





Chemistry 101

Laboratory Sessions





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Class ALWAYS starts on time

Each lab has a briefing
 Miss briefing → Can't do lab
 (WCC Risk Management Policy)

Each lab is different ...
 instructor reserves the right
 to deny seating based on missed content

Tardiness is a safety hazard to all in the lab!

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Required Materials

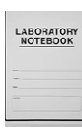



Cem Department lab handout (Must Print)

Carbonless copy lab notebook (does not have to be WCC)

Safety goggles (Department or personal)

Hand-held "scientific" calculator
 (Phone apps not acceptable)



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No Electronics (except calculators) On Lab Bench



Protect your investment:
Keep away from flames and potential spills
Electronics on table is asking for disaster
Store electronics in personal storage area

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Dress Code (For Hands On Lab)

Skin you don't want burned or spilled upon should be covered

Statistically, most injuries during intro labs: Below the knees

Recommendations:

No shorts

No sandals

No exposed skin below the waist

Leather (not cloth) shoes

Consider:

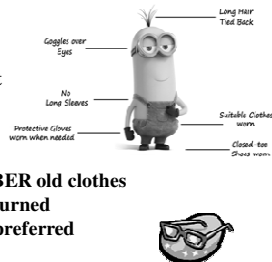
Tying back long hair

Wearing Sturdy NATURAL FIBER old clothes

Synthetics stick to skin when burned

Cotton and "non-fuzzy" wool preferred

Best to wear glasses, not contacts



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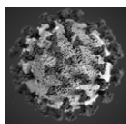
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Masks Required In The Lab



College Requirement

Cannot do lab without mask




On Blackboard: Why I Wear A Mask

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Behavior

Have fun with chemistry, not pranks
 Keep floors & aisles clear
 Professional labs:
 No
 Food (including gum)
 Drinks
 Cosmetics
 Smoking
 'cause these can absorb lab chemicals

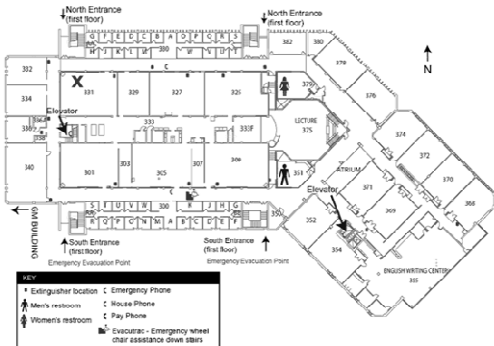


Instructor Vigorously Enforces No Food, Drink or Gum

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Lab Location – LA 331 (NW Corner of building)





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Lab Door-LA 331

Entry Here
 Begins
 Your Weekly Exploration of
 Practical Chemistry

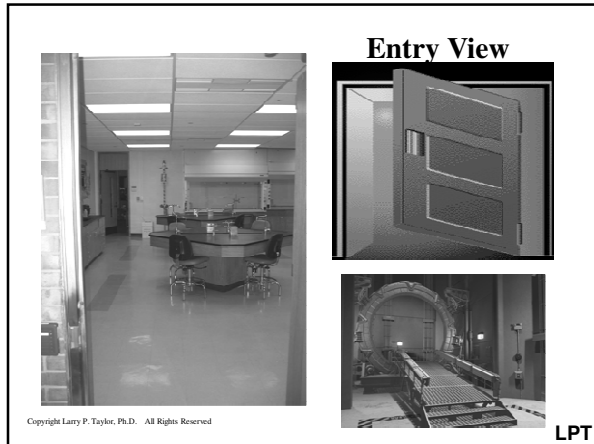
The Lab Is A No-Cell Phone Use Zone

Food, Drink, or Gum Not Allowed In The Lab

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Coat Rack

Immediately on Your left

Storage for coats
&
Personal Objects



Store “stuff” here, not under lab benches

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Cabinets

East Wall; Left of Doorway)



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Solutions For Neutralizing Spills (East Wall)



Notify Instructor of spills
Instructor will determine and apply proper solution (if needed)

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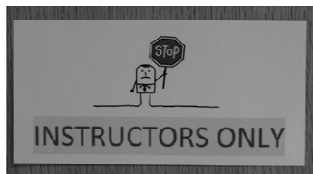
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Entrance to Chemistry Core (South East Corner)



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**Open During Class
Emergency Exit Only**



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First Aid Kits



**Historically,
College First Aid kits are pilfered
So,
First Aid Kits are in the Prep Area
(instructor access only)**



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**Safety Shower
Eye Wash
Broken Glass Disposal
Spill Kit
(South Wall)**




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Broken Glass Disposal (South Wall)





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Spill Clean-up Kit Spill Kit and Mercury kit in Prep Area



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Hoods (South Wall)



Air Exhaust Rate

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Student Desks



6 Desks
4 Students per Desk



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Cabinets (West Wall)



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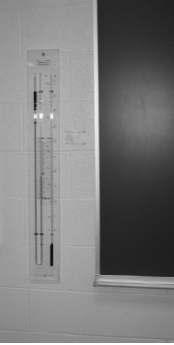
Balances (NW Corner)

Do not move
Leave turned on



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Barometer & Thermometer North Wall: Left of Instructor's Desk



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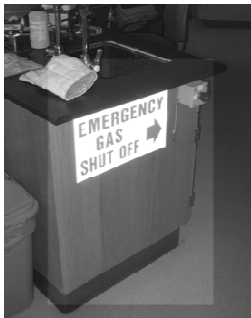
Instructor's Desk (North Wall)



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Emergency Gas Shut-Off (East Side-Instructor's Desk)



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North Wall: Right of Door

HID: Door Lock Alarm
Emergency Room Air Evacuate
Emergency Exit Diagram

Light Switches




Fire Extinguisher
Fire Blanket

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Chemistry Department Goggles For Students

North Wall: Next to Coat Rack

Cabinet Location **Cabinet: Close Up** **Cabinet: Open**

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Before First Class Begins

Take a seat
Greet your neighbors

Look around the lab

Note locations of "safety stuff"

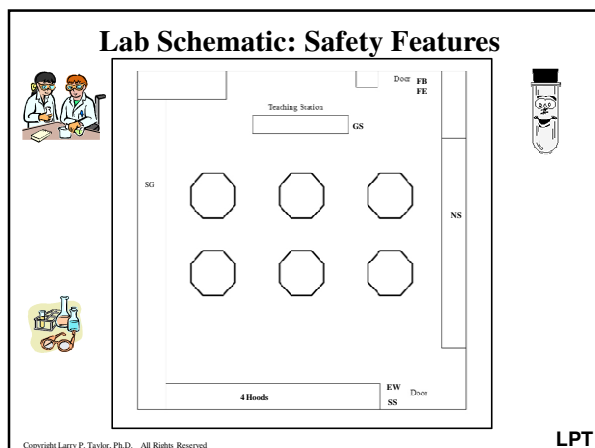
Fire Extinguisher
Fire Blanket
Gas Shut-Off Valve
Neutralizing Solutions
Spill Kit
Glass Disposal
Safety Shower
Eye Wash
Hoods
Nearest Sink



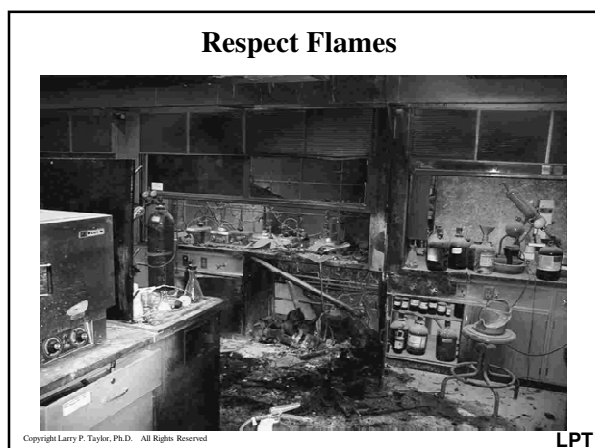
Lab 1 Hand-In has a sketch the lab exercise
This can be done before class starts

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Assume All Glassware is Dirty



Wash & Dry Before Using
Wash, Dry, & Put Away After Using

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Do Not Dry Glassware with Compressed Air

Compressed air contains oil droplets, dust, and other particulates.
So, using compressed air to dry glassware may:

1. Make the glassware dirtier than before washing
2. Convert small objects (like test tubes) into projectiles
(Potential injury source, especially if glass shatters)
3. Drive particulates thru skin to impale on bone tissue
3. Promote lipoid pneumonia (Breathing oil droplets is unhealthy)
4. Provide ignition source (oil buildup)
5. Startle others (potential for dropped glassware)



Air directly from compressor:
Does not meet human breathing standards
Meeting human breathing standards requires:
Oil removal traps
Water removal traps
Particulate removal filter (s)
Catalyst to convert any CO to CO₂ (higher quality)
Quarterly documentation of purity (by analysis)

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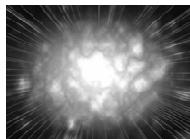
Lab Philosophy

In the Chemistry Lab,
As in Life,

It's what you do NOT know that poses greatest risk!

So,
Knowledge of risks
&

Prior preparation for handling accidents
Becomes the best strategy for accident prevention.



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The Lab Will Be Fun & Enlightening



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Thanks for viewing this slide set!
Knowing what is here and
where stuff resides
will make this class soooooooooo much easier!



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