Personally I am always ready to learn, although I do not always like to be taught.

-- Winston Churchill

Walt Disney’s Comics and Stories
• Chemistry is evil, but necessary
  - Chem 1310 Student Spring 2003

• Knowing what I know now, I probably would not have majored in chemistry
  - Janet Reno (former US Attorney General)
GT Incoming Freshman Class

• Fall 2004
  – Freshman Class Size: about 2500
  – Average HS GPA: 3.73
  – Average SAT score: 1338
  – Involved in community & Extracurricular activities
  – Demonstrated Leadership skills
### Majors 9:05AM

<table>
<thead>
<tr>
<th>Major</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>25%</td>
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<tr>
<td>UEC</td>
<td>22%</td>
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<tr>
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<tr>
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<td>ME</td>
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<tr>
<td>CE</td>
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<tr>
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<td>PHYS</td>
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<tr>
<td>CS</td>
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<tr>
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<tr>
<td>UCS</td>
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### Majors 10:05AM

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<tbody>
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<td>BIOL</td>
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<tr>
<td>CHE</td>
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<tr>
<td>CHEM</td>
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<tr>
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<td>11%</td>
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<tr>
<td>UCS</td>
<td>4%</td>
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<tr>
<td>AE</td>
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<tr>
<td>PSY</td>
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<tr>
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<tr>
<td>UEC</td>
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<tr>
<td>MATH</td>
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<tr>
<td>IE</td>
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<tr>
<td>MSE</td>
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<td>EE</td>
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<td>Total</td>
<td>198</td>
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</table>

As of August 1
Robert M. Dickson, Ph.D.
– GaTech School of Chemistry and Biochemistry
  – Associate Professor
  – 1310 G, H, N, O courses
  – Office Boggs B-18
  – E-mail preferred
    robert.dickson@chemistry.gatech.edu
  – Phone 404-894-4007
  – Mailbox in Chemistry Office

Robert L. Whetten, Ph.D.
– GaTech School of Chemistry and Biochemistry
  – Professor
  – 1310 G, H, N, O courses
  – Office ES&T L1-242
  – E-mail preferred
    robert.whetten@chemistry.gatech.edu
  – Phone 404-894-8255
  – Mailbox in Chemistry Office
Chem 1310

• Course Objectives
  – Semester Schedule (later slide)
• Problems, Exercises
• Exams
  – *Friday, September 17*,
  – *Friday October 22, and*
  – *Friday November 19*
  – *10:05 AM class Final Tentatively Monday, December 6 at 2:50 PM to 5:40 PM in Room 16 CHEM Annex, Final schedule will be on OSCAR Web.*

• Grading
  – 3 Hour Exams 40% (10%, 15%, 15%)
  – In-class Quizzes 5% (PRS)
  – Final Exam 25%
  – Homework 10%
  – Laboratory 20%

Next Slide
• **Laboratory Grade:**

You **must** pass Laboratory to pass the overall course.

Teaching Assistants will have the responsibility for establishing laboratory grades. Students are graded on pre-lab quizzes, formal lab reports, summary reports, report accuracy, lab technique and attitude, Lab Midterm exam, and Lab Final exam. **A grade of 70% or better in the lab is considered passing.** Grades in the 60-69% range may be considered under unusual and exceptional circumstance. Below 65% the extenuating circumstances must be documented. Under no circumstances will lower laboratory grades be considered.

At the beginning of the term, you will be asked to read and sign a pledge that laboratory reports and data gathering are your own, even when using partners.
At the beginning of each semester, each student reads and signs a statement that states

**Pledge Card**

I understand that I am to prepare my reports on my own. I further acknowledge that representing another’s data or report as my own, or altering data in order to make results appear more accurate, is cheating.

Signature ________ Date ________
• Lectures
  – MWF, 10:05 to 10:55
  – Will use ppt, suggest downloading pdf lecture notes, print 1, 4, 6, 9 per slide
  – Will use the Personal Response System (PRS)

• Recitations and Labs
  – Recitations: (50 minutes) Thursdays 9:05 or 10:05
    • First meeting is Thursday August 26 in either CoC 52 or CoC 53 (Chem Annex) or Boggs 339N or Boggs 339S.
  – Labs: (2 hours 50 minutes)
    • Mondays, 12:05 to 2:55 PM. Or 3:05 to 5:55 PM
    • First Lab meeting is Monday, August 23 in Chem Annex 18, 19, 21 or 30.
    • Lab check-in will take place at that time.

• Office Hours
  – MWF 11:05 to 11:55 in Chem Annex 47 office
  – Or by appointment

• Study
  – ask questions, memorization not the whole answer, study everyday, stay limber, can’t cram
PRS transmitter

1st Purchase for GT Barnes and Noble in the electronics sections
2nd Go to WebCT or Course Website to register your PRS unit number
– Dr. George McKelvy will lecture on the labs and WebCT on Wednesday.
  • http://info.webct.gatech.edu/
  • Return to 9:05 AM
  • Return to 10:05 AM
Printing PDF files

• Demo on pdf file
  – Click print
  – Click Properties
  – In the Layout Tab, select the number of Pages Per sheet by dropping down the menu for 1, 2, 4, 6, 9
Course Websites
10:05 AM lecture

• WebCT
  – Lab (pre-lab Quizzes, pre-lab videos, etc.)
  – Dr. McKelvy introduction on August 18

• Course Website

  Chemistry Department Website
  – User Name: **Chem1310** (uppercase C, one word)
  – Password: **1005**
Table of Contents

Instructor
Required Course Materials
TA Information
Course Description
Syllabus
Schedule and Homework
Textbook Errors
Lecture Notes
Exams

Exam 1
old exams
answer key
Exam 2
Exam 3
Final Exam

PRS Quizzes
Lab Practicum
PRS Unit Registration
Web CT
• Show Course information

• Schedule and Homework Assignments

• Textbook and Manuals
  – *Lab Text: Laboratory Experiments for General Chemistry, 4th Ed., by Hunt, Block, & McKelvy*
  – Student Solutions Manual (optional) odd numbered problems solved
    • Customized Manual and Text packaged together and sold at “Engineers Bookstore”.
    • Customized manual included with price of text.

http://www.engrbookstore.com/
<table>
<thead>
<tr>
<th>Course</th>
<th>%</th>
<th>Chapter</th>
<th>Final</th>
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<tr>
<td>Exam 1</td>
<td>10%</td>
<td>1 - 5</td>
<td>Part A</td>
<td>Greater of Part A or Exam 1</td>
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<tr>
<td>Exam 2</td>
<td>15%</td>
<td>6 - 9</td>
<td>Part B</td>
<td>Greater of Part B or Exam 2</td>
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<td>Exam 3</td>
<td>15%</td>
<td>10 - 13</td>
<td>Part C</td>
<td>Greater of Part C or Exam 3</td>
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<td>Part D</td>
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<td>Quizzes</td>
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<td>Final</td>
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<td>Final (A+B+C+D)</td>
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<tr>
<td>Homework</td>
<td>10%</td>
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<td></td>
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<tr>
<td>Lab</td>
<td>20%</td>
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<td></td>
<td>Must have &gt;70% to pass course</td>
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<tr>
<td>Course</td>
<td>100%</td>
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**Crib Sheets**

One 8-1/2 x 11 single sided handwritten page for each Exam

Four sheets for the Final ( 3 Exams plus Chapters 16/17)
Course Grades

• A at least > 85%
• B at least > 75%
• C at least > 65%
• D at least > 55%
Attendance

• Expected in lecture, but NOT required
  – PRS credit will be given for lecture attendance, in addition to occasional unannounced quizzes

• Required in laboratory
  – Policy: must pass lab >70% to pass course
  – Will use MS Excel template for lab reports (introduced gradually throughout the semester)

• Highly beneficial in recitation
The fight is won or lost far away from witnesses, it is won behind the scenes, in the gym, and out there on the road, long before I dance under those lights.

-- Muhammad Ali

Knowledge may have its purpose, but guessing is always more fun than knowing.

– W.H. Auden (British poet)
4 Levels of Learning

1. Memorized Factoids
2. Know “about” the concept
3. Basic understanding of the concept and its application
4. Fundamental, contextual understanding of the concept and the ability to teach it to others
Fall 2004 Tutorial Room

• **Place:** Chem Annex Room 50
• **Days:** to be announced
• **Hours:** to be announced
Reading
• OFB Chapter 1 and 2
• Appendices A, B, and C
• Read, Read, Read
• Work Problems, Work Problems, Work Problems

Examples / Exercises (be able to do these, some covered in class)
– OFB text Chapter 1
– All (1-1 thru 1-13)

HW Problems (Due at first recitation)
• OFB 1

Reminders
• First Recitation next week
• First Lab next week
• August 18 introduction to Lab and WebCT
Chapter 1
The Atomic Nature of Matter

Examples / Exercises
– All (1-1 thru 1-13)

HW Problems
– 9, 10, 11, 17, 19, 20, 29, 37, 38, 55, 68

Need help with significant figures?
http://science.widener.edu/svb/tutorial/sigfigures.html

 Significant Figures link
“Please, Ms. Sweeney, may I ask where you’re going with all this?”

(Child talking to the teacher.)

by Robert Weber