

## Laboratory Safety Sign Program

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### **1. Introduction**

The UNCG Laboratory Safety Sign Program is designed to alert laboratory personnel, staff, students, visitors, and emergency responders to the specific hazards located in individual laboratories on campus. The program also gives responders emergency contact information for the PI (Principle Investigator/Lab Manager) so responders may attain quickly further information on specific information concerning the laboratory. The posted lab signs do not exemplify every known hazard that may be present in the lab, so it should not be used to replace general laboratory and chemical safety training or practices. For further information on general laboratory and chemical safety, please refer to your laboratory's Lab Safety Plan located in your lab. The Lab Safety Plan will provide more detailed safety information for the hazards present in the lab.

### **2. Date**



June 6, 2012

### **3. Description**

The 8.5" x 11" hazard warning sign is intended to warn personnel that a hazard exists in the lab. The specific hazards are indicated by symbols and/or hazard warning on the sign. UNCG has adopted the Global Harmonization System (GHS) symbols for use in the program. For hazards not covered by the GHS system, UNCG uses an assortment of other hazard warning symbols to demonstrate those hazards on the sign.

Hazard warning signs will be posted at the entrance(s) to each individual lab or other areas that utilize hazardous chemicals. All entrances to laboratories from hallways will be posted with a completed sign. All other area that utilize chemicals such as prep and storage rooms that serve multiple labs shall also have a complete sign posted.

Blank Laboratory Hazard Warning Sign:

<b>CAUTION</b>	
<b>AUTHORIZED PERSONNEL ONLY</b>	
 <b>NO FOOD OR DRINK ALLOWED</b>	
WHEN CHEMICAL HAZARDS ARE PRESENT IN THE LABORATORY SAFETY GLASSES REQUIRED ♦ SHORT PANTS AND OPEN TOED SHOES PROHIBITED	
<u>HAZARDS AND WARNINGS</u>	
EMERGENCY CONTACT INFORMATION and LABORATORY LOCATION	
PI/SUPERVISOR: PI PRIMARY PHONE: PI ALTERNATIVE PHONE: ALTERNATE CONTACT & PHONE:	Building: Room #: Department:
FOR EMERGENCY ASSISTANCE ♦ FIRE ♦ POLICE ♦ RESCUE ♦ MEDICAL EMERGENCY ♦ CHEMICAL SPILL RESPONSE	
<b>UNCG POLICE 334-4444</b>	
 <b>UNCG</b> UNIVERSITY OF NORTH CAROLINA GREENSBORO	

#### 4. Hazard Warning Symbols

##### GHS Symbols



**Flammable Materials** - material that may burst into flames readily.

- Flammables (liquids, solids, or gases)
- self reactives
- pyrophorics
- self-heating
- emits flammable gas
- organic peroxides



**Toxic Materials** – Exposure to this material may cause immediate and possible serious health problems.

- acute toxicity (severe)



**Oxidizers** – oxidizing materials that may cause other materials to catch fire or explode.

- Oxidizers (solids, liquids, or gases)



**Health hazard** – prolonged exposure to the materials may cause health problems such as cancer or birth defects. Some chemicals showing this symbol may cause asthma or damage to specific organs of the body.

- carcinogens
- respiratory sensitizers
- reproductive toxicity
- target organ toxicity
- mutagenicity
- aspirations toxicity



**Corrosives** – corrosive materials that can severely damage the skin and eyes.



**Gases under pressure** – gas cylinders could explode presenting a projectile hazard and may release gases that themselves that may be flammable or toxic.

### Other hazard symbols



**Radiation Hazard** - posted at access points to laboratories where radioactive materials are used or stored, or where radioactive wastes are accumulated.



**Biological hazard** – posted at access points to BL2 and BL3 laboratories

including laboratories working with human blood, unfixed tissue or other potentially-infectious material.



**Biosafety Level 2** – posted at access points to research laboratories where BL2 containment is used. BL2 organisms are moderate-risk agents that cause human disease. BL2 agents will be identified by name on the sign following the symbol.



**Biosafety Level 3** – posted at access points to laboratories where research is conducted with microorganisms requiring BL3 containment. These agents have a potential for respiratory transmission and may cause serious or potentially lethal infection. BL3 agents will be identified by name on the sign following the symbol.



**Laser radiation** – posted at access points to laboratories where Class 2, 3, or 4 lasers are used or stored. The hazard warning must be supplemented by posting a DANGER or CAUTION warning placard when lasers are in operation. Protective eyewear capable of absorbing the exact wavelength of the produced laser light must be worn by all personnel with potential for beam exposure in these laboratories.



**Microwave radiation** - posted at access points to laboratories where there is potential for personal exposure to microwave radiation in excess of 10 mW/cm<sup>2</sup>.



**Electromagnetic Field** – will be posted at access points to laboratories containing equipment capable of generating an electrical field of 10 kV/m or more or a magnetic field of 0.5 mT or more.



**High voltage** – will be posted at access points to laboratories containing equipment or cables operating at 600 volts or greater.



**Electrical hazard** – will be posted at access points to laboratories containing accessible equipment with exposed and unguarded electrical components operating at less than 600 volts.



**Chemical storage area** – will be posted at access points to chemical stockrooms or storage rooms utilized by more than one researcher for chemical storage.



Protective clothing must be worn

**Protective Clothing Required** – will be posted at access points to all teaching laboratories where there is a reasonable probability of exposure to hazardous chemicals. This label will also be posted at access points to analytical and research labs where the lab manager has specified protective clothing beyond the standard lab coat.



**Hearing Protection Required** – will be posted at access points to laboratories where there is a potential for noise exposures at or above 85 dBA.



**Water Reactive Materials** – will be posted at access points to laboratories that house materials that may react violently with water by igniting or releasing a toxic, corrosive, or flammable gas when contacted by water.



**Restricted Area** - signifies access to the laboratory is restricted to only authorized laboratory and emergency response personnel unless the lab manager grants permission for entry and confirms the space safe for entry. Restricted areas are defined as labs where:

- Ionizing radiation is generated;
- Radioactive materials are used or present; or
- Infectious human, plant, or animal pathogens are used or present for BSL3 labs.



**Chemical Waste Satellite Accumulation Area** – posted at access points to labs which store chemical waste as a satellite accumulation area (SAA).

## **5. Sign Request and Information Changes**

The laboratory hazard warning signs are available for all areas which use hazardous chemicals in a laboratory setting. Please use the Information Collection Form (available on our website at [uncg.edu/sft](http://uncg.edu/sft) or call 334-4357) for submitting the information necessary for the sign to EHS. Please fill out all areas of the form, include as many contact phone numbers as possible and mail or fax the form to EHS. One of the main purposes of the program is for emergency response personnel to be able to contact PIs in case of an emergency situation in their lab. PIs are the most knowledgeable persons and will be able to provide specific information concerning the hazards of the laboratory.

To submit changes for a lab sign, please complete a new form and mail or fax the completed form to EHS.

EHS Contact Information:

Main Line: 334-4357  
Fax: 334-4206

