

#### School of Aerospace, Mechanical and Manufacturing Engineering

## **Laboratory Safety Guide for City Campus**

# ALL THOSE WORKING IN LABORATORIES WILL BE REQUIRED TO COMPLETE A SAFETY DECLARATION FORM STATING THAT YOU UNDERSTAND THE SAFETY REQUIREMENTS AND HAVE READ THIS GUIDE PRIOR TO WORKING IN ANY LABORATORY AREA.

This guide sets out minimum standards; more stringent regulations may apply to specific areas or operations. This guide has been kept brief; every effort has been made to ensure there are no major omissions. If you feel something should be included, speak to the safety representative and/or Technical Services Manager / Laboratory Co-ordinator and it will be added to later editions.

Where unsafe practices are observed, instructions to change practices from Supervisors, Technical Staff or Technical Services Manager MUST be observed.

### THINK SAFE, TALK SAFE & WORK SAFE

#### **Mandatory Workshop and Laboratory Procedures**

- 1. **NO** open footwear or bare feet allowed in workshop and laboratories. Specifically for engineering workshop (57-01-001) safety shoes and eye protection must be warn. Students must provide their own safety shoes; RMIT provides eye protection.
- 2. ALL work benches, machinery & floors are to be clean at the end of each day

#### **General Safety Precautions**

- An Activity Risk Assessment (see attached) must be completed for each experiment/process or laboratory activity.
- 2. All those working in laboratories must make themselves aware of the emergency exits and the evacuation assembly areas. See map attached.
- 3. All those working in the laboratories should make themselves aware of the location of the first aid station as well as locations of fire extinguishers, break glass alarms, telephones and exits nearest to their workplace.
- 4. Certain equipment is potentially dangerous, DO NOT operate equipment without permission of academic or Technical Staff.
- 5. Before beginning an experiment or procedure, the student or staff member must read the directions contained in practical notes, safe operating instructions or equipment manuals paying special attention to any precautions that are mentioned. Check for potential hazards, if uncertain, consult the person in charge.
- 6. Drinking, eating, smoking, running and unruly behaviour is prohibited in all laboratories.
- 7. **Hearing protection (ear muffs/plugs)** to be used where hearing protection signs are displayed or when directed by supervisors or staff members.
- 8. **When handling chemicals** or other potentially dangerous goods, consult the <u>Material Safety Data Sheet (MSDS)</u> for recommended safe handling procedures; i.e. safety glasses, protective clothing, gloves, face mask etc. This includes resins, fuels and cleaning products. When working with acids always add acid to water, NOT water to acid.
- 9. Chemical waste to be disposed of in accordance with RMIT University chemical waste procedures.
- 10. **Flammable liquids** should never be used near (within 4 meters) of an ignition source, this includes power supplies.
- 11. Gas cylinders must be kept securely chained to a wall, bench or strong stand.
- 12. **Steam generators** can only be operated by trained/authorised people. All steam connections must be checked by technical staff before operation.
- 13. Loose clothing should not be worn when operating machinery where there is a risk of entanglement.
- 14. **Long hair** must be tied back or contained in a hair net when operating machinery where there is a risk of entanglement.
- 15. **Safety glasses** must be worn in all areas displaying the safety eyewear sign. This applies when equipment is being operated or when observing operation.
- 16. All **Laser** operators must be trained or authorised and have undergone an eye test. All set ups MUST be checked and approved by the school's laser safety officer.



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- 17. Only authorised personnel may operate rotating machinery and machine tools, i.e. bench drill. Authorisation can be obtained from Technical Services Manager or his designated person.
- 18. Hand tools to be used with care, items like screwdrivers. Stanley knives can inflict serious wounds.
- 19. **Injuries or near misses** are to be reported as soon as possible. An incident report form should be completed or processed electronically through safety suite.
- 20. **Ladders** over 1.8 meters must be supported by a second person. Ladder regulations must be observed, NO standing on second top or above steps; risk of overbalance.
- 21. Bags to be kept clear of passages and walk ways.
- 22. NO personal power tools to be used on campus, i.e. electric drills, angle grinders, etc.
- 23. **Electrical wiring** with voltage greater than 50v AC and 120v DC is only to be performed by a qualified electrician (certificate of electrical safety must be provided). Report any unsafe items to Technical staff.
- 24. Arrange cords/extension leads in a way that removes tripping hazards.
- 25. **All** electronic items used by students/postgraduates MUST be checked by the school's electronics technical officer to ensure they are safe to use. All electrical must be tested and tagged before use.
- 26. **Do not use** damaged, locked out, expired test tag or untagged electrical equipment. If an item is found with an issue inform the Technical staff responsible for the area.

#### REMEMBER!

Safe practice consists of

Attitude and Knowledge

together with

Responsibility

IF IN DOUBT - ASK FOR ADVICE