Lab Session 1: Laboratory Safety Rules and Check In

These rules are designed to ensure that all work done in the laboratory will be safe for you and your fellow students:

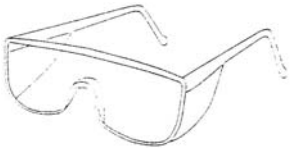


Figure 1.1

- Wear safety goggles at all times when you are in the laboratory! Your instructor will specify what type of goggles/glasses is required.
- Bare skin must be minimized while in the laboratory by wearing clothing that covers one's feet, legs and body completely. Hence, closed shoes and full-length pants are required, since broken glass and spilled chemicals are all too common on the floors of chemistry laboratories. Sandals, flip-flops, skirts, shorts, three-quarter length pants, bare midriffs, bare backs and bare shoulders are not allowed. Long-sleeve shirts are recommended but not required. Long hair should be tied back. Hats are not allowed.
- No horseplay, joking or playing is permitted in the lab. Failure to obey this rule is cause for immediate expulsion from the lab.
- No eating or drinking is permitted in the lab or in the prelab classroom.
- No visitors are allowed in the lab. Your friends should visit with you before or after, but not during the lab session.
- Read all labels carefully. Never use materials from unmarked bottles. Most bottles will have short paragraphs on the hazards of a chemical. Most will have a safety sticker showing whether or not the chemical is poisonous or corrosive, and indicating hazards and precautions. See Figure 1.2 for a sample.
- Report all accidents to your laboratory instructor.
- Report all spills or breakage to your laboratory instructor. Clean spills promptly with materials provided by your instructor.
- Inquire about the location of eye-wash and shower stations in your lab.
- Locate spill control materials in your lab.
- Locate all fire extinguishers in your lab.

Figure 1.2

- Do not throw chemicals down the drain without first consulting your lab instructor. Never put solid material in the sink or down the drain. Solids are to be disposed of in the trash containers.

- Read the safety chart in the lab. This chart contains useful information and recommends safe laboratory procedures.

- Do not pipet liquids by mouth. Use a bulb to siphon liquids into a pipet.

- Use the fume hoods to pour noxious or irritating chemicals, and to run chemical reactions that generate noxious or irritating products.

- Never work in the laboratory unsupervised.

- Read the corresponding chapters of this manual *before* coming to class. This will familiarize you with any potential hazards that may exist or evolve during the exercise. Pay particular attention to any information concerning handling or safety of particular chemicals or solutions.

Fire

Your first responsibility is to get out of harm's way and inform those around you and your lab instructor of the situation. If possible, turn off all gas cocks and remove flammable materials from the area. Usually a wet towel thrown over the fire will extinguish the blaze. Do not throw water on the fire; use the fire extinguisher if possible. In case of fire on your clothing, WALK, DO NOT RUN, to the nearest fire blanket and wrap it around you. Inform the instructor as soon as possible about the incident.

Injury

Report all accidents to the laboratory instructor immediately. In all but the most trivial cases, a visit to the infirmary is required. Chemical splashes may require the use of the shower located in each room. Chemical injury requires immediate attention. Wash the area thoroughly with soap and water and report to the lab instructor. If chemicals get in your eye, flush the eye with water for several minutes and do not touch the eye. When there is a question of physical injury, through chemical or mechanical means, modesty should not be a factor. Showers and eyewash stations are there to be used.

Spills

All spills must be reported to the stockroom. All chemical spills are a potential hazard. For acid spills, use sodium bicarbonate or spill material provided in a hood in each lab. For base spills, use a weak acid and water to neutralize the base and clean up the spill. When cleaning a spill, wear gloves, apron, and goggles. Always ventilate the area when cleaning a spill. Mercury spills, including broken thermometers, are to be treated by stockroom personnel. Do not attempt to clean mercury spills or handle mercury!

Cleanliness

It is important to keep the laboratory as clean as possible, for safety reasons as well as aesthetic reasons. Each pair of students is responsible for their immediate desk area. Before leaving the laboratory, students should make sure that the area of the laboratory bench near their assigned drawer is clean and dry, that Bunsen burners and other shared equipment are put away in the appropriate space, and that the trough to the sink is free of any solid material. Laboratory instructors will check work areas before approving completion of the experiment.

Pairs of students will be assigned dates for which they are responsible for cleaning the reagent shelves, balances and balance tables in the weighing room, and surfaces under the hoods. This duty will be rotated so that each pair of students will be responsible for general laboratory cleanliness at least once during the semester.

Desk Assignment Sheet (Chemistry 1009)

Please Print

Name_____ ULM ID_____

Name_____ ULM ID_____

Section #_____ Room #_____ Desk #_____

☐	3	Beaker, 100 or 150 ml	☐	2	Flask, Erlenmeyer, 125 ml
☐	2	Beaker, 250 ml	☐	1	Flask, Erlenmeyer, 250 ml
☐	1	Beaker, 400 ml	☐	1	Flask, Florence, 500 ml
☐	2	Bottles, one 4 oz and one 8 oz, round	☐	1	Funnel, Narrow Stem
			☐	2	Watch Glass
☐	1	Wash Bottle	☐	1	Spatula
☐	1	Clamp, Pinchcock	☐	1	Combustion Spoon
☐	1	Clamp, Test-Tube	☐	1	Test Tube, 25 × 150
☐	1	Crucible and Cover	☐	10	Test Tube, 15 × 125
☐	1	Cylinder, Graduated 10 ml	☐	1	Thermometer
☐	1	Cylinder, Graduated, 100 ml	☐	1	Tongs
☐	1	Evaporating Dish	☐	1	Triangle, Wire

See pictures of items on the following pages

Check In:

Signature_____

Signature_____

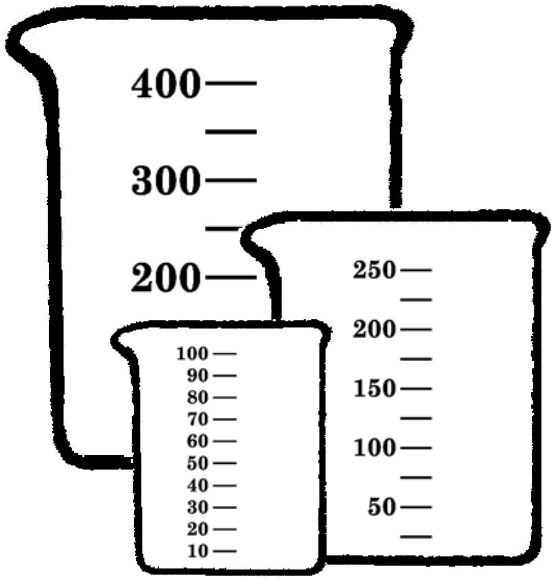
Checked in by_____ Date_____

I MUST WEAR SAFETY GOGGLES DURING EACH LAB SESSION.

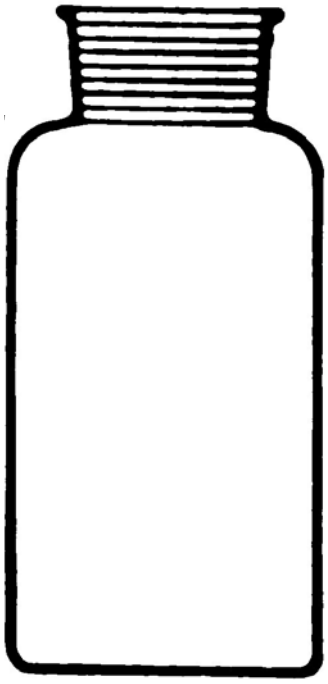
Initials_____ Date_____ Initials_____ Date_____

Check Out:

Checked out by_____ Date_____

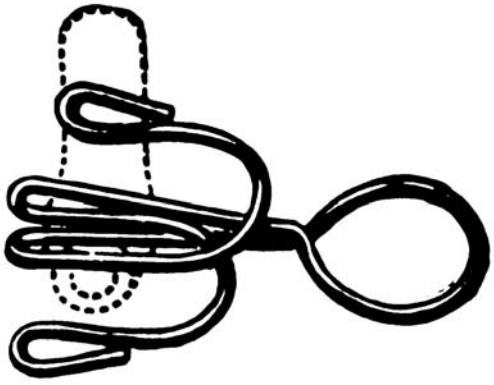


Beakers

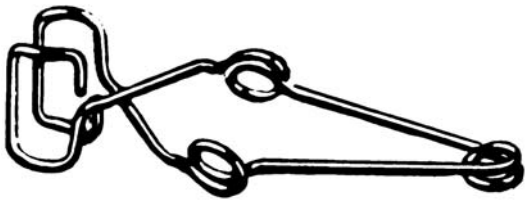


Bottle

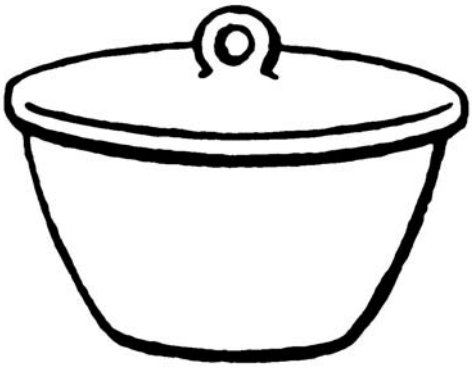
Wash Bottle



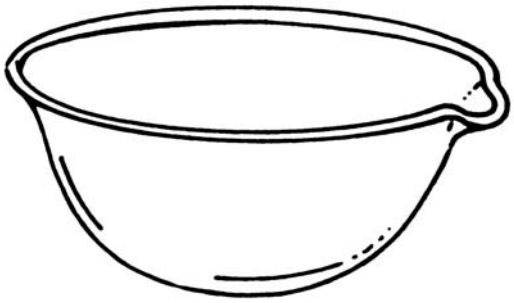
Clamp, Pinchcock



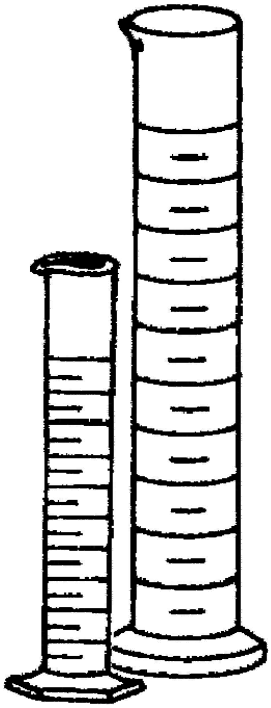
Clamp, Test tube



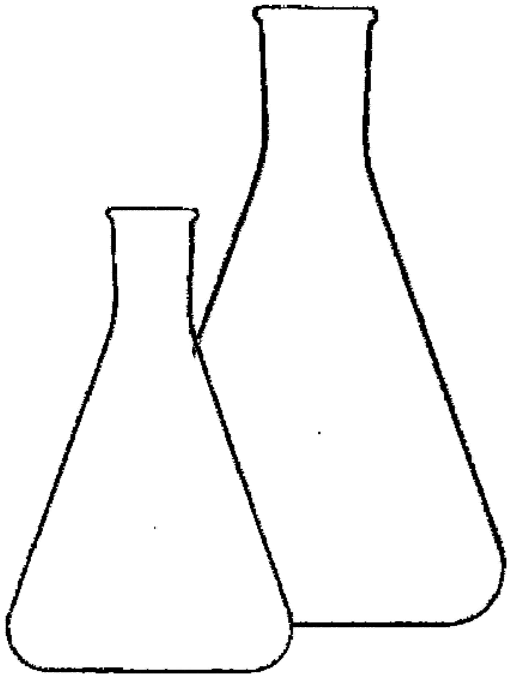
Crucible and Cover



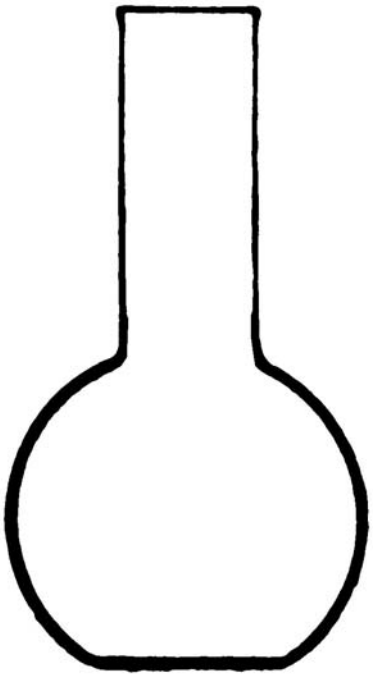
Evaporating Dish



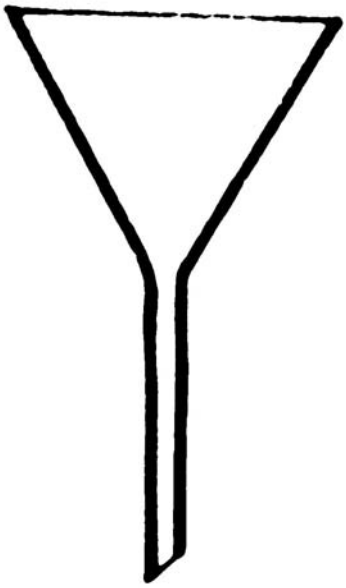
Cylinder, Graduated



Flask, Erlenmeyer

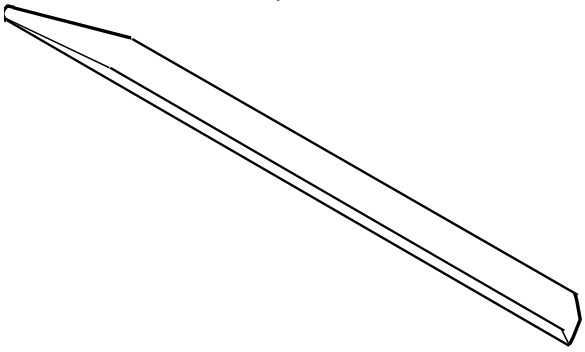


Flask, Florence



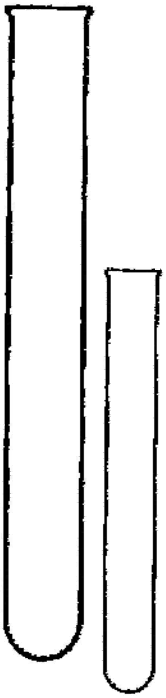
Funnel, Narrow Stem

Glass, Watch



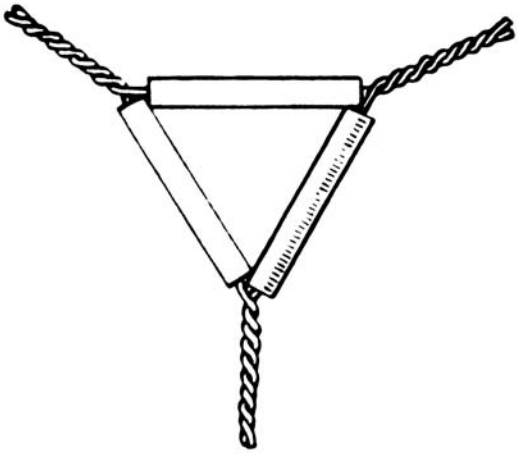
Spatula

Combustion Spoon



Test Tubes

Tongs



Wire Triangle

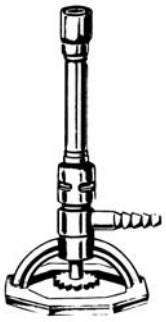
Commonly Used Equipment (not in the desk drawer)

Top Loading Balance

Test Tube Brush

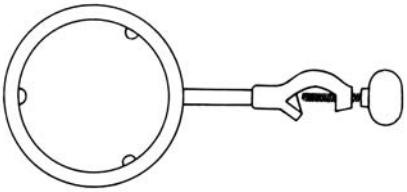
Dispensing Bottle

Squeeze Bulb

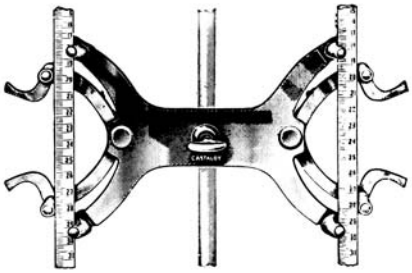


Bunsen Burner

Burette

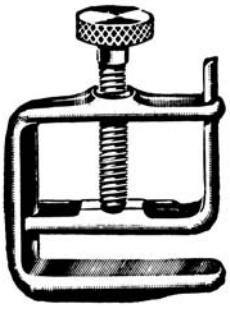


Ring Clamp

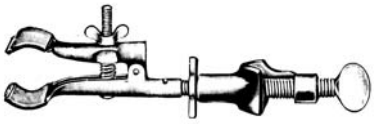


Burette Clamp

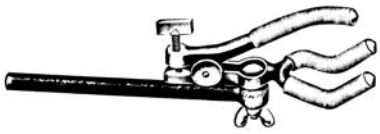
Ring Stand Clamp



Screw Clamp



Two-Prong Clamp



Three Prong Clamp

Eye Dropper
(Suction Pipette)

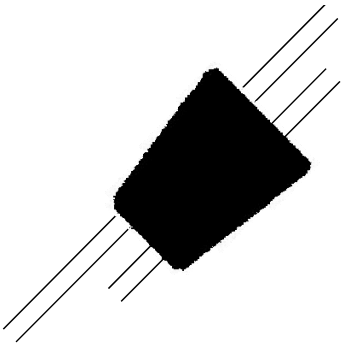
Fire Blanket

Fire Extinguisher

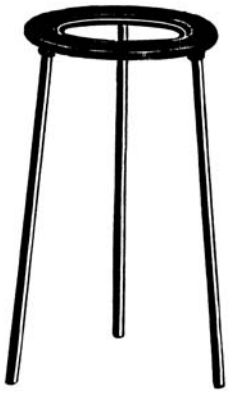
Plastic Ruler

Striker

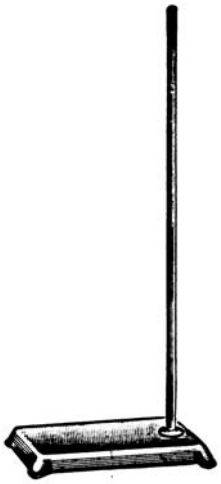
One-hole Stopper



Two-hole Stopper



Tripod



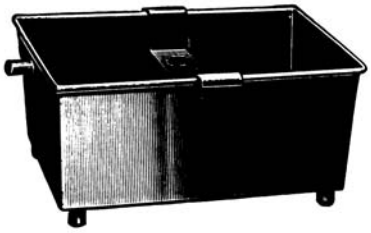
Ring Stand

Glass Pipette

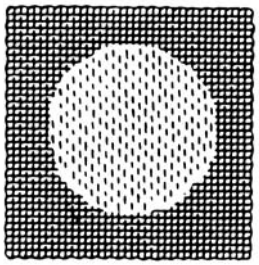
Thermometer

Thistle Tube

Metal or Plastic Trough



Pneumatic Trough



Wire Gauze