

Ch00

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

About the class...

section 03
CRN 32224

Welcome to Chem 10
Introductory Chemistry

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 Introduction



Are you in the right room?

▶ Are you taking the right chemistry?

▶ Meet the Instructor

▶ Requirements

▶ Pre-req's

▶ Schedule

▶ Dates & Times

▶ Materials

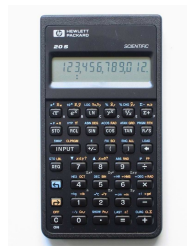
▶ Calculator, Goggles, Books...

▶ Evaluation (Grades)

▶ Assessments & Assignments

▶ Grade Reports

▶ Knowing how you're doing.

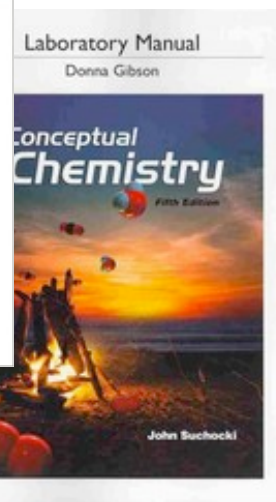
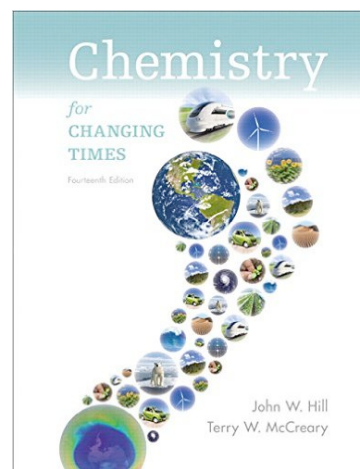
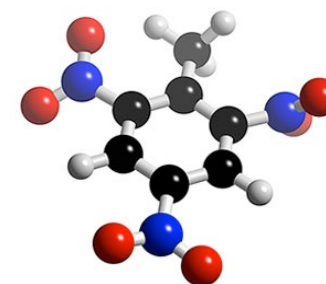


▶ Other Resources

▶ Introduction to Content

▶ Overview of Topics

▶ What this class offers.



Are you in the right room?

- ▶ This class is Chem 10: Introduction to Chemistry
 - ▶ section 03 - CRN 32224
 - ▶ There are two other sections this semester, check the CRN!
 - ▶ The other sections meet T-Th.
- ▶ This class has a lab and lecture component, you can't take one without the other.
- ▶ Introductory Chemistry is
 - ▶ A university level entry course into chemistry.
 - ▶ You are not required to have any previous chemistry experience.
 - ▶ This class is transferable to UC and CSU programs.
 - ▶ We will introduce and discuss many topics of chemistry.
 - ▶ If you are in a STEM major or nursing program this course will probably not meet your program requirements.
 - ▶ Talk to your counselor to be sure this is the right first chemistry course for your goals.

section 03
CRN 32224

~~section 01
CRN 32222~~

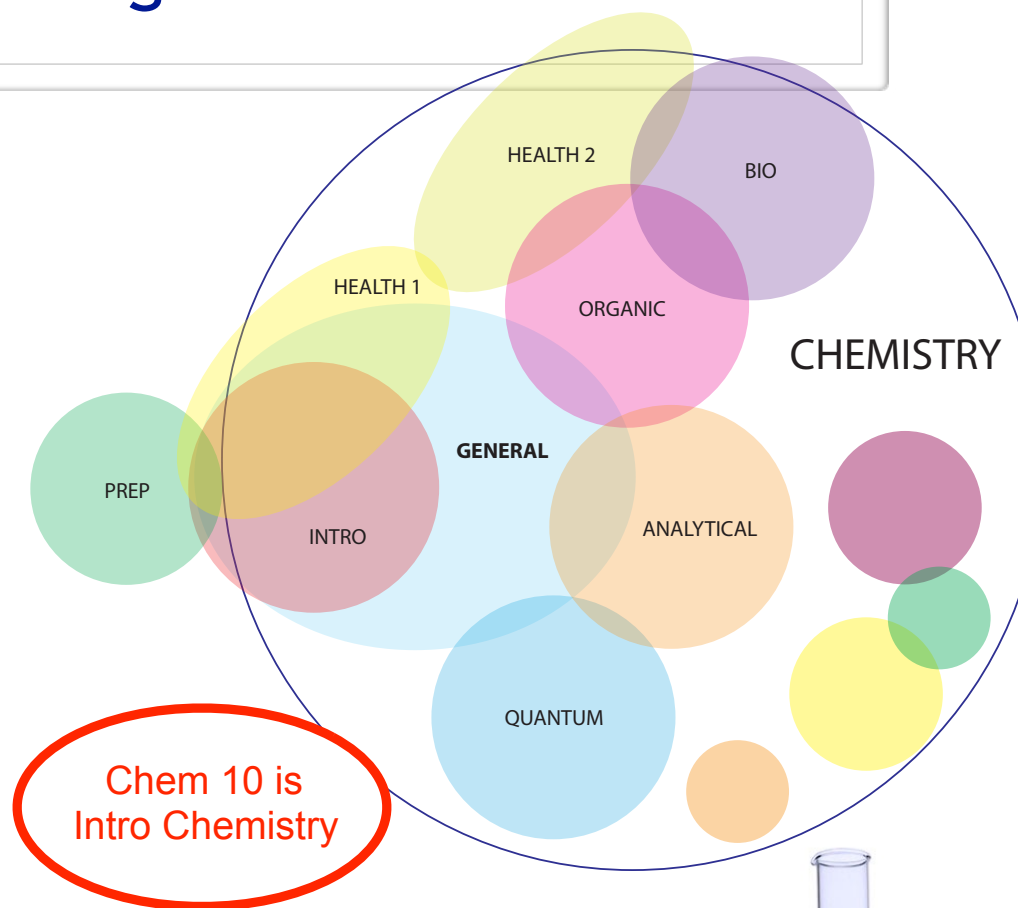
~~section 02
CRN 32223~~

If you are enrolled
or on the wait list—sign
the roll sheet!
(so I know not to drop you)
If you are trying to add the
class, add your name!



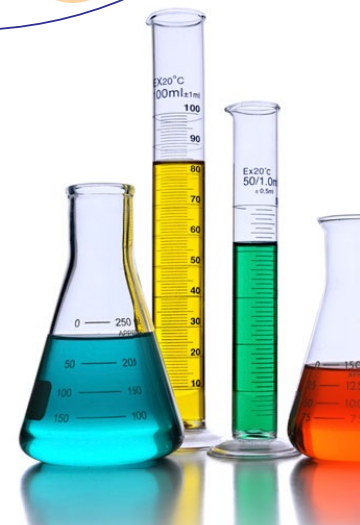
Are you taking the right course?

- ▶ Chemistry is big subject. There is more than one entry course for college chemistry. Many of them cover similar topics, but the context and depth in which we go over those topics is very different.
- ▶ The big three “first” chemistry courses are:
 - ▶ **General Chemistry (Chem 1A/1B/1C)**
 - ▶ This is the complete story. If you are a STEM major you may need to be taking General Chemistry (a three quarter series).
 - ▶ Note: some nursing programs and technical certificates (PT is often one) require General Chemistry. Check with a counselor if you are uncertain what the program you’re targeting requires.
 - ▶ **GOB Chemistry (Chem 30A/B)**
 - ▶ Intro to General, Organic & Biochemistry (also called GOB or Health Chem) is a two quarter series that won’t get into the full depth of topics it shares with General Chemistry.
 - ▶ It will include topics in Organic and Biochemistry (in the second quarter).
 - ▶ GOB Chem is optimized for students in the health care industry, it’s ideal for students seeking entry into many nursing programs.
 - ▶ It’s also meets the requirements of some certificate programs.
 - ▶ **Intro Chemistry (Chem 10)**
 - ▶ Intro chemistry is the short version. It meets the General Education (GE) science requirement. If you are curious about chemistry or want to get a preview of what’s in store in General Chemistry you may want Intro Chemistry.
 - ▶ Some nursing programs (not many) will accept this course, check with your counselor.



Note: Prep Chemistry (Chem 25, used to be called Chem 50) offers foundation skills that we will only briefly review in this class.

Prep Chemistry is primarily designed to assist students taking on the challenge of General Chemistry, but can be useful to students taking any of these three paths.

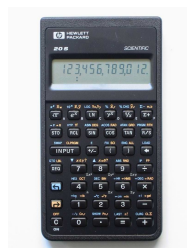


Class Introduction

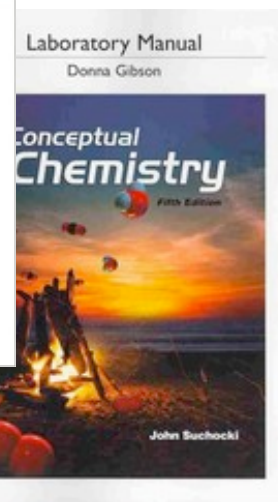
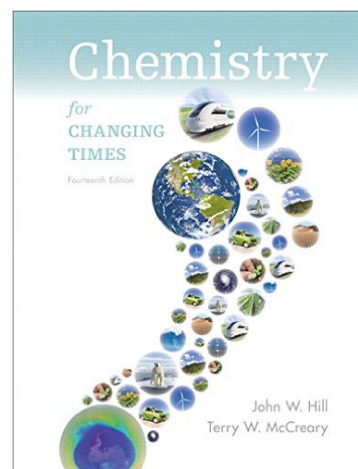
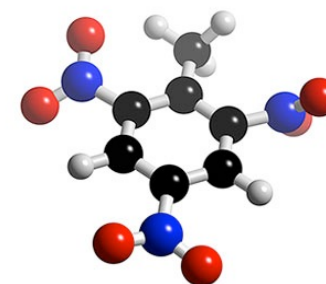
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➔ Meet the Instructor

- ▶ Requirements
 - ▶ Pre-req's
 - ▶ Schedule
 - ▶ Dates & Times
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 - ▶ Calculator, Goggles, Books...
- ▶ Evaluation (Grades)
 - ▶ Assessments & Assignments
 - ▶ Grade Reports
 - ▶ Knowing how you're doing.



- ▶ Other Resources
- ▶ Introduction to Content
 - ▶ Overview of Topics
 - ▶ What this class offers.



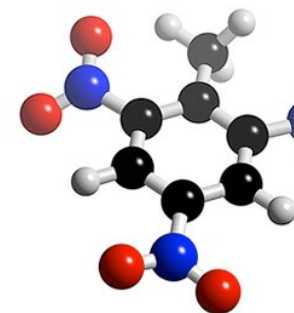
Instructor

- ▶ Prof. Nick DeMello, Ph.D. “Professor DeMello”
 - ▶ Lecturer & Lab Instructor



nick@chemlectures.com

- 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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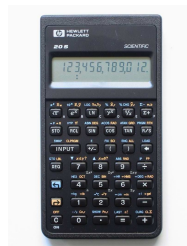


Requirements

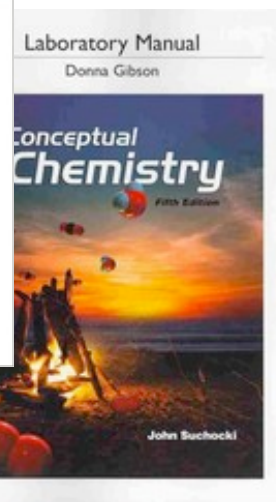
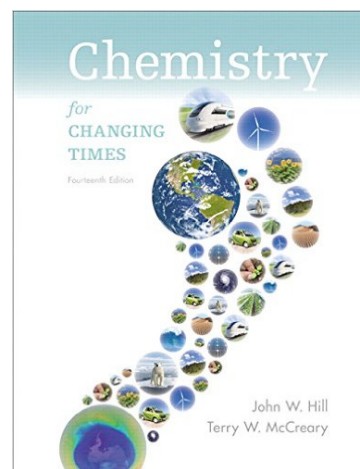
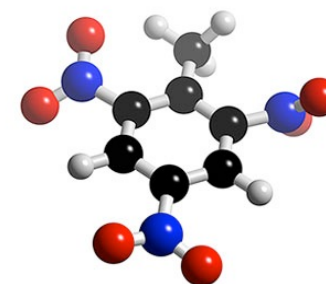
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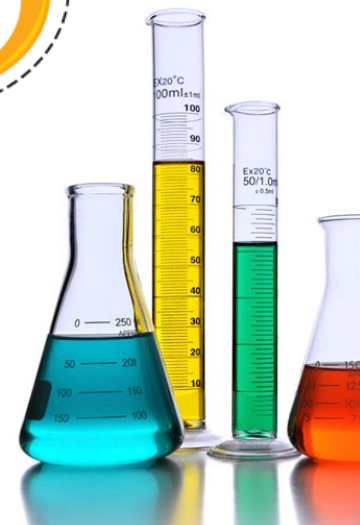


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Requirements: Pre-reqs

- ▶ Math 212 or equivalent proficiency in algebra.
 - ▶ Chemistry is a math intensive subject. If you don't have sufficient skills in algebra, you may have difficulty with presentations or applying the tools presented.
- ▶ English Writing 211 & Reading 211 or ESL 272 & 273 or equivalent.
 - ▶ Written lab reports and extensive reading are required.
- ▶ Previous science or chemistry courses will help, but is not required.
 - ▶ We will go from zero to quantum in 12 weeks.
 - ▶ The course moves fast and the content is extremely compressed.
 - ▶ Previous exposure to these subjects is valuable.
- ▶ That's it.
- ▶ We're gonna start at square one.



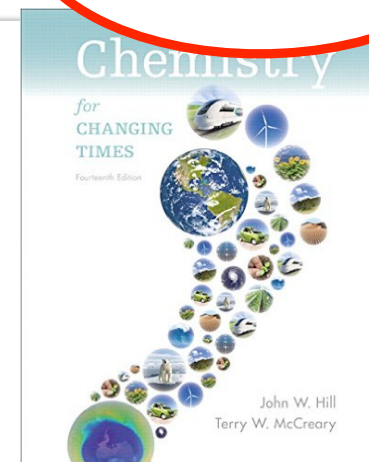
Requirements: Class Materials

Older editions of the textbook will most likely work fine, check with me if you have a different edition.

▶ Available from the De Anza bookstore on online:

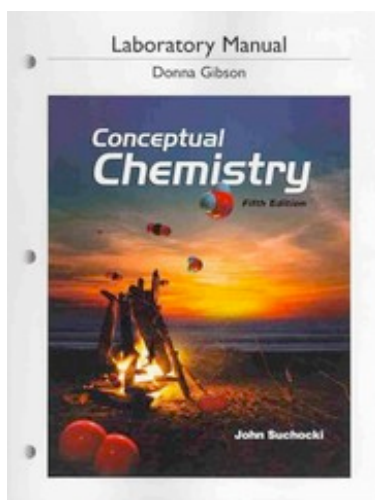
- Textbook:

Chemistry for Changing Times, 14e by John W. Hill & Terry W. McCreary.
Pearson / PrenticeHall 2015
ISBN-13: 978-0321972026, ISBN-10: 0-321-97202-3



- Mastering Chemistry License for Homework & Quizzes

May be purchased with text book or online
(online is usually cheaper)



- Lab Manual:

Conceptual Chemistry Lab Manual, 5e by John A. Suchocki & Donna Gibson.
Pearson Learning Solutions 2014
ISBN-13: 978-0321804532, ISBN-10: 0-321-80453-8



Requirements: Class Materials

▶ Also:

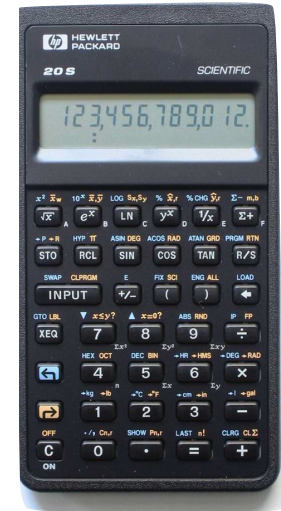
- Laboratory Safety Goggles

(goggles must tightly grip your forehead, we will discuss this further in lab)

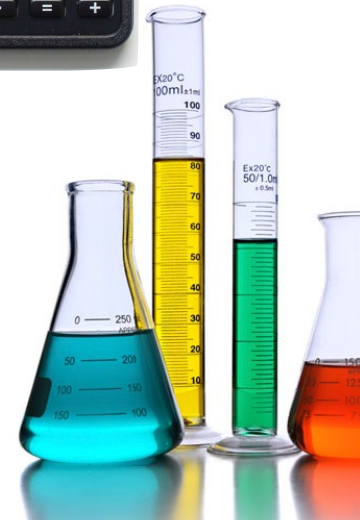


- Simple Scientific Calculator

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!



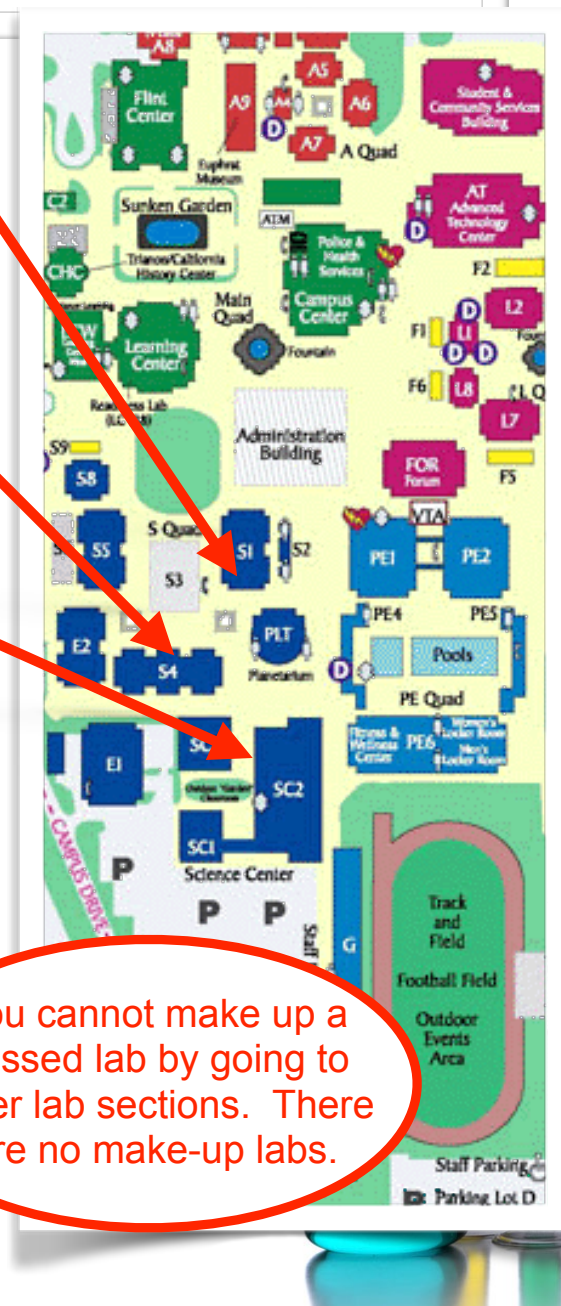
Requirements: Schedule/Attendance

- ▶ This class meets: 09/21/15 - 12/11/15 T/Th
- ▶ LECTURE (both sections):
 - ▶ 9:30am - 11:20am Mon & Wed
 - ▶ Please do not be late
 - ▶ in Room S17 of Building S1
- ▶ LAB:
 - ▶ 11:30am - 2:20pm Wed
 - ▶ in Room 2210 of Building SC2 (top floor)
- ▶ OFFICE HOURS
 - ▶ 11:30 - 12:20pm Mon
 - ▶ in Room S43 of building S4 (the student success center)
- ▶ Lecture and Lab attendance is required.
 - ▶ Students missing more than two consecutive lectures, more than four lectures in total, or any lectures during the first two weeks of class, may be dropped from the class without notice.
 - ▶ Two or more absences from lab may result in the student being dropped without notice.
 - ▶ Missing two or more labs may mean you don't have enough lab hours to qualify for your program.
- ▶ There will be a sign in sheet at each lecture and lab, you must sign the the sheet to have your attendance recorded.
 - ▶ Not signing the sheet is the same as being absent.

LECT

OFC HRS

LAB



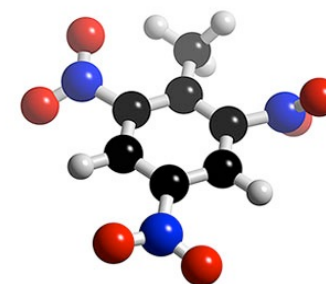
You cannot make up a missed lab by going to other lab sections. There are no make-up labs.

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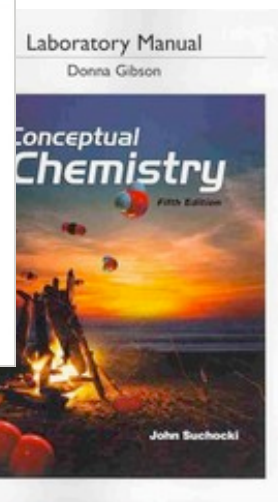
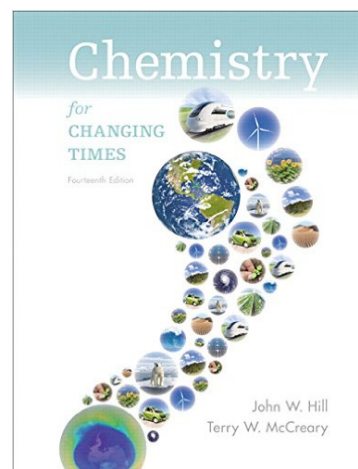
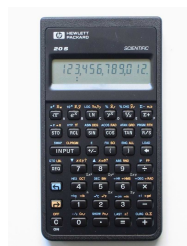


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→ Evaluation (Grades)

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Assessments & Assignments

- ▶ Assessments:
 - ▶ We will have weekly quizzes about the content (6 pts each)
 - ▶ Usually done at the start of lab section.
 - ▶ There will be three midterm exams (80 pts each)
 - ▶ Lab practical is a quiz on the last day of lab (25 pts)
 - ▶ The final exam is worth 120 pts and is cumulative.
- ▶ Assignments:
 - ▶ Chapter homework will use Mastering Chemistry (15 pts each)
 - ▶ There will be a weekly experiment in lab section.
 - ▶ A report for each experiment (14 pts)
 - ▶ They are due the next lab period.
 - ▶ More about reports and experiments will be explained in the lab intro on Wed.

There are no makeup exams, quizzes, or experiments.

You cannot take exams or quizzes early.

You cannot report on an experiment if you were not present.



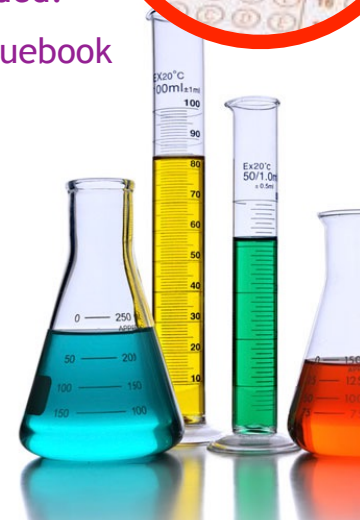
Bring your calculator, pencils, and an eraser to every class.

For all tests:

No notes are needed or allowed.

A periodic table will be provided when needed.

You don't need a bluebook or scantron form.



Class Grade

- ▶ 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)

A 90 - 100 %

B 80 - 89 %

C 70 - 79 %

D 55 - 69 %

240	Midterm Exams (3 exams; 80 pts each)	34%
120	Final Exam (comprehensive; 120 pts)	17%
135	Homework (9 assignments; 15 pts each)	19%
20	Laboratory Safety	3%
48	Quizes (best 8 quizzes; 6 pts)	7%
112	Pre-Lab & Reports (best 8; 14 pts combined)	16%
25	Lab Practical (25 pts)	4%
700		100%

Lecture 70%

Lab 30%

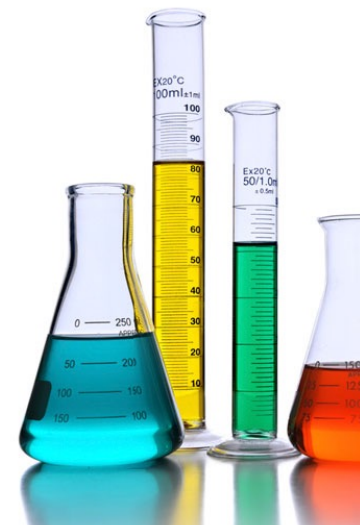


Grade Reports

- ▶ When you get back each of the three mid-term exams it will include a grade report.
- ▶ The grade report will list
 - ▶ all assignments and assessments
 - ▶ total possible to date
 - ▶ total points you scored to date
 - ▶ your current percentage

Chem 210 – Midterm Progress Report

Full Name	Student, Alan	<table border="1"><tr><td>Points to date</td><td>917.2</td></tr><tr><td>Possible to date</td><td>1005</td></tr><tr><td>Percent to date</td><td>91%</td></tr></table>	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		
Points to date	917.2										
Possible to date	1005										
Percent to date	91%										
Status	Registered										
GNumber	G 00123456										
Major	Chemistry										
FName	<u>Alan</u>	<table border="1"><tr><td>Section</td><td>AC</td></tr><tr><td>Bench</td><td>E</td></tr><tr><td>Locker</td><td>62</td></tr><tr><td>Locker Combo</td><td>01-20-03</td></tr></table>	Section	AC	Bench	E	Locker	62	Locker Combo	01-20-03	Class Grade A
Section	AC										
Bench	E										
Locker	62										
Locker Combo	01-20-03										
LName	<u>Student</u>										
Phone	<u>650-555-1234</u>										
eMail	<u>a.student@my.smccd.edu</u>										
Exams		Combined: Reports + Pre-Lab		Homework							
Exam01	82.3 82%	SftyQz	8.0 100%	Ch01	16.8 99%						
Exam02	87.3 87%	Lab01	16.0 100%	Ch02	18.0 100%						
Exam03	85.0 85%	Lab02	15.0 94%	Ch03	18.0 100%						
Exam04	92.0 92%	Lab03	14.0 88%	Ch04	17.6 98%						
Final	146.0 91%	Lab04	16.0 100%	Ch05	15.5 97%						



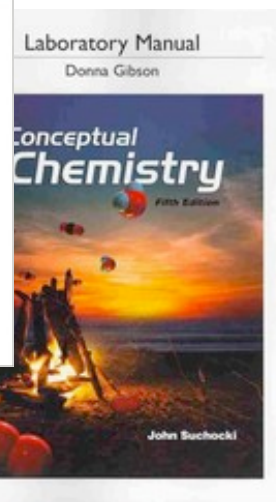
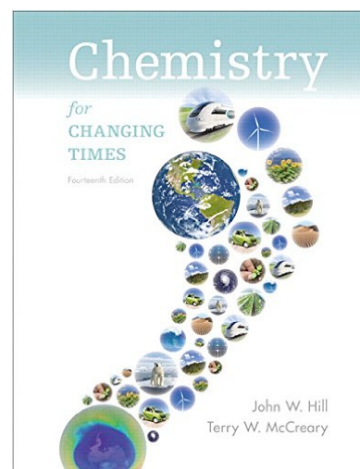
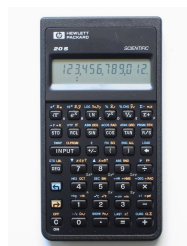
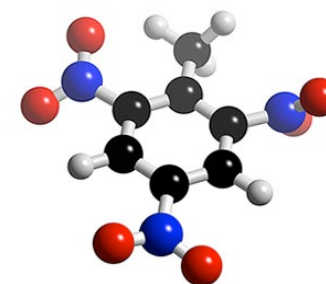
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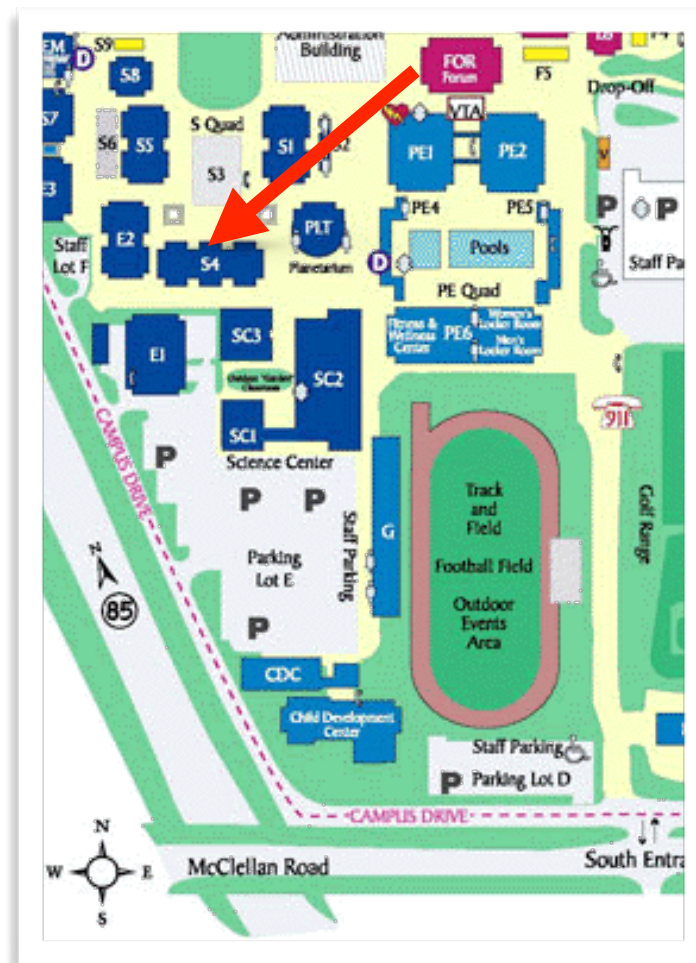
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Additional Resources

- ▶ De Anza STEM Student Success Center
 - ▶ Located in Building 9, Room 105
 - ▶ I sit in the back at the round tables
 - ▶ This is where I'll have office hours
 - ▶ Free Tutoring
 - ▶ Casual & Well Lit Environment
 - ▶ Perfect for studying & Study Groups
- ▶ Chem 10 Website
 - ▶ <http://chem.ws/10>



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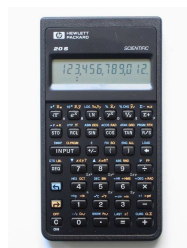
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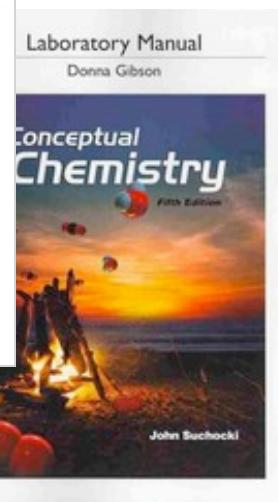
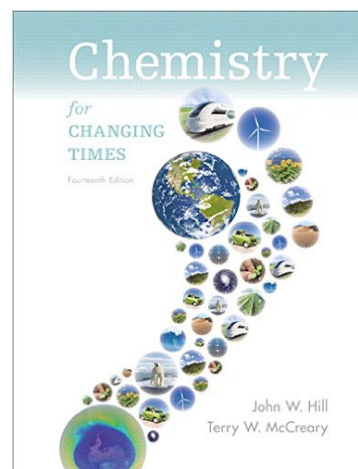
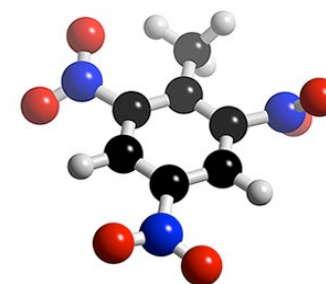


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This semester we will discuss...

1. **Chemistry Defined**
— the science of matter.
2. **Introducing Atoms**
— differences in matter.
3. **Atomic Theory**
— the first theory of chemistry.

Exam #1

4. **Compounds**
— building with atoms.
5. **Molecules**
— complex particles.

Exam #2

6. **States of Matter**
— same matter, folded differently.
7. **Acids**
— a unique family of substances.

Exam #3

8. **Organics**
— the chemistry of carbon.
9. **Polymers & Biochemistry**
— scaling up to big molecules.

Final Exam

**The final is
cumulative!**



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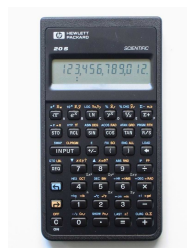
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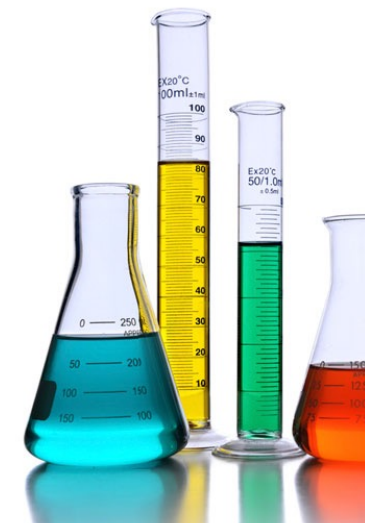
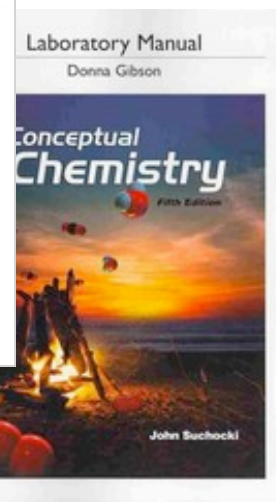
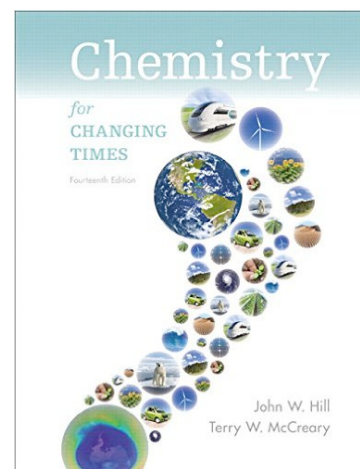
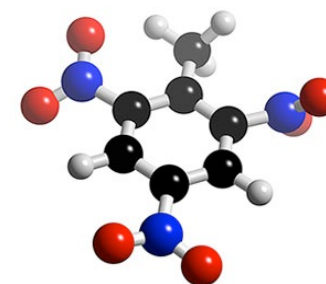
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Questions?

