

UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE

Department of Electrical and Computer Engineering

LABS SAFETY RULES

INTRODUCTION

There are three main types of risk the student could be exposed to when working in ECE Undergraduate Teaching Labs, which are electric shock, mechanical injury and burn risk. These are, however, avoidable risks and do usually happen when the students fail to follow the safety rules and instructions given by the lab instructor/manual. In order to make safety a priority in the laboratories, the rules presented below will be enforced by the lab instructors and lab staff.

SAFETY RULES

These safety rules must be followed at all times:

1. **Drinking, eating and smoking** are **prohibited** in the laboratories.
2. You must wear clothes that can protect you from against scratches and falling objects.
3. ANSI approved **safety glasses** and **closed toe shoes** must be worn **at all times** in rooms **2130/32, 2140, 2142, 2148 and 2236**

These additional safety rules must be followed when working on experimental set-ups, projects and when operating lab equipment:

1. Locate the **Yellow Emergency Power Shutoff Switch** closest to your work area.
2. **Do not work alone** in the laboratories; have at least one partner.
3. **Students performing experiments** in rooms **2140 and 2142** for ECE lab courses (ECGR 2155, 2156, 2255, 3155, or 3156) **must be supervised** (by a TA, faculty or staff member) **at all times**.
4. Carefully follow all written and verbal instructions. If you do not clearly understand or remember a procedure, **ask your instructor or the laboratory staff** before proceeding with the experiment/project.
5. Before energizing an experimental circuit.
 - a. Lay out your circuit to avoid reaching over un-insulated conductors/component to adjust or read instruments.
 - b. Check your circuit. For ECE lab courses have your instructor check/approve your circuit.
 - c. The person operating the power switch must make sure that everyone is standing clear of the equipment and warn other group members that the circuit is going live.
6. Power must be switched off in an experimental circuit whenever
 - a. The circuit is left unattended.
 - b. The circuit is being constructed or disassembled.
 - c. Any circuit changes must be made.
7. If measurements must be made **on live circuits**, use well-insulated meter probes and **work with only one hand at a time**.

8. Keep your work area clean and tidy. Student should make sure all tools, equipment, and supplies are returned to their proper storage (including electronic components back to drawers), and the equipment is shut down after their experiment is concluded.

For more information about electrical safety in the workplace visit the following link for [UNC Charlotte Environmental Health and Safety Office](#).

ELECTRICAL EMERGENCY RESPONSE

1. **Break Glass with attached hammer and push yellow button** to de-energize all lab benches. Never touch a person who is being electrocuted.
2. **Call Campus Police** (704-687- 2200) and the **Lab Emergency Contact** posted in the room door.
3. **Remove the victim** from the circuit without endangering yourself.
4. **Administer CPR** if the victim is not breathing, or has no pulse -- and you are CPR certified.

ACKNOWLEDGEMENT OF SAFETY RULES

Please give this form to your instructor after reading and understanding the rules.

I have read (or had read to me) the ECE laboratories safety rules. I acknowledge that I understand these rules and that I agree to follow them. When in doubt concerning safety in the laboratory, I will speak to my lab instructor or the laboratory staff.

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| Printed Name: | |
| Signature: | |
| Date: | |
| Instructor Name: | |