Lab 1: Lab Safety Instructions

Introduction
To ensure the safety of all students, instructors, and staff during laboratory activities, this document outlines safety rules and guidelines specific to PRAG 304L. Adherence to these instructions is mandatory to minimize risks associated with working on electrical diagnostics of farm machinery.

1. General Safety Guidelines
Follow Instructor Directions: Always listen to and follow the instructor's instructions during lab activities.

Knowing Emergency Procedures: Familiarize yourself with the location of emergency exits, fire extinguishers, first aid kits, and eye wash stations. Know how to call campus security or emergency services.

Avoid Distractions: No horseplay, loud noises, or behaviors that might distract others.

Report Incidents: Immediately inform the instructor of any accidents, injuries, or unsafe conditions in the lab.

2. Proper Lab Attire
Clothing:

- Wear long pants and closed-toe shoes.
- Avoid loose clothing.

Personal Protective Equipment (PPE):

- Safety glasses or goggles may be required when instructed for certain lab experiments.
- Gloves must be worn when specified but avoided when working near rotating equipment.

Hair and Jewelry:

- Tie back long hair to prevent entanglement.
- Remove dangling jewelry such as necklaces, bracelets, or earrings.

3. Electrical Equipment Safety
Pre-Use Inspection:

- Inspect tools, wires, and equipment for damage before use.
- Do not use damaged or frayed cables, plugs, or tools.

Power Supply:

- Ensure that the equipment is powered off and unplugged before adjusting.
- Use properly rated equipment for the voltage and current levels being worked on.

Safe Handling:

- Use insulated tools for working with live electrical circuits.
- Avoid touching exposed wires or terminals.

Disconnect Power:

- Always disconnect the power source before servicing or troubleshooting electrical systems.

4. Laboratory Practices

Work Area:

- Keep the lab area clean and organized.
- Do not block pathways or emergency exits with tools or equipment.

Equipment Use:

- Use only the equipment and tools authorized by the instructor.
- Follow all operational guidelines for lab equipment.

Food and Drink:

- No food or beverages are allowed in the lab to prevent contamination and accidents.

5. Handling Electrical Diagnostics Tools

Multimeters and Testing Equipment:

- Follow the manufacturer's instructions when using diagnostic tools.
- Set the multimeter to the correct range before connecting to a circuit.

Grounding:

- Ensure proper grounding of electrical equipment to prevent shocks.

Capacitors:

- Discharge capacitors before handling to avoid electric shock.

6. Emergency Response Procedures

Electrical Shock:

- Turn off the power immediately.
- Do not touch the victim until the power is off.
- Seek medical attention immediately.

Fire:

- Use the appropriate fire extinguisher (Class C for electrical fires).
- Evacuate the lab if the fire cannot be controlled.

Chemical Spills:

- Inform the instructor immediately.
- Follow spill cleanup procedures provided by the instructor.

7. Waste Disposal

Dispose of used components, wires, and batteries in designated waste bins.

Follow the university's e-waste disposal policy for electronic components.

8. Acknowledgment

By participating in this lab, we acknowledge that we have read, understood, and agree to adhere to the safety instructions outlined above.

Group Member Names: _____

Signature/s: _____

Date: _____