

Intro

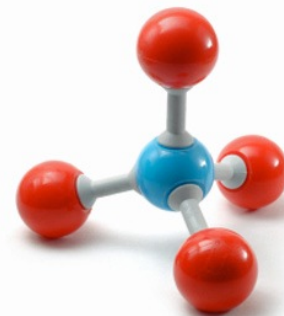
Pick up a copy of each handout
(unless you downloaded and
have that handout)

Organic Chemistry I Lab

section 027

Welcome to UC Berkeley Chem x36.A1
Experiments in Organic Chemistry – part 1

If you are enrolled
or on the wait list–sign
the roll sheet!
If you are trying to add the
class, add your name!



version 1.5

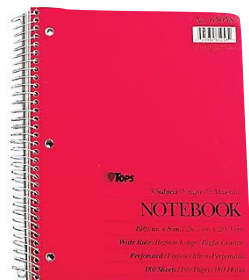
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Class Setup

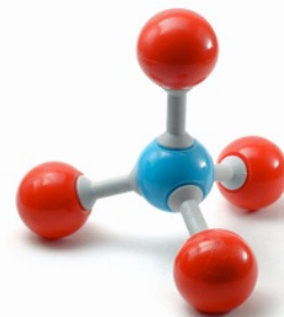
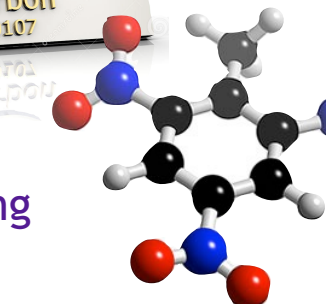
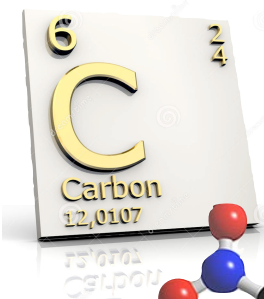
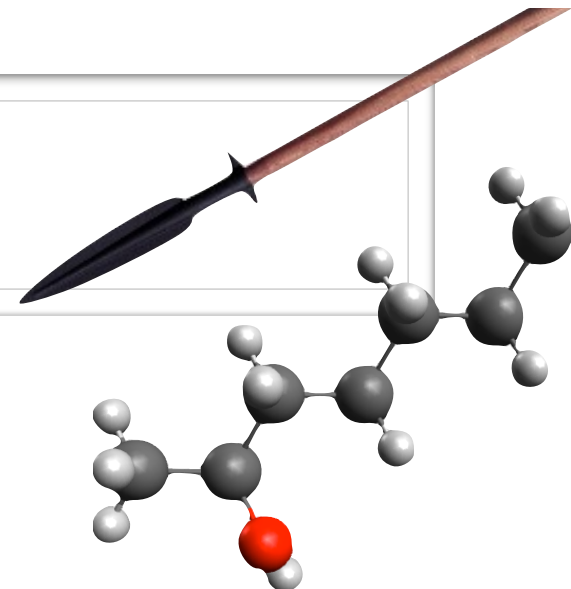
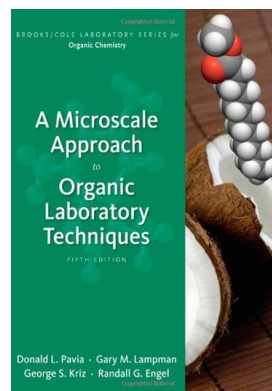


Are you in the right room?

- ▶ Requirements
 - ▶ Pre-req's
 - ▶ Schedule
 - ▶ Dates & Times
 - ▶ Materials
- ▶ Instructor
- ▶ Content
 - ▶ Goals
 - ▶ Topics
 - ▶ Experiments
 - ▶ Pre-labs & Reports
- ▶ Evaluation
 - ▶ Point Breakdown
 - ▶ Final Grades
 - ▶ Grade Reports
 - ▶ Knowing how you're doing.



- ▶ Resources
 - ▶ Class Website
 - ▶ Office Hours
 - ▶ Learning Center
- ▶ Safety
 - ▶ Safety Video & Quiz
- ▶ Setup
 - ▶ Lab Locker Contract
 - ▶ Eye Safety Agreement
 - ▶ Stockroom Registration
- ▶ What to do before next meeting



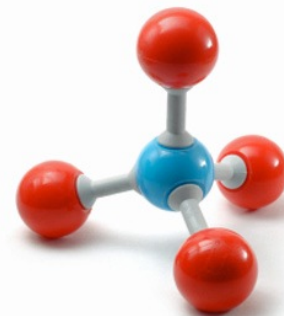
Organic Chem I Lab

- ▶ This class is Chem 36A1: Organic Chem Lab (part 1)
 - ▶ This is section 27
 - ▶ There is one other sections this semester.
 - ▶ Check the roll, if your name is not on it check your registration.



This is a UC Berkeley Extension Class

section 027



Organic Chem I Lab

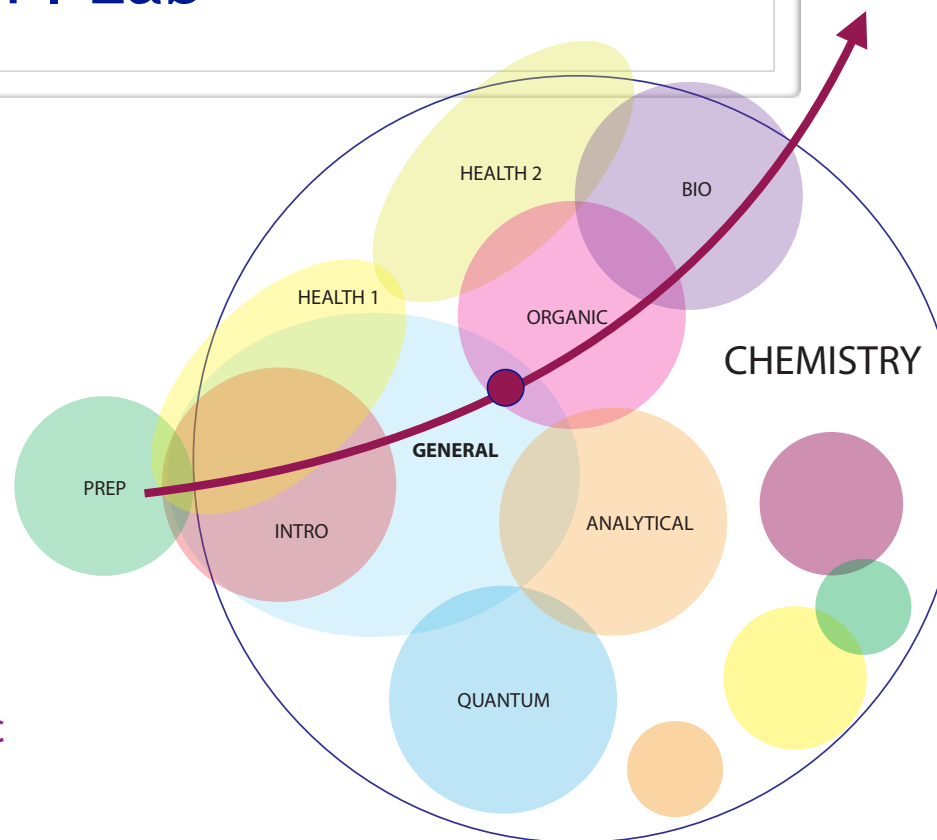
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▶ This is section 27

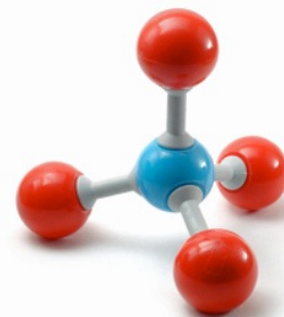
- ▶ There is one other sections this semester.
- ▶ Check the roll, if your name is not on it check your registration.

▶ Organic Chemistry I Lab is

- ▶ The “Lab Half” of the first semester of organic chemistry.
 - ▶ (The hard organic series)
- ▶ This is *not a GOB (Health Chem)* course, if you are a nursing major you probably don't need this course.
- ▶ If you are a STEM major or pre-Med, this is the right “organic chemistry”



section 027



Organic Chem II Lab

▶ This class is Chem 36A1: Organic Chem Lab (part 1)

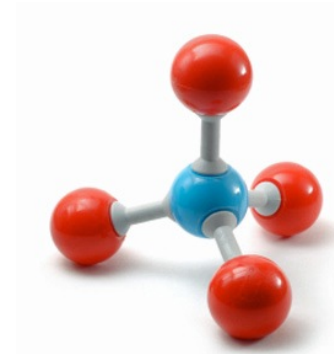
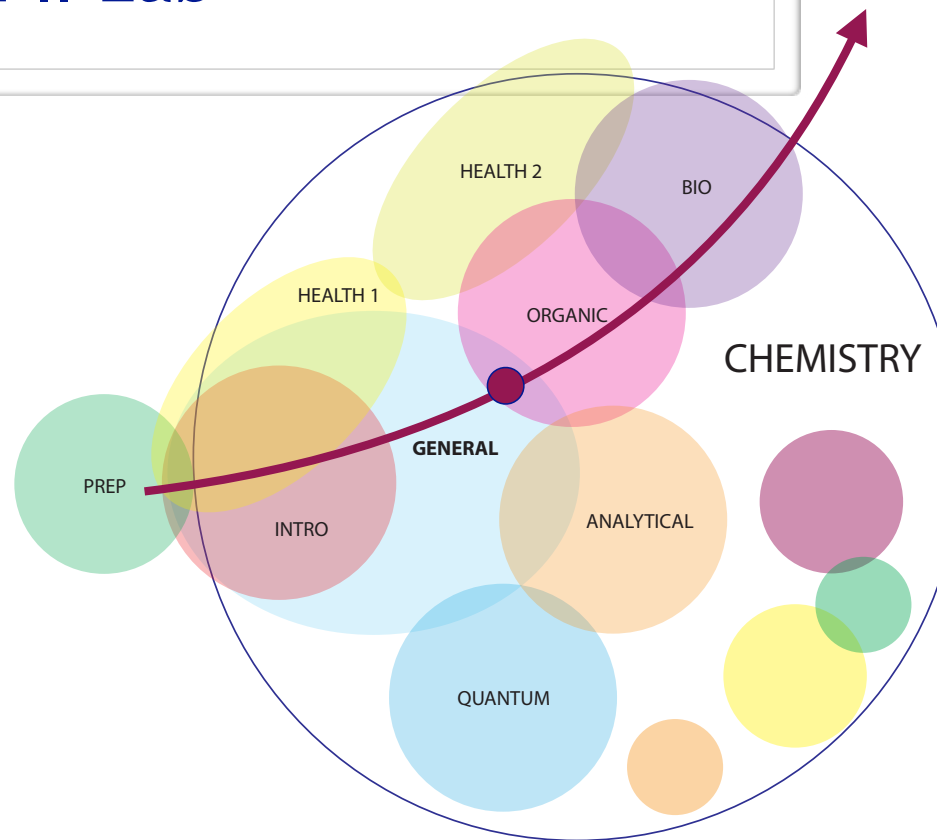
▶ This is section 27

- ▶ There are two other sections this semester.
- ▶ Check the roll, if your name is not on it check your registration.



Pre-requisite Study

- ▶ General Chemistry (both semesters).
- ▶ Organic Chemistry Lecture I
CHEM X36A – completed with a C or better or taken concurrently.



Class Setup

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- ▶ Experiments

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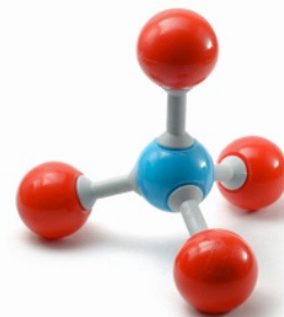
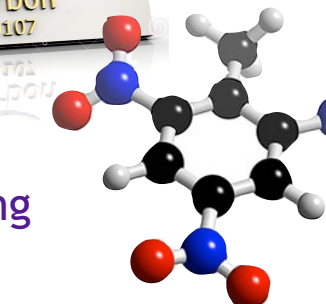
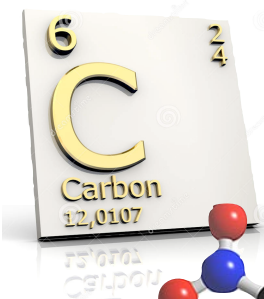
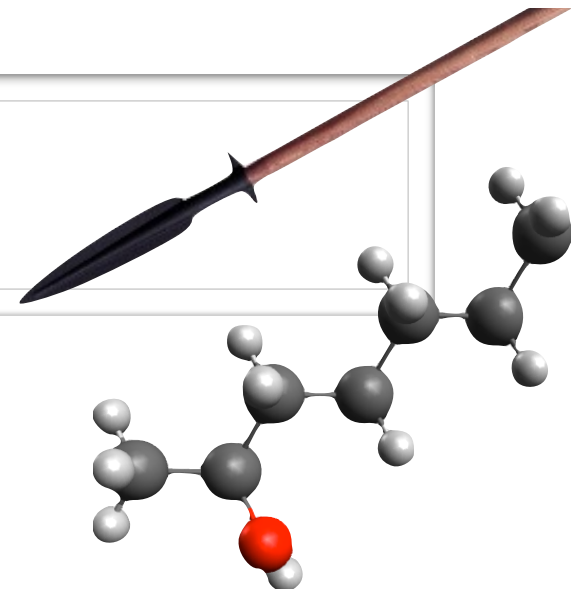
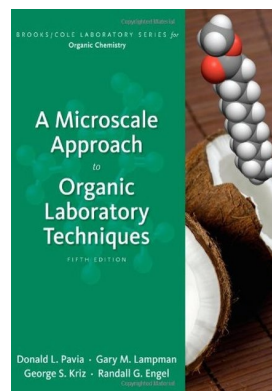
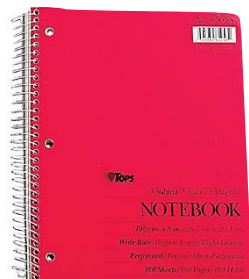
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- ▶ Eye Safety Agreement

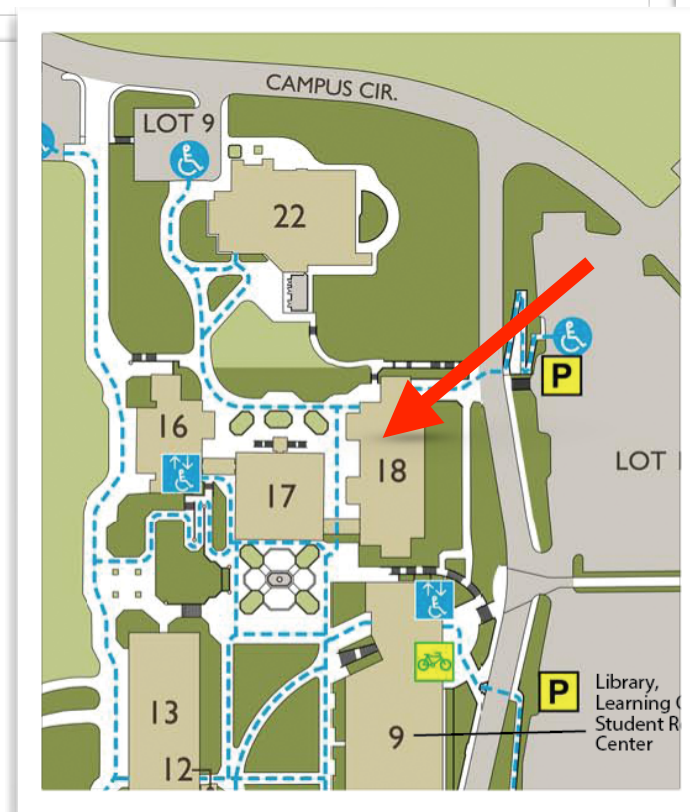
- ▶ Stockroom Registration

- ▶ What to do before next meeting



Requirements: Schedule

- ▶ This class meets: 09/1/16 - 12/15/16
 - ▶ Thursday Evening
 - ▶ 6:00-10:00pm
 - ▶ Please do not be late
 - ▶ in Room 311 of Building 18
- ▶ Attendance is required.
 - ▶ If you miss a class, you cannot make up the activities (no points).
 - ▶ Two or more absences from lab means you will not have enough lab hours to pass the class.
 - ▶ Having a really good reason doesn't change that.
- ▶ There will be sign in sheet at each meeting, you must sign the the sheet to have your attendance recorded.
- ▶ Not signing the sheet is the same as being absent.



Requirements: Class Materials

► Available from the Cañada Book Store:

- Textbook

[A Microscale Approach to Organic Chemistry Laboratory Techniques](#) (5th)
by Pavia, Kriz, Lampman & Engel; Brooks Cole / Cengage Publishing
ISBN: 978-1-133-10652-4

- Internet access is required

(for answer keys, lecture slides, practice problems, and other resources)

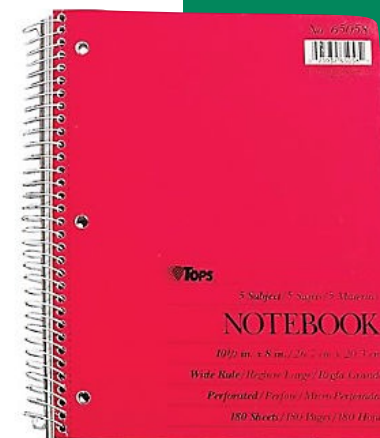
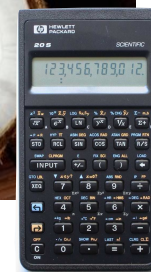
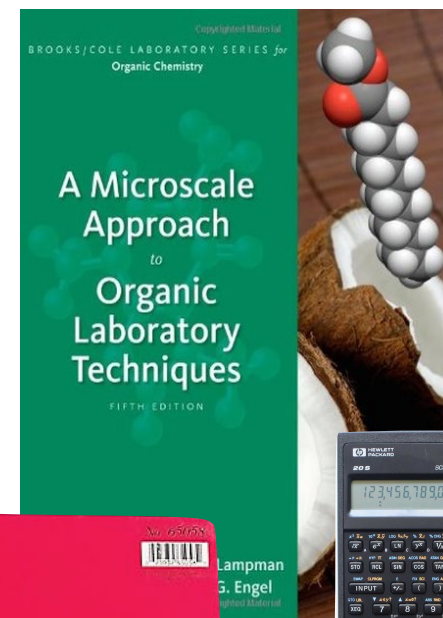
- Laboratory Safety Goggles

- Simple Scientific Calculator

The calculator needs to do scientific notation (eg. 2.5×10^5)
and simple arithmetic (add, subtract, divide, and multiply).

- Spiral Bound Notebook & Pencils (2)

— bring to every class!



A simple scientific calculator is best.

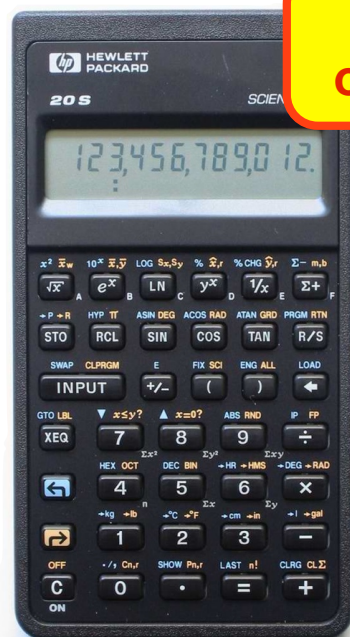


Must do scientific notation.

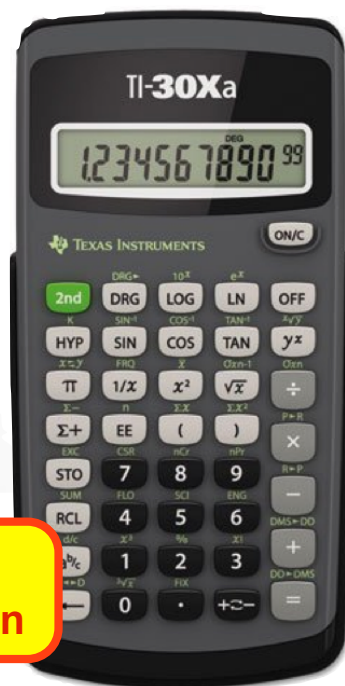
(must have an EE or E or Exp key)



Cell phones/PDAs are not acceptable.



\$15-35
on eBay

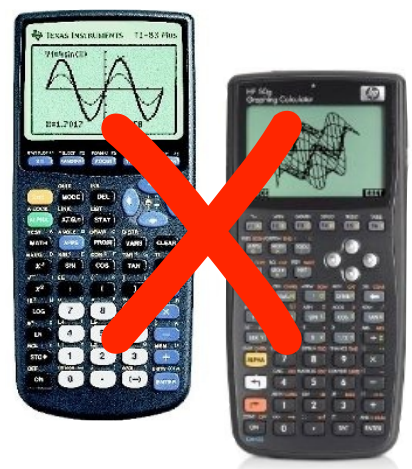


\$9-15
on Amazon

Best choice:
a simple calculator with
log and scientific notation keys
- HP 20s (27s or 42s also good)
- Texas Inst TI-30Xa (least expensive)

Graphing calculators are bad — they are expensive, hard to use and will trip you up on an exam.

Don't buy one. If you already have one and know how to use it well, it's acceptable.



CAUTION:
Chem lab calculators are like boxers, they don't stay pretty for long.

Do not spend big money on any calculator, it might take an acid bath tomorrow!

Categories

Consumer Electronics

- Calculators
- More ▾

Postal Stamps

- Other US Stamp Covers
- More ▾

Collectibles

- Other Engineering Collectibles
- More ▾

Home & Garden

- Lawnmower Parts & Accessories
- More ▾

See all categories

Type see all

Brand see all

Size see all

Power Source see all

Condition see all

- New (127)
- Used (435)
- Not Specified (98)

Price
\$ to \$ >>

All Listings Auction Buy It Now

Sort: **Best Match** ▾ View: ▾

hp 20s 660 listings [+ Follow this search](#)



NEW LISTING [Hewlett Packard HP 20s Scientific Calculator](#)

\$24.50

Buy It Now



[HP Hewlett Packard 20 S 20S Scientific Calculator with hp slip case](#)

\$16.49

2 bids

Free shipping

4d 20h left (Sunday, 10AM)



[HP Hewlett Packard 20 S 20S Scientific Calculator with hp slip case](#)

\$14.32

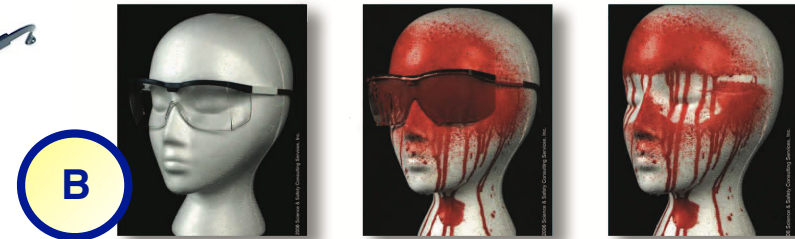
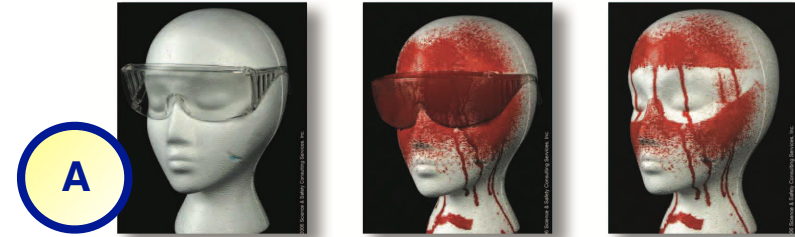
1 bid

Free shipping

6d 22h left (Tuesday, 12PM)

Eye Safety

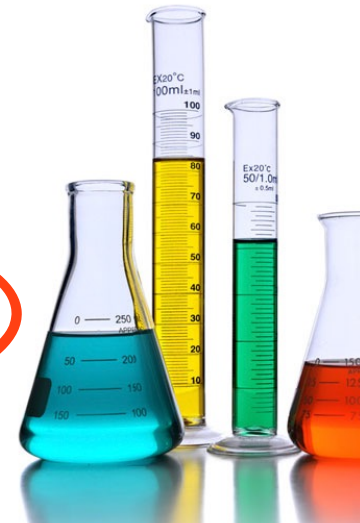
- ▶ *Chemically Resistant* Safety Glasses are acceptable
- ▶ *Chemically Resistant* Safety Goggles are better
 - ▶ You can get either at the Cañada College Bookstore (about \$7-\$15)



Shop Glasses
(like they sell at Home Depot)
are impact resistant but
are not chemically resistant.
They are not acceptable.



Never wear contact lenses
in this room!



Class Setup

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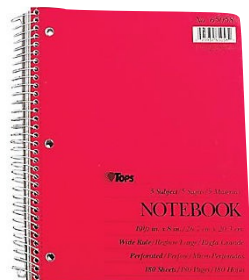
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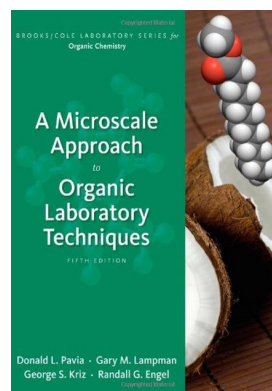
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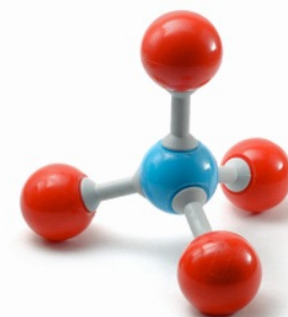
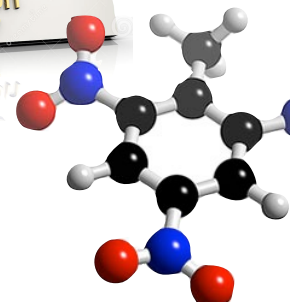
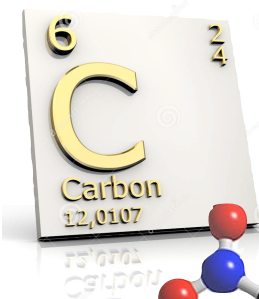
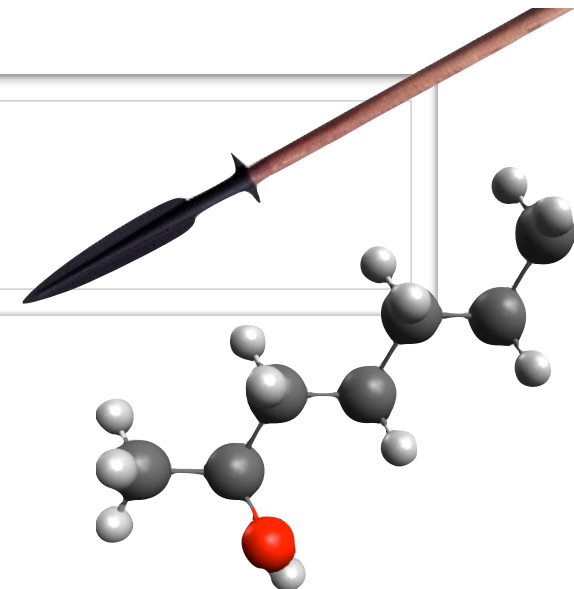
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Instructor

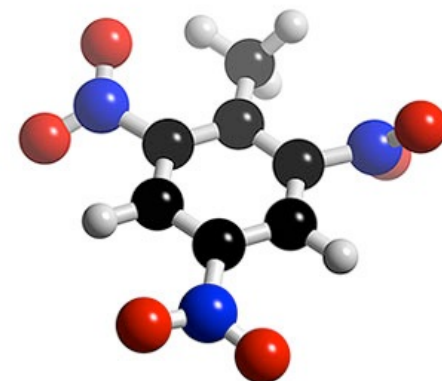
- ▶ Prof. Nick DeMello, Ph.D. “Professor DeMello”
 - ▶ UC Berkeley Extension & Cañada College



nick@chemlectures.com

Best way to
reach me is by
email.

- Lecturing College Chemistry since 2007
- Created Educational Software at UCLA for McGraw Hill & the Ministry of Education of Malaysia
- Post Doctoral Research at UCLA Computational & Organic Chemistry
- Ph.D. at University of Pittsburgh (Pennsylvania) Synthetic Organic & Computational Chemistry
- B.S. at Cal Berkeley (California) Nuclear & Synthetic Organic Chemistry
- Sequoia High School Graduate ... with Courses at Cañada College



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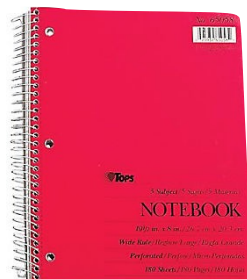
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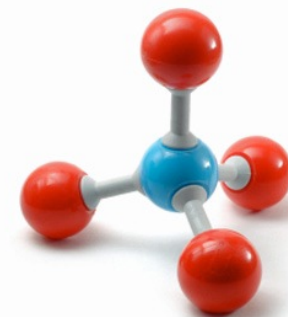
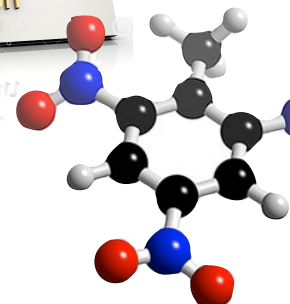
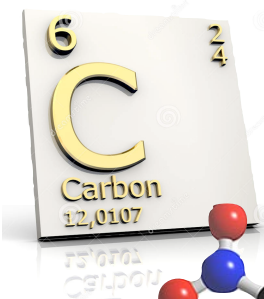
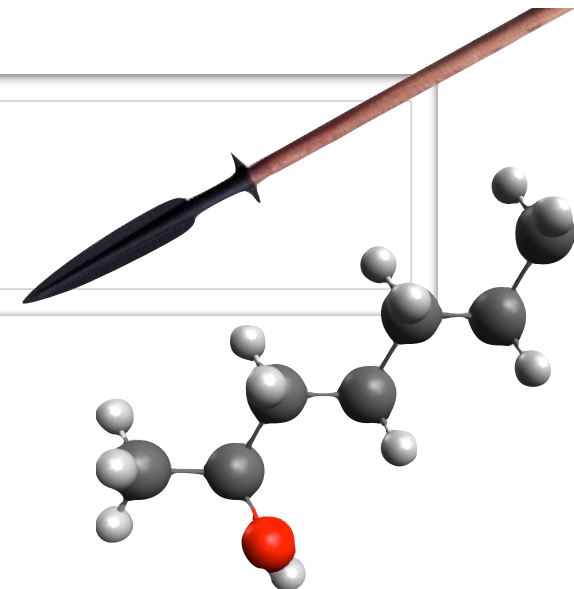
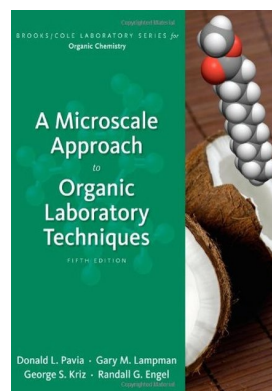
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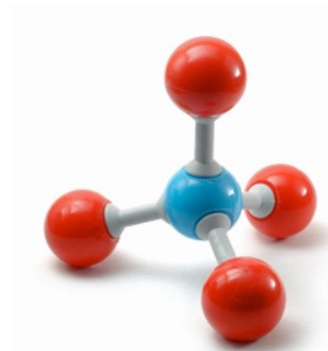
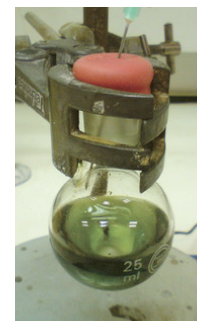
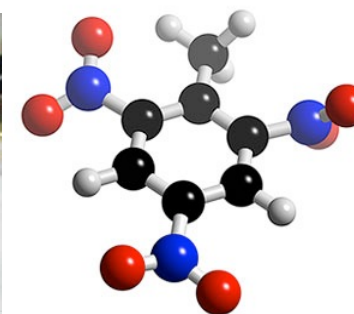
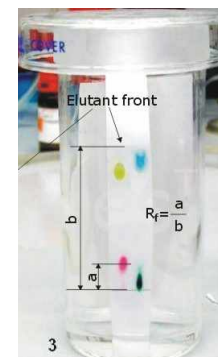
Organic Chemistry I Lab

▶ Goal:

- ▶ This class is not comprehensive. There are topics you will explore in lecture that we will not cover in lab.
- ▶ We will explore 12 experiments that get you started in organic chemistry.
- ▶ Our goal is for you to gain knowledge in fundamental principles and techniques of organic properties, separations, purifications, and to have you apply them to prepare and purify organic compounds.

▶ Topics:

- ▶ We will take on these challenges in four pieces:
 - ▶ Separating Organics
 - ▶ Chromatography Techniques
 - ▶ Purification
 - ▶ Preparation of Organic Compounds



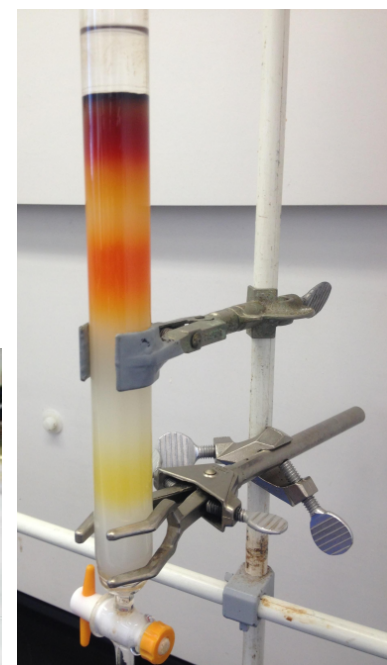


Separations	Solubility	How molecular structure can be used to predict solubility and miscibility. Why some solutions will separate into a heterogenous sample.	Exp 2: Solubility
	Crystallization	Solutions at the limit of solubility can produce pure crystalline phases. How that effect can be predicted and utilized in the lab.	Exp 3A: Semimicroscale Crystallization Exp 3C: Solvent Selection for Crystallization
	Extraction	Using solubility barriers to selectively pull a component from one solution into another.	Exp 4A: Extraction of Caffeine Exp 4B: Distribution of Solute in Immiscible Solvents

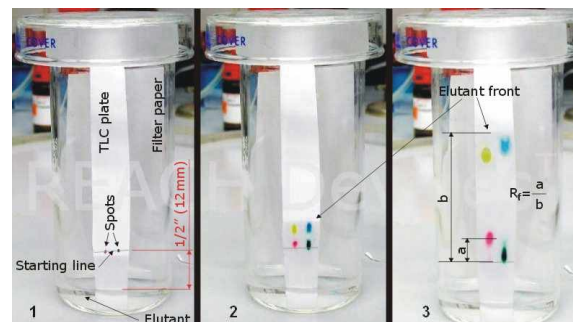
- ▶ Understanding, predicting, and applying the properties of organic compounds—starting with solubility.
- ▶ Techniques for separating mixtures based on those properties.
 - ▶ Like crystallization
 - ▶ and extraction



Chromatography	Elution	How slight differences in solubility can produce big separations when solutions are passed through silica gel. How to tune this effect.	Exp 6A: Chromatography Exp 6B: Selecting Solvents for Elution
	Thin Layer (TLC)	Using chromatography for analysis. Gas and thin layer techniques for identifying mixtures and their components.	Exp 12: TLC Identification of an Analgesic Drug
	Column Chromatography	The technique of column chromatography for isolating pure samples of other difficult to separate mixtures.	Exp 17: Chlorophyll & Carotenoid Pigments



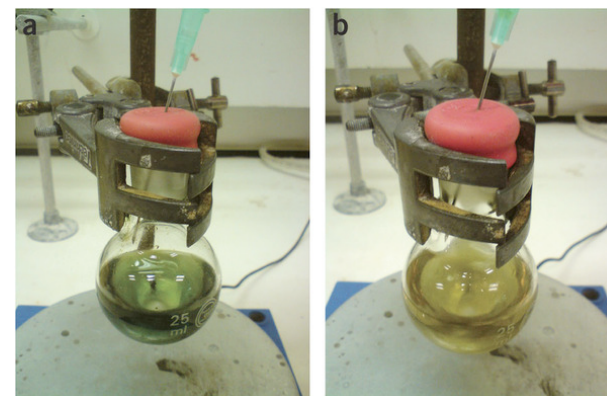
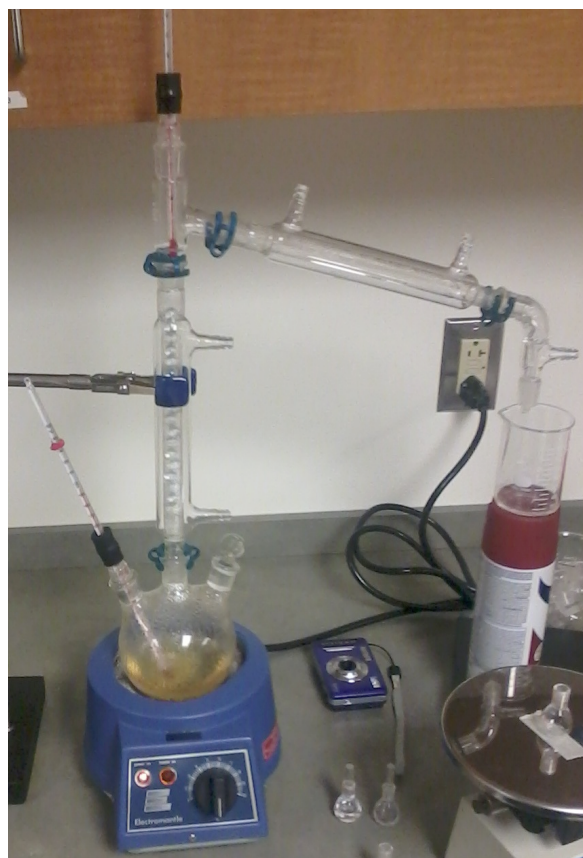
- ▶ The process of elution and techniques of chromatography— like TLC, column, HPLC and GC.



Purity	Melting Point	Isolating and determining the purity of pure substances that compose common and valuable mixtures.	Exp 10: Isolation of Active Ingredients from Analgesic Drugs
	Sublimation	Taking advantage of other physical properties to isolate put materials. Exploring cold finger apparatus and sublimation.	Exp 13A: Isolation of Caffeine, p100
	Distillation	Using distillation to prepare pure samples and confirming their structure and purity with infrared spectroscopy.	Exp 15A: Essential Oils, Distillation of Oil of Cloves



- Determination of a samples purity and production of pure samples by distillation, sublimation, and other methods.



Preparations	Alkyl Halides	Preparing building block compounds from which more complicated substance can be constructed. Building alkyl halides.	Exp 23C: Prep of t-Pentyl Chloride
	Olefins	The dehydration of an alcohol to insert a foot hold, a double bond, in a carbon skeleton.	Exp 24: Prep of 4-Methyl Cyclohexene
	Synthesis	The story of willow bark. Designing, synthesizing, isolating and characterizing a better medicine by making a better molecule.	Exp 9: Synthesis of Aspirin

- Beginning to accomplish preparations of organic compounds and isolating pure substances from reaction mixture.



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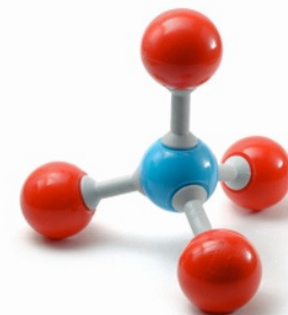
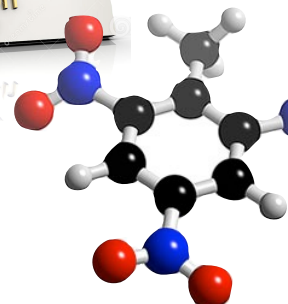
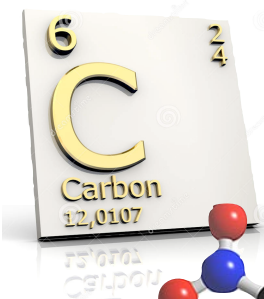
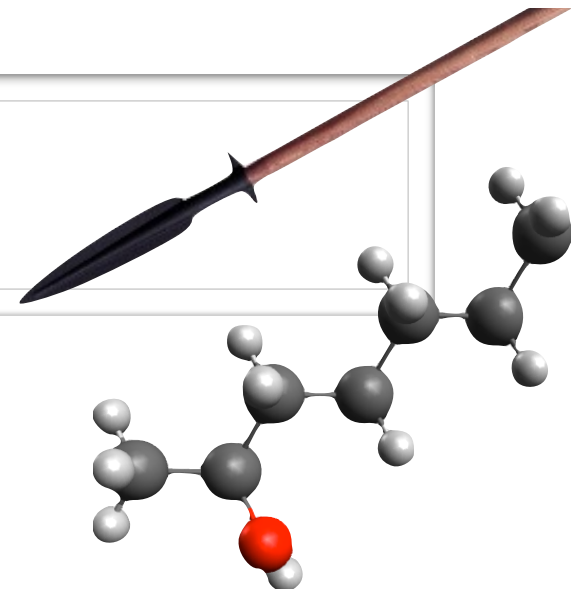
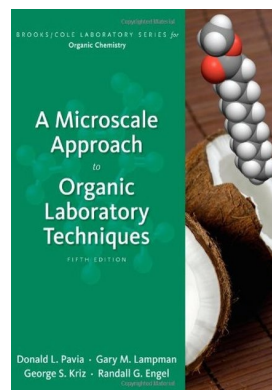
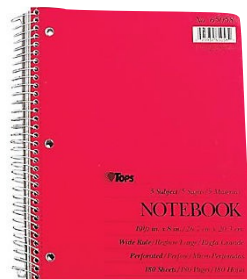
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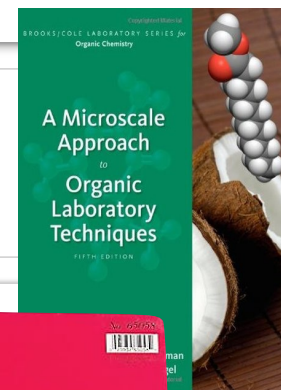
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Pre-Lab

- ▶ Each meeting we will conduct one or more experiments.
 - ▶ Outlined in the class schedule and described in your lab textbook.
- ▶ You must read through the procedures and any additional reading assigned before we meet.
- ▶ Prepare your lab notebook for the experiment.
 - ▶ If the experiment is a preparation, start with the balanced chemical equations.
 - ▶ Number and list quants used or expected to be produced.
 - ▶ List and show physical properties for each substance used.
 - ▶ With common solvents and acids, you only need to do this for the first experiment in which they are used.
 - ▶ Physical properties include chemical formula, bp, mp, and either density or molecular weight if measured quantities are used in reactions.
 - ▶ Produce a procedure summary:
 - ▶ Read through the description of the experiments and make a bullet list of the steps you will execute
 - ▶ For multi-part experiment, clearly separate your procedures.
 - ▶ Prepare your lab notebook to record your data.
 - ▶ Tables are usually the best way to organize data.
 - ▶ It doesn't have to be fancy, just clear.
 - ▶ Data must be captured in a notebook (loose or removable paper is not an acceptable place to put lab data—you'll lose it)

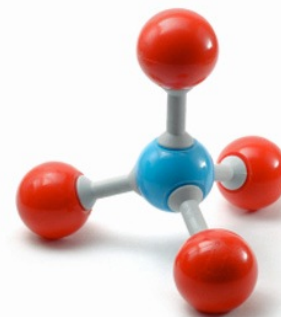
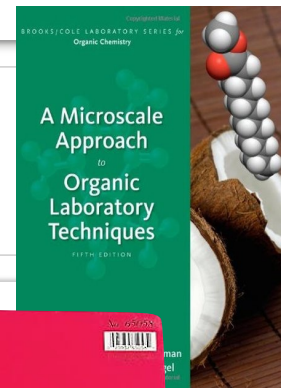
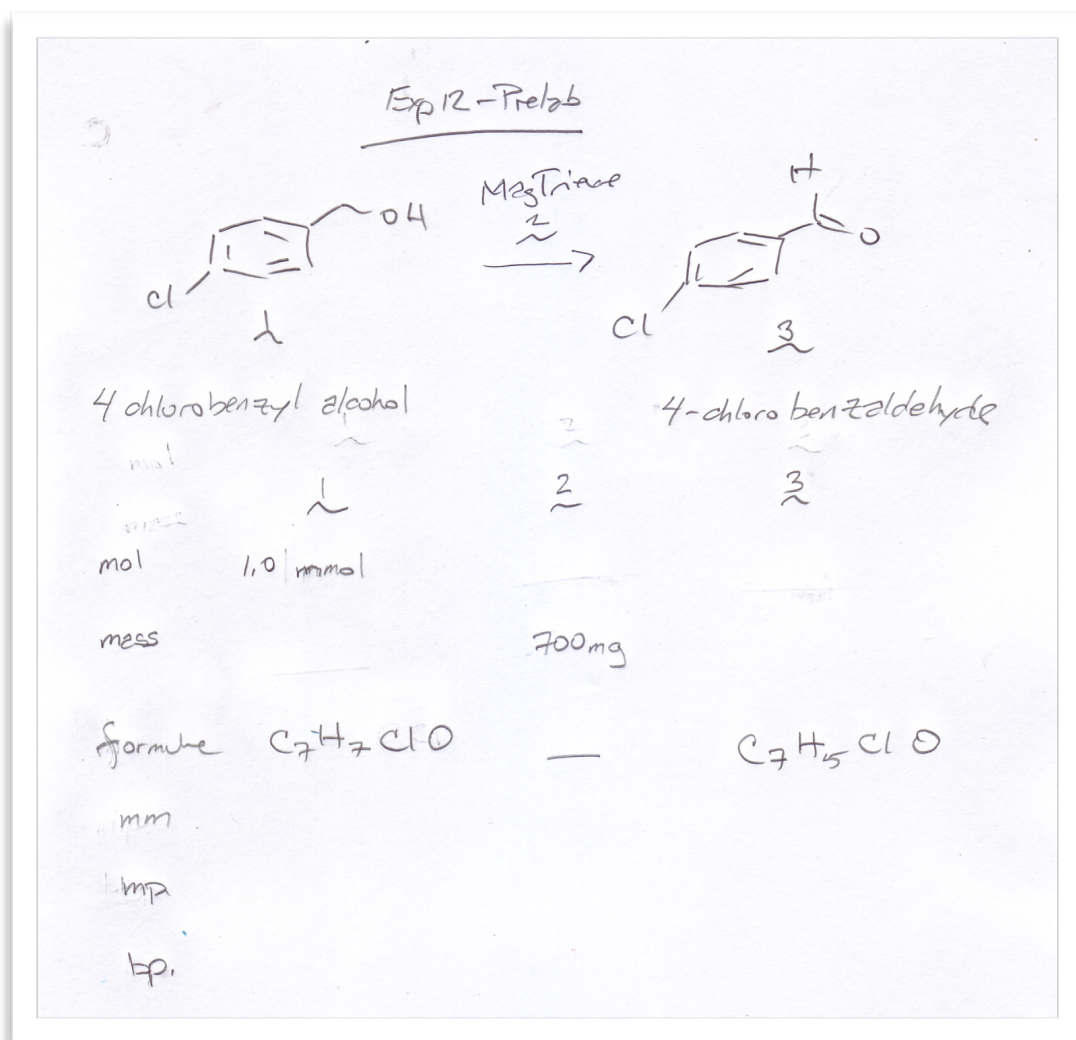


I'll look at pre-labs before we begin. These must be completed before you get to class, or you may not be able to participate in that experiment.



Pre-Labs & Reports

- For experiment involving the preparation of a compound, show the balanced chemical reaction.



Reports


- ▶ Produce a report – *this is separate from your lab notes*
 - ▶ COVER PAGE (download from class website)
 - ▶ SCHEME (only if the experiment includes preparing a compound).
 - ▶ Show the balanced chemical equation(s) with structures.. Number all reactants, reagents, and expected products.
 - ▶ SUBSTANCES
 - ▶ Provide the name, molar and measured quantities of all numbered substances.
 - ▶ For all significant substances (including numbered substances in the scheme) provide physical properties (at least formula, bp and mp; also molar mass, density, color, smell, crystal shape or other as appropriate to the experiment).
 - ▶ Provide any common dangers of these substances. Common solvents and acids can be omitted, if they were used in a previous experiment this semester.
 - ▶ ANALYSIS
 - ▶ Summarize your results and provide your explanations as described in the “report” section of the experiment description.
 - ▶ YIELD (only if the experiment includes preparing a compound)
 - ▶ Report experimental yield and any measured properties used to characterize the products. Calculate and report percentage yield (show stoichiometric calculations).

Exp # _____ **Name:** _____
Student ID: _____
CHEM 36A — ORGANIC CHEM (I) **Class Section:** _____
UC BERKELEY EXTENSION

Experiment Title: _____

Unk#: _____ **Bench / Locker :** ____ / ____
(write N/A if no unknown for this experiment)

This box is for use by your instructor.

pre-lab	report	total
		

Unknown Composition or Identity: _____

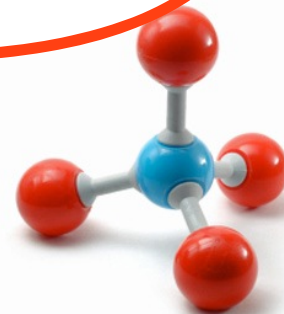
A report must be submitted for all lab experiments conducted to receive credit for your participation. You may only report on experiments you conducted.

Reminder: Experiment reports should include each of the following sections. Each section should start on a new page and be clearly labeled.

- **COVER PAGE** (this page)
- **SCHEME** (only if the experiment includes preparing a compound)
 - Show the balanced chemical equation(s) with structures.
 - Number all reactants, reagents, and expected products.
- **SUBSTANCES**
 - Provide the name, molar and measured quantities of all numbered substances.
 - For all significant substances (including numbered substances in the scheme) provide physical properties (at least formula, bp and mp; also molar mass, density, color, smell, crystal shape or other as appropriate to the experiment).
 - Provide any common dangers of these substances.
 - Common solvents and acids can be omitted, if they were used in a previous experiment this semester.
- **ANALYSIS**
 - Summarize your results and provide your explanations as described in the “report” section of the experiment description.
- **YIELD** (only if the experiment includes preparing a compound)
 - Report experimental yield and any measured properties used to characterize the products.
 - Calculate and report percentage yield (show stoichiometric calculations)

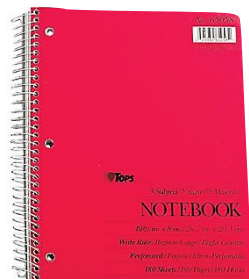
(download this page from the class website to print and attach to each report you submit)

A report will be due for each experiment, collected the following lab meeting.



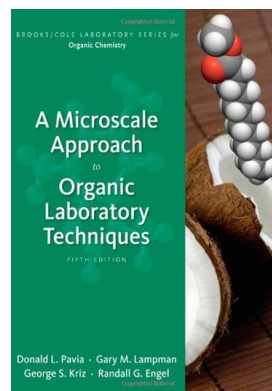
Class Setup

- ▶ Are you in the right room?
- ▶ Requirements
 - ▶ Pre-req's
 - ▶ Schedule
 - ▶ Dates & Times
 - ▶ Materials
- ▶ Instructor
- ▶ Content
 - ▶ Goals
 - ▶ Topics
 - ▶ Experiments
 - ▶ Pre-labs & Reports

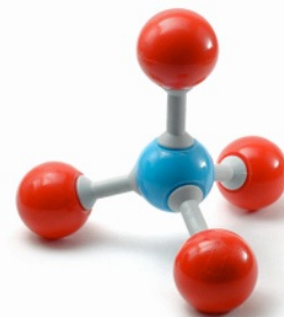
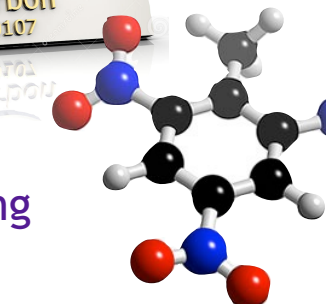
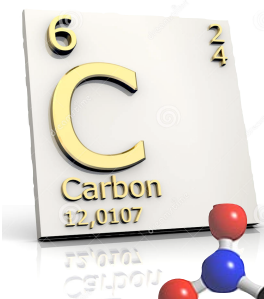
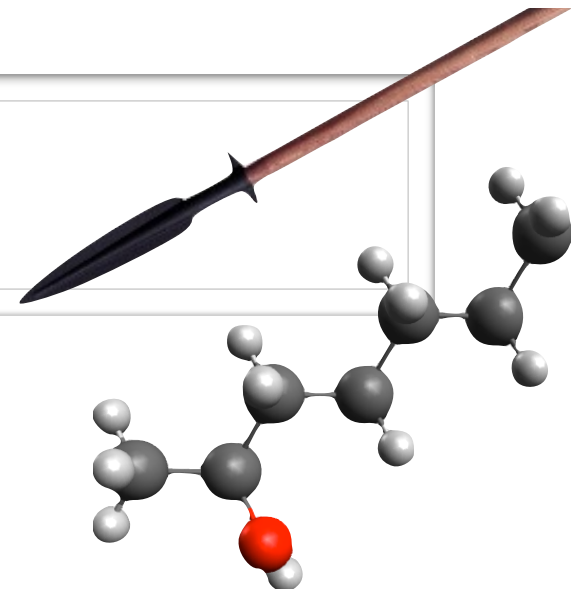


Evaluation

- ▶ Point Breakdown
- ▶ Final Grades
- ▶ Grade Reports
 - ▶ Knowing how you're doing.

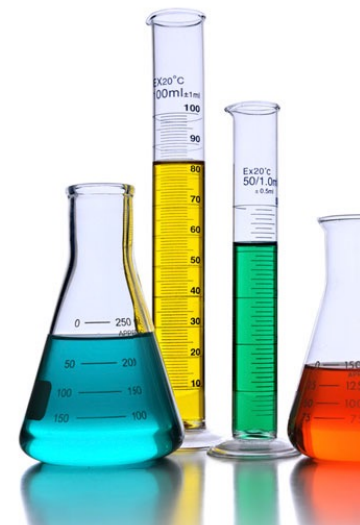


- ▶ Resources
 - ▶ Class Website
 - ▶ Office Hours
 - ▶ Learning Center
- ▶ Safety
 - ▶ Safety Video & Quiz
- ▶ Setup
 - ▶ Lab Locker Contract
 - ▶ Eye Safety Agreement
 - ▶ Stockroom Registration
- ▶ What to do before next meeting



Evaluation

- ▶ There will be about 400 points available during the semester.
 - ▶ There is one midterm exam for 60 pts (see schedule for dates).
 - ▶ The final exam will be worth 100 pts (see schedule for dates).
 - ▶ There are 12 experiments (10 pts each)
 - ▶ Each experiment
 - ▶ requires pre-lab research
 - ▶ post-lab write-up (report)
 - ▶ If you miss a lab, you cannot report on the experiment you did not do.
 - ▶ Each meeting will start with a pre-lab quiz (10 pts)
 - ▶ If you're late you may miss that opportunity.
 - ▶ A lab safety quiz is required by the department (20 pts).
 - ▶ We'll do this today.
- ▶ There are no makeup exams. (You cannot take exams early)
- ▶ There are no makeup labs. (You cannot do lab experiments early)



Evaluation

Chem 210 – Midterm Progress Report

Full Name **Student, Alan**
 Status Registered
 GNumber G 00123456
 Major Chemistry

Points to date **917.2**
 Possible to date **1005**
 Percent to date **91%**

Note:
 90-100% = A
 80-89% = B
 70-79% = C
 55-69% = D

FName Alan
 LName Student
 Phone 650-555-1234
 eMail a.student@my.smccd.edu

Section **AC**
 Bench **E**
 Locker **62**
 Locker Combo **01-20-03**

Class Grade

A

Exams

Exam01	82.3	82%
Exam02	87.3	87%
Exam03	85.0	85%
Exam04	92.0	92%
Final	146.0	91%

Workshop Practice Exams

PE 01	4.0	80%
PE 02	4.5	56%
PE 03	0	
PE 04	4.5	90%
PE 05	3.2	64%
PE 06	4.5	90%
PE 07	5	100%
PE 08	5	100%

Combined: Reports + Pre-Lab

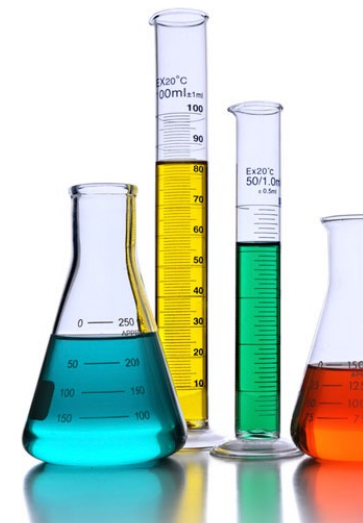
SftyQz	8.0	100%
Lab01	16.0	100%
Lab02	15.0	94%
Lab03	14.0	88%
Lab04	16.0	100%
Lab05	14.0	88%
Lab06	14.5	91%
Lab07	14.0	88%
Lab08	13.0	81%
Lab09	14.5	91%
Lab10	15.0	94%
Lab11	0.0	
Lab12	14.0	88%
Lab13	16.0	100%
Lab14	16.0	100%

Safety Issues

Homework

Ch01	16.8	99%
Ch02	18.0	100%
Ch03	18.0	100%
Ch04	17.6	98%
Ch05	15.5	97%
Ch06	17.7	99%
Ch07	16.2	102%
Ch08	19.3	102%
Ch09	10.8	60%
Ch10	17.0	100%
Ch11	18.8	99%
Intro	8.0	100%

- Grades are a straight percentage of the points you score to the points available.
 - There is no curve.
 - There is no extra credit.
- There are no minus grades.
- If you are in the top half of either the B or C range you will get a plus prefix.
 - (when campus policy allows)
- Student progress reports will be provided periodically (and are available on request).



Evaluation

- ▶ Grades are a straight percentage of the points you score to the points available.

- ▶ There is no curve.
- ▶ There is no extra credit.

- ▶ There are no minus grades.

- ▶ If you are in the top half of either the B or C range you will get a plus prefix.

(when campus policy allows)

- ▶ Student progress reports will be provided four times (and are available on request).

possible		percent	
60	Midterm Exam (60 pts)	15%	Exams 40%
100	Final Exam (comprehensive; 100 pts)	25%	
100	Quizzes (best 10 scores; 10 pts each)	25%	Other 60%
120	Reports (12 experiments; 10 pts each)	30%	
20	Lab Safety (20 pt safety quiz — less any safety penalties)	5%	
400	total	100%	

A	90 - 100 %
B	80 - 89 %
C	70 - 79 %
D	60 - 69 %



Class Setup

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▶ Content

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▶ Topics

▶ Experiments

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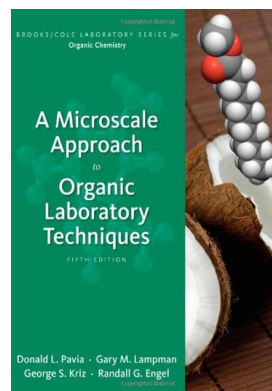
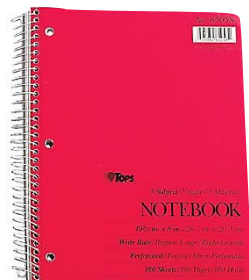
▶ Evaluation

▶ Point Breakdown

▶ Final Grades

▶ Grade Reports

▶ Knowing how you're doing.



Resources

▶ Class Website

▶ Office Hours

▶ Learning Center

▶ Safety

▶ Safety Video & Quiz

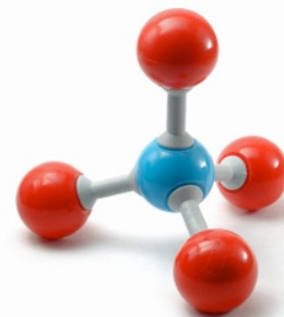
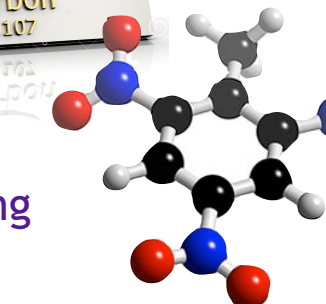
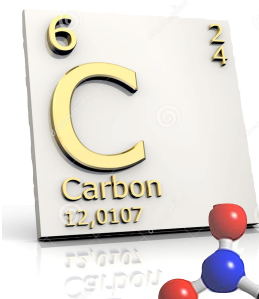
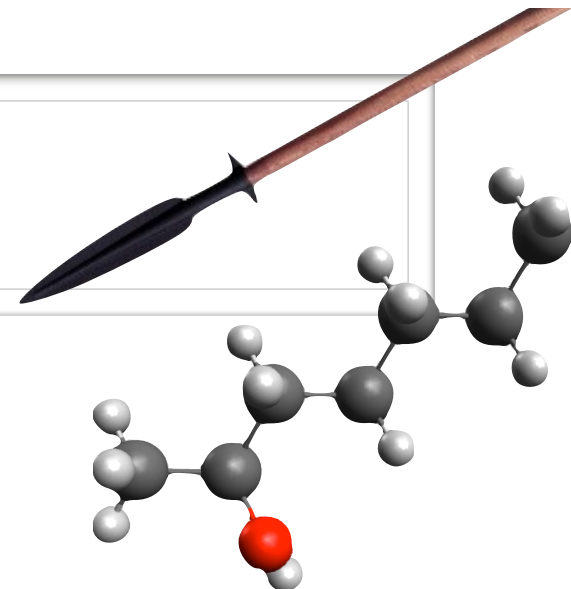
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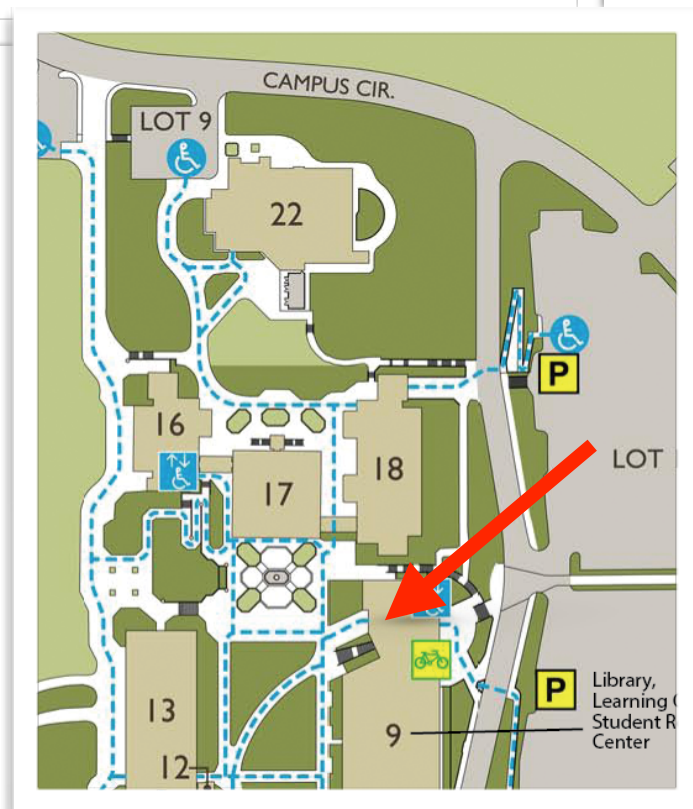
▶ Stockroom Registration

▶ What to do before next meeting



Additional Resources

- ▶ Cañada Learning Center
 - ▶ Located in Building 9, Room 105
 - ▶ Second Floor, in the Back!
 - ▶ This is where I'll have office hours
 - ▶ Free Tutoring with MESA or STEM
 - ▶ Quiet & Well Lit Environment
 - ▶ Perfect for studying & Study Groups
 - ▶ Computers, Printers, Photocopying
- ▶ Chem 36A Website
 - ▶ <http://chem.ws/36a>



Class Setup

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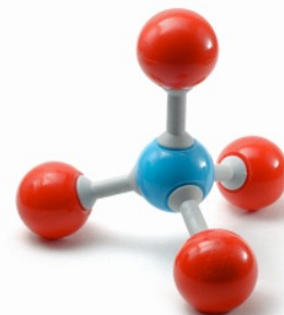
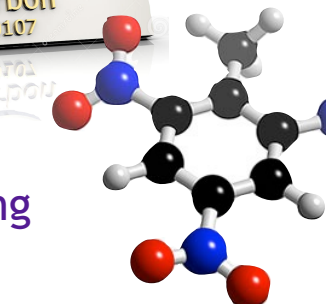
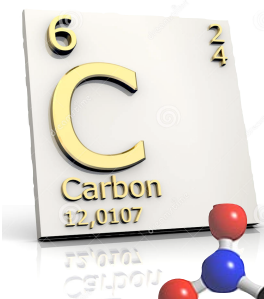
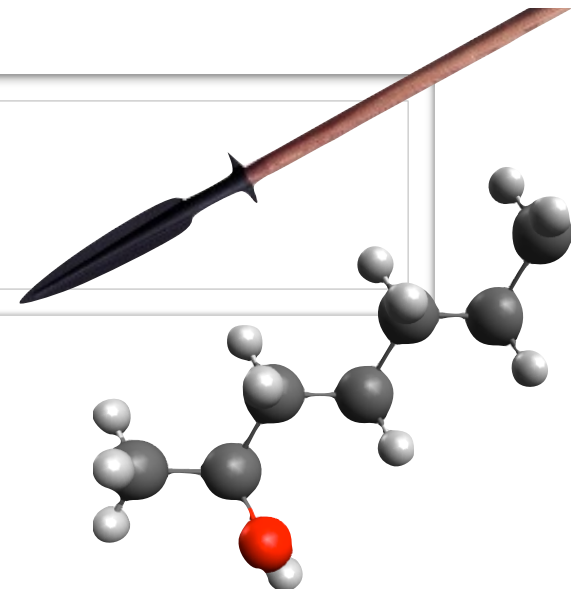
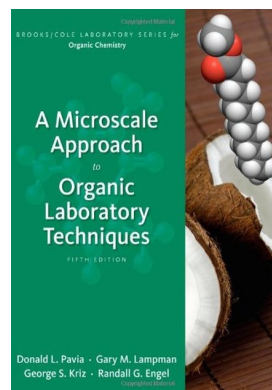
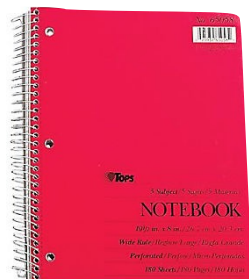
- ▶ Setup

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Lab Safety

- ▶ This is the most dangerous place on Campus.
- ▶ Chemistry is about exploring how we can change matter. Chemicals are only interesting to us, if they change matter.
- ▶ You're matter.
- ▶ Pretty much anything that's interesting to a chemist will be either:
 - ▶ Poisonous,
 - ▶ Explosive,
 - ▶ Corrosive,
 - ▶ Flammable,
 - ▶ Carcinogenic,
 - ▶ ...all the above,
 - ▶ or worse.
- ▶ Safety is job #1.
- ▶ I'm going to show you where we keep the good stuff:
 - ▶ Experimental Equipment
 - ▶ Stock Room
 - ▶ Hoods, Balances, & Oven
 - ▶ Printer
 - ▶ Waste Containers
 - ▶ Unknowns, Chemicals and Experiment Specific Equip
- ▶ And the Emergency Equipment
 - ▶ Fire blanket & extinguisher
 - ▶ First Aid Kit
 - ▶ Shower & eye wash
- ▶ In case of fire: get out & meet on hill
 - ▶ You must meet on the hill!

Safety Video & Quiz

- ▶ There are a lot of federal, state, and college safety rules.
 - ▶ Example: you have to sign a promise to the state of California that you will *always* use safety glasses in this room! (unless specifically instructed otherwise)
- ▶ To run through the rules efficiently we have a safety video.
 - ▶ It's corny.
 - ▶ Pay attention anyway.
- ▶ There is a required safety quiz after the video.



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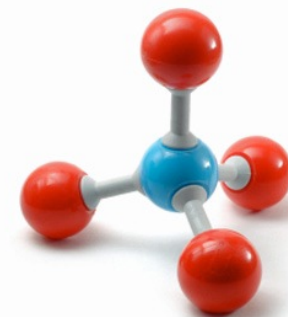
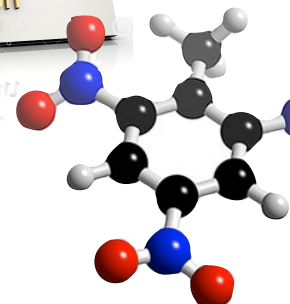
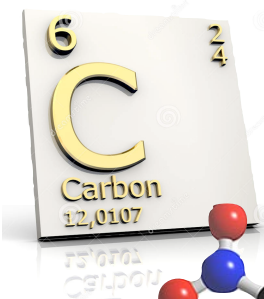
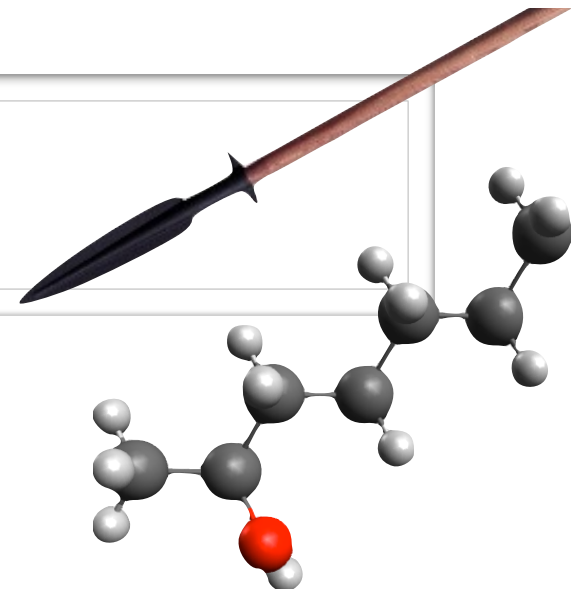
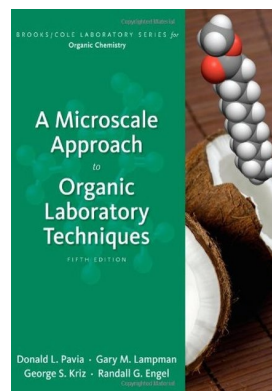
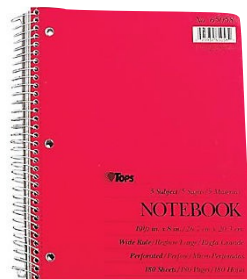
→ Setup

- ▶ Lab Locker Contract

- ▶ Eye Safety Agreement

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- ▶ What to do before next meeting

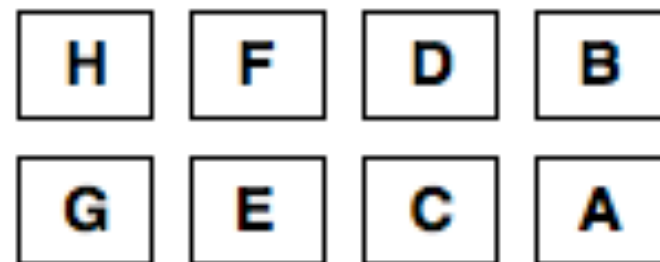


Lab ID

- ▶ Sit where you like today, but that will be your spot for the semester.
- ▶ The person next to you will be your lab partner.
 - ▶ Trade, shuffle, move around now if you want to.
- ▶ Most experiments are done in pairs or a group of four.
- ▶ Find a free locker next to your spot.
 - ▶ That's your locker. Write down the number.
- ▶ Find the letter for your bench (see diagram).
 - ▶ Write down the bench letter.
- ▶ Your lab ID is your bench number, then locker number:
 - ▶ eg. G-72, C-24, A-01 etc.
 - ▶ Put your lab ID on all lab reports.
- ▶ Now we need to check our the equipment in your locker.

Lab Benches are Labeled A-H

Back of Room (Hoods)



Front of Room (Chalkboard)

Experiment # _____ **Name:** _____
Chemistry 210 **Student ID:** _____
Cañada College **Section ID:** _____
Experiment Title: _____
Unk#: _____ **Locker ID:** _____
(write N/A if no unknown for this experiment)

For use by instructor:

pre-lab	report	total
---------	--------	-------



Checking Out Lab Drawers

- ▶ Before you leave today complete the ...
 - ▶ Stock room contract:
 - ▶ Compare the contents of your lab drawer to the check list on your stockroom contract.
 - ▶ Let me know if anything is missing.
 - ▶ Sign the contract
(one contract per drawer – per two students)
 - ▶ Give me the contract.
 - ▶ Eye protection promise:
 - ▶ Sign it, give it to me.
 - ▶ Lab registration slip:
 - ▶ Get it from me and correct any the information on it if there are errors.
 - ▶ Ask me for a blank one if you're adding the class.
 - ▶ Fill in any blanks
 - ▶ Most important: your locker #, bench letter, and locker combo!
 - ▶ Give me the slip.
- ▶ Before you leave, give me all three!

Chem 210

Lab Benches are Labeled A-H

Back of Room (Hoods)			
H	F	D	B
Front of Room (Chalkboard)			
G	E	C	A

Full Name **Student, Alan**
Status Registered
GNumber G 00123456
Major Chemistry

Provide the Following Information, for Name tell us what you'd like to be called (nick names OK)

F Name	Alan	Section	AC
L Name	Student	Lab Bench	E
Phone	650-555-1234	Lab Locker	62
eMail	a.student@my.smccd.edu	Locker Combo	01-20-03

Return this sheet to your instructor.

Lab Registration Slip



Class Setup

- ▶ Are you in the right room?

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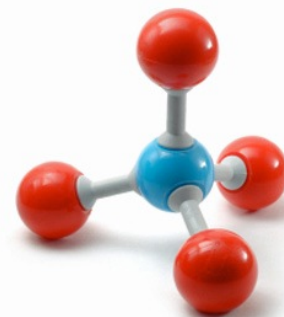
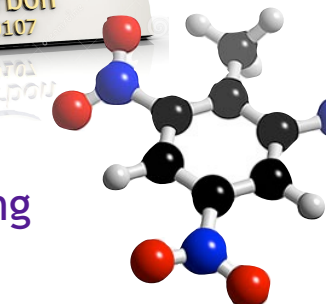
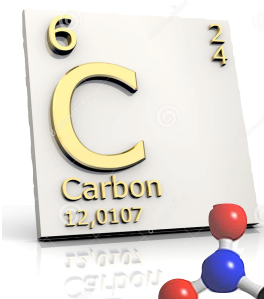
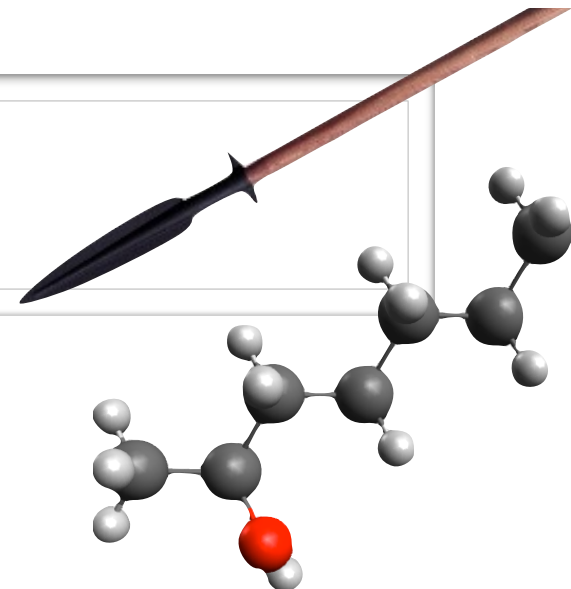
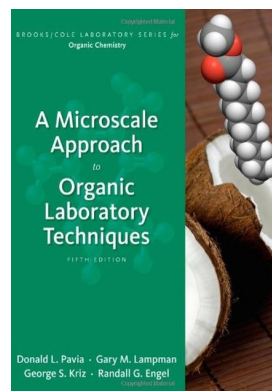
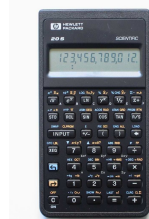
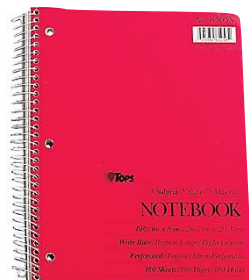
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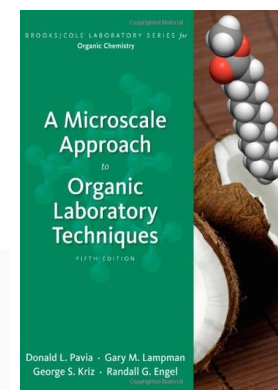
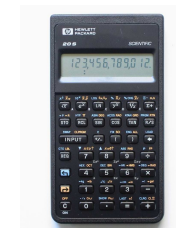
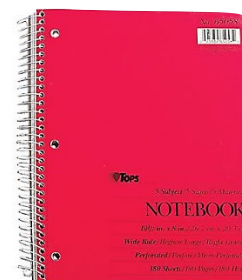


What to do before next meeting

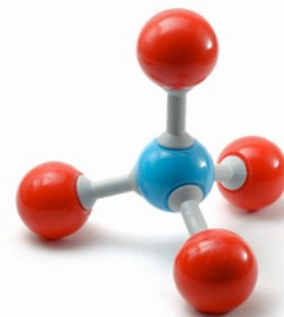


Next Meeting

- ▶ Before next Meeting:
 - ▶ Acquire and bring to class:
 - ▶ Notebook
 - ▶ You will not be turning in notebooks, but this permanent record of your experiments, observations and notes will be essential to success in this class.
 - ▶ Textbook, calculator, pencils (yes, you can use pen)
 - ▶ Safety Glasses or Goggles (you cannot participate in the next class without them)
 - ▶ Produce and bring to class:
 - ▶ Your pre-lab for exp 2 (p12)
 - ▶ Significant substances are the compounds investigated in parts A-E the solvents
 - ▶ We will not be doing part F
 - ▶ Your procedure summary for exp 2
 - ▶ Read through and take notes on:
 - ▶ Technique 5 in the lab textbook
 - ▶ Technique 10 in the lab textbook



We will start with a quiz about the experiment and reading.



Questions?

