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Incidents and Injuries

The Student is able to demonstrate safe and correct performance in preparing for incidents and injuries:	Date	Sign-off	Notes
1. PLANNING			
a) Conduct a hazard analysis			
b) Develop procedures to reduce/avoid hazards.			
c) Train workers on proper procedures to reduce/avoid hazards, and how to handle appropriately if they do occur.			
d) Assign a safety committee to regularly monitor and update the hazard analysis and control plans.			
e) Recommend training required for workers and volunteers			
f) Walk through the workplace to check for potentially unsafe conditions.			
2. ATTITUDE			
a) Instill an attitude of safety among workers.			
b) Ensure that safety is a priority in the established policies and procedures.			
c) Give safety committee the authority to make changes where unsafe conditions or practices are found			
3. SUPPLIES			
a) Have the proper supplies available to respond to an incident. (Minor incidents can become major ones if basic emergency first aid kits and other emergency supplies are not available.)			
b) Appoint a “Safety Officer” to regularly monitor and maintain first aid kits and other emergency supplies.			
c) Train workers on the proper use of emergency equipment.			
3. COMMUNICATION			
a) Have emergency plans in place.			
b) Advise workers who to contact and how to contact the appropriate person in case of an incident.			
c) Train workers in proper emergency communications.			

Injuries and Incidents (Continued)

The Student is able to demonstrate safe and correct performance in RESPONDING TO AN INCIDENT: *(Use procedures below that best fit situation*	**Date**	**Sign-off**	**Notes**
a) Gets everyone to a safe place. b) Assesses the situation to determine next steps needed: - Is anyone injured? - Is it necessary to call 911? - Has property been damaged?			
c) Calls for help			
d) Knows the limits of what can and cannot be handled.			
e) Assists the injured/provide First Aid.			
f) Gets information. - Record details of incident immediately.			
g) Keeps evidence and keep people away from hazardous areas and equipment			
h) Prevents further incidents. - Take action quickly to assess the situation to prevent further injuries. - Recommend changes,			
i) Follows up (Determine case and what to do to prevent similar incident.			

Resource adapted from: Nonprofit Risk Management Center Incident Response Tutorial

Why do incidents (injuries, near misses, property damage) happen?

Attitudes	Causes of loss	Why
Complacency	Auto incident	• Inadequate training
Arrogance	Slips and falls	• Poorly maintained floor or floor covering Carrying too much; can't see. • Fatigue
Ignorance	Equipment related	• Distracted driving
It's not my problem… it's the boss's problem	Exposure to harmful substance or environment Struck by object Harassment	• Insufficient training • Work overload • Unfamiliarity • Poor supervision • Lack of hazard analysis/control policy and procedures

Recognizing **Barriers to Implementing Workplace Safety Programs**

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Management support (Modeling safe behaviors is critical for a safety program to work.)			
a) Makes a visible commitment to workplace safety practice and procedures.			
b) Rewards others for using correct safety procedures.			
c) Sets and communicate consequences to those who choose not to follow correct safety procedures.			
2. Understanding and Appreciation at all levels			
a) Explains why safety is crucial issue.			
b) Participates in safety training.			
c) Shares information with others about the impact incident/injuries can have.			
3. Time (Implementing a safety program is an investment of timeand energy that is well spent.)			
a) Knows what and why safety plans are set by management.			
b) Commits to regular safety training.			
4. Communication (Clearly and consistently communicate safe behaviour expectations.)			
a) Communicates clear messages about safety and the consequences of incidents/injuries to everyone.			
b) Sets clear goals and objectives to reduce frequency of incidents and injuries.			

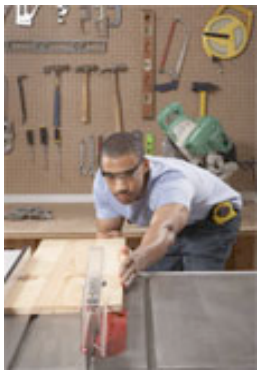
Recognizing Barriers to Implementing Workplace Safety Programs (Continued)

The Student is able to demonstrate safe and correct performance of the following:	Date	Sign-off	Notes
5. Overcome Barriers (Identify and remove known and potential barriers to implementing a w safety program) Processes include: - **Benchmarking**: setting standards to measure safe behaviour. - **Internal Competition:** having classes compete for which has the best safety plan and safety record. - **Communication:** everyone needs to know and understand the immediate and potential impact of an injury/incident on the organization. - **Better management/employee relations:** rewarding workers having good safety records and for meeting organization's safety goals and objectives.			

Resource adapted from:
Weller, Alfred O. and Lisa Sayegh, "Value Benchmarks for Public Entities," *Public Risk*, May/June 1998, Public Risk Management Association (Best Practices to Overcoming Barriers

Four Elements of Workplace Safety Programs

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Leadership and Involvement			
a) Posts written safety and health policy for all to see.			
b) Involves others in policy making on safety and health issues.			
c) Actively participates in safety programs.			
d) Models safe behaviour.			
e)			
2. Workplace Analysis			
(Proper workplace design improves both safety and productivity.)			
a) Analyzes workplace to identify and eliminate hazards.			
b) Performs analysis on a regular and timely basis.			
c) Ensures everyone knows and understands the hazards for all jobs and processes.			
3. Hazard Prevention and Control			
a) Checks and maintains equipment regularly.			
b) Uses and maintains Personal protective equipment.			
c) Follows set procedures used for handling tasks and situations.			
4. Safety and Health Training and Education			
(Everyone should be properly trained to work safely.)			
a) Helps others to work safely			
b) Participates in emergency-preparedness drills.			
c) Participates in safe and proper-use training before any hand tool or power tool used			
d) Is trained to recognize hazards and understand what to do when a new hazard is identified. .			



Workshop/Classroom Facilities

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
Housekeeping Procedures			
1. Ensures benches, tool racks and storage areas are adequate.			
2. Ensures aisles are clear of protruding materials.			
3. Ensures floors are free of oil, water and foreign materials.			
4. Ensures corners are clean and clear.			
5. Ensures walls, windows and shelves are clean and tidy.			
6. Ensures office area is tidy and kept orderly.			
7. Ensures materials, including scrap materials, are stored properly in an orderly and safe manner.			
8. Knows WHMIS.			
Environmental Conditions			
1. Ensures lighting is safe, sufficient and well placed.			
2. Ensures temperature is even and comfortable.			
3. Ensures air in the lab/classroom/workshop is free from excessive dust, smoke and fumes.			

Workshop/Classroom Facilities cont'd			
Environmental Conditions cont'd			
4. Ensures noise levels are within a reasonable range.			
Fire Precautions			
1. Understands the need for adequate exit doors and open aisles for prompt evacuation.			
2. Knows of the proper facility evacuation procedure.			
3. Knows the proper use of fire extinguishers, the types and classes of fires, and determines the need for an adequate supply, proper location, and maintenance of extinguishers.			
4. Understands that all flammable and combustible liquids, toxins, acids and caustics must be stored securely in proper cabinets.			
5. Knows that oily rags and other combustibles must be placed in fire-approved metal containers complete with safety lids.			
6. Knows that areas around heat sources must be free from combustible materials.			
Electrical Supply			
1. Knows the location of the master control "Panic Stop System" to shut off power.			
2. Understands that power panels should have clearly identified markings for each machine.			
3. Knows circuits should not be overloaded.			
4. Knows switches have no exposed wires and are the proper type.			
5. Understands why high voltage warning signs must be visible.			
6. Understands why temporary wiring is not used.			
Gas Supply			
1. Knows the location of the main supply cutoff valve and that it should be located away from heat or fire areas.			
2. Understands why temporary gas lines are not used.			
3. Knows that gas flow to appliance is regulated and why.			
4. Understands that gas-operated equipment is ignited from an automatic ignition system or pilot light.			

Workshop/Classroom Facilities cont'd			
Gas Supply cont'd			
5. Knows that gas equipment is provided with a shutoff vale and a safety system. (Example: spark ignition, gas pressure regulator, safety gas check valve, etc.)			
General Conditions			
1. Knows that non-skid areas are needed around machines.			
2. Knows that designated safety zone areas are provided around all dangerous areas.			
3. Knows that stairways within existing laboratories require safe tread and rise with unobstructed access with approved railings.			
4. Understands that hazardous features of the facility must be clearly identified.			
5. Understands that machine and work stations must be located in relationship to the amount of supervision required.			
6. Knows that room furniture and equipment must be arranged for optimum safety.			
First Aid			
1. Knows the location and availability of first aid supplies.			
2. Knows the location of the eye-wash baths and showers when using caustic materials.			
Communication			
1. Understands that safety bulletin boards, posters, and student reports are part of the total safety program.			
2. Understands the safety instructions for the use of each machine, lab or workplace being used.			
3. Understands the safety rules specific to each danger station.			
4. Informs and provides details of safety concerns associated with work area/task.			
5. Ensures proper safety example is continuously set by supervisor through deeds and actions, such as the proper use of appropriate protective equipment.			
6. Have a sense of responsibility to promote, develop, and periodically evaluate safety program.			
7. Knows the proper procedures should a person be hurt.			

Confined Space Safety: 1

Most confined spaces are hazardous. The most hazardous are those which:
- have limited access and exit ways
- contain hazardous or potentially hazardous materials
- mechanical devices, electrical and other service utilities feeding in and out of them.

Some confined spaces have open tops and are very deep; others are enclosed spaces with entrance-exit access as small as 45cm.)

A confined space is one with all or one of the following are present:

a) Limited openings for entry and exit
b) Unfavorable natural ventilation that could contain or produce dangerous air contaminants
c) Not intended for continuous occupancy.

Types of Confined Spaces:

- boilers
- cupolas
- degreasers
- furnaces
- pipelines
- pits
- pumping stations
- reaction or process vessels
- septic tanks
- sewage digesters
- sewers
- silos
- storage tanks
- ships holds
- tunnels
- underground utility vaults
- vats
- ventilation and exhaust ducts

Reasons for entering a Confined Space

To perform inspections.

To perform repairs.

To perform maintenance (cleaning or painting).

To perform new construction..

Hazards

Constructing or working in a confined space will involve dangers related to one or more of the following potential hazards:

a) **Chemical-Physical**: May contain explosive contents.
b) **Chemical:** May contain toxic gases, fumes, etc.
c) **Biological-Physical**: Lack of oxygen may result in asphyxiation
d) **Physical**: Potential for being crushed

Resource adapted from:
:Permit-required Confined Space. OSHA uses the term *permit-required confined space* (or *permit* space) to describe those spaces that both meet the definition of confined space and pose health or safety hazards.

Confined Space Safety : cont'd

Hazardous Atmospheres Space has limited natural air movement and results in: a) **Oxygen-deficiency** – less than 19.5% oxygen and requires use of self-contained breathing apparatus (SCBA). Welding, cutting or brazing, certain chemical reactions (rusting) or bacterial action (fermentation) can reduce oxygen levels. b) **Flammability** – caused by an oxygen-enriched atmosphere (above 21 percent) and a flammable gas, vapor or dust in the proper proportion. If sparking, electrical tool or other source of ignition is used in this scenario, an explosion will occur. c) **Toxicity** – created from toxic substances as a result of: - **Stored products** in the space can be absorbed into the walls and give off toxic gases when removed. Toxic gases can be given off when cleaning the stored product. - **Working in a confined space**. (e.g.: Welding, cutting, brazing, painting, scraping, sanding, and degreasing can create toxic atmospheres. - **Areas close to confined space** can create toxicants that can enter and build-up in the confined space. -			
General Physical Hazards a) **Temperature extremes** – Extremely hot or cold temperatures can cause harm to workers. b) **Engulfment** – Grain, sand, coal and other loose, granular material stored in bins and hoppers engulf, crush and suffocate a worker. It can also form a crust or bridge in a bin and break loose under the weight of a worker. c) **Noise** – sounds louder in a confined space and can damage hearing and interfere with communications and shouted warnings. d) **Slick or Wet Surfaces** – Slips and falls can cause injuries and deaths. e) **Falling Objects** – are dangerous in confined spaces with topside openings or where work is being done above another worker.			

Confined Space Safety: cont'd

Risk Management Strategies	**Date**	**Sign-off**	**Notes**
The Student is able to demonstrate safe and correct performance of the following:			
1. Atmosphere Testing (*Some gases and vapors are heavier than air and sink to the bottom of confined spaces, others are lighter than air and rise to the top of the spaces.*			
a) Tests top, middle and bottom of the confined space from the outside with a properly calibrated instrument.			
b) Ventilates and retests if oxygen deficiency or toxic gases or vapors are found before workers are allowed to enter.			
c) Provides everyone with appropriate respiratory protection if ventilation is impossible and entry is necessary (emergency rescue).			
2. Ventilation *(Method and equipment used depends on the size of the entry, the gases to be exhausted and the source of air replacement.)*			
a) Uses a blower or fan to remove toxic gases and vapors from the confined space.			
3. Isolation *(Remove confined space from service.)*			
a) Locks out (electrical sources)			
b) Blanks and bleeds (pneumatic and hydraulic lines)			
c) Disconnects (belt and chain drives, and mechanical linkages on shaft-driven equipment where possible)			
d) Secures (mechanical moving parts with latches, chains, chocks and blocks			
4. Respirators *(Personal protective equipment that allows workers to safely breathe without inhaling toxic gases or particles.)*			
a) **Air-purifying** – filters dangerous substances from the air.			
b) **Air-supplying** – delivers a supply of safe air from a tank or an uncontaminated area nearby.			
c) Is trained in the use and limitations of respirators before being allowed to use them in a confined space situation.			
5. Standby and Rescue *(More than 50 percent of workers who die in confined spaces are attempting to rescue others.*			
a) Rescuers trained to follow established emergency procedures, use proper equipment and techniques.			
b) Practices emergency evacuation procedures.			

Confined Space Safety: cont'd

Recommendations:	**Date**	**Sign-off**	**Notes**
a) Ventilates with normal air.			
b) Uses air-supplying respirators in confined spaces where there is not enough oxygen.			
c) Tests the air before entering a confined space and take appropriate precautions. - The amount of oxygen cannot be determined by any of the five senses.			
d) Empties confined space emptied of any corrosive or hazardous substances before entry.			
e) Considers relationship among hazards that may be in a confined space, e.g.: flammable vapor/gases, static electricity.			
f) A person must remain on standby outside a confined space and remain in communication with those inside. - The outside person should only enter the confined space after help arrives and only with the proper lifelines and respirators.			
g) Reports incidents/injuries involving confined space entry.			
h) Checks that all lines to a confined space containing inert, toxic, flammable, or corrosive materials are locked-out/tagged or disconnected before entry.			
i) Checks that all moving parts and equipment inside a confined space are locked-out.			

Confined Space Safety Checklist

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Checks availability of adequate light for the work to be performed in the confined space.			
2. Ensures the atmosphere inside the confined space is frequently monitored while work is performed in the confined space.			
3. Ensures standby worker is trained and equipped to handle an emergency.			
4. Ensures standby person are prohibited from entering the confined space without lifelines and respiratory equipment.			
5. Provides respiratory equipment required if the atmosphere inside the confined space is unsafe.			
6. Ensures all portable electrical equipment used inside confined space is either grounded and insulated, or equipped with ground fault protection.			
7. Before gas welding or burning is started in a confined space: - ensures hoses are checked for leaks - torches are lit outside confined area - tests confined space is for explosive atmosphere.			
8. Ensures exhaust gases vented outside of confined space when combustion-type equipment,			
9. Checks confined space for decaying vegetation or animal matter which may produce methane.			
10. Checks confined space for possible industrial waste which could contain toxic properties.			

Ladders

Ladders are a very handy tool for reaching and climbing. However, the potential for injury or even death can be enormous. Ladders must be kept in a safe condition through basic maintenance. Appropriate training in how to use a ladder for tasks is key to safety.

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Understands the proper use of ladders.			
2. Understands that bookshelves, chairs, tables and other applications should not be used a “makeshift” ladder.			
3. Uses ladder with correct type of feet for the surface.			
4. Checks ladder for weak or damaged rails and loose or broken rungs.			
5. Discards wooden ladders if side rails or steps are broken. Does not paint or repair them.			
6. Ensures rungs, cleats, and steps are level and uniformly spaced.			
7. Ensures rungs are spaced 10 to 14 inches apart.			
8. Uses ladders only for their designed purpose. Uses non-metallic ladders when working on or near electrical equipment.			
9. Keeps area around the top and bottom of a ladder clear.			
10. Keeps ladders free from slipping hazards.			
11. Positions ladder at an angle where the horizontal distance from the top support to the foot of the ladder is ¼ the working length of the ladder.			
12. Faces the ladder and uses both hands when climbing up or down.			
13. Stays within safe limits of balance and never shifts a ladder while standing on it.			
14. Ensures workers are not leaning over or standing on the top two steps of the ladder.			
15. Ensures barriers and warning signs are placed conspicuously to prevent people from walking into the ladder.			
16. Ensures ladders extend 3 feet above the top of the root contact area.			
17. Ensures proper fall protection is used when working at heights > = 6 feet. (6 feet is the uniform height where fall protection is required.)			

Ladders Checklist

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Does not place ladder - on boxes, barrels, or other unstable bases to obtain additional height.			
- in front of doors opening toward the ladder unless the doors are blocked, locked or guarded.			
- on top step of ordinary stepladders as a step.			
2. Does not tie ladders together to make longer sections or use ladders for other intended uses.			
3. Does not load ladder beyond the maximum load for which it was built, or beyond the manufacturer's rates capacity.			
4. Knows that ladder must extend a minimum of three feet beyond the elevated surface when portable ladders are being used to access elevated platforms, roofs or shelving.			
5. Ensures portable metal ladders are marked with a warning, "**DO NOT USE when working near electrical equipment."**			
6. Secures ladders to prevent incidental movement.			
7. Ensures ladders are secured and provided with slip-resistant feet when used on slippery surfaces.			
8. Maintains ladders in good condition with tight joints between steps and side rails. - Ensures all hardware/fittings are securely attached and moveable parts are operating freely without binding or undue play.			
9. Ensures ladder rungs are free of grease and oil.			
10. Ensures rungs are designed or treated to minimize slipping.			
11. Ensures workers know that ladders are designed to support four (4) times the maximum load.			

Electrical Safety Checklist

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Ensures qualified persons inspect and/or test electrical systems and equipment to determine what conditions exist before starting work on electrical equipment.			
2. Uses proper lockout and tagging procedures when electrical equipment is to be serviced, maintained, or adjusted.			
3. Ensures electrical tools and fixed equipment are grounded or of the double-insulated type.			
4. Ensures electrical appliances, such as vacuum cleaners, polishers, vending machines, etc., are grounded.			
5. Repairs and replaces promptly exposed wiring and cords with frayed or deteriorated insulation.			
6. Checks that flexible cords and cables are free of splices.			
7. Protects electrical tools and equipment in wet or damp locations.			
8. Guards all energized parts of electrical circuits and equipment against incidental contact by approved cabinets or enclosures.			
9. Provides and maintains sufficient access and working space around all electrical equipment to permit ready and safe operations and maintenance.			
10. Documents all follow-up actions necessary and taken to ensure the maximum level of worker health and safety.			
11. Checks that rubber-insulating mats are at the base of high voltage boxes			
12. Does not wear jewelry, watches and other metal objects n while working with electricity or machinery.			

Resource adapted from: InsourceSafety.com.

Ergonomics

Ergonomics is the study of workplace equipment design or how to arrange and design devices, machines, or workspace so that people and things interact safely and more efficiently by reducing stress and strain on it while performing required tasks.

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Identifies ergonomic hazards			
2. Understands types of injuries improper attention to ergonomic hazards can cause: a) Strains and sprains—A poorly-designed workstation can result in twists, turns and uncomfortable movements. - Ensure that there is enough desk space to accommodate materials and equipment that are part of the job> b) Injuries sustained while lifting and stretching—Lifting heavy objects can cause serious injuries, but failing to lift objects of any weight properly can also result in injury. - Ensure that proper methods are used when lifting and stretching. c) Repetitive strain injury—Individuals can sustain repetitive strain injuries by working workstations that are not properly adjusted. Repetitive injuries are particularly chronic problems that could result in permanent disability.			

Ergonomics Checklist

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Ensures workstation fits individual.			
2. Rest breaks provided to workers performing tasks that require prolonged raising of the arms, pressure points on the wrists, forearms to relieve stress from repetitive motions.			
3. Keeps workstation ergonomically sound and efficient.			
4. Keeps work area well lit.			
5. Organizes workspace to minimize uncomfortable movements e.g.: twists, turns.			
6. Ensures work space accommodates necessary materials and equipment.			
7. Identifies ergonomic hazards before work begins.			
8. Follows proper procedures/programs/methods to eliminate or reduce risk of ergonomic-related injury.			
9. Ensures all actions taken ensure appropriate level of health and safety are in place.			

Kitchen Equipment Checklist

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Ensures equipment is appropriate for the setting			
2. Ensures equipment is installed and maintained properly			
3. Ensures ventilation is appropriate for work.			
4. Ensures wiring matches the capacity of the equipment and is grounded appropriately			
5. Operates and maintains equipment according with manufacturer's instructions.			
6. Maintains proper refrigerator/freezer temperatures.			
7. Cleans food surfaces with commercial kitchen-cleaning agents diluted according to manufacturer's instructions.			
8. Ensures flooring is safe.			
9. Washes hands before handling food.			
10. Washes hands after using the rest room.			
11. Maintains food at a proper temperature: hot foods at 140° F. or warmer and cold food at 40° or colder.			
12. Protects food by covering with a lid, plastic wrap or aluminum foil.			
13. Refrigerates food prepared with mayonnaise until just before eating.			
14. Ensures smoke detector is properly located and in good working order.			
15. Ensures appliances, plugs, and cords are in good condition.			
16. Ensures cords of appliances are not dangling or lying across traffic areas.			
17. Uses rear burners and turns pot handles around to prevent pots being pulled over.			
18. Ensures matches, knives and other sharp objects are stored properly and out of children's reach.			
19. Ensures cleaning products, chemicals and medication are stored properly in a locked cupboard.			
20. Ensures garbage containment is handled properly in closed containers.			

Resource adapted from: Kitchen Equipment Checklist

Hazardous and Toxic Substances

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Defines WHMIS and MSDS.			
2. Recognizes chemical hazards present in the workplace, including dusts, mixtures, paints, fuels, solvents, etc.			
3. Identifies hazards linked to cleaning solvents, printer toner, etc.			
4. Recognizes the hazards associated with hazardous and toxic substances.			
5. Understands purpose and location of Material Safety Data Sheets (MSDS), labeling, and WHMIS training: a) how to use and obtain an MSDS b) MSDS contents for each hazardous substance or class of substances c) "Right to Know" d) where hazardous substances are present in their work areas e) physical and health hazards of substances in the work area, and specific protective measures to be use			
6. Follows safety practices to prevent incidents and injuries a) Recognizes tasks that might result in occupational exposure b) Uses work practice and engineering controls and personal protective equipment and knowing their limitations c) Obtains information on the types, selection, proper use, location, removal handling, decontamination, and disposal of personal protective equipment. d) Knows who to contact and what to do in an emergency.			
7. Recognizes hazardous substances and containers from their labeling, product identity.			
8. Knows where to access MSDS's for each hazardous substance in workplace.			
9. Checks that chemicals are stored and labeled in storage containers approved for the chemical.			

General Work Environment

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Housekeeping			
a) Uses correct housekeeping procedures			
b) Keeps work and walking surfaces dry.			
c) Uses proper procedures to clean-up and dispose of hazardous potentially combustible and infectious materials.			
d) Cleans combustible dust with a vacuum system to prevent possible ignition.			
e) Uses covered waste cans and metal cans for oily and paint-soaked waste).			
2. Fire			
a) Identifies location of emergency exits clearly visible.			
b) Checks that exits are free of obstructions.			
c) Checks that fire extinguishers are easily accessible.			
d) Is trained to use correct type of fire extinguisher.			
e) Checks that flammable and combustible materials stored in approved areas.			
3. Back Care			
a) Uses mechanical aides to lift heavy or awkward loads .			
b) Usescorrect manual lifting techniques.			
4. First Aid			
a) Checks that First Aid kits are well stocked and clearly visible and identifiable.			
b) Checks that eyewash stations are properly maintained and visible.			

Lockout/Tagout Prodecures

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. **Sets safe practices and procedures used for "lockout/tagout"** (Safeguards workers from unexpected energizing or startup of machinery and equipment or the release of hazardous materials during servicing or maintaining activities.)			
2. **Knows that only a trained person can turn-off/disconnect equipment** - Energy source must be shut-off before servicing any piece of electrical equipment or tool. - Energy source must be locked/tagged to-isolate device. - Verify that the energy has been isolated effectively.			
3. **Recognizes Lockout devices** - Devices hold energy-isolation in a safe or "off" position. - Prevents machines or equipment from becoming energized. - Lockout device only removed with a key, an unlocking mechanism.			
4. **Recognizes Tagout devices** - Warning signs placed by trained person to warn workers on locked out energy sources. - Prevents accidentally re-energizing a machine or equipment while it is being serviced or maintained. - Are easier to remove and provide others with less protection than do lockout devices.			
5. Follows Workplace energy control procedures: - Training and safety procedures reviewed regularly. - Lockout/tagout devices checked regularly.			

Hand and Power Tools

Hand tools
- **Hand tools can be hazardous.**
- Proper tool handling/ use reduces risk of injury.
- Improper tool handling/use increases risk of injury.
- Hazard increases if hand tool not properly used or maintained.

Power tools and equipment
- **Power tools and equipment can be hazardous.**
- Power tools classified by type of power source, e.g.: electric, pneumatic, liquid fuel, hydraulic, and powder-actuated
- Hazard increases if power tool not properly used/maintained

Tools and equipment use and operation training
- Safe-use training provided before any hand tool used.
- Safe-operation training provided before any power tool used or equipment operated.

Housekeeping
- Ensures floors are kept clean and dry to prevent slips with or around dangerous tools.

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Keeps knives and scissors sharp; knows dull tools can be more hazardous that sharp ones.			
2. Never carries a tool by the cord or hose.			
3. Never yanks the cord or hose to disconnect tool from plug-in.			
4. Keeps cords and hoses away from heat, oil and sharp edges.			
5. Disconnects tool from the power source before servicing or changing accessories.			
6. Uses both hands to operate tool, securing work with clamps or a vise, as necessary.			
7. Keeps finger off the “on” switch button unless operating the tool.			
8. Follows manufacturer’s instructions for lubricating and changing accessories.			
9. Wears proper clothing - Does not wear clothing or accessories that could be caught in moving parts.			
10. Removes all damaged portable electric tools from use and tags “DO NOT USE”.			
11. Uses the appropriate personal protective equipment, as necessary.			
12. Ensures manufacturer’s safety guards are in place and never removed when tool is in use.			
13. Uses each tool for purpose for which is was designed.			
14. Inspects each tool for unsafe parts before use.			

Hand and Power Tools

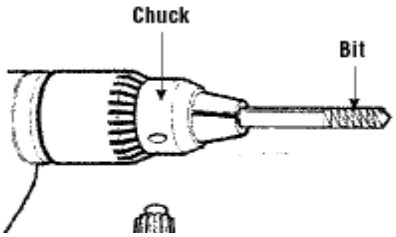
The Student is able to demonstrate safe and correct performance of the following:	Date	Sign-off	Notes
Hammers			
1. Uses correct type of hammer for work being done.			
2. Ensures swing is unobstructed and free from overhead interference.			
3. Checks for defects before using hammer.			
Wrenches			
1. Selects correct size of wrench for the job.			
2. Ensures pipes are not used as wrench handle extensions.			
3. Ensures too much leverage is not used while operating the tool.			
Knives, sharps and edged tools			
1. Ensure sharps (.e.g.: needles, syringes) are handled safely and disposed of properly in approved sharps disposal containers.			
2. Ensures blades are kept sharp.			
3. Ensures sharps are safeguarded and secured when not in use.			
4. Cuts away from the body and ensures hands and body are clear of the knife stroke.			
Chisels			
1. Ensures edges are kept sharp and protected when not in use.			
2. Ensures chisels are not used to pry.			
3. Ensures chisel is driven outward and away from the body.			
4. Uses safety goggles or face shield when using a chisel.			
Electric Tools:			
1. Knows tools must either have a 3-wire cord with ground and be grounded, or be double insulated, or be powered by a low-voltage isolations transformer.			
2. Only operates electric tools within their design limitations.			
3. Wears proper personal protective gloves, safety shoes/boots, glasses, etc.			
4. Stores tools in dry place.			
5. Does not use power tools in damp or wet sites.			
6. Ensures work areas are well lighted.			

Hand and Power Tools

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
Powered Abrasive Wheel Tools – grinding, cutting, polishing and wire buffing wheels			
1. Uses proper PPE (eye protection).			
2. Never stands directly in front of the wheel until it reaches full operating speed.			
3. Inspects wheel to ensure it is free from cracks and defects.			
4. Ensures safety guards are in place.			
5. Checks that wheel fits freely on the spindle.			
6. Turns power off when not using the tool.			
Pneumatic Tools – chippers, drill, hammers and sanders powered by compressed air.			
1. Ensures all hoses have safety devices at the source of the supply or branch line to reduce pressure in case of hose failure.			
2. Wears PPE (eye protection, face guard, ear protection, etc.)			
3. Installs a safety clip or retainer to prevent attachments from being hot from the barrel.			
4. Never points compressed air guns against the user or anyone else.			
Powder-Actuated Tools:			
1. Recognizes that powder-actuated tools are very dangerous and are like loaded guns.			
2. Understands that only specially trained persons should operate this type of equipment.			
Hydraulic Tools			
1. Uses only approved fire-resistant fluid.			
2. Understands that manufacturer's recommended operating pressure for any part must not to be exceeded.			

Hand and Power Tools

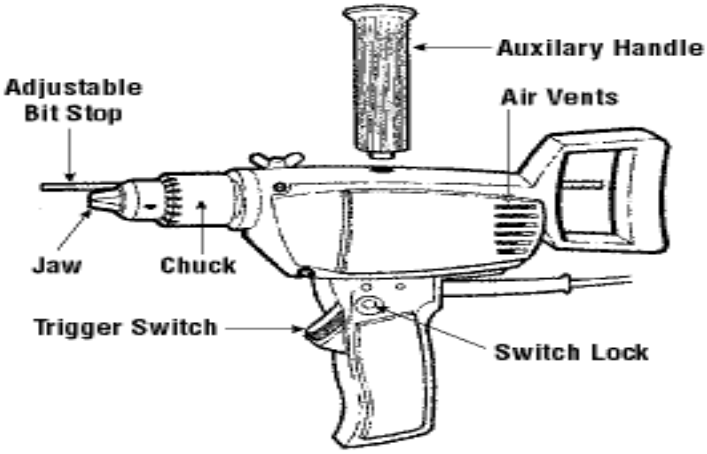
The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
Jacks			
1. Knows that all jacks must have a safety device that stops them from going up too high.			
2. Knows that manufacturer's load limit must be permanently marked in a visible place and not be exceeded.			
3. Knows that a lifted load, once it reaches the proper height, must be blocked immediately.			
4. Ensures that: - base rests on a firm, level surface - jack is correctly centered - jack heads bears against a level surface - lift force is applied evenly.			
5. Lubricates tool regularly			
6. Inspects each jack before each use.			
General Safety Skills			
1. Identifies hazards associated with each type of tool used			
2. Demonstrates safe-use practices to eliminate or reduce risk of injury from each hazard.			
3. Uses power tool only with the instructor's permission.			
4. Uses appropriate PPE at all times.			
5. Advises instructor of hazardous tool, equipment or situation.			



Power Tools: DRILLS

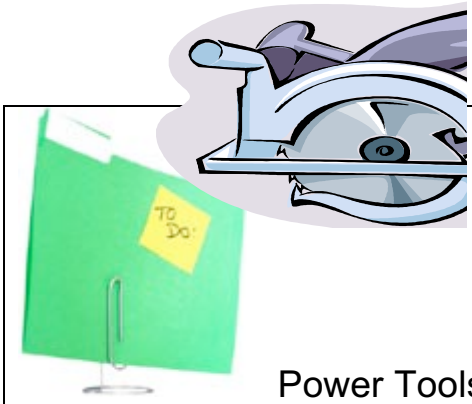
The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Checks drill for defects before using.			
2. Follows manufacturer's instructions when selecting and using a bit or attachment.			
3. Selects the bit or attachment suitable for the size of the drill and the work.			
4. Ensures that the bit or attachments are properly seated and tightened in the chuck.			
5. Uses only bits and attachments that turn true.			
6. Uses the auxiliary (second) handle for larger work or continuous operation.			
7. Ensures key is removed from the chuck before operating.			
8. Unplugs the drill when changing bits.			
9. Marks hole location with center punch (metal) or AWL (wood) before drilling.			
10. Ensures work is tightly clamped or secure before drilling.			
11. Drills with straight even steady pressure.			

Power Tools: Portable Hand Drills



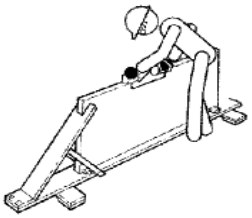
The Student is able to demonstrate safe and correct performance of the following:	Date	Sign-off	Notes
1. Wears appropriate safety glasses or face shield.			
2. Checks that drill bit is sharp.			
3. Inspects cord for frays or damage before use - Keeps all cords clear of the cutting area.			
4. Disconnects power supply before changing or adjusting bit or attachments.			
5. Tightens the chuck securely. - Removes chuck key before starting drill.			
6. Secures item being drilled to prevent movement.			
7. Slows the rate of feed just before breaking through the surface.			
8. Drills a small “pilot” hole before drilling large holes.			
9. Clamps small pieces so work will not twist or spin.			
10. Keeps drill air vents clear to maintain adequate ventilation.			
11. Discards bent drill bits.			
12. Follows manufacturer’s recommended maximum drilling capacities.			
13. Does not use high speed steel (HSS) bits without cooling or using lubrication.			
14. Does not attempt to free a jammed bit by starting and stopping the drill. - Unplugs the drill then removes the bit from the workpiece			
15. Does not reach under or around piece being drilled.			
16. Always keeps proper footing and balance when using drill.			
17. Does not raise or lower the drill by its power cord.			

Resource: Powered Hand Tools - Basic Safety for Electric Tools

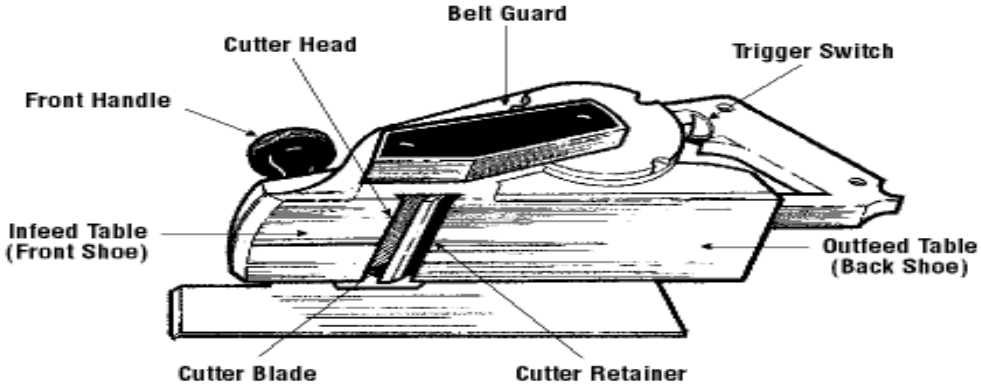


Power Tools: Electric-powered Tools

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Is properly trained to use the tool safely			
2. Inspects tools for any damage prior to each use.			
3. Checks the handle and body casing of each tool for cracks or other damage.			
4. Checks to see if auxiliary or double handles are installed securely.			
5. Inspects cords for defects, e.g.: cracking, fraying, wear or faults in cord insulation.			
6. Checks switches or trigger locks for damage.			
7. Inspects plug for cracks and for missing, loose or faulty prongs.			
8. Ensures power tool has correct guard, shield or other attachment.			
9. Ensures that tools are properly grounded and double-insulated (and are labeled as such), or are powered by a low-voltage isolation transformer:			
10. Replaces open front plugs with dead front plugs. Dead front plugs are sealed and present			
11. Removes defective tool from service and tags it with “Out of Service”.			
12. Uses correct battery for the battery-powered tool.			
13. Recharges a battery-powered tool only with charger provided.			
14. Stores a battery pack safely: - No metal parts, nails, screws, wrenches come in must be in contact with the battery terminals			
15. Wears appropriate PPE.			
16. Does not use electric tools in wet/damp conditions unless tool is connected to a ground fault circuit			
17. Stores tool in dry, secure location when not being used.			
18. Does not leave a running tool unattended. - Does not leave it until it has been turned off, has stopped running and been unplugged.			



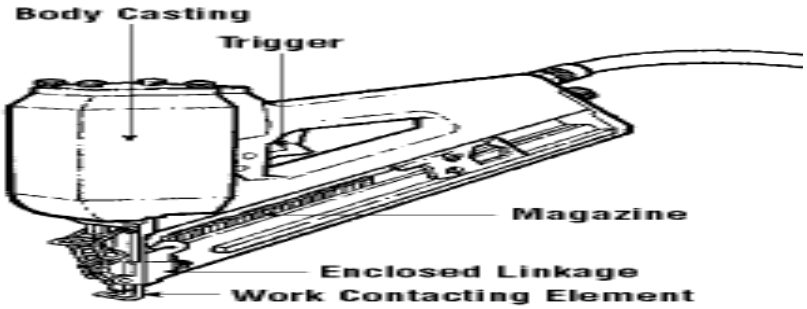
Power Tools: Planer



The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Is trained to use the tool.			
2. Wears PPE, e.g.: safety glasses/face shield, hearing protection.			
3. Disconnects planer from the power supply before adjusting cutter head or blades.			
4. Ensures switch is in off position before plugging in.			
6. Uses blades of the same weight and set at the same height.			
7. Ensures the blade-locking screws are tight.			
8. Removes adjusting keys and wrenches before turning on power.			
9. Supports the material (stock) in a comfortable position to allow the job to be done safely and accurately.			
10. Checks stock thoroughly for staples, nails, screws, or other foreign objects before using a planer.			
11. Starts a cut with the infeed table (front shoe) resting firmly on the stock and with the cutter head slightly behind the edge of the stock.			
12. Uses two hands to operate a planer – one hand on the trigger switch, the other on a front handle.			
13. Does not put finger or any object in a deflector to clean out chips while a planer is running.			
14. Disconnects power supply when stopping to clear chips.			
15. Does not set planer down until blades have stopped turning.			
16. Stands on side of planer near the controls. - Never stands behind stock when being fed into the planer.			
17. Keeps power cord clear of cutting area.			
18. Keeps proper footing and balance. - Does not overreach.			

Resource: Powered Hand Tools - Basic Safety for Electric Tools

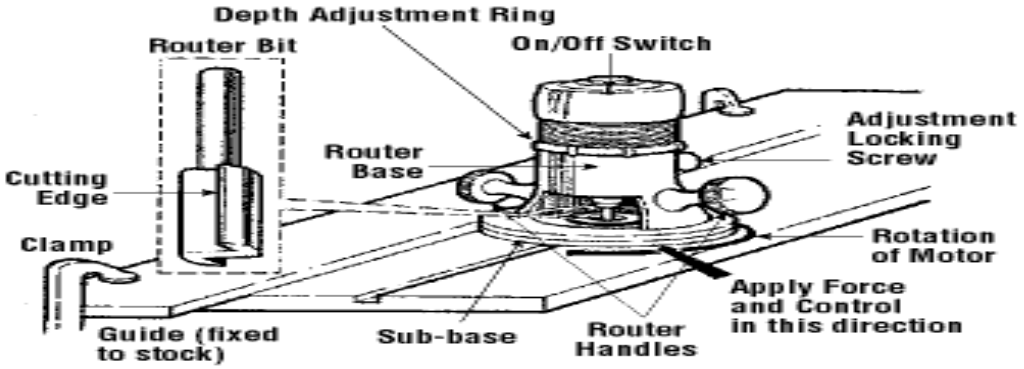
Power Tools: Pneumatic Nailer and Stapler



The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
Notes: **a) Only experienced and trained person may operate pneumatic nailing and stapling tools.** **b) Always handle a tool as if it is loaded with fasteners (nails, staples, etc.)**			
1. Wears PPE e.g.: safety glasses or face shield, hearing protection.			
2. Inspects h tool before connecting it to the air supply: - Checks tool safety mechanisms if applicable. - Tightens all screws and cylinder caps securely.			
3. Checks for correct air supply and pressure before connecting tool.			
4. Checks that tool is correctly and securely connected to the air supply.			
5 Checks that tool has a work-contacting element (limits the contact area to one that is as small as practical).			
6. Checks that mechanical linkage between work-contacting element and trigger is enclosed.			
7. Disconnects tool from air supply when not in use. - Before cleaning a blockage, depress the trigger to exhaust all air from the tool.			
8. Uses only manufacturer recommended fasteners.			
9. Never points tool (even if empty) toward self or anyone else.			
10. Does not: - operate at a pressure above the manufacturer's rating.			
- depress the trigger unless the nose piece of tool is directed onto a safe work surface.			
- carry a tool with the trigger depressed.			
- load a tool with fasteners while the trigger is depressed.			
- overreach. Keeps proper footing and balance.			
- use compressed air to blow debris or to clean dirt from clothes.			

Resource: Powered Hand Tools - Basic Safety for Pneumatic Tools

Power Tools: Router



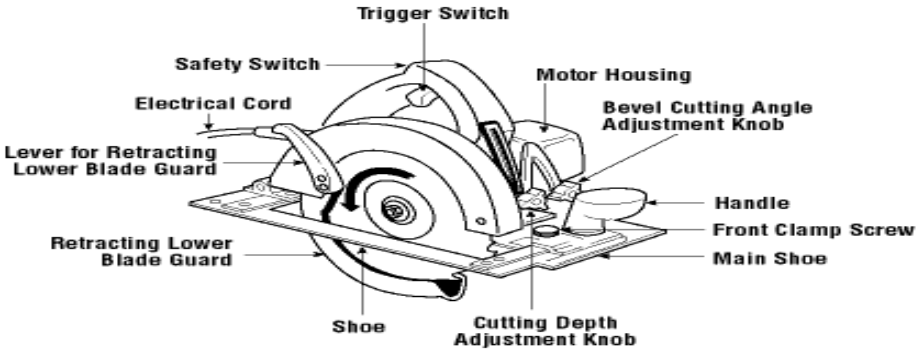
The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Wears PPE e.g.: eye protection or face shield, hearing protection.			
2. Disconnects power supply before making adjustments or changing bits. - Inspects bits carefully before installing.			
3. Ensures that bit is securely mounted in the chuck and the base is tight.			
4. Puts base of router on work, template or guide. - Ensures that bit can rotate freely before switching on motor.			
5. Checks stock for staples, nails, screws, foreign objects before using.			
6. Secures stock.			
7. Keeps power cord clear of cutting area.			
8. Holds both hands on router handles until a motor has stopped. - Does not set router down until exposed router bit stops turning.			
9. Does not overreach. Keeps proper footing and balance.			
10. When inside routing, starts the motor with the bit above the stock. - When the router reaches full power, lowers bit to required depth.			
11. Guides router counterclockwise when routing outside edges.			
12. Ensures router bit is in contact with the stock to left of a starting point and is pointed in the correct cutting direction when routing bevels, moldings, and other edge work.			
13. Feeds router bit into the material at a firm, controlled speed.			
- Cutting faster in softwood.			
- Cutting slow in hardwood, knotty and twisted wood.			
14. Identifies motor sound for safe cutting speeds. - When the router fed into material too slowly, motor makes a high-pitched whine. - When router is pushed too hard, motor makes slow growling noise.			
15. Tests router on scrap lumber similar to the work to determine depth of cut and how many passes to make.			

Resource: Woodworking Machines - Shapers

Power Tools: Grinder

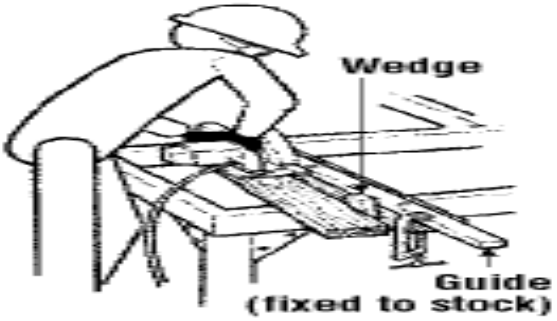
The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Ensures all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Adjusts tool rests to within 1/16" of the grinding wheel.			
6. Adjusts spark deflectors to within 1/16" of the grinding wheel.			
7. Never grinds on the side of the grinding wheel.			
8. Stands to one side when starting the machine.			
9. Discards and reports grinding wheels that are excessively small or cracked.			
10. Uses a "vise grip" type pliers when working with small pieces.			
11. Never leaves the machine until the grinding wheel has come to a full stop.			

Power Tools: Circular Saw



The Student is able to demonstrate safe and correct performance of the following: **Note:** ***Left-handed operators demand more care to operate safely as circular saws are designed for right-handed operation***	**Date**	**Sign-off**	**Notes**
1. Wears proper PPE e.g.: eye protection or face shield, dust mask, hearing protection.			
2. Checks the retracting lower blade guard to ensure it works freely.			
3. Ensures the blade is sharp enough to do the job. - Sharp blades work better and are safer.			
4. Checks the saw for proper blade rotation.			
5. Sets the depth of the blade, while the saw is unplugged: - Locks it at a depth so the lowest tooth extends no more than 0.3 cm beneath the wood.			
6. Keeps power cords clear of cutting area.			
7. Checks retracting lower blade guard frequently to ensure it works freely, encloses teeth, covers unused portion of blade when cutting.			
8. Checks to ensure the retracting lower blade has returned to its starting position before laying down saw,			
9. Keeps upper and retracting lower blade guard clean /free of sawdust.			
10. Disconnects power supply before adjusting or changing blade.			
11. Allows saw to reach full power before starting to cut.			
12. Uses two hands to operate saw: – one on a trigger switch, the other on the front knob handle.			
13. Keeps motor free from of dust and chips.			
14. Selects correct blade for stock and allows it to cut steadily.			
18. Secures stock being cut to avoid movement.			
19. Removes jewelry, eliminates loose clothing, and confines long hair.			
20. Makes sure all guards are in place and operating correctly.			

Power Tools: Circular Saw (continued)



The Student is able to demonstrate safe and correct performance of the following: **Note:** ***Left-handed operators demand more care to operate safely as circular saws are designed for right-handed operation***	**Date**	**Sign-off**	**Notes**
21. Does not: - hold or force the retracting lower guard in the open position.			
- place hand under the shoe or guard of the saw			
- cover tighten the blade-locking nut			
- twist the saw to change, cut or check alignment			
- force the saw during cutting			
- cut materials without first checking for nails or screws			
- carry the saw with a finger on the trigger switch.			
- overreach. Keeps proper footing and balance.			
Resource: Powered Hand Tools - Basic Safety for Electric Tools			

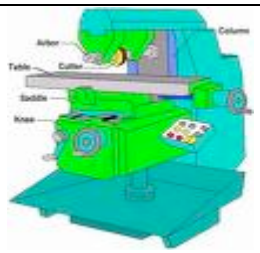
Horizontal Band Saw

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Ensures power is off when making all adjustments to the chip removal brushes, blade tension, guides, vise, or drive system.			
6. Ensures blade guides are properly adjusted to both the blade and the work size or vise before starting cut.			
7. Adjusts feed rate so blade does not bounce or plunge into work when starting the cut.			
8. Ensures work is tightly clamped in the vise and properly positioned for an efficient safe cut.			
9. Keeps hands away from cutting area and brushes away chips only when the machine is turned off.			
10. Ensures coolant system is working and the correct coolant is used when material requires coolant.			

Bayonet (Jig)Saw

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Ensures the blade is the correct type for the material and that it is tightly clamped in the chuck.			
6. Ensures switch is off before connecting to the power source.			
7. Uses vise or clamps to securely hold material to be cut.			
8. Keeps cutting pressure constant; does not force the blade into the work.			
9. Always keeps the base tightly against the material being cut.			
10. Does not set the saw down on the bench until it has stopped.			
11. Lays the tool on it's side when the blade is in the tool.			

Horizontal Milling Machine

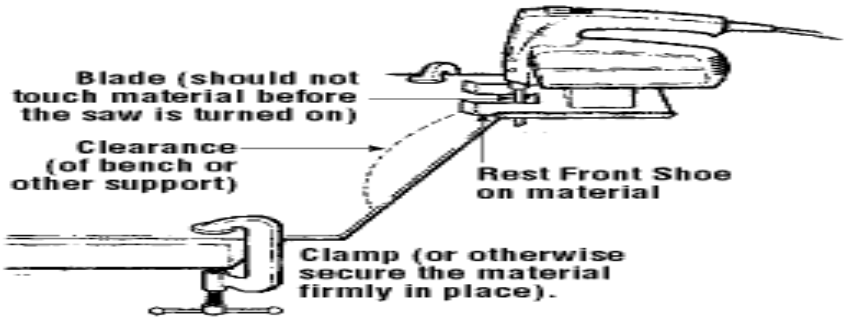


The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Ensures power is off when making all adjustments to the machine.			
6. Ensures cutter is tightly held in arbor or collet and material is securely held by a vise, clamps, or magnetic chuck.			
7. Does not climb cut without specific permission and proper instruction.			
8. Checks depth and width of cut, cutter rotation, plus speed of cutter and power feed before starting the machine.			
9. Keeps hands away from chips and the point of operation while machine is operating.			
10. Remains with the machine for the duration of the cut, and turns the machine off when finished.			

Sheet Metal Machine

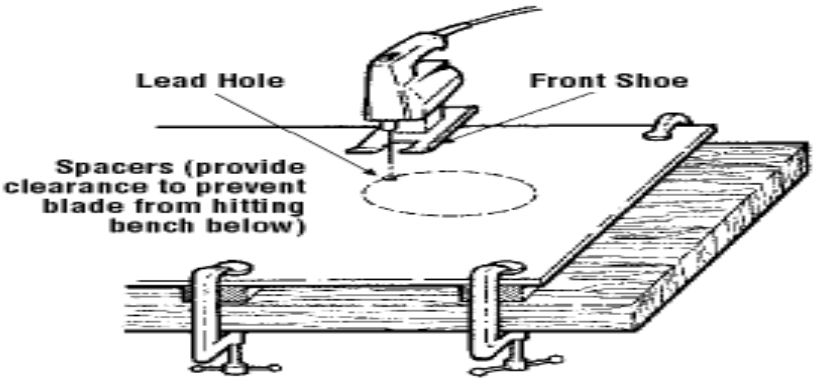
The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Ensures power is off when making all/any adjustments to the machine.			
6. Use lockout/tag procedures when making repairs or performing routine maintenance.			
7. Adjusts, changes rolls, sets stops, and properly checks or assembles before operating.			
8. Never bends, rolls, crimps or beads metal which exceeds the capacity of the machine.			
9. Works with only one piece of metal at one time, never double thickness or two pieces side by side.			
10. Removes burrs from the metal before putting in the machine.			
11. Keeps hands away from clamps, jaws, rolls and other pinch points.			
12. Does not force, hit or drop levers or handles.			

Power Tools: Scroll Saw, Radial Arm, Sabre, Jig, Reciprocating Saws



The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Wears PPE e.g.: safety glasses or face shield.			
2. Disconnects power supply before changing or adjusting blades.			
3. Uses lubricants when cutting metals.			
4. Keeps power cords clear of cutting area.			
5. Positions saw beside material before cutting and avoids entering cut with moving blade.			
6. Ensures guards, if present, are installed and working properly.			
7. Holds reciprocating saw with both hands.			
8. Remembers sabre saws cut on the up stroke.			
9. Secures and supports stock close as possible to cutting line to avoid vibration.			
10. Keeps the base/ shoe of saw in firm contact with stock being cut.			
11. Selects correct blade for material being cut to allow it to cut steadily: - Ensures blades are clean and sharp.			
12. Sets blade to go no further than 0.32 to 0.64 cm deeper than the material being cut.			
13. Does not: - start cutting until the saw reaches its full power.			
- force a saw along or around a curve. (			
- insert blade into or withdraw from cut while blade is moving.			
- put down saw until the motor has stopped.			
- reach under or around the stock being cut.			
14. Always maintains control of the saw			

Power Tools: Sabre, Jig and Reciprocating Saws **(Cont'd)**

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
15. When making an external cut:			
- Places the front of the shoe on the stock.			
- Ensures blade is not in contact with material or saw will stall when motor starts.			
- Holds saw firmly down against material and switch the saw on.			
- Feeds the blade slowly into stock keeping even forward pressure.			
16. When making an inside cut:			
- Drills lead hole slightly larger than saw blade. - With saw switched off, insert blade in hole until tshoe rests firmly on stock.  			
- Does not let blade touch stock until saw has been switched on.			

Resource: [Powered Hand Tools - Basic Safety for Electric Tools]

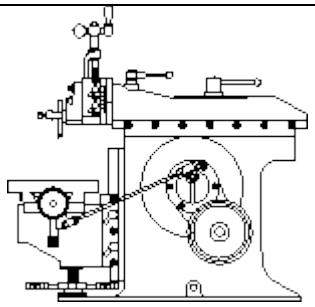
Jointer

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Ensures power is off when making all adjustments to the machine.			
6. Uses a push stick or push block when hands would pass over or come within 2" of the cutter head.			
7. Makes several light cuts (1/16" or 1/8") instead of one heavy cut (1/2")			
8. Understands that the absolute minimum length of material that may be jointed is twice the size of the knives.			
9. Adjusts or moves the rear or out feed table with permission only.			

Metal Lathe

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Removes the chuck key before starting machine.			
6. Rotates spindle by hand to check clearance before starting machine.			
7. Removes chips with a brush, never by hand.			
8. Makes sure the work is secure and lathe is set at correct speed and feed before starting cut.			
9. Handles checks and face plates carefully. Never adjusts tool bit when tool holder is hand held.			
10. Removes tool holder and tool post before filing or polishing.			
11. Keeps hands away from all moving parts.			
12. Allows the lathe chuck to coast to a stop. Never hand stops it.			

Metal Shaper



The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Makes adjustments while the machine is stopped and runs through one cycle by hand as a check for clearance.			
6. Makes sure all guards are secure before starting the machine.			
7. Ensures the work is securely held in the vise or holding device.			
8. Avoids standing directly in front of the ram.			
9. Keeps hands away from the work point or possible pinch point of the shaper.			
10. Never lays tools or tooling on any part of the machine.			
11. Never removes chips while the machine is in motion.			
12. Makes sure the shaper comes to a full stop before leaving the machine.			

Bill C-45

Bill C-45 is Federal Gvt. legislation that amends the Canadian Criminal Code and is now Section 217.1 of the same code, which states,

"***Every one who undertakes, or has the authority, to direct how another person does work or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work or task."***

The Student is able to demonstrate understanding of the following:	**Date**	**Sign-off**	**Notes**
1. Understands Bill C-45: a) sets new legal duties for workplace health and safety and imposes serious penalties for violations that result in injuries or death.			
b) establishes rules for attributing criminal liability to organizations, including corporations, for the acts of their representatives.			
c) creates a legal duty for all persons directing work to take "reasonable steps" to ensure the safety of workers and the public.			
d) affects all organizations and individuals who direct the work of others, anywhere in Canada. These organizations include federal, provincial and municipal governments, corporations, private companies, charities and non-governmental organizations.			
e) is enforced by police and crown attorneys who are responsible for investigating serious incidents and laying charges under the Canadian Criminal Code.			
f) has a very different set of rules, and should not be confused with "regular" occupational health and safety laws and how they are enforced.			
2. Understands who is responsible for enforcing occupational health and safety laws.			
3. Understands that an effective workplace health and safety program can limit liability and reduce the chances of being charged under the provisions of the Criminal Code.			
4. Understands the legal obligations under occupational health and safety laws and standards, what hazards exist in the workplace, and how to effectively reduce or eliminate them.			
5. Understands that workers should be made aware of the employer's health and safety program and informed of any risks, and should receive appropriate training and protective equipment.			

Resource adapted from: ***http://www.justice.gc.ca/eng/dept-min/pub/c45/***

General Safety Checklist
Hand and Power Tools

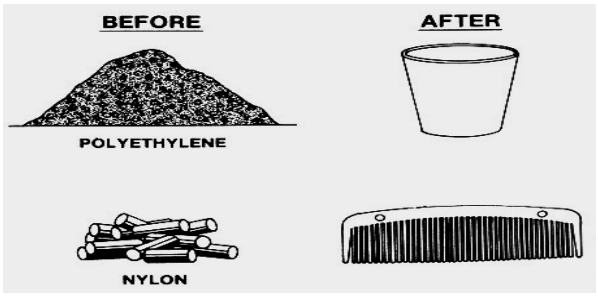
The Student is able to demonstrate safe and correct:	Date	Sign-Off	Notes
1. Handles and operates power tools safely.			
2. Handles and uses hand tools safely.			
3. Cleans and maintains hand and power tools in appropriate manner			
4. Checks power tools for defective switches, cords, plugs, and proper grounding.			
5. Reports to instructor and labels defective tools			
6. Correctly wears and uses personal protective equipment (PPE).			
7. Recognizes purpose of equipment guards when working with tools and equipment having rotating or moving parts			
10. Checks that power cord-connected, electrically operated tools and equipment are properly grounded or of the approved double insulated type.			

Resource adapted from:
http://nonprofitrisk.org/tools/workplace-safety/public-sector/topics/popt/toolchk-ps.htm

Workplace Safety Coordinator and Committees Roles and Job Descriptions

The Student is able to demonstrate safe and correct performance of the following roles:	Date	Sign-Off	Notes
Workplace Safety Coordinator			
1. Assists in setting-up a Safety Committee			
2. Safeguards others and guides them to work safely			
3. Oversees all safety committee functions			
4. Serves as first contact for safety inspections			
5. Reports unsafe equipment, tools and behaviours to teacher			
Chairperson of Workplace Safety Committee			
1. In consultation with instructor: a) Sets and lists policies for safe work in the classroom/lab b) Creates safe work procedures c) Recommends changes to how work is performed			
2. Arranges, chairs and sets agenda for monthly meetings of the committee with an agenda that may include: - reviewing classroom/lab. incidents - reporting on: - incident investigation - safety inspection - safety training - other safety issues			
Conducts, with other students, monthly safety inspections a) Records unsafe items b) Recommends action to improve safety			
4. Encourages others to work safely at all times			

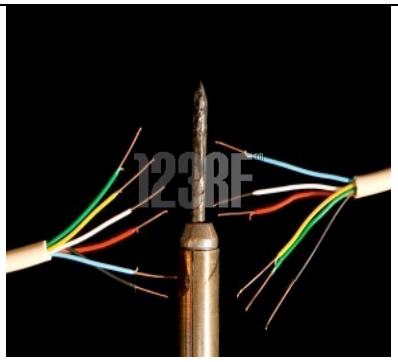
Adapted from:
Risk Management: A Technical Assistance Brief, A Guide to Risk Management, prepared by The Loss Control Department, The HARTFORD, © 2000 by American Association of Homes and Services for the Aging



Plastics Molding (vacuum former; molders – injection, rotary)

The Student is able to demonstrate safe and correct performance of the following roles:	**Date**	**Sign-Off**	**Notes**
1. Uses proper protective equipment.			
2. Knows WHMIS.			
3. Makes sure all guards are in place and operating correctly.			
4. Operates only with instructor's permission and after receiving proper instruction.			
5. Always understands the reaction of the mixture before intermixing products, and matches heat/time cycle with material being used.			
6. Uses proper ventilation, as toxic vapors may be given off.			
7. Keeps materials with low flash points under refrigeration.			
8. Observes and stays clear of pinch points.			
9. Ensures warning signs and protective devices are provided at each plastics heating unit.			
10. Uses only recommended materials and procedures for injection mold forming processes.			
11. Properly disposes of all flammable waste material.			
12. Always uses metal containers for mixing products that produce a great deal of heat due to their catalytic reaction.			
13. Always adds catalyst to resin – NEVER resin to catalyst.			
14. Never over pressures the Injection Molder Ran.			

Soldering



The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Wears personal protective equipment.			
2. Ensures gas is turned off before attempting to light a bench soldering furnace.			
3. Works in a well-ventilated area.			
4. Uses care in removing excess molten solder from the copper.			
5. Cleans up spilled flux immediately.			
6. Washes hands after soldering. Flux can cause burns to the skin and damage clothing.			
7. Flushes immediately with water if burned by acid.			
8. Is aware of the rapid rate of heat transfer throughout thin metal.			
9. Knows use of electric guns or irons is prohibitive if standing or working in wet areas.			
10. Ensures electrical cords are not cut or burned.			
11. Cleans up the area.			
12. Does not leave hot metals where others can come in contact with them.			

Woodworking

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Ensures tools and equipment are in top condition.			
2. Always wears proper personal protective equipment.			
3. Follows safety procedures recommended for each power tool.			
4. Removes jewelry, eliminates loose clothing, and confines long hair.			
5. Wears a sturdy pair of safety shoes when working with heavy pieces of wood such as sheets of plywood and two by four studs.			
6. Keeps materials neatly stacked.			
7. Keeps work area clean and free from small scraps, excessive sawdust and oil.			
8. Always removes nails from lumber.			
9. Keeps tables of machines and other work surfaces free of nails, tools, wrenches and materials.			
10. Never tries to move materials by a person who is using a power tool or machine.			
11. Never attempts to speak to or otherwise startle a person using a power tool or machine.			
12. Never starts or stops a machine for someone else.			
13. Always follows the machine operator's instructions when helping.			
14. Always carries sharp or pointed tools away from the body. Never puts them in pockets.			
15. Never holds a small piece of wood in fingers as it is being cut.			
16. Always uses the guards on machines, and if guards are not available, uses holding and clamping devices and push sticks.			
17. Plans work before beginning. Gets help before beginning instead of after getting into difficulty.			
18. Never works on machines or power tools if tired or hurried.			
19. Makes sure that machine has come to a full stop before adjusting or oiling it, or changing a blade.			
20. Gets first aid treatment for even the slightest scratch.			
21. Wears a dust respirator when sanding.			
22. Knows the location of the fire extinguishers and the proper use of same for each of the Classes of Fires.			
23. Returns all finishing materials to metal containers and cabinets.			
24. Places all oily rags in an approved metal container.			
25. Uses the dust collection system for stationary tools.			
26. Keeps fingers and hands out of the path of sharp edged cutting tools.			

Portable Belt Sander

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Checks to see if belt is in good condition, tracking properly, and is the correct grit size for the job.			
6. Ensures switch is off before connecting to power source.			
7. Starts sander above work; lets rear of belt touch first, then levels the tool. Does not tilt sideways.			
8. Sands in the direction of grain, moving back and forth over a large area. Does not pause in one spot.			
9. Keeps electrical cords and dust bag away from working area.			
10. Lifts sander off the work and waits until it has stopped before placing on the bench.			

Graphic Communication (Drafting)

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Ensures guards are in place for paper cutters, etc.			
2. Knows WHMIS for the printer and developer products in use.			
3. Ensures area is well-ventilated when ammonia is present.			
4. Ensures area is available for washing in case of ammonia spill.			
5. Ensures proper handling and use of compass, dividers, and hard lead pencils to avoid skin punctures, eye injuries that could lead to infection or blood poisoning.			
6. Ensures ergonomic principles are used when sitting or standing at work area.			
7. Uses proper care in adjusting the work station.			

Graphic Communication (Photography)

The Student is able to demonstrate safe and correct performance of the following:	Date	Sign-off	Notes
DARK ROOM			
1. Knows WHMIS.			
2. Turns on ventilator fan when in the dark room.			
3. Ensures chemicals are stored properly in appropriate containers.			
4. Wears proper personal protective equipment.			
5. Uses tongs and rubber gloves when handling film in the developing process.			
6. Always keeps hands away from face while working in the dark room.			
7. Washes hands carefully after developing film.			
8. Never uses portable electrical devices around or within reaching distance of sinks.			
9. Ensures spills are wiped up immediately.			
DRY MOUNT			
1. Uses caution to avoid being burned on the press or tacking iron.			
2. Only dry mounts with heat setting prescribed by instructor.			
3. Turns off and unplugs press and tacking iron at end of the process.			
4. Returns hot tacking iron to its holder when not in use.			
5. Reports and tags worn electrical cords and plugs.			
6. Never tests heat, press or tacking iron by touching.			
PROCESS CAMERA			
1. Never touches hot lights.			
2. Never flashes lights in people's eyes.			
3. Exercises caution around glass copy boards.			
STRIPPING TABLES			
1. Keeps all foreign material off the glass.			
2. Keeps fingers out of cutting area.			
3. Keeps cutting devices sharp and stores them properly.			
FOLDING MACHINE			
1. Never removes a misfed or jammed sheet while machine is running.			
2. Turns power off when making changes.			
3. Keeps all tools off the folder table.			
4. Ensures electrical cords are out of the way.			

Graphic Communication (Photography)

The Student is able to demonstrate safe and correct performance of the following:	Date	Sign-off	Notes
PLATE MAKER			
1. Disconnects plate maker before changing carbons or making adjustments.			
2. Is careful when changing hot carbons.			
3. Never looks at arc lights during operation.			
4. Is careful not to break glass of vacuum frame.			
PAPER DRILL			
1. Is aware that drill bit may be hot.			
2. Keeps hands away from drill area while drilling.			
3. Keeps area around feet clear at all times.			
AIR BRUSH			
1. Has instructor connect and disconnect regulators to high pressure air lines.			
2. Does not adjust regulators.			
3. Takes care not to spray toward other people's faces.			
SIGN PRESS			
1. Does not throw or toss type.			
2. Utilizes caution in keeping hands out of roller.			
3. Uses only specified cleaning solutions in cleaning type and press.			
4. Knows WHMIS.			
ENGRAVING			
1. Wears proper personal protective equipment.			
2. Keeps hands from under cutter bit.			
3. Ensures instructor changes or adjusts engraving cutters.			
THERMOGRAPHY			
1. Wears proper personal protective equipment.			
2. Does not stare at heat lamp.			
3. Does not leave the area when the lamp is on and relief power is heating; fire may result.			
RUBBER STAMP and GOLD STAMPING			
1. Exercises caution when using heating element.			
2. Keeps work surface clean at all times.			
3. Does not throw or drop type.			

Offset Printing Press

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
11. Operates only with instructor's permission and after receiving proper instruction.			
12. Removes jewelry, eliminates loose clothing, and confines long hair.			
13. Makes sure all guards are in place and operating correctly.			
14. Always uses proper personal protective equipment.			
15. Always turns press off before reaching for misprinted or dropped paper, making internal adjustments or cleaning, or reaching across the press.			
16. Ensures the instructor determines the operating speed.			
17. Cleans press and returns all paper, equipment and tools to proper storage area after finishing with press.			
18. Knows WHMIS.			

Arc Welder

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose-fitting clothing, and confines long hair.			
3. Ensures all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Ensures proper ventilation is available.			
6. Warns others before striking an arc.			
7. Does not weld closed containers without permission and proper instruction.			
8. Checks that cables, clamps and electrode holder are working properly.			
9. Ensures screens to protect others are in place before welding is started.			

Oxy-Acetylene Welder

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose-fitting clothing, and confines long hair.			
3. Ensures all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Does not allow oil to come in contact with hoses or equipment.			
6. Keeps cylinder caps on the bottles when not in use.			
7. Ensures gas bottles are erect and secure at all times.			
8. Confines all cutting and welding to the designated area in the shop.			
9. Ensures proper ventilation when welding galvanized metal.			
10. Gets instructor's approval before welding or cutting on a closed container.			
11. Ensures acetylene never exceeds 15 psi outlet pressure.			
12. Turns off torch valves when finished with equipment.			
13. Turns off gas and oxygen at tanks or stations at the end of class session.			
14. Knows WHMIS.			

Belt/Disc Finishing Machine

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Ensures all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Makes all adjustments, except final belt tracking, with the power off.			
6. Makes sure there is adequate strong tension on the belt and that it is not torn.			
7. Makes sure that new belt runs as arrows indicate.			
8. Ensures table is adjusted to within 1/16" of the abrasive belt.			
9. Keeps hand clear of the abrasive belt while operating and keeps material flat on the table.			
10. Ensures belt is re-tracked if the angle of the basic machine is changed.			
11. Does not leave the disc finishing machine until it has coasted to a full stop or been stopped with a piece of scrap wood.			

Buffer

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Ensures all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Always buffs using the lower half of the buffing wheel.			
6. Stands to one side of the wheel when buffing or applying compound.			
7. Uses care when buffing around corners or openings where the wheel could grab and throw the work piece.			
8. Never uses gloves, rags or part of a shop coat to hold the work piece.			
9. Never buffs a leading edge.			

Squaring Shears

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always use proper personal protective equipment.			
5. Checks machine and the setup before operating. If needed, get a helper.			
6. Never exceeds the capacity of the machine.			
7. Keeps fingers at least 3" away from pressure bar – holds down guard—and blade.			
8. Allows small pieces to fall to the floor.			
9. Operates only from the front of the machine.			
10. Keeps area under and around the machine clean and feet out from under the foot pedal.			

Resource: http://www.ehow.com/video_4420291_cutting-procedure

Uniplane

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Makes sure all guards are in place and operating correctly.			
4. Always use proper personal protective equipment.			
5. Ensures switch is in off position before adjusting depth of cut, table tilt, or checking cutters.			
6. Ensures guard is clean and slides freely before starting the operation. Does not clamp in the up position.			
7. Always uses a push stick or a push block when planning small material.			
8. Continues moving the work piece by the cutterhead until it is resting against the rear fence.			
9. Brushes chips or dust away from the point of operation only after the machine has come to a full stop.			

Small Engine Analyzer

The Student is able to demonstrate safe and correct performance of the following:	**Date**	**Sign-off**	**Notes**
1. Operates only with instructor's permission and after receiving proper instruction.			
2. Removes jewelry, eliminates loose clothing, and confines long hair.			
3. Ensures all guards are in place and operating correctly.			
4. Always uses proper personal protective equipment.			
5. Use unit only with proper exhaust ventilation system.			
6. Exercise caution when handling fuel, filling fuel tank. Wipes up all spills. Inspects fuel system frequently for defects.			
7. Makes sure all engines have proper lubrication and are mounted securely.			
8. Uses caution while operating and after operation, because engine will be hot.			
9. Knows WHMIS.			