

# Georgia Southern University Department of Chemistry Safety Manual (rev 2008)

Safety is the responsibility of everyone who works in a chemical laboratory – faculty, staff, and students. This manual outlines the standard operating procedures for the GSU Department of Chemistry which should be followed at all times, as well as some general information on chemical handling and useful references and websites. All personnel working in a chemical laboratory should be familiar with the rules and guidelines outlined here AND those found on the University Environmental Safety website. Constructively pointing out safety concerns to others is a key responsibility shared by all laboratory workers that helps insure that we all enjoy a safe working environment. All employees have a responsibility to report egregious violations or a failure to act to resolve a safety issue to the chair.

## **1 – Mandatory Safety Training**

### ***1.1 University Compliance Training***

Faculty, staff, teaching assistants, and student researchers are required to complete 1 section of Right-To-Know training each year, and will complete all 3 modules over a 3 year span. The 3 required training modules for Chemistry Department employees are the Basic Awareness, Chemical Specific, and Hazardous Waste Awareness, found online at <http://www.usg.edu/ehs/training/>. This website may also be accessed via the Chemistry Department home page (Faculty Resources) (<http://cost.georgiasouthern.edu/chemistry/facultylinks.html>)

To submit your documentation for each completed module, fill out the final page/form with your name on it and submit to the chair of the safety committee. Compliance training should be completed in the Fall Semester each year.

### ***1.2 Departmental Training***

Annual basic safety training for all faculty and staff on this manual and general safety and operating procedures will also be given, typically at the start of the Fall Semester.

Other training (GSU EHS, fire extinguisher, equipment specific, etc.) will be provided on an as needed or requested basis.

## **2 - GENERAL SAFETY GUIDELINES**

### ***2.1 Standard Operating Procedures for the Chemistry Department***

Standard Operating Procedures (SOP) must be readily available to all laboratory employees. The following guidelines have been established to minimize or eliminate hazards in the laboratory. These guidelines have also been provided to maintain a safe laboratory environment. It is the responsibility of each person that enters into the laboratory (whether visitors, students, faculty, or staff) to understand the safety and health hazards associated with the chemicals and equipment in the laboratory. It is also the individual's responsibility to practice the following general safety guidelines at ALL times:

1. Always wear proper eye protection in chemical work, handling and storage areas.
2. Always know the physical and chemical hazards associated with the materials that are being utilized in the lab.
3. Always wash hands and arms with soap and water before leaving the work area. This applies even if you have been wearing gloves.
4. Never perform any hazardous work when alone in the laboratory. An instructor must supervise undergraduate students when performing hazardous work.

5. Never perform unauthorized work, preparations or experiments.
6. Never engage in horseplay, pranks or other acts of mischief in chemical work areas.
7. Never remove chemicals from the facility without proper authorization.
8. Be familiar with the location of emergency equipment - fire alarm, fire extinguisher, emergency eyewash and safety shower. Know the appropriate emergency response procedures.
9. Use equipment and hazardous chemicals only for their intended purposes.
10. Use a hood whenever there is a possibility of poisonous or irritating fumes being emitted from the chemicals being utilized.
11. Never leave an experiment unattended while it is being heated over an open flame or is rapidly reacting.
12. Keep equipment back from the edge of the lab bench to prevent spillage.
13. Never use flames with volatile solvents.
14. Read all labels on chemicals twice before using them in the lab.
15. Properly and safely dispose of all waste materials.
16. Broken glass should be disposed of in properly marked safety containers, available in the stockroom.
17. All sharps (needles) used for any purpose must be disposed of in specially labeled SHARPS containers. One container for general use can be found in the stockroom.
18. Report any accident, however minor, to your teaching assistant, research assistant, Principal Investigator or lab supervisor immediately.
19. The Chemistry Department dress code for laboratory work is as follows:
  - a. Wear safety glasses or goggles at all times
  - b. Closed shoes -- toes, heel and top of foot must be covered (no high heels)
  - c. Shirt or blouse must have at least short sleeves
  - d. Legs covered to the bottom of the knee
  - e. No exposed midriffs.
  - f. Gloves or other protective equipments as directed by the instructor

## ***2.2 Safety Agreements – Laboratory Work***

All instructors should go over the safety agreement with their classes. Students are required to agree to the safety agreement and sign it if they are to take the laboratory. Special arrangements should be made for students who qualify under the Americans with Disabilities Act. The Instructor Copy of the GSU Chemistry Safety Agreement is to be placed in the main office, where they will be kept for a period of two years. A copy of the most recent safety agreement can be found in the appendix and in the chemistry department office.

## ***2.3 Faculty Presence in Laboratory***

The responsibility of providing a safe laboratory environment for the students ultimately falls on the faculty member. Neither lab assistants nor a lab coordinator should be considered a substitute. If faculty must leave a lab for any reason during a laboratory period, the period should be brief and their whereabouts must be made known to lab assistants or students for safety purposes.

## ***2.4 Eye Protection***

### **2.4.1 Faculty, staff and teaching assistants**

Faculty, staff and teaching assistants must wear safety glasses or goggles at all times while in the chemistry laboratory. The Department Head should be informed about people who do not wear eye protection.

### **2.4.2 Students**

Students must purchase safety glasses or goggles. Students should not be permitted in the laboratory without eye protection. Normal eyeglasses are not sufficient eye protection. It is the responsibility of the faculty and teaching assistants to insure that all students wear eye protection in a safe manner while in the laboratory. Students should be advised that prior to wearing contacts in the

laboratory, they should consult their own physician. In research labs the faculty member has the responsibility of making sure that all students wear safety glasses and perform all experiments in a safe manner. Students who disregard the safety glasses policy will be dismissed from lab.

### 2.4.3 Safety Showers & Eye Washes

- All safety showers and eye washes must be in working order and free from obstruction.
- Laboratory eye washes should be manually operated for 5 min/week to flush supply lines.

### 2.5 Eating, Drinking, and Smoking

- Eating, drinking, smoking, gum chewing, applying cosmetics, and taking medicine in laboratories where hazardous chemicals are used is strictly prohibited.
- Food, beverages, cups, and other drinking and eating utensils should not be stored in areas where hazardous chemicals are handled or stored.
- Glassware used for laboratory operations should never be used to prepare or consume food or beverages.
- Laboratory refrigerators, ice chests, cold rooms, ovens, and so forth should not be used for food storage or preparation. They should be labeled as “chemicals only” and/or “not for human consumption” if food products are stored in the refrigerator.
- Laboratory water sources and deionized water should not be used for drinking water.
- Laboratory chemicals should never be consumed or tasted.
- Tobacco products in opened packages can absorb chemical vapors found in a laboratory. Precautions to prevent contamination should be taken.

### 2.6 Material Safety Data Sheets (MSDS)

Every chemical at GSU must have a Material Safety Data Sheet, which specifies the safety hazards, associated with the chemical and describes proper disposal. Environmental Safety will try to collect all MSDS for the whole campus. MSDS can also be found on the Internet at various locations, including <http://www.usg.edu/ehs/>, <http://avogadro.chem.iastate.edu/MSDS>, <http://msds.pdc.cornell.edu/msdssrch.asp>. Internet access is available on the computer in the stockroom.

### 2.7 Labeling

All chemical containers must be labeled regarding the contents of the container. The label should indicate the date the solution was made or received and the person making or receiving the solution. All secondary storage containers or long term storage not in the original bottles should also be labeled with contents and hazards. Temporary labels without hazard designations should only be used for “in process” chemicals (used in an ongoing experiment). All laboratories should be labeled with signage containing the following information:

- NFPA symbol
- the person responsible for the chemicals in that laboratory
- what hazards will be found in the laboratory

The National Fire Protection Association (NFPA) hazard ranking system shows the type and the degree of a chemical hazard. In each field, the degree of the hazard is rated from 0 to 4, with 4 being the greatest hazard and 0 indicating no significant hazard. The labels are diamond-shaped and color-coded.

- Blue indicates the health hazard
- Red indicates the fire hazard
- Yellow indicates the reactivity hazard
- White gives special information such as water or oxidizer incompatibility

Chemicals in their original containers may have NFPA codes on the labels. This information can also be found on the MSDS.



## **2.8 Compressed Gas Cylinder Safety**

- Compressed gas cylinders must be secured at all times so they cannot fall.
- Valve safety covers should be on all cylinders not in use.
- The name of the contents must be permanently attached to the cylinders.
- Cylinders may only be moved on chain equipped hand trucks with the safety cap on. Cylinders should not be transported with the regulator attached to the cylinder.
- Do not attempt to repair cylinders or cylinder valves, or to force stuck or frozen cylinder valves.
- The cylinder valve is never to be opened or cracked without first attaching the proper pressure regulator.
- Cylinders should not be exposed to an open flame or to any temperature above 125°F.
- All gas cylinders must be labeled with perforated gas cylinder tags (full/in-service/empty).
- Oxygen & nitrous oxide cylinders (empty or full) in storage should be stored in the designated area in the glassblowing lab (Room 3216A ).
- Flammable gas cylinders should not be stored with oxygen or nitrous oxide cylinders.

## **2.9 Safety Inspections**

Safety Inspections are designed to identify areas in which safety can be improved and to ensure that safety equipment is in proper working order. Departmental inspections occur twice per academic year and are conducted by the department safety committee or Environmental Safety. One inspection is generally performed early in the academic year to ensure that the building and facilities are in proper working order for the coming academic year. Public Safety is responsible for annual checks of hoods, fire extinguishers, safety showers, and eye washes.

A summary of the inspections should be sent to the GSU Safety Officer in Public Safety. The original report should be filed in the chemistry office. If there are items that require work to be performed by the physical plant, the Laboratory Coordinator should be informed and a work order should be submitted to correct the deficiency.

A copy of current Departmental safety inspection forms and checklists may be found in the Appendix. Public Safety inspection forms can be found here <http://services.georgiasouthern.edu/ess/>.

# **3 - EMERGENCY PROCEDURES**

## **3.1 Accident Procedures**

Ask the victim if s/he is OK. Check for breathing. In the case of a serious emergency (life-threatening emergencies, fires and major chemical spills) dial 911 (this goes to Statesboro Police EMS and GSU Public Safety is notified). EMS will transport to the hospital if necessary. Dial 9 first from an on-campus phone.

Determine assistance needed by the victim (*i.e.*, safety shower, eye-wash) and begin procedure. In the case of a less serious medical situation, Public Safety would be available to transport to the Health Center or students could use their own transportation to the Health Center. If possible, faculty should accompany an injured student to the Health Center. Replacement clothing is available in the stockroom.

Notify the chair or acting chair first. If they are unavailable, contact in this order: administrative secretary, laboratory coordinator, safety committee chair, safety committee members. If you cannot leave the lab, send a student to the chair's office with an explicit message stating the nature of the accident. This should include information on the severity of the incident, chemicals involved, injuries and location. Other people will be notified as needed.

The chair is responsible for:

- notifying Health Services in advance of student arrival. 681-5641
- notifying Public Safety
- gathering and distributing resources (including MSDS, replacement clothing, additional faculty/support staff)

Fill out an accident report for each victim immediately following the incident. Any student refusing treatment *must* sign the accident report before leaving the scene. The department chair and the safety chair should receive a copy of the report.

Copies of reporting forms can be found at the end of this manual, in the department office, the chemistry stockroom, the teaching labs, or under faculty resources at the chemistry department's website.

### ***3.2 Fire Alarms/Building Evacuation Procedures***

- A building evacuation occurs when an alarm sounds and/or upon notification by Public Safety Officers or Building Coordinator.
- When the building evacuation alarm is activated during an emergency, leave by the emergency evacuation route for the area in which you are located. If the exit is blocked use the nearest marked exit and alert others to do the same.
- Assist the handicapped to exit the building. Do not use elevators in case of fire and/or potential for power loss.
- Once outside, proceed to your designated assembly point, or proceed to a clear area that is at least 50 feet away from the affected building. Keep streets, fire lanes, hydrant areas, and walkways clear for emergency vehicles and personnel. Know your assembly points.
- Do not return to an evacuated building unless told to do so by a safety officer.

The assembly point for the Chemistry Department is the center of the circle between the Education and Nursing/Chemistry buildings, or the grassy area between the Technology Building and the Nursing/Chemistry Mechanical Building. Do NOT congregate on the patio or next to the mechanical buildings.

### ***3.3 Other Emergency Information***

In the case of an on-the-job accident, GSU employees including work-study students and faculty should see a physician listed in the Worker's Compensation information posted in the Department office. When in doubt call 9-911 or University Police at 5234. In all cases, fill out an accident report and notify the Department Head.

Georgia Southern University has established an Emergency Response Plan to cover most emergencies. Some of these emergencies include serious injury, Chemical Release, Fire, Bomb Threat and others. In most cases call 9-911 or the University Police at 681-5234.

A copy of the Emergency Response Plan is available in the Chemistry Department Office, in the department stockroom, and from the chair of the safety committee. An emergency response plan for campus can be found here:

<http://services.georgiasouthern.edu/ess/Emergency%20Response%20Plan.pdf>

## **4 - HAZARDOUS WASTE MANAGEMENT**

The GSU policy on hazardous waste can be found at:

<http://services.georgiasouthern.edu/ess/hazwaspol.php>

All hazardous waste must be contained and disposed of properly and legally. No hazardous waste goes down the sewer or into the normal trash containers. All waste must be properly labeled and placed in a closed container. Hazardous waste is classified in the following categories:

- Organic solvent: anything flammable, non-water soluble, or containing chlorine and with a neutral pH
- Organic waste with a non-neutral pH
- Corrosives: (pH less than 3 (strong acids) or pH greater than 11 (strong bases))
- Toxic metals waste: aqueous solutions or solids of heavy metals (see the hazardous wastes list for details).

## ***4.1 Storage and Disposal of Hazardous Waste***

- Organic solvents with neutral pH will be collected in RED containers. The inventory sheet attached with this jug must be properly filled out with the name of the contents, amount, and date.
- Organic waste with a non-neutral pH is special and should be stored in a separate RED container from organic waste with a neutral pH.
- Corrosive waste should be stored in WHITE containers. These wastes should be disposed of into the sewer system AFTER it is neutralized. DO NOT dispose of corrosive waste into the sewer system prior to neutralization.
- Toxic metal solutions with more than 1-ppm solute must be stored in WHITE waste jugs and the inventory sheet properly filled out with name of the contents, amount, and date. Heavy metal waste is stored in a white jug regardless of pH.
- Properly label the contents of the hazardous waste container with all components, and the specific hazard properties of the material. Each container must have the YELLOW hazardous waste label and the WHITE chemistry department inventory label.
- Gather your hazardous substances in a designated area until picked up by the Department of Environmental Safety. Notify the Laboratory Coordinator to pick up wastes from the labs.
- Containers must be disposed of within 270 days (9 months) of the first usage date.

The chemistry department is not charged for waste disposal.

## ***4.2 Specific Chemical Hazards***

### **4.2.1 Mercury**

This chemical is a silvery-white, heavy, odorless liquid whose vapors are extremely toxic and cumulative, but mercury is not very volatile at room temperature. A high degree of cleanliness should be maintained when utilizing the chemical in a laboratory environment. Any apparatus containing mercury should be placed under an exhaust hood and in a collecting tray.

- Wash hands thoroughly after using mercury.
- Use general or local exhausts ventilation to remove mercury vapor.
- Wear safety goggles, face shields, lab coats, and rubber gloves.
- Do not discard mercury into a sink. In case of a spill contact the departmental safety committee chair. Mercury spill kits are available in the stockroom and on each floor (Organic prep room, Biochemistry prep room).
- Mercury metal is incompatible with strong acids.

### **4.2.2 Sodium and Potassium Metal**

- Keep away from any possible contact with water. Sodium reacts violently with water.
- Do not get in eyes, on skin, or on clothing.
- Wear goggles, dry gloves and a lab coat when handling.
- Incompatible with water and strong oxidizing agents.
- This material will ignite above 43 degrees Celsius (110 degrees Fahrenheit); therefore avoid sudden rises in temperatures above those levels.
- Keep containers closed tightly.
- When opening a new container of sodium remove the tape to expose the screwcap lid. Unscrew the lid and then carefully puncture the seal and pry up to remove.
- Potassium metal should not be kept for over three months. Even in mineral oil peroxides and superoxides may form which could become explosive when the potassium is exposed to the air.

### ***4.3 Storage of Incompatible Chemicals***

Certain hazardous chemicals cannot be safely mixed or stored with other chemicals because a severe reaction can take place or an extremely toxic reaction product can result. The labels and MSDSs for hazardous chemicals will contain information about their incompatibilities. For more details, see the ESS website for incompatible chemical storage at <http://services.georgiasouthern.edu/ess/hazwaspol.php>.

## **5 - Other important safety websites:**

The Environmental Services Homepage: <http://services.georgiasouthern.edu/ess/>

Annual Right to Know Training: <http://www.usg.edu/ehs/training/>

Lists of chemicals of interest can be found here:

<http://services.georgiasouthern.edu/ess/chemsaf.php>

- Chemical Agents not Allowed on Campus
- Chemicals Requiring a Process Safety Review
- Chemicals with 1 Lb Reportable Quantity
- CERCLA List
- SARA Title III List
- Chemicals of Interest

Hazardous Waste Management Policy: <http://services.georgiasouthern.edu/ess/hazwaspol.php>

Emergency Response Plan:

<http://services.georgiasouthern.edu/ess/Emergency%20Response%20Plan.pdf>

## **Appendix A: Departmental Forms**

1. Preinspection checklist
2. Inspection forms
3. Accident Report Form
4. Current Safety Agreement

## Laboratory Inspection Procedures – Department of Chemistry

The safety inspection of a laboratory will have three parts. Details are below.

1. Notification of Inspection
2. Inspection
3. Follow-up Meeting

**Notification of Inspection.** Two laboratory inspections will occur during the academic year; one each during the fall and spring semesters. The safety committee chair will compile a schedule by notifying faculty via email or faculty meeting of inspection time slots amenable to the safety committee schedules. Divisions should appoint one member to be present during inspection of a teaching lab and prep area. Faculty and staff will be notified of the final schedule (email or at a scheduled faculty meeting) at least one week in advance of a scheduled laboratory inspection. Preparedness for an inspection is the responsibility of individuals using a laboratory space. Consulting the pre-inspection checklist is recommended. If unavoidable scheduling conflicts occur, the chair of the safety committee should be contacted within a reasonable amount of time before the inspection to reschedule.

**Inspection.** Two members of the safety committee will be present during a laboratory inspection. During the initial inspection, the faculty or staff member responsible for the lab must be present. Attendance at subsequent inspections is optional, but recommended. Safety committee members will note their findings separately on inspection check-lists and may consult the faculty/staff member during the visit.

**Follow-up Meeting.** Findings of an inspection will be reported to the safety committee chair. After the initial inspection, the members of the safety committee conducting the inspection will meet briefly with the faculty/staff member to discuss pertinent findings and any correction plans needed. Any major findings must be corrected as soon as possible while other pertinent findings must be corrected by the end of a given semester. Inspections after the initial inspection will include a written summary to the individual faculty/staff outlining the safety committee's findings. After consultation (may be via email) with the faculty/staff member a final summary will be filed with the chemistry chair and a summary report sent to the office of environmental safety.

## Pre-Inspection Check List

### Lab Space

- Are walkways wide enough for people to move and pass each other freely?
- Free of tripping hazards? (hoses, extension cords, boxes, books, etc.)
- Is there a minimum 18 inches clearance between stored materials and fire sprinkler heads?
- Are gas cylinders securely fastened?
- Are the lab space and benches generally clean and free of clutter? No food or drink should be in lab areas.
- Are fume hoods generally free of clutter? The vents should not be blocked with stored chemicals.
- Is there a dedicated waste receptacle for broken glass?
- Is appropriate personal protective equipment (PPE) readily available – gloves, safety glasses, goggles for concentrated (>6M) acids and bases, etc?
- Are lab occupants dressed appropriately – proper PPE and clothing, including footwear?
- Do surge protectors have UL 1449 designation, and are they up off of the floor?
- Are extension cords only for temporary use? As a general rule, extension cords should only be used with short term use items such as drills and vacuums. They should not be used for fans, heaters, computers, etc.

### Access to Safety Shower and Eyewash

- Is there clear access to the safety shower and eyewash?

### Labeling

- Is the emergency info. sign on the lab door up-to-date?
- Are chemicals labeled correctly? At a minimum, chemicals should be labeled with contents and hazard (*i.e.*, corrosive, reactive (oxidizer), flammable, toxic)?
- Are refrigerators labeled? Refrigerators for chemicals only should be labeled "No Food or Drink"
- Are bulk flammables, acids, and bases stored in appropriate cabinets?

### Hazardous Waste

- Do you have stock chemicals being stored in excess of 5 years?  
The ACS publication "Safety in the Academic Chemistry Laboratory" suggests that all chemicals being stored for an excess of 5 years be scheduled for disposal.
- Is all waste labeled?
- Are halogenated waste solvents stored separately from other wastes?
- Are waste containers sealed tightly?
- Are waste containers under the hood (or another secondary containment site)?
- Are incompatible wastes stored separately from each other?



**Georgia Southern University**  
**Department of Chemistry**  
**Semester Inspection Form**

Date: \_\_\_\_\_ Room: \_\_\_\_\_  
Inspected by: \_\_\_\_\_

<b>Item</b>	<b>Sat</b>	<b>Unsat</b>	<b>N/A</b>	<b>Comments</b>
Exits unobstructed				
Aisles unobstructed				
Access to safety shower				
Access to eyewash				
18" clearance for sprinklers				
Overall housekeeping				
Housekeeping on benches				
Housekeeping in fume hoods				
Labeling - contents and hazard				
Storage/age of chemicals				
Flammable and corrosive storage				
Fridges - labeling and housekeeping				
No food or beverage in lab area				
No chemicals in office area				
Condition of electrical cords/outlets				
Extension Cords only temporary				
Surge Protectors (1449 and not on floor)				
PPE available				
PPE in use				
Occupants dressed appropriately				
Management of hazardous waste				
Gas cylinders management				
Fume hood performance				
Exterior signage correct				

**Please address all unsatisfactory items ASAP and Contact Safety Committee for assistance**

**GEORGIA SOUTHERN UNIVERSITY**

**CHEMISTRY DEPARTMENT**

**ACCIDENT REPORT FORM**

<p align="center"><b>TIME AND PLACE</b></p>	<p align="center">Date: _____ Time: _____  Dept: _____ Building: _____ Room: _____  Person Reporting Accident:</p>
<p align="center"><b>HAZARDOUS SUBSTANCES INVOLVED</b></p>	
<p align="center"><b>CAUSE OF THE ACCIDENT</b></p>	
<p align="center"><b>EXTENT OF DAMAGE AND INJURY</b></p>	<p align="center">Spill on Bench: ____ Yes ____ No    Spill on Floor: ____ Yes ____ No  Part of the body injured : _____  Describe what happened:</p>
<p align="center"><b>STATUS OF EXISTING CONDITIONS [PS USE ONLY]</b></p>	<p align="center">Was there an unsafe situation when the accident occurred? ____ Yes ____ No  Describe the unsafe situation</p>
<p align="center"><b>INJURED PARTY</b></p>	<p align="center">Name: _____ Home Phone: _____  GSU ID: _____ Went to: ____ Hospital ____ Health Services  I (signed): _____ refused to receive further medical assistance</p>
<p align="center"><b>WASTE CLEANUP</b></p>	<p align="center">Was the hazardous waste managed: ____ Yes ____ No By: _____ How:</p>
<p align="center"><b>FOLLOW-UP</b></p>	
<p align="center"><b>DATE</b></p>	<p align="center">Report prepared by (Instructor): _____ Date: _____ Report reviewed by (Chair): _____ Date: _____</p>
<p align="center"><b>ADDITIONAL INFORMATION</b></p>	
<p align="center"><b>COPY TO:</b></p>	

**GEORGIA SOUTHERN UNIVERSITY CHEMISTRY DEPARTMENT  
CHEMISTRY LABORATORY SAFETY RULES**

I hereby acknowledge that there are risks associated with working in a chemistry laboratory, including but not limited to cuts, burns, eye injury, exposure to extreme cold, and exposure to hazardous chemicals. Accordingly, I acknowledge the importance of good laboratory safety practices, and agree to comply with the following safety rules below whenever I am in a Chemistry laboratory:

1. I will wear safety glasses or goggles approved by my laboratory instructor.
2. I will not eat, drink, or put anything into my mouth while in the lab.
3. I will note the location of eyewash stations, safety showers, and fire extinguisher each time I enter the laboratory.
4. I will never work in the laboratory alone.
5. I will only perform assigned experiments and follow the designated procedures. If I do not understand the procedure, I will consult my lab instructor.
6. I will not engage in horseplay or other disruptive behavior.
7. I will follow the Laboratory Dress Code established by the Chemistry department
  - a) Wear safety glasses or goggles at all times
  - b) Closed shoes -- toes, heel and top of foot must be covered (no high heels)
  - c) Shirt or blouse must have at least short sleeves
  - d) Legs covered to the bottom of the knee
  - e) No exposed midriffs.
  - f) Gloves or other protective equipments as directed. by the instructor
8. I will keep the lab bench free of items not related to the experiment. I will keep the lab bench and chemical supply areas clean at all times and wipe up all spills.
9. I will dispose of excess chemicals in appropriately labeled containers as indicated by my laboratory instructor.
10. I will not put any substance down the drain unless specifically instructed to do so.
11. I will use the fume hood when instructed to do so by the written assignment or my instructor.
12. I will be aware of and avoid hot objects.

13. I will read the label on the bottle or container to make sure that it contains the correct material and be sure to put the cover back on the bottle as soon as I am finished.
14. If I have concerns regarding the hazards posed by a particular chemical, I will consult the container label and Material Safety Data Sheet for that chemical to obtain more information.
15. I will use computers only as instructed.
16. I will wash my hands thoroughly before leaving the lab.
17. **IF I EXPERIENCE AN ACCIDENT WHICH CAUSES INJURY, NO MATTER HOW MINOR, I WILL IMMEDIATELY REPORT THIS TO THE LABORATORY INSTRUCTOR.**

In addition, I understand that different chemicals pose different hazards, and some people may be more susceptible to injury or illness than others from exposure to a particular chemical. I also understand that I may be at increased risk if I am pregnant or have certain conditions, including but not limited to respiratory illness or decreased liver or kidney function. I understand that the Chemistry department makes available Material Safety Data Sheets (MSDS) for each chemical present in the laboratory, and that these MSDS provide detailed information on the hazards of each chemical. If my health care provider determines that the hazard presented to me by a particular chemical is too great, I will present a statement from my health care provider and my laboratory instructor will use additional safety precautions or alternative procedures or experiments so that I can complete the laboratory portion of this class. **I understand that I do not have to disclose to my laboratory instructor or any other personnel of Georgia Southern University that I have a particular disease, illness, or condition.**

I also acknowledge that wearing contact lens in the laboratory may increase the risk of injury to my eyes. Thus, the Chemistry department at Georgia Southern University recommends that students do NOT wear contact lens while in Chemistry labs. If I decide to wear contact lens in the laboratory, I understand that I do so at my own risk. I also agree to immediately remove my contact lens if my eyes become irritated while in the laboratory or if my eyes are exposed to a hazardous chemical.

I have carefully read this document, received a copy of this document to keep, and had an opportunity to ask questions concerning its content.

I recognize and agree that it is my responsibility to observe these rules, precautions, and guidelines while present in a Chemistry laboratory.

Signature \_\_\_\_\_ Course \_\_\_\_\_

Name (print) \_\_\_\_\_ Drawer # \_\_\_\_\_

Date \_\_\_\_\_ Room # \_\_\_\_\_

Instructor \_\_\_\_\_