Chemistry 32 - Introduction to Medicinal Chemistry

Section 001 **Room - Science 100** **Monday, Wednesday 12 – 1:30 pm**

Instructor: Paul Herrmann **Office Hours**: Mon, Wed. 11-11:30 am

Office: Science 249 Tues., Thurs. 9:30-10:00 pm

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Website: http://fog.ccsf.edu/pherrman/index.htm - follow the links for Chem 32 lecture

Web Site for the lab: http://www.ccsf.cc.ca.us/Departments/Chemistry/solow/ms31hpb.htm

Course Description:

Chem 32 is a four unit introductory course in the basic concepts of general and organic chemistry, biochemistry, and physics as they apply to the chemistry and physics of the human body. This course is designed for students in nursing and health related fields. It is an overview course that touches on the basic principles and many of the interesting and fun applications of chemistry. **This is not the course you should be taking if you are planning on applying to medical school, pharmacy school, or dental school. If this is the case for you, come talk to me after class about what courses you should take.**

Required Materials:

General, Organic, and Biochemistry, 4th preliminary edition by James Armstrong

Chemistry 32 Lab Manual – the **green** *cover*. This is available at the CCSF Bookstore.

Scientific Calculator – **you may not use a cell phone/etc. as a calculator. It must be a calculator only!**

Homework:

You are responsible for all material covered in the lecture and in the reading assignments. Please read the assigned chapters according to the attached schedule. I strongly advise you to read the assigned chapters **before** attending the corresponding lecture. Problems will be assigned for each chapter. At this point in time, the class is too large for me to be able to collect and grade your homework. I will be assigning primarily odd numbered problems as the book has answers only to the odd numbered problems. The solutions to all of the problems in the book are available in my office. The questions and material covered in the exams and quizzes will **strongly reflect** the assigned problems. Reading the chapter **does not** mean you understand the material. The best way to study is to do all of the assigned problems after/while reading the chapter.

Grading:

There will be 3 exams (125 points each), and 3 quizzes (25 points each) given during the course of the term. In addition, a cumulative final exam (250 points) will be given. The exams will be roughly 2/3 multiple choice problems, and 1/3 short answer problems. The lab portion of the course will be worth a total of 125 points, and the scores of the various lab sections will be normalized to ensure fairness. There are no make-up exams or quizzes. Adjustments will be made for a missed exam or quiz only for a serious reason, and **only if you let me know about it before the exam.** Failure to take the final exam on the assigned date will result in an "F" for the course. **If you are here for all the exams and quizzes and labs, I will give you 15 extra credit points.**

Grades will be based on the percentage of points earned. **YOU MUST PASS BOTH THE LAB AND THE LECTURE PORTION OF THE CLASS**.

A	**88 - 100 %**
B	**75 - 87.99 %**
C	**60 - 74.99 %**
D	**45 - 59.99 %**
F	**Below 45 %**

Important Registration Dates:

Tuesday, February 2	Last day to officially withdraw, drop or reduce course work units in order to obtain an enrollment fee refund.
Friday, February 5	Last day to add credit classes or to change sections.
Friday, February 11	Last day to drop class with no "W" notation on your transcript.
Friday, April 23	Last day to drop class and receive a "W" notation on your transcript

Remember, if you do decide to drop the course, it is your responsibility to officially withdraw from the course! Don't assume that I will withdraw you from the course if you stop coming to class!

Finally - a few words about taking exams and quizzes. Cheating is strictly forbidden and is the one thing I will **not tolerate.** I will be making up many versions of each exam/quiz. If I observe anyone cheating during an exam or a quiz, I will take your exam, give you a zero for that exam, and will give you an **F** for the course. I am **extremely serious** about this.

During exams and quizzes, you will ONLY be allowed to use your brains, a pencil or pen, and a calculator.

NO CELL PHONES, NO PALM PILOTS – only a calculator. If I see anyone using a cell phone or a palm pilot (or its equivalent), I will take your exam, give you a zero for that exam, and will give you an **F** for the course. I am **extremely serious** about this. Since this is such a large class, I have to be very strict about taking exams. I also have to be consistent. I cannot allow some students to use cell phones as calculators.

Passing this Class!!

This is a class that covers a wide range of topics, but I firmly believe that all of you can pass the class, regardless of your background (or lack of a background!) in chemistry. All it takes is a willingness to **organize yourself** and DO THE HOMEWORK! This class moves fast, so if you fall behind you are doomed. If you are having trouble, there are lots of options available to you for help. Come see me! Talk to your lab instructor. Use the tutors available in the learning center.

Tentative Lecture Schedule

Week/**Dates**	**Chapter/Topics**	**Exams/quizzes**
1 **1/18 (holiday), 1/20**	Introduction/Chap. 2 – Atoms, elements, and Compounds (the letters and words of chemistry!)	NONE
2 **1/25, 1/27**	Chap. 3 – Bonding and Naming simple Compounds	NONE
3 **2/1, 2/3**	Chap. 4 Energy, States of Matter, and Gas Laws	NONE
4 **2/8, 2/10**	Chap. 4/Chap. 5 – Solutions, moles, osmosis and dialysis	**Quiz 1, Mon. 2/8**
5 **2/15 (holiday), 2/17**	Chap. 5 continued	NONE
6 **2/22, 2/24**	Chap. 6 – Reactions – the sentences of chemistry!	**EXAM 1, WED. 2/24**
7 **3/1, 3/3**	Chap. 7 – acids and bases	NONE
8 **3/8, 3/10**	Chap. 7/Chap. 8 – introduction to Organic compounds and nomenclature	**Quiz 2, Wed. 3/10**
9 **3/15, 3/17**	Chap. 8/ Chap. 9 – Alcohols and hydration/dehydration reactions	NONE
10 **3/22, 3/24**	Chap. 9 continued	**EXAM 2, WED. 3/24**
11 **3/29, 3/31 – holidays**	**SPRING BREAK**	**SPRING BREAK**
12 **4/5, 4/7**	Chap. 10 – Carbonyl compounds and oxidation/reduction reactions	NONE
13 **4/12, 4/14**	Chap. 11 – Carboxylic Acids, and amines: organic acids and bases	**Quiz 3, Wed. 4/14**
14 **4/19, 4/21**	Chap. 12 – Esters, Amides, and condensation/hydrolysis reactions	NONE
15 **4/26, 4/28**	Chap. 13 – Proteins	NONE
16 **5/3, 5/5**	Chap. 14 – Carbohydrates and Lipids	**EXAM 3 MON. 5/3**
17 **5/10, 5/12**	Chap. 14/Chap. 17 – Nuclear Chemistry	NONE
18 **5/17, 5/19**	Chap. 17/Catch-up and review	NONE

FINAL EXAM – Thursday May 20 or Monday May 24: 1-4 pm
Location to be determined