Chem 111A Information

Contact Information:
Janice E. Chadwick, Ph.D.
Office: Room 419-09 in the Natural Science Building
Office Hours for Fall Semester 2004: 8 - 9 am M, 4-5 M, W
4 - 6 pm before hybrid class on selected Fridays

Telephone Number: (714) 992 - 7138
Email Address: jchadwick@fullcoll.edu

Course: Three hours of lecture, two hours of problem solving, 3 hours of laboratory, and 1 hour of discussion per week. Lecture includes course introduction, chemical reactions and stoichiometry, atomic structure and periodicity, chemical bonding, molecular structure, physical properties of solids, liquids & solutions, gases, thermochemistry, and calorimetry. Laboratory work supports but does not necessarily coincide with lecture topics of 111A.

Prerequisite Completion of CHEM 107 Elementary Chemistry with a grade of C or better AND completion of MATH 40 Intermediate algebra or equivalent with a grade of C or better. A satisfactory score on the Chemistry Department exam may substitute for completion of CHEM 107.

WebCT - Assignment Info, Chapter Outlines, etc.
MCWeb - Schedule for Quizzes and Gia's
CPR - Calibrated Peer Review at UCLA
Dr. Chadwick's homepage
Fullerton College Homepage

email: jchadwick@fullcoll.edu
**Course Strategy** Most students are surprised at how rapidly the class progresses and how soon the first exam comes. There is simply not enough time for you to relax for a few weeks. Start working on the course material immediately. Mastering it will take time right from the start even if you have been through the material before. Don’t "coast" until your scores start dropping and it becomes difficult to catch up. It is important to study chemistry and solve problems every day. Read ahead to gain an understanding of material coming up in the next class. Use the class to solidify your understanding, to clear up the things you were uncertain about, and to help you outline what are the most important things to know. Practice the material as it comes up in class using all the problems and exercises you need until you are confident. Talk to yourself and classmates about the problems and try to verbalize the concepts using scientific expressions. Never put off a thorough understanding of what you are doing. If you get stuck, come and see me or ask me about the problem in class.

Remember those who merely passively follow the solutions carried out by others will not master problem-solving skills and you will not receive the exam, lab, and final scores you might normally anticipate.

**Entry Level Skills:**

The material learned in this course builds on the fundamentals you mastered in an introductory chemistry course such as Chemistry 107. Much or the material covered in this class might be a review for you. If the material in the first four chapters seem foreign, you might be in the wrong class. Please speak with me regarding this matter if this is indeed the case. You might need to just review some of the chemical principles in the textbook used for this course and basic math operations discussed in the Appendix of the textbook. Some knowledge of computers will be helpful.

Upon entering this course, the student needs to be able to:

1. Perform unit conversion problems
2. Apply chemical nomenclature
3. Illustrate basic atomic theory
4. Write and balance chemical equations
5. Propose total and net ionic equations
6. Demonstrate solving basic stoichiometric problems
7. Calculate empirical and molecular formulas from percentage composition data
8. Identify fundamental gas laws
9. Draw elementary Lewis structures
10. Calculate the molar masses of compounds
11. Express numbers in scientific notational form
12. Solve linear equations
13. Demonstrate factoring expressions, including finding the greatest common factor
14. Evaluate and solve logarithmic problems
15. Create algebraic expressions from word problems
16. Interpret linear and quadratic graphs
17. Design graphs for linear expressions
18. Follow safe practices in the laboratory

**Course Content and Scope**
Upon the completion of this course, you will have an acceptable knowledge of the topics in the syllabus, which are described on my campus homepage at http://staffwww.fullcoll.edu/jchadwick. Mastery of this material allows you to continue in more advanced chemistry courses.

**Lectures:** Regular attendance at lectures is mandatory and attendance is taken. The aim of the lectures is to guide you in your studies, and to clarify, emphasize, and illustrate the important (and sometimes subtle) concepts in chemistry and their applications. The lectures are designed to complement the reading of your text, however, some topics in the text may be omitted or additional topics may be discussed in lecture. You are responsible for all the material discussed in lecture and assigned as reading in the text.

**Text and Required Materials:**

It is very important to read the textbook and use the materials supplied to you for your studies. You need to purchase or get the following textbook and materials by the end of the first week:

**Required Materials**

Optional Materials:

Lab: lab coat or apron, latex gloves, sponge

**Homework:** Homework assignments are assigned at the beginning of each chapter. It is essential that you do the homework problems, and that you work out many other problems as well. The homework assignments due dates will be announced in class and/or listed on the syllabus.

Homework assignments will be graded for completeness. Assignments must be **turned in at the beginning of the class period on the date due.** You will receive 1/2 credit or less if you turn in your homework after the beginning of the lecture period. Your homework assignments must be legible and handed in on stapled, smooth-edged 8.5 x 11 in paper or you will receive a zero. Make sure you place a box around final numerical answers and always include units where appropriate. You must always show your work when conducting any calculations in order to receive any credit. Throughout this course, partial credit may be given for partial solutions, but no credit is given for answers only. You will receive less credit if the approach is incorrect. If you are not sure about a solution or an answer on your homework, see me during office hours before you hand in the assignment.

**Quizzes:** Announced and pop quizzes will be provided and taken on the Web. The URL for quizzes are http://titanium.fullerton.edu/mcweb. You must receive at least 70% on any assigned portion to receive credit at the titanium site. Details will be discussed further in class. You can self-register at mcweb using the login information I provide in class.

**Attendance:** Attendance in each three hour laboratory section and the course section is required. Part of the evaluation of your work in this course is based on participation in both
the lab and lecture section. After enrollment has stabilized, which takes approximately two weeks, each class or lab section missed without a **verifiable and documented** excuse will be noted and considered in my evaluation of your performance at the end of the semester. If you cannot attend lab or lecture, you must make every attempt to notify me **in advance** and afterwards you must bring in some form of documentation (note from doctor, bill for car repair, copy of legal documents, etc.). The best way to notify me is by email or telephone at jchadwick@fullcoll.edu or 714(992-7138). If you do not bring in some form of documentation, you will not be excused from class or lab. **Any work completed without documentation of illness with receive a zero.** If you are sick, go to the Student Health Center on campus or a doctor and get a release note. **If you miss the equivalent of a total of one and one half weeks of work in either lab or lecture (or both), you may be dropped from the course at the discretion of the instructor. Please see the instructor immediately if you are not in attendance for lab or lecture.**

**Student Wait Time:** If, due to unforeseen emergencies, the instructor does not arrive at the scheduled start time for a class, students should remain in class for fifteen minutes (unless otherwise notified by the Division). If you do not receive notification to wait for me to arrive, after fifteen minutes you may leave with no penalty for absence or assigned work due for that class meeting.

**Activities:** Activities consist of both group and individual work such as worksheets, computer assignments, problems at the board, and solving conceptual problems. The activities will be assigned by the instructor in both class and lab and they will vary in point value. Since many of these assignments will be conducted in class and lab, it is important to attend both on a regular basis. Many activities used in this particular section will require use of a computer on campus or at home. You should have some knowledge of word processing and use of email to be successful in this course.

**Lab:** Eye protection (goggles or visorgogs) must be worn in all laboratories whenever any laboratory work is in progress. All data must be recorded in your laboratory notebook in **black INK**. The use of pencils to enter data, and an eraser or white-out to alter data is not allowed. Further details regarding the lab is contained in a separate document.

**Examinations:** There will be five during term examinations at regular scheduled lecture times, and a two hour comprehensive final examination during the final examination week. Only three of the four midterms will count towards your grade, one midterm will be dropped. Any changes in the examination schedule will be announced well in advance. On examinations, you will be responsible for anything covered in the reading assignments in the textbook, and anything discussed during class time. In general, material discussed or stressed in class is what the instructor believes is most important, and is most likely to be stressed on exams. The first test will cover the material from the beginning of the semester until approximately the date on the exam. The second test will cover the material after the first test; however, some of the earlier material will be needed for understanding, and should not be forgotten. The final exam is comprehensive and will include all the material covered during the semester.

**Make-up Exams:** There **are no make-up exams under any conditions.** If you miss a midterm exam for good reason, this will count as the dropped midterm. Lack of preparation, oversleeping, hang-overs, and two examinations in one day are not appropriate excuses to miss an exam. The final must be taken during the assigned time in order to pass this course.
**Grading:** Chemistry 111A is graded on a mastery basis. Letter grades are based on percentage scores. Grades are assigned only at the end of the quarter when all items have been graded; the percentage on a *portion* of the course is not a meaningful measure of your total performance. However, please note that *at the discretion of the instructor, if you fail a portion of this course you will not pass the entire course*. A failing grade is considered receiving less than 60% of the score in the final, midterm total, activities total (both lab and lecture), or lab section total scores. You can receive a failing grade if you do not attend and participate in lecture and in lab. In this event, you will have to take all components of this course again in order to receive credit for the entire course.

You are required to complete all of the lab experiments (or excused by instructor with documentation) receive 60% on the lecture final, and receive at least 60% on the lab practical to receive a passing score in this course. At the discretion of the instructor, you can receive a failing grade for not completing major components of the course and/or not participating in the course. Grades will be assigned based on the following straight percentages:

<table>
<thead>
<tr>
<th>Lecture Portion</th>
<th>% of Lecture</th>
<th>% of Total Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams:</td>
<td>50%</td>
<td>37.5</td>
</tr>
<tr>
<td>Final:</td>
<td>25%</td>
<td>18.75</td>
</tr>
<tr>
<td>Activities/Participation</td>
<td>10%</td>
<td>7.5</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
<td>11.25</td>
</tr>
<tr>
<td>Subtotal</td>
<td>100%</td>
<td>75% of Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laboratory Portion</th>
<th>%Lab Grade</th>
<th>% of Total Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Lab Notebook Quality</td>
<td>5%</td>
<td>1.25%</td>
</tr>
<tr>
<td>Pre-Lab/Problem Solving/Quizzes</td>
<td>40%</td>
<td>10%</td>
</tr>
<tr>
<td>Lab Practical</td>
<td>40%</td>
<td>10%</td>
</tr>
<tr>
<td>Lab Unknown</td>
<td>15%</td>
<td>3.75</td>
</tr>
<tr>
<td>Lab Experiments/Post-Lab</td>
<td>10%</td>
<td>2.5</td>
</tr>
<tr>
<td>Subtotal</td>
<td>100%</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Letter Grades:** Letter grades are based on percentage scores. Grades are assigned only at the end of the quarter when all items have been graded; the percentage on a *portion* of the course is not a meaningful measure of your total performance. However, please note that *at the discretion of the instructor, if you fail a portion of this course you will not pass the entire course*. A failing grade is considered receiving less than 60% of the score in the final, midterm total, activities total (both lab and lecture), or lab section total scores. In this event, you will have to take all components of this course again in order to receive credit for the entire course. Grades will be assigned based on the following straight percentages:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>100% = A</td>
</tr>
<tr>
<td>87</td>
<td>75% = B</td>
</tr>
<tr>
<td>Score</td>
<td>Grade</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>74</td>
<td>63% = C</td>
</tr>
<tr>
<td>62</td>
<td>50% = D</td>
</tr>
<tr>
<td>49</td>
<td>0% = F</td>
</tr>
</tbody>
</table>

**Withdrawal Policy:** The official college withdrawal policy will be adhered to for this class. Ultimately, it is the RESPONSIBILITY OF THE STUDENT to withdraw from the class on time. The INSTRUCTOR WILL NOT BE RESPONSIBLE FOR DROPPING A STUDENT from the course based on attendance or participation. NOTE: A grade of "W" cannot be assigned after the 14th week of the semester. (See class schedule.) YOU ARE RESPONSIBLE FOR DROPPING THE COURSE ON TIME!

**Cheating, Plagiarism, Dishonesty:** All cases of cheating, plagiarism, or dishonesty will be reported to the appropriate authorities and will result in an F in the work as the very least form of penalty. An act in cheating, plagiarism, or dishonesty, may result in an F in the course or dismissal from this college. You must complete and turn in your own work. Any work that is not your own that is submitted for grading constitutes plagiarism. Plagiarism is defined as stealing or passing off as one's own ideas or words of another or using a creative production without crediting the source. Plagiarism consists of:

1. Copying homework, lab reports, research reports, and any quizzes or tests not made available to all students in the course. Any collaboration on laboratory experiments or research reports is not allowed unless announced by the instructor. In other words, don't copy from other students.

2. Paraphrasing published material without acknowledging the source.

3. Making significant use of an idea or arrangement of ideas, e.g., outlines.

4. Writing a paper after consulting persons who provide suitable ideas and incorporating these ideas into the paper without acknowledgement.

5. Submitting under one's own name term papers, or other reports which have been prepared partially or fully by others.

Cheating is defined as

1. Using notes, aids or the help of other students on tests or exams in ways other than those expressly permitted by the instructor.

2. Misreporting, dry-lab, or altering the data in laboratory or research projects involving the collection of data.

Papers or projects used for another course cannot be used in this course. Any material previously submitted for this course will not be accepted in this course.
Emergency Response Message

Please take note of the safety features in and close to your classroom, as well as study the posted evacuation route. The most direct route of egress may not be the safest because of the existence of roofing tiles or other potentially hazardous conditions. Similarly, running out of the building also is dangerous during severe earthquakes. During strong quakes the recommended response is to duck – cover- and hold until the shaking stops. However, if you are in a laboratory, do not duck and put yourself in the position of being eye level with glassware containing chemicals. Follow the guidance of your instructor. You are asked to go to the designated assembly area. Your cooperation during emergencies can minimize the possibility of injury to yourself and to others.

Note: During a strong earthquake in a chemistry laboratory, it might not be best to duck and cover. Why do you think this might be the case? What should you do in a chemistry laboratory setting?

Disability Students

Fullerton College is committed to providing reasonable accommodations for students with disabilities upon request of the student (in a timely fashion) and upon verification of disability.

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Maintained by: Janice E Chadwick
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