# Lab Safety Page 4

## Laboratory Safety Rules

No eating or drinking in the laboratory. Toxic chemicals may have been used in the area.  
Maintain orderly movement around the laboratory and access corridors at all times. Chemicals and glassware may be being carried in these areas.  
Keep walkways clear (of bags, coats etc.).  
Keep liquids well away from equipment connected to mains electricity.  
Safety goggles must always be worn when handling harmful chemicals, using a Bunsen burner or working with wires under tension.  
Report any accident or breakage to the teacher immediately.  
If in doubt about any verbal or written instruction, ask before carrying it out.

## Electric Shock – A Rare Occurrence

In a college lab environment, this scenario is very unlikely unless someone has been ignoring the safety rules.   
If possible, switch off the supply without touching the victim.  
Disconnect the victim without making electrical contact.  
For example pull on dry clothing or use a non-conducting lever.  
Call and / or phone for help and put the victim into recovery position.  
Electric shocks are rarely fatal if the victim is resuscitated quickly.  
Learn resuscitation techniques at a first aid class.

## Electrical Safety

Remove metallic jewellery from your hands, wrists, neck etc. There is an electric shock hazard if jewellery touches live equipment.  
Don't wear personal audio devices. There is a time delay if you can't quickly hear a warning or call for help.  
Always unplug the power cord before removing or re-installing any electrical component or circuit board, or when performing maintenance on electrical equipment.  
Do not touch any exposed circuit with the power applied. (This does not apply to low voltage circuits - 12 Volts.)  
Only connect the power when necessary such as when taking voltage measurements or waveforms.  
Ground / earth yourself properly before handling or replacing integrated circuits, processors, expansion, cards or RAM. Do this by touching the outside metal casing of the equipment and, if possible, use an anti-static wrist strap that is connected to the chassis/case/earth/ground.  
Make sure that the equipment is grounded prior to removing its case. This minimises the chance of Electrostatic Damage. (ESD).  
Don't rush your work as this increases the risk of problems.

## Circuit Building

Beware of overheating components. There is a small burn risk.  
Handle components carefully. Some have pointy pins that can stick into you.  
Remove integrated circuits by carefully levering with a small screw driver. This prevents the chip becoming painfully plugged into your finger.  
Handle wire cutters, pliers and hand tools with care. Keep the sharp end away from your fingers because there is a risk of minor cuts if you are not careful.

## If In Doubt, Don't Touch / Do It - Ask For Help

Know where the fire extinguisher is.  
Know the fire evacuation procedure.  
Know how/where to get first aid.  
Know the location of first aid kits.  
Know the emergency phone numbers. FOLDER PAGE 4