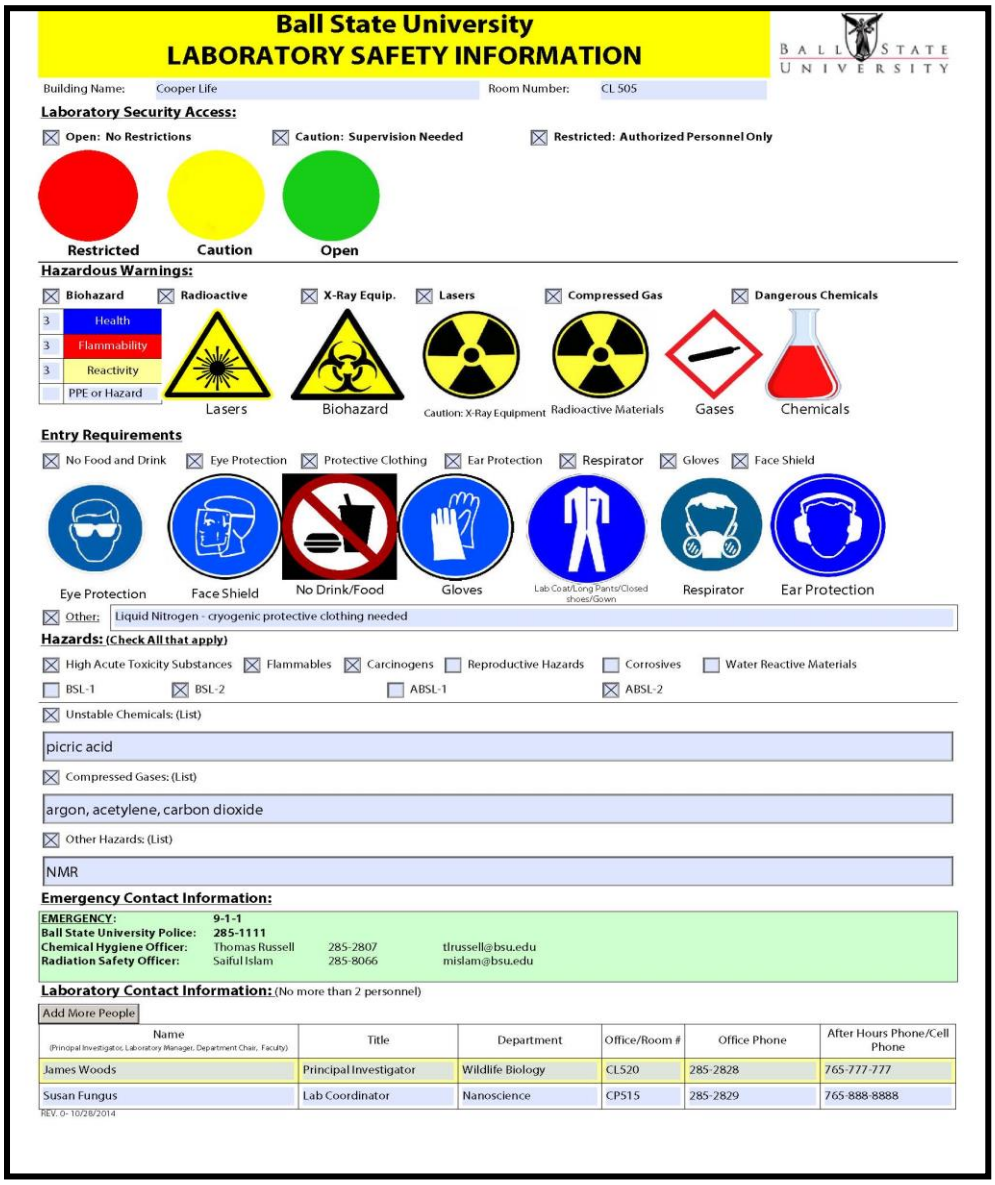
# INSTRUCTIONS FOR COMPLETING THE BSU LAB SIGN TEMPLATE

BSU Lab Door Signs.pdf

**To <u>Begin</u>:** Click on the icon to the above right and save the pdf file to your computer!

**Reference Sign** (All field options/symbols illustrated below)



**Ball State University**
**LABORATORY SAFETY INFORMATION**

Building Name: Cooper Life  Room Number: CL 505

**Laboratory Security Access:**

☒ Open: No Restrictions  ☒ Caution: Supervision Needed  ☒ Restricted: Authorized Personnel Only

Restricted  Caution  Open

**Hazardous Warnings:**

☒ Biohazard  ☒ Radioactive  ☒ X-Ray Equip.  ☒ Lasers  ☒ Compressed Gas  ☒ Dangerous Chemicals

3 Health
3 Flammability
3 Reactivity
PPE or Hazard

Lasers  Biohazard  Caution: X-Ray Equipment  Radioactive Materials  Gases  Chemicals

**Entry Requirements**

☒ No Food and Drink  ☒ Eye Protection  ☒ Protective Clothing  ☒ Ear Protection  ☒ Respirator  ☒ Gloves  ☒ Face Shield

Eye Protection  Face Shield  No Drink/Food  Gloves  Lab Coat/Long Pants/Closed shoes/Gown  Respirator  Ear Protection

☒ Other: Liquid Nitrogen - cryogenic protective clothing needed

**Hazards:** (Check All that apply)

☒ High Acute Toxicity Substances  ☒ Flammables  ☒ Carcinogens  ☐ Reproductive Hazards  ☐ Corrosives  ☐ Water Reactive Materials

☐ BSL-1  ☒ BSL-2  ☐ ABSL-1  ☒ ABSL-2

☒ Unstable Chemicals: (List)

picric acid

☒ Compressed Gases: (List)

argon, acetylene, carbon dioxide

☒ Other Hazards: (List)

NMR

**Emergency Contact Information:**

| | | | |
|---|---|---|---|
| **EMERGENCY:** | **9-1-1** | | |
| **Ball State University Police:** | **285-1111** | | |
| **Chemical Hygiene Officer:** | Thomas Russell | 285-2807 | tlrussell@bsu.edu |
| **Radiation Safety Officer:** | Saiful Islam | 285-8066 | mislam@bsu.edu |

**Laboratory Contact Information:** (No more than 2 personnel)

Add More People

| Name (Principal Investigator, Laboratory Manager, Department Chair, Faculty) | Title | Department | Office/Room # | Office Phone | After Hours Phone/Cell Phone |
|---|---|---|---|---|---|
| James Woods | Principal Investigator | Wildlife Biology | CL520 | 285-2828 | 765-777-777 |
| Susan Fungus | Lab Coordinator | Nanoscience | CP515 | 285-2829 | 765-888-8888 |

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**Next Steps:**

1. At the top of the template, fill in the **Building Name** and **Room Number** fields for your laboratory;

2. Under **Laboratory Security Access** click on the phrase that applies to your lab and the appropriate colored circle will appear – only one access restriction should be chosen:
   - **Open: No Restrictions (Green):** If custodians or visitors are allowed without escort choose the first selection.
   - **Caution: Supervision Needed (Yellow):** If custodians or others need an escort or prior authorization, research/storage/lab areas require additional security measures, etc. choose the second selection. This is the minimum required level for any room containing controlled substances that are already secured in a locked safe or other such device.

- **Restricted: Authorized Personnel Only (Red):** If custodians, visitors, and anyone without prior authorization are not allowed choose the third section. This is the required level for any research/storage/lab areas that contain dual-use technologies (including biological agents or substances) as defined under federal law and/or controlled substances not already secured in a locked safe or other such device.
- Please note that if you have lasers, powerful magnets, or chemicals that are dangerous when wet, then you MUST use the second or third phrase (Yellow or Red).
- Please also note that if you have export/deemed export controlled technologies, research that requires a security clearance and/or any research, materials, etc. that are considered part of national security, require heightened security etc., then you MUST use the third option (Red).

3. Under **Hazardous Warnings**, first, there are six (6) optional warning symbols each of which will appear when the corresponding box is checked. Check each of the hazard boxes for the chemicals, biologicals, radioactive materials, lasers, or other hazards that are maintained in your lab;

4. Next is the **Hazardous Material Information System (HMIS) symbol**. Directions for completing that symbol are on the next page. Often, you can obtain this information directly from the (Material) Safety Data Sheet (MSDS or SDS) for a particular chemical - or use your knowledge of the solution hazard(s). Use the highest (most severe) hazard number for any chemical or hazard within the lab for each of the categories. Use the PPE letter that best illustrates the PPE to be worn if entering or working in the laboratory;

5. Under **Entry Requirements**, there are seven (7) choices for restrictions or PPE to be worn in the laboratory. In all cases where hazardous chemicals or biologicals are present, the No Food or Drink symbol should be checked. The other boxes relate to hazards that may be present in the laboratory and should be checked accordingly so that the appropriate hazard warning symbols will appear;

6. Next is the **Other** line. Here, you should indicate any other entry restrictions not signified by one or more of the preceding symbols. Examples could include fire resistant lab coats where highly flammable liquids are in use, or No Pacemakers where Nuclear Magnetic Resonance (NMR) equipment is installed, required vaccinations or medical surveillance;

7. Following that optional line item, are the **Hazards: (Check All that apply)** options. You may need to refer to the BSU Chemical Hygiene Plan to determine whether you have any High Acute Toxicity Substances, Carcinogens, or Reproductive Hazard chemicals in the laboratory. Each of these are defined as Particularly Hazardous Substances (PHSs) by OSHA and necessitate additional precautions in use. Reference to container labels or Safety Data Sheets will also provide this information. Finally, these particular chemical hazards (PHSs) or characteristics (flammable, water-reactive) may be determined by an inventory search using ChemTracker. The second row allows you to indicate if your lab is a Biosafety or Animal Biosafety operation along with the appropriate hazard level;

8. Next are entries for any **Unstable Chemicals (List)** where peroxide formers or other highly reactive chemicals should be listed, as well as any Compressed Gases (list) that are present in your laboratory;

9. **Other Hazards: (List)** offers the ability to list any other health or physical hazards present in the laboratory that were not noted previously, or deserve repeated attention. An example could be equipment such as an NMR, a physical hazard such as no secondary means of escape, or chemicals requiring particular response capabilities such as hydrofluoric acid or aldehydes;

10. **Emergency Contact Information:** This section is already completed and contains the BSU emergency contact information in the event of a fire, injury, exposure, spill, or other incident in the laboratory;

11. **Laboratory Contact Information:** Here you must list a primary and secondary contact person for the laboratory. These should be persons familiar with the laboratory contents and activities and who may be contacted by emergency responders in the event of an emergency. The persons should include the laboratory manager, instructor, faculty, or Principal Investigator, and another person who may be the Department Chair or anyone knowledgeable about the chemical, biological, or physical hazards that may be present in the laboratory, prep room, or storage area. All of the columns must be completed;

12. **Print the sign** using a Color Printer in the portrait orientation. The edited sign may be saved for future revisions using Adobe Acrobat Reader;

13. **Place the sign in a sign holder** to be affixed on the exterior of the laboratory (or prep room or stockroom) door(s) or the wall space immediately adjacent to the entry door(s). Questions should be directed to Tom Russell in the EHS Office (5-2807 or tlrussell@bsu.edu), or John Mulcahy in the Office of Research Integrity (5-5106 or jmulcahy@bsu.edu ) for assistance.

# Hazardous Material Information System (HMIS) Index
# (for completing Item #4 above)

## HMIS Health Rating Chart

| | |
|---|---|
| * Chronic Hazard | Chronic (long- term) health effects may result from repeated exposure. |
| 0- Minimal Hazard | No signifigant risk to health. |
| 1- Slight Hazard | Irritation or minor reversable injury possible. |
| 2- Moderate Hazard | Temporary or minor injury may occur. |
| 3- Serious Hazard | Major injury likely unless prompt action is taken and medical treatment is given. |
| 4- Severe Hazard | Life-threatening, major or permanent damage may result from single or repeated exposures. |

## HMIS Flammability Rating Chart

| | |
|---|---|
| 0- Minimal Hazard | Materials that will not burn. |
| 1- Slight Hazard | Materials that must be preheated before ignition will occur. Includes liquids, solids, and semi-solids having a flash point above 200° F. (Class IIIB) |
| 2- Moderate Hazard | Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100°F but below 200°F. (Class II & IIIA) |
| 3- Serious Hazard | Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points between 73°F and 100°F. (Class IB & IC) |
| 4- Severe Hazard | Flammable gases, or very volatile flammable liquids with flash points below 73°F and boiling points below 100°F. Materials may ignite spontaniously with air. (Class IA) |


## Hazardous Material Information System (HMIS)

**This sign or symbol is intended to allow quick identification of the relative risks to laboratory entrants or emergency responders that are presented by the flammability, health, or reactivity characteristics of the chemicals (or biologicals or physical threats) contained in the particular laboratory. As it indicates the risks presented by the entire laboratory--rather than a single chemical--the respective boxes should reflect the most severe hazard rating(s) for any one substance stored or used in the laboratory, preparation, or store room. The bottom PPE index box may be used to supplement other symbols to follow in the BSU sitn that denote the required PPE for laboratory entry.**

## HMIS Reactivity Rating Chart

| | |
|---|---|
| 0- Minimal Hazard | Materials that are normally stable, under fire conditions and will not react to water, polymerize, decompse, condense or self react. |
| 1- Slight Hazard | Materials that are normally stable, but can become unstable at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors. |
| 2- Moderate Hazard | Materials that are unstable and may undergo violent chemical change at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air. |
| 3- Serious Hazard | Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong igniting source or undergo chemical change at normal temperature and pressure with moderate risk of explosion. |
| 4- Severe Hazard | Materials that are readily capable of water reaction, detonation or explosive decomposition at normal temperatures and pressures. |