

Safety Rules and Operating Procedures

1. Students are allowed in the laboratory only when the instructor is present.
2. Open drinks and food are not allowed near the lab benches.
3. Report any broken equipment or defective parts to the lab instructor.
Do not open, remove the cover, or attempt to repair any equipment.
4. When the lab exercise is over, all instruments, except computers, must be turned off.
Your lab grade will be affected if your laboratory station is not tidy when you leave.
5. University property must not be taken from the laboratory.
6. Do not move instruments from one lab station to another lab station.
7. Do not tamper with or remove security straps, locks, or other security devices.
Do not disable or attempt to defeat the security camera.
8. ANYONE VIOLATING ANY RULES OR REGULATIONS MAY BE DENIED ACCESS TO THESE FACILITIES.

I have read and understand these rules and procedures. I agree to abide by these rules and procedures at all times while using these facilities. I understand that failure to follow these rules and procedures will result in my immediate dismissal from the laboratory and additional disciplinary action may be taken.

Signature

Date

Lab #

Laboratory Safety Information

Introduction

The danger of injury or death from electrical shock, fire, or explosion is present while conducting experiments in this laboratory. To work safely, it is important that you understand the prudent practices necessary to minimize the risks and what to do if there is an accident.

Electrical Shock

Avoid contact with conductors in energized electrical circuits. Electrocutation has been reported at dc voltages as low as 42 volts. 100ma of current passing through the chest is usually fatal. Muscle contractions can prevent the person from moving away while being electrocuted.

Do not touch someone who is being shocked while still in contact with the electrical conductor or you may also be electrocuted. Instead, press the Emergency Disconnect (red button located near the door to the laboratory). This shuts off all power, except the lights.

Make sure your hands are dry. The resistance of dry, unbroken skin is relatively high and thus reduces the risk of shock. Skin that is broken, wet, or damp with sweat has a low resistance.

When working with an energized circuit, work with only your right hand, keeping your left hand away from all conductive material. This reduces the likelihood of an accident that results in current passing through your heart.

Be cautious of rings, watches, and necklaces. Skin beneath a ring or watch is damp, lowering the skin resistance. Shoes covering the feet are much safer than sandals.

If the victim isn't breathing, find someone certified in CPR. Be quick! Some of the staff in the Department Office are certified in CPR. If the victim is unconscious or needs an ambulance, contact the Department Office for help or call 911. If able, the victim should go to the Student Health Services for examination and treatment.

Fire

Transistors and other components can become extremely hot and cause severe burns if touched. If resistors or other components on your proto-board catch fire, turn off the power supply and notify the instructor. If electronic instruments catch fire, press the Emergency Disconnect (red button). These small electrical fires extinguish quickly after the power is shut off. Avoid using fire extinguishers on electronic instruments.

Explosions

When using electrolytic capacitors, be careful to observe proper polarity and do not exceed the voltage rating. Electrolytic capacitors can explode and cause injury. A first aid kit is located on the wall near the door. Proceed to Student Health Services, if needed.