between the jaws of the clamp when clamping.

Checks & Inspections

- Inspect the tool prior to use
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Manual handling training

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Safety Gloves

Initial Risk Rating (without any control measures)

Probability : **2** x Severity **2** = Risk Factor **4 Medium Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **2** = Risk Factor **2 Low Risk**

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet	Ref: SWPS C/J 038
	Date: 17/07/2014
Woodworking Benches	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling
Pulling and dragging the work bench into the required work position can result in acute or chronic lower back and or muscular skeletal injuries.

Ergonomics
Working in the same position and stance for extended periods of time can cause fatigue and or musculoskeletal injuries.

Falling Vice / Material / Tools
Unsecure vice on the work bench can fall, material in vice falls, tools and drawing boards fall from the bench top and result in impact injuries to the lower legs and feet.

Mechanical
Impact injuries to the hands and fingers when using the quick release to close the vice.

Slips Trips and Falls
Poor housekeeping, personal belongings, materials, waste materials or tools lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The benches are used to carry out various activities from drawings, planning, cutting timber etc.

Controls

- Students are permitted to use the work benches under the supervision of the lecturer or technician.
- Follow the manual handling training guidelines when moving the workbench and seek assistance if required.
- Avoid working in the same position for extended periods of times, tend to other duties for periods of rest, and where possible split the work load with fellow colleagues.
- Ensure that the vice is fixed bolted to the bench and secure prior to operating it.
- Ensure that material placed in the vice is securely clamped prior to working on it.
- Drawing boards and tools must be placed in from the work bench edge when being utilised.
- Maintain hands and fingers free from the inside jaws of the vice at all times of clamping materials or closing the vice.
- Slowly close the vice when using the quick release lever.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Tools and materials in use must be stored on the work bench or nearby workbench at all times of use.
- Waste material must be cleaned up as soon as possible.

- Safety boots must be worn.

Checks & Inspections

- Regular maintenance and inspection to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures.

Information, Instruction & Training

- Manual handling training

Personal protective equipment required (last resort)

- Safety Boots

Initial Risk Rating (without any control measures)

Probability : **2** x Severity **2** = Risk Factor **4 Medium Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **2** = Risk Factor **2 Low Risk**

Risk Assessment Review

As and when process changes or yearly

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Safe Work Practice Sheet Transportation of Materials	Ref: SWPS C/J 039 Date: 17/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling
Pushing and pulling the trolley to & from storage & work shop, lifting timber and materials from racking, loading and unloading the trolley with materials can result in acute or chronic lower back and or musculoskeletal injuries.

Falling Timber / Materials
Lifting timber from racking, not placed securely on the trolley can result in falling timber or materials and cause impact inquires to the upper torso and lower legs and feet.

Traffic
Transporting the timber and materials from the stores to the workshop and vice versa can result in been struck by a moving vehicle, or striking bystanders resulting in major or minor impact injuries.

Mechanical
Crushing of feet if under neat on in line with the wheels of the trolleys.

Moving Trolley
Crushing injuries from unassisted moving trolley on a slope or hill etc.

Failed trolley axles
A failed trolley axle can result in crushing of feet with a collapsing trolley.

Timber Splinters
Manually handling pieces of timber for transportation can result in puncture wounds to the hands, fingers and other body parts.

Dust / Debris
Lifting loads from the racking can result in major or minor eye irritation from dust and debris that has settled on the load for transportation.

Slips Trips and Falls
Poor housekeeping, personal belongings, materials lying on the ground, wet floor of stores can cause slipping and tripping resulting in fall head and body impact injuries. Snow and ice can result in slipping causing fall impact injuries.

Weather
Exposer to UV Rays can result in acute burns to the skin, cold wet weather can result in acute minor hypothermia.

Person Exposed to Risk

☑Students ☑ Employees ☑Public ☑ Contractors ☑ Visitors

Work Description

Employees are required to transport student projects, timber planks, sheets of materials etc. to and from the timber stores and carpentry joinery work shop.

Controls

- Students are not permitted to carry out this task.

- Technician or class assistant may only carry out this task.
- Follow the manual handling training guidelines at all times.
- Where required seek assistance when lifting, carrying and loading the trolley.
- Ensure to place and load and materials securely on the trolley when transporting.
- Follow the rules of the road when transporting the materials on campus road way.
- Maintain feet clear of the path of the trolley at all times.
- Ensure that the trolley is parked on level flat ground. Use a choc bloc where required.
- Inspect the wheels and axles of the trolley prior to use. Do not use if damaged or defected in any way and remove from use for repair by a competent person.
- Wear heavy duty safety gloves when handling timber.
- Wear safety glasses when transporting the loads.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Minimise skin exposure to UV light by reducing outside exposure time.
- Do not transport loads where the road is covered with snow and or ice.
- Ensure to wear adequate clothing when outside during cold or wet weather.
- Observe the weather conditions prior to transporting loads.

Checks & Inspections

- Regular maintenance and inspection to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures.

Information, Instruction & Training

- Manual handling training
- PPE Training

Personal protective equipment required (last resort)

- Safety Boots
- Heavy Duty Safety Gloves
- Safety Glasses

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J 040
	Date: 17/07/2014
Disposal of Class Projects	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling

Lifting, carrying and breaking up projects, carrying broken up projects for disposal can result in acute or chronic lower back and or musculoskeletal injuries

- See SWPS CJ 005 Centauro 600 & FBR 400 Woodworking Bandsaws
- See SWPS CJ 016 Carpentry Joinery Hand Tools
- See SWPS CJ 030 Corded and Cordless Hand Held Drills
- See SWPS CJ 038 Woodworking Benches
- See SWPS CJ 039 Transportation of Loads
- See SWPS CJ 041 Timber Stores

Person Exposed to Risk

☑Students ☑ Employees ☐Public ☐Contractors ☐Visitors

Work Description

Employees are required to dispose of class projects when they have exceeded their retention period, projects are dismantled and broken through various means.

Controls

- Students are not permitted to carry out this task.
- Technicians and class assistant may carry out this task.
- Follow the manual handling training guidelines at all times and seek assistance if required.
- See SWPS CJ 005 Centauro 600 & FBR 400 Woodworking Bandsaws
- See SWPS CJ 016 Carpentry Joinery Hand Tools
- See SWPS CJ 030 Corded and Cordless Hand Held Drills
- See SWPS CJ 038 Woodworking Benches
- See SWPS CJ 039 Transportation of Loads
- See SWPS CJ 041 Timber Stores

Checks & Inspections

- Lecturers and technicians to monitor compliance with control measures.

Information, Instruction & Training

- See relevant SWPS

Personal protective equipment required (last resort)

- See Relevant SWPS

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet Timber Stores	Ref: SWPS C/J 041 Date: 17/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling
Lifting and carrying timber to and from the stores, lifting timber and materials to and from racking, can result in acute or chronic lower back and or musculoskeletal injuries.

Falling Timber / Materials / Failed Racking
Lifting timber to and from racking, not placed securely on the racking can result in falling timber or materials and cause impact injuries to the head, racking is not secure resulting in head and upper torso crushing.

Traffic
Transporting the timber and materials to and from the stores can result in been struck by a moving vehicle, or striking bystanders resulting in major or minor impact injuries.

Mechanical
Crushing of feet if under neat on in line with the wheels of the trolleys.

Moving Trolley
Crushing injuries from unassisted moving trolley on a slope or hill etc.

Failed trolley axles
A failed trolley axle can result in crushing of feet with a collapsing trolley.

Timber Splinters
Manually handling pieces of timber to and from storage can result in puncture wounds to the hands, fingers and other body parts.

Dust / Debris
Lifting and loading materials to and from the racking can result in major or minor eye irritation from dust and debris that has settled on the load for transportation.

Slips Trips and Falls
Poor housekeeping, personal belongings, materials lying on the ground, wet floor of stores can cause slipping & tripping resulting in fall head & body impact injuries. Snow & ice can result in slipping causing fall impact injuries.

Weather
UV exposure can result in acute burns to the skin, cold wet weather can result in minor hypothermia.

Fire
Timber exposed to ignition sources can combust resulting in death or first second and or third degree burns.

Person Exposed to Risk

☑Students ☑ Employees ☑Public ☑ Contractors ☑ Visitors

Work Description

Employees are required to load and unload the racking of the stores with student projects, timber planks, sheets of materials etc.

Controls

- Students are not permitted to carry out this task.
- Technician or class assistant can carry out this task.
- Follow the manual handling training guidelines at all times.
- Where required seek assistance when lifting, carrying, loading and unloading the racking.
- Ensure to place and load timber and materials securely on the racking.
- Heavy materials must be placed on the bottom of the racking.
- Inspect the racking from damage or defects prior to use, do not use if damage or defected in any way.
- Follow the rules of the road when loading or unloading the materials in the stores.
- Maintain feet clear of the path of the trolley at all times.
- Ensure that the trolley is parked on level flat ground. Use a choc bloc where required.
- Inspect the wheels and axles of the trolley prior to use. Do not use if damaged or defected in any way and remove from use for repair by a competent person.
- Wear heavy duty safety gloves when handling timber.
- Wear safety glasses when transporting the loads.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Items must not be stored on the walkway of the stores.
- Minimise skin exposure to UV light by reducing outside exposure time.
- Do not transport loads to the store when the road is covered with snow and or ice.
- Ensure to wear adequate clothing when working during cold or wet weather.
- Observe the weather conditions prior to loading the stores.
- Ignition sources are not permitted at or near the stores.
- The stores must be locked at all times when not in use. Access to the stores must be limited by issuing of key to approved users.
- The store must be exclusively used as a timber store.

Checks & Inspections

- Lecturers and technicians to monitor compliance with control measures.

Information, Instruction & Training

- Regular inspection to conducted on the racking and records maintained by the Institute.
- Manual handling training
- PPE Training

Personal protective equipment required (last resort)

- Safety Boots
- Heavy Duty Safety Gloves
- Safety Glasses

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/J WC 001
	Date: 17/07/2014
Workshop Floor Cleaning	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with damaged, loose or poorly maintained electrical cables can result in electrocution-death or minor injuries, first, second and or third degree burns.

Manual Handling
Pushing and pulling hoover/buffer, cleaner, moving furniture, machinery etc. can result in acute or chronic lower back and or musculoskeletal injuries.

Chemicals
Applying cleaning chemicals and emptying machinery can result in chemical burns to the eyes, hands, face and other body parts and contamination of clothing. Damage to the lungs by acute wheezing or chronic asthma from the inhalation of fumes.

Slips Trips and Falls
Poor Housekeeping, wet floors, oil and dirt on the floors, trailing cables can cause slips trips and falls resulting in broken limbs, musculoskeletal injuries, broken fingers, cuts and bruises.

Mechanical
Contact with rotating buffer can result in entanglement of long hair, loose clothing causing asphyxiation, cuts and bruises.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☑ Contractors ☑ Visitors

Work Description

Class aid is required to clean the floors of the Carpentry / Joinery work shop by means of electrical hoover, buffer, Taski vacuum liquid sucker and liquid chemicals.

Controls

- Floor Cleaning must be carried out when students, contractors, visitors or other staff are not present.
- Food and drink are not permitted in the work shop/ lab at any time.
- Safety signage must be used when cleaning in progress.
- Inspect the electrical cable and plug of the cleaning equipment for damage or defects prior to use. Do not use if damaged or defected in any way and remove from use for repair or replacement.
- Class Assistant must not carry out repairs on cables, plugs or damaged cleaning equipment.
- All electrical repairs must be carried out by a competent person.
- Never transport cleaning equipment by pulling on the electrical cables.
- Chemicals must be stored (under lock and key controlled by class assistant) away in a designated area.
- Chemicals must remain in original containers with original Identification label description.
- Ensure that there is adequate ventilation prior to commencing cleaning and turn on the extract system where available.

- Liquid waste (Taski liquid vac hoover, bucket etc.) must be disposed of to external drains.
- Care must be taken when moving or lifting class furniture (seek assistance if required). Follow manual handling training at all time and seek assistance when required.
- Use a pallet truck for moving work benches or other items of furniture and repeat the process when returning to their original position.
- When cleaning machinery is in use, trailing electrical cables must be draped over shoulder of class assistance.
- Remove and replace any clothing contaminated by chemicals.
- When using a mop bucket do not over fill with water.
- When chemicals are required for cleaning ensure to apply them sparingly.
- On completion of cleaning, all cleaning machinery must be returned to storage.
- Observe where cleaning machinery cables are at all times, avoid walking over cables where possible.
- Always use cleaning equipment and chemicals as intended by their manufacturer.
- Never touch the rotating parts of cleaning machinery with any body part.
- Never wear loose clothing when operating cleaning machinery.
- Long hair must be neatly tied back or a well fitted cap worn.

Checks & Inspections

- Cables and Plugs on electrical machines must be checked before use.

Information, Instruction & Training

- Manual handling training.
- Chemical Handling training.
- PPE training.
- MSDS

Personal protective equipment required (last resort)

- Wear safety glasses, boots and gloves when cleaning in operation

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

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Safe Work Practice Sheet	Ref: SWPS C/JWC 002
	Date: 17/07/2014
Dusting Down of Exhibit Pieces	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling
Lifting, pulling and pushing of exhibit pieces can result in musculoskeletal injuries, lower back, hand, arm and finger strain. Pushing and pulling hoover/buffer can result in lower back injuries, musculoskeletal injuries.

Chemicals
Wood dust may cause eye and skin irritation. Damage to the lungs by acute wheezing or chronic asthma.

Electricity
Loose, damaged or poorly fitted electrical cables can result in electric shock-death or minor injuries. First, second or third degree burns. Secondary injuries resulting in musculoskeletal injuries, cuts and bruises, broken limbs and or broken fingers.

Fire
Fire can be caused by build-up of dust in contact with ignition source resulting in death, first, second and/or third degree burns.

Sharps
Contact with wooden sharps can result in severe to minor cuts to hands and fingers.

Slips Trips and Falls
Poor Housekeeping, trailing cables can cause slips trips and falls resulting in broken limbs, musculoskeletal injuries, broken fingers, cuts and bruises.

Person Exposed to Risk

☑Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Class assistant is required to take down and manually handle various display exhibits in the workshop and clean by dusting down and hovering.

Controls

- Cleaning must be carried out when students, contractors, visitors or other staff are not present.
- Turn off electricity at main supply and turn off Isolation switch for machines beside exhibit pieces.
- Lift exhibit piece down from the wall and place on a workbench table or standing on the ground.
- Brush down the dust from the exhibit piece or hoover from it.
- Spiral stair case exhibit piece must be brushed from top to bottom, do not stand on exhibit piece.
- Hoover any dust from the floor.
- When required wear PPE.
- Follow the manual handling training guidelines when required.
- Hoover the dust from the floor.

- Empty the contents of the hoover into a black bag and skip if required.
- Replace hoover back to storage when not in use.
- Avoid trailing cables where possible.
- Maintain work space free from clutter.

Checks & Inspections

- Check that the cable, plug of hoover is free from visual damage.
- Check that the floor around work area is free from, trailing cables, clutter and rubbish.

Information, Instruction & Training

- Manual handling training.
- Chemical handling training.
- PPE training.

Personal protective equipment required (last resort)

Dust Mask, glasses, safety boots and gloves.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet	Ref: SWPS C/JWC 003
	Date: 17/07/2014
Workshop Extraction Pipe Cleaning	Assessed by: G. Caffrey Approved by: E Roe

Hazards

Slips Trips and Falls
Trailing electrical cables, untidy work area can result in broken limbs from falls, major and minor cuts and bruises.

Manual Handling
Pushing and pulling hoover/buffer, tables etc or range rod can result in lower back, neck injuries, musculoskeletal injuries.

Wood dust
Contact with wood dust may cause eye and skin irritation. Damage to the lungs by acute wheezing or chronic asthma.

Falls from heights
Standing on a ladder, chair or table etc. to gain a height advantage for cleaning can result in a fall and cause head and body injuries.

Electricity
Damaged hoover cable can result in electric shock, death or minor injuries. First, second or third degree burns.

Fire
Build-up of wood dust can lead to a fire when in contact with ignition source resulting in death, first, second and/or third degree burns, acute and chronic respiratory illness.

Person Exposed to Risk

☑Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description
Class assistant is required to dust down the extraction pipe system using a range rod with a connected duster.

Controls

- Cleaning must be carried out when students, contractors, visitors or other staff are not present.
- Inspect the cable on the hoover prior to use. Do not use if damaged.
- Move the classroom furniture (use the pallet truck for moving workbenches) prior to cleaning.
- Put on the required PPE.
- The use of a ladder is not permitted for this cleaning task.
- Do not stand on chair/s, workbenches or machinery when carrying out cleaning task.
- Ensure secure footing (both feet on the ground) at all times when cleaning in progress.
- Use the extended range rod to clean the dust down from the air extraction piping.
- Do not over reach when cleaning in progress.
- When cleaning is completed hoover dust from the tops of the machines and floor.
- Empty the contents of the hoover into a black bag and skip if required.

- Return the hoover to storage when cleaning of extraction pipe is completed.

Checks & Inspections

- Check that the cable, plug of hoover is free from visual damage.
- Check that the floor around work area is free from, trailing cables, clutter and rubbish.

Information, Instruction & Training

- Manual handling training.
- Chemical handling training.
- PPE training.
- MSDS.

Personal protective equipment required (last resort)

Dust Mask, glasses, safety boots and gloves.

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low Risk**

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Safe Work Practice Sheet Cleaning of Workshop Machinery	Ref: SWPS C/JWC 004 Date: 17/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling
Lifting pushing and or pulling hoover/buffer and rubbish can result in lower back injuries, musculoskeletal injuries.

Wood dust
Wood dust may cause eye and skin irritation. Inhalation of dust may result in acute or chronic wheezing.

Electricity
Incorrectly installed, loose or damaged cables can result in electrocution-death or minor injuries. First, second or third degree burns.

Fire
Ignition sources can result in wood dust catching fire and causing first, second and/or third degree burns.

Mechanical
Contact with rotating saw blade or cutting tool can result in loss of limb, major and minor cuts to the hands and fingers.

Sharps
Contact with non-moving saw blades, machine cutting tools can result in severe, minor lacerations to hands and fingers.

Slips Trips and Falls
Poor Housekeeping, trailing hoover cables can cause slips trips and falls resulting in broken limbs, musculoskeletal injuries, broken fingers, cuts and bruises.

Machine doors
Opened machine overhead doors can result in head impacting injuries causing cuts and bruises.

Person Exposed to Risk

☑Students ☑Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description
Class assistant is required to clean workshop machinery from dust and shavings build up.

Controls

- Cleaning must be carried out when students, contractors, visitors or other staff are not present.
- Turn off the machine electricity supply at the mains supply.
- Turn off Isolation switch at the machine being cleaned.
- Do not transport electrical cleaning equipment by its power cable.
- Follow the manual handling training guidelines at all times. Seek assistance where loads are too heavy or cumbersome to lift or carry.
- Wear glasses and gloves and approved dust mask when cleaning is in progress.

- Ensure the room is well ventilated and extract system is working and turned on.
- Do not allow wood dust to build up, clean the machine regularly or when required.
- Do not touch the cutting saw blades or tools of any machinery with bare hands.
- Where possible use the lance of the vacuum cleaner to extract waste wood material.
- Where possible avoid trailing power cables.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Exercise caution when cleaning machinery with doors. Close doors when cleaning is complete.

Checks & Inspections

- Check that the cable, plug of hoover is free from visual damage.
- Check that the floor around work area is free from, trailing cables, clutter and rubbish.

Information, Instruction & Training

- Manual handling training.
- Chemical handling training.
- PPE training.
- MSDS

Personal protective equipment required (last resort)

Dust Mask, glasses, safety boots and gloves.

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

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Safe Work Practice Sheet Waste and Dust Extraction Silo	Ref: SWPS C/JWC 005
	Date: 17/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling
Lifting, removing or emptying the dust bags from the extract system can result in acute or chronic lower back and or muscular skeletal injuries.

Slips Trips and Falls
Poor housekeeping, personal belongings, dusty extractor floor, wet dust, ice and snow can cause slips and falls resulting in impact head and body injuries from falls.

Weather
Emptying the extraction system in snow, frosty or cold conditions can result in acute hypothermia. Windy conditions can result in air borne dust and acute respiratory illness. Rain can result in dust becoming wet and slippery.

Fire / Explosion
Naked flames, hot surfaces or ignitions sources can result in saw dust etc. catching fire and or exploding causing death or first, second and or third degree burns, puncture wounds to the face and or body parts, the inhalation of dust and or smoke resulting in asphyxiation.

Chemical Dust
Removing and replacing dust bags from the extract system, not switching off the extract machine prior to emptying can result in the inhalation of chemical dust and acute or chronic respiratory illness and or disease.

Flying Debris
Emptying and removing dust bags can result in coming into contact with flying dusty debris resulting in acute or chronic respiratory illness and or permanent or temporary eye damage.

Mechanical
Removing and replacing the steel bands that hold the plastic bags in place can result in pinched or crushed fingers if in between steel band when closing secure.

Person Exposed to Risk

☑ Students ☑ Employees ☑Public ☑Contractors ☑Visitors

Work Description

The machine Extracts Dust and Small cuttings of less than 50mm square. The extraction comprises of a metal fabricated waste storage silo, ducting and a powered electric fan that also recycles air back into the carpentry workshop. The silo is located externally to the rear of the carpentry and joinery workshop. The dust extractor removes dust and waste from wood working machines through manually controlled dampened collecting points and a system of metal ducting to the locked and secured silo containing Six collection bags. These bags must be manually removed and the waste disposed of via a skip located in a secured compound 100m (approximately) from the silo or via external collection.

Controls

- Cleaning must be carried out when students, contractors, visitors or other staff are not present.
- The workshop attendant removes and replaces the dust bags **one time per day** as part of his duties to clean the carpentry and joinery shop.
- Ensure that the Section Head, Technician or other responsible person is advised when the extraction silo is about to be cleaned and sign the duties book prior to cleaning.
- Isolate the machine from the mains electricity before maintenance by ensuring the suction fan is switched off as follows: press the key control button and remove the key from the extraction control panel (This control panel is located to the side of the tool store door within the Carpentry and Joinery workshop).
- The only key to the lock is kept by the attendant on his/her person to prevent accidental **powering on** of the extractor.
- Dust bags must be emptied before they exceed 2/3 (two thirds) of fill capacity. Seek assistance if bags have exceeded 2/3 capacity.
- Always follow the manufacturer's standard operating procedures as detailed in the extraction manual.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Ensure to wear appropriate clothing as determined by the weather conditions.
- Observe the condition of the outside ground surface (due to weather conditions) prior to commencing work.
- Avoid working externally for extended periods of time in adverse weather conditions.
- Where possible, avoid emptying the dust bags in windy or wet conditions.
- Fire Extinguisher must be at hand when extraction of waste is carried out. Ensure to have a multipurpose fire extinguisher.
- Smoking, naked flames, ignition sources or hot surfaces are not prohibited within 30 meters of the extract system.
- Full safety PPE must be worn for this operation (see below).
- Before unlocking silo doors: check that the silo is fully switched off, wait five minutes for falling dust to settle.
- Ensure that the machine motor has come to rest before opening the unit.
- All bystanders must be asked to move to a safe distance from the silo prior to commencing work.
- Never place hands or fingers in between the steel band and plastic bags when clamping a new bag.
- Ensure plastic bags are free from damage or defects prior to use, do not use if damaged or defected in any way.
- Un-lock silo doors and secure keys and padlock
- Undo the clamps holding waste Bags
- Remove the waste bags to the outside of the silo, tie off the tops, and place on a transport trolley-cart for removal to the waste disposal skip.
- Never enter the silo or manoeuvre oneself into the hopper section of the bag feeder unit
- Never leave a silo without a dust collection bag connected.
- The silo doors must remain closed and locked at all times, unless when cleaning/emptying is in progress.
- Maintain hands and fingers clear when closing doors and hinges of the silo.

Occupational Health

Dust Monitoring for this activity is required. Personal Exposure levels must be established.
Health Surveillance and Monitoring must be an integral part of the Safety Management program.
If in doubt seek advice from Head of Department, Head of Section, Technician or Lecturer. Normal safety precautions should be adhered to at all times.

Checks and Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School
- Ensure all doors and guards are in place and checked at regular intervals
- Ensure all bags are in good condition
- Ensure all safety and personal protection is in good order, notices are readable and displayed in correct locations
- Technicians to monitor compliance with control measures
- Keep machine in good condition with regular checks
- Never carry out maintenance without full PPE.
- Ensure that the Section Head, Technician or other responsible person is advised when maintenance or inspection operations are to be carried out.

Information, Instruction and Training

- Manual handling training
- Chemical handling training
- PPE training
- MSDS

Personal protective equipment required (last resort)

- Battery powered air assisted sealed full face mask conforms to EN 2941:1999 – TH2
- Protection gloves
- Fully certified Boots
- Full protective electrostatic-proof overalls with elasticised cuffs and elasticised leg endings

Initial Risk Rating (without control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after present controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Medium**

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Safe Work Practice Sheet Noise	Ref: SWPS/ CJ 013
	Date 26/01/2011
	Assessed by: Paula Killeen Approved by: E. Roe

Hazard: Noise

Noise exposure can lead to hearing damage or poor concentration which can lead to incidents. Potential hearing damage due to a given sound depends on the sound level and duration of exposure. "Daily noise exposure level" is expressed as Lex 8h(db)(A) (time weighted average). Continuous noise levels can have the same energy content as varying sound levels. Peak sound pressure or instantaneous noise levels reached under the regulations will require particular measures as below

Person Exposed to Risk

✓ Students ✓Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Noise associated with Workshop Machinery

Controls

As a rule of thumb you may be at risk if:

- you have to shout to be clearly heard by someone 1- 2 metres away
- your ears are still ringing after leaving the workplace
- the noise is intrusive – like a vacuum cleaner – for most of the day
- you work in a noisy environment, e.g. workshop

When noise exposure exceeds the exposure action value (80 dB(A)), information, training and hearing protection must be provided.

If the upper exposure action value (85 dB(A)) is exceeded,

- establish and implement technical and/ or organizational measures to reduce exposure to noise
- restrict access
- hearing protection
- hearing protection must be worn
- provide hearing checks
- Provide adequate information and training

When using tools such as grinders, air operated pumps etc. Hearing protection must be worn.

Checks & Inspections

- Instructions given when machine is shut down
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction and Training

Supplies of ear defenders or other hearing protection will be made available for any Staff Member where it is not practicable to reduce the noise levels to a safe limit. These where issued must be worn at all times by both Staff and Student when operative is exposed to noise above the Above Upper Action level (85Db) or Exposure Limit(87Db).

Personal protective equipment required (last resort)

hearing protection

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 Low Risk

Risk Assessment Review

Noise assessments and Health Surveillance will be part of the safety management programme

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Safe Work Practice Sheet General Health and Welfare Provisions	Ref: SWPS 015 Date: 2/02/2011 Assessed by: P. Killeen Approved by: E. Roe

The workplace regulations (general application) regulations 2007 S.I. No. 299 in particular regulation 18 and 19 gives specific standards to be maintained in the place of work.

These regulations refer to adequate facilities for "taking meals / consumption of food" "cleanliness," also that rest areas are "large enough". These facilities must be kept in a state that is free from accumulations of any dirt, dust etc..

Regulation 18 states:

(f) "the taking of meals by employees is prohibited at any location in the place of work where there is likely to be a risk to safety, health or welfare."

The Carpentry / Joinery Store would not be deemed suitable as a place for taking meals (which includes beverages) for a number of reasons including the space limitations, the location of items stored at height, the lack of hygiene facilities and the fact that it is deemed a work area for a member of staff. The fact that it is a store within a workroom.

Regulation 19 states:

An employer shall ensure that—
"(a) where, because of—
(i) the type of activity carried out, or
(ii) the presence of more than a certain number of employees, and
(iii) the safety, health and welfare of employees so requires,
employees are provided with an easily accessible rest room or appropriate rest area,"

providing relaxation during breaks,
(b) rest rooms are large enough and equipped with tables with easily cleaned surfaces and seats with backs, adequate for the number of employees,

The carpentry/joinery store would not meet the criteria set out in section 19 above, because of the work activity carried out (where there is a presence of dirt and dust) and (it is deemed a work area) and (Insufficient space). Therefore under both sections of the Safety, Health and Welfare at Work (general application) regulations 2007 DkIT would be breaching the requirements.

Washing, food preparation and eating areas are made available at various locations on the campus: The Well, The Coffee Dock, The Main Canteen, The Staff Room.

Information, Instruction
To meet the requirements of Health and Safety Legislation and to ensure that good hygiene practices are employed at all times, it is prohibited to consume or bring into laboratories or workshops any drinks or beverages.

Signed: _____
Head of School of Engineering

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EMERGENCY RESPONSE	Ref: SWPS 016
	Date: 26/01/2011
	Assessed by: P. Killeen Approved by: E. Roe

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Emergency protocol for everyday working environment.

Emergency Contacts

- Dial 9 for an outside line, then 999 or 112 and you will be connected directly to the emergency services.
- Be prepared to give the following information:
- Information on the condition of the victim, if there is a casualty.
- Details of any hazards, i.e. fire/chemical/gas/radiation/biohazard etc.
- Exact location of the accident (room number and building).
- Call the Estates Office (2671/2670) and give the above details.
- If deemed necessary, contact the Nurse (2777) and trained Department first aiders.
- Call Reception (500), ask them to alert the caretaker on duty and give them the above details.
- Report to the Head of Department, Head of School, and your Supervisor (where relevant).
- As soon as practically possible, report the accident on an accident/incident report form and submit to the Head of Department/ Head of School of Engineering

- Emergency contact numbers are strategically located throughout the School of Engineering

Fire Fighting Equipment

The majority of fire-fighting equipment points are located in workshops, laboratories and on each floor in the School of Engineering building. There are a number of trained fire wardens in the School. Fire warden courses are run on a regular basis and are available through the Estates Office. The School abides by the Institute Policy and Procedures on fire safety.

Information, Instruction & Training

All training in First Aid, Emergency Response, and Fire Safety/Wardens is available through consultation with your Head of Dept and HR Office. The School abides by the Institute Policy on first aid safety.

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EMERGENCY CONTACT NUMBERS	Ref: SWPS 017 Date: 26/01/2011 Assessed by: P. Killeen Approved by: Eugene Roe

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Important contact details which are available throughout all Departments in case of emergency

General

- Ambulance/Fire Brigade: 112 or 999
- Health Centre/Campus Nurse: 2777
- Doctor: Dr. Shane Gleeson: 2702/ 042 9320038
- Hospital: Louth Hospital: (042) 933 4701

A List of First Aiders is prominently displayed in all workshops and Lab Locations

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Appendix IV

Accident / Incident, Near Miss and Dangerous Occurrence Reporting Procedures

ACCIDENT, INCIDENT, NEAR MISS AND DANGEROUS OCCURRENCE REPORTING PROCEDURES

Dundalk Institute of Technology is committed to reducing accidents and ill-health to staff and students of the Institute. Procedures are in place in the Institute to ensure that all Accidents, Near Misses and Dangerous Occurrences are recorded. These procedures not only ensure compliance with the law, but are also used as a basis for analysing trends throughout the Institute, in an effort to reduce accidents and ill-health to staff and students. All reports are reviewed at each meeting of the Institute Safety Monitoring Committee.

The purpose of an investigation is to establish all the facts relating to the incident, to draw conclusions from the facts and to make recommendations to prevent reoccurrence. Each incident will be looked at from the point of view of place, plant, procedures and people, to see where the safety system has failed and to tighten controls. It is important to note the definitions of all incidents (Accidents, Near Misses & Dangerous Occurrences) in order to take the correct action.

DEFINITIONS

An **Accident** is defined as an unplanned event resulting in personal injury or property damage. This could include, but is not limited to:

- Sprain
- Laceration
- Broken bone
- Concussion
- Unconsciousness
- Ill-health
- Sickness due to exposure to a dangerous substance, fumes or gases, fire or explosion
- Sickness due to a chemical spill or environmental pollution
- Damage to building
- Damage to property

A **Near Miss** is defined as an incident in which there was no injury or property damage but where the potential for serious consequences existed.

A **Dangerous Occurrence** is one of a number of specific, reportable adverse events, which are defined within the Twelfth Schedule of the General Application Regulations 2007. Dangerous Occurrences are reportable to the Health & Safety Authority (HSA) using Form lR3 or via the HSA online notification process. Any Dangerous Occurrences which are notifiable to the HSA will be forwarded by the Health & Safety Co-ordinator.

These are incidents with a high potential to cause death or serious injury, but which happen relatively infrequently. Dangerous occurrences usually include incidents involving:

- Lifting equipment
- Pressure systems
- Overhead electric lines
- Electrical incidents causing explosion or fire
- Explosions, biological agents
- Radiation generators and radiography
- Breathing apparatus
- Diving operations
- Collapse of scaffolding
- Train collisions
- Wells
- Pipelines or pipeline works

All Accidents are 'Incidents'. However, the definition of an Incident is wider in that it includes Dangerous Occurrences and Near Misses.

REPORTING PROCEDURES

All incidents must be reported immediately using the DkIT relevant incident report forms. These are located in the Parent Safety Statement and also on the DkIT website at https://www.dkit.ie/safety/incidents-accidents-reporting-procedures. All sections of the form must be completed with as much accurate information as possible.

The immediate supervisor must investigate the cause of the incident, and complete the Institute Accident/Incident Report Form or Near Miss Form. A copy of this form must then be made available to the Head of Department/School/Function for review and final sign off. Copies of the completed form should be forwarded to the Health & Safety Co-ordinator, Secretary/Financial Controller and the Estate's Office. Copies of these forms are contained within this document.

Accidents involving visitors and contractors must be investigated by the staff member to whom the injury was reported, in conjunction with the staff member they are visiting or working with.

Accidents, which involve serious or fatal injuries to an employee, student or any third party must be notified to the Health and Safety Co-ordinator and the HSA without delay.

Any accidents at work that involve an employee being unable to carry out his/her duties for three or more consecutive days, or that involve a third party being injured and requiring treatment from a medical practitioner, are reportable to the HSA and must be notified using Form lR1 or via the HSA online process, as soon as practicable. Dangerous Occurrences are reportable to the HSA using Form lR3 or via the HSA online notification process. Any incidents, which are notifiable to the HSA, will be forwarded to the HSA by the Health & Safety Co-ordinator.

Internal Reporting Procedure

It is the responsibility of each Head of Department/School/Function to ensure that the appropriate investigation procedures take place in the event of an Accident, Near Miss or Dangerous occurrence arising in their area. Heads of Department/School/Function must also ensure that the appropriate forms are completed and forwarded to **each** of the relevant parties (i.e. Estates Office, Secretary/Financial Controller, Health & Safety Co-ordinator).

It is the responsibility of the Health & Safety Co-ordinator to ensure that all reported incidents are tabled and discussed at each ISMC meeting.

External Reporting Procedure

Arising from the internal reporting procedure, any incidents, which are notifiable to the HSA, will be forwarded to that body by the Health & Safety Co-ordinator.

ACCIDENT / INCIDENT REPORT FORM

Note:
This form should be completed whenever an accident or incident occurs which results in injury or damage to personnel or property.
If personnel or property WERE NOT injured or damaged during the Accident/ Incident, do not use this form. Use the NEAR MISS REPORT FORM.

Accident / Incident Report Form			
i	**Name of person involved in Accident/Incident:**		
ii	**Address:**		
	Phone:		
iii	**Who was involved in the Accident/Incident:** ☐ **Student** ☐ **Employee** ☐ **Public** ☐ **Contractor** ☐**Visitor**		
iv	**Occupation:**		
v	**If an employee of the Institute please state Department:**		
vi	**If no, please elaborate:**		
vii	**Particulars of Accident/Incident & circumstances under which the Accident/Incident occurred:** *Use additional pages and/or photos if necessary.*		
viii	**Place:**		
ix	**Time:**	**Date:**	
x	**Witness Phone No & Address:**		
	Witness Phone No & Address:		
xi	**When and to whom was the Accident/Incident initially reported?**		

xii	**Details of injury/damage:** Indicate type of injury (put an 'x' in one box only) ☐ Bruising, contusion ☐ Concussion ☐ Internal injuries ☐ Open wound ☐ Abrasion, graze ☐ Amputation ☐ Open fracture (i.e. bone exposed) ☐ Closed fracture ☐ Dislocation ☐ Sprain, torn ligaments ☐ Suffocation, asphyxiation ☐ Gassing ☐ Drowning ☐ Poisoning ☐ Infection ☐ Burns, scalds and frostbite ☐ Effects of radiation ☐ Electrical injury ☐ Property damage, Specify_____ ☐ Other, Specify_____
xiii	**Indicate part of body most seriously injured (put an 'x' in one box only):** ☐ Head, except eyes ☐ Eyes ☐ Neck ☐ Back, spine ☐ Chest ☐ Abdomen ☐ Shoulder, upper arm, elbow ☐ Lower arm, wrist, hand ☐ Fingers, one or more ☐ Hip joint, thigh, knee cap ☐ Knee joint, lower leg, ankle ☐ Foot ☐ Toes, one or more ☐ Extensive parts of the body ☐ Multiple injuries ☐ Other, Specify_____
xiv	**Consequences of the Accident/Incident:** Fatal ☐ Non Fatal ☐ Date of resumption of work if back Year ____ Month _____ Day ___ Anticipated absence if not back 4-7 days ☐ 8-14 days ☐ More than 14 days ☐
xv	**Treatment:**
xvi	**Doctor's report and recommendation:**
xvii	**Steps taken to prevent reoccurrence of this type of Accident/Incident:**
	Signature of person completing report: / **Date:**
	Print Name & Job Title:
	Signature of Head of Department/School/Function: / **Date:**
	Print name:

(Copies of the completed Institute Accident Report are to be sent <u>separately</u> to the Institute Health & Safety Co-ordinator, the Secretary/Financial Controller and the Estates Office)

NEAR MISS REPORT FORM

Note:
This form should be completed whenever a Near Miss occurs - that is an incident WITHOUT injury to person or damage to property.
If personnel or property were injured or damaged during the incident, do no use this form. Use the 'ACCIDENT / INCIDENT REPORT FORM'.

NEAR MISS REPORT FORM			
i	**Date of Near Miss:**	**Time of Near Miss:**	
ii	**Location of Near Miss:**		
iii	**Who was involved in the Near Miss:** ☐ **Student** ☐ **Employee** ☐ **Public** ☐ **Contractor** ☐**Visitors**		
iv	**Name of person(s) involved in Near Miss:**		
v	**Name, Address & Contact details of any witnesses to Near Miss:**		
vi	**Description of Near Miss:**		
vii	**Steps taken to prevent a reoccurrence of this type of Near Miss incident:**		
	Signature of person completing report:		**Date:**
	Print Name & Job Title:		
	Signature of Head of Department/School/Function:		**Date:**
	Print name:		

(Copies of the completed Near Miss Report Form are to be sent to the Health & Safety Co-ordinator, the Secretary/Financial Controller and the Estates Office)

First Aid and Emergency Contacts

	Location	
Jim Connolly	Mechanical Engineering Workshop	Ext 2966
Phil Dillon	Engineering Administration	Ext 2754
Simon O' Neill	Plumbing Workshop	Ext. 2847
Larry Quigley	Plumbing Workshop	Ext. 2594
Nick O'Rourke	Plumbing Workshop	Ext. 2593
Alan Gorham 9396510	Plumbing Workshop	042

- Ambulance/Fire Brigade: 112 or 999
- Health Centre/Campus Nurse: 2777
- Doctor: Dr. Shane Gleeson: 2702/ 042 9320038
- Hospital: Louth Hospital: (042) 933 4701