HEALTH CHEMISTRY I

1

**CHEM 108** 

3 credits

Fall Quarter, 2013

Lecturer/ Coordinator: Dr. Dora Schnur Office: Disque 403 dms467@drexel.edu 215-895-1784 Office hours: Friday 1:15-3pm or by appointment

Recitation Instructors: Will be introduced in your first class.

## **Required Materials**

**Textbook:** Chapters 1-11 of "Introduction to General, Organic and Biochemistry", by S. Solomon, McGraw-Hill (reproduced by Barnes & Noble) *Be sure it says 108. Do not buy the course pack for 151.* 

*Course Description:* Covers physical and chemical properties of substances used in medical areas and related principles: atomic structure, bonding, gases, solutions, acids and bases, oxidation-reduction, and nuclear chemistry. Examples are taken from pharmacology, nutrition and other allied health fields.

### **Course Objectives:**

- 1. to understand the concept of the atomic and molecular nature of matter
- to solve problems in the quantitative areas of chemistry important in the health sciences, such as stoichiometry and mass balance, solution concentrations and chemical reactions
- 3. to understand the electronic structure of atoms and molecules
- 4. to understand basic concepts in nuclear chemistry

## Course Website: Bb Learn, CHEM 108

You will always find here the most current syllabus course schedule and announcements about changes in the course, labs and exams. Check it regularly. You can get there through DrexelOne ("My Courses") or directly (http://learn.dcollege.net/).

**Lectures**: Lectures will be given on topics as indicated on the course schedule, including chemical demonstrations. Some material not discussed in the text will be covered. You are responsible for reading all material in these sections and for all material covered in lecture and in recitation (Syllabus, section C). The course schedule is provided as a guide and will be revised if dictated by prevailing circumstances (e.g., weather). Regular attendance to lecture is highly recommended.

108 lectures are Wed and Fri @11:00 and all four recitation sections are on Wed afternoon (@12:00, 1:00, 2:00 and 3:00 pm). If you must be absent from a class, be sure to find a reliable classmate (*not* your lecturer or recitation instructor) for the missed material.

#### **Recitation/Quizzes**

Assigned questions and problems (Section F) will be covered in class, but should be at least attempted in advance of class. Student participation is expected and counts toward the recitation grade. Recitation problem assignments usually will correspond to lecture material *already* covered. Any changes in the schedule will be announced in lecture. Attendance in recitation is required and unannounced quizzes may be given.

Exam	Time	Date	Room(s)	Grade
EXAM1		Wednesday,	CAT 61,	20%
	8:00-	October 16,	Stratton	
	8:50	2013	113	
EXAM2		Wednesday,	CAT 61,	20%
	8:00-	October 30,	Stratton	
	8:50	2013	113	
EXAM3		Wednesday,	CAT 61,	20%
	8:00-	November 13,	Stratton	
	8:50	2013	113	
FINAL		TBA	TBA	30%
RECITATION				10%

#### **Exams and Grade Breakdown**

Grading scale:

Coverage on exams will be announced in lecture.

**Grading policy:** Students who meet all the requirements will earn an A- if they score at least 90% overall,  $B \ge 80\%$ ,  $C \ge 70\%$ ,  $D \ge 60\%$ . If a question arises about an exam grade, for instance, feel free to contact me with your concerns. Any questions about final course grades should be raised as soon as possible.

**Exams:** Three fifty-minute exams will be given from 8:00 - 8:50 AM on the dates indicated on the course schedule above. The specific room assignment (CAT 61 or Stratton 113) will be determined by recitation section and posted on BB Learn several days prior to the exam.

There will be an opportunity to make up one missed exam, with permission of instructor. During the last week of classes, a make-up exam will be given. The exam will include material covered on Exam 1, Exam 2 and Exam 3. *The make-up exam can only be used to replace one missed exam; it cannot be used to improve a grade on an exam that was taken.* There will be no opportunity to retake the make-up exam, regardless of the reason for missing it.

**Final Exam:** The final exam will be a 2-hour exam held during final exam week. The date, locations and start time will be announced in class and posted on the course website. Be aware that active cell phones and the use of random-access devices (e.g., MP3 players, Palm Pilots, iPods) are NOT ALLOWED in exam rooms, and may be confiscated if they are found. The final

exam will cover material from the entire term. A student who does not score at least 45% on the final exam will not pass the course, regardless of his/her prior performance in the course.

## Lecture Schedule and Recitation Problem Assignments

*Note*: The questions/problems in parentheses or other additional problems may be added to the assignment. This will be announced after lectures on the material from those chapters.

week	wed	fri	Lecture topic	text	assigned problems
				chapter	
1	25-	27-	Measurement	1,2	Your instructor will hold a brief
	Sep	Sep	Matter/Energy		introduction.
2	2-	4-	Atoms	3	<b>Ch 1</b> 19, 37 a c, 21, 26, <b>Ch 2</b> 27, 36 to 38,
	Oct	Oct			30, <b>Ch 3</b> 16b
3	9-	11-	Bonding	4	<b>Ch 3</b> 19, 20, 22, 26, 28 to 32, 37,40,41, 45
	Oct	Oct			
4	16-	18-	Nomenclature/the	5,7	<b>Ch 4</b> 11, 12, 14,15, (17), 23, 26, 28,32,
	Oct	Oct	Mole		34, 44, 48
5	23-	25-	Gases	7,8	<b>Ch 5</b> 15 adfh, 22 a 25, ( <b>3</b> 0), 37 a d,40, 45,
	Oct	Oct			47 a-c,
6	30-	1-	Liquids &	9	Ch 5 Ch 7 16, 18, Ch 7 22, 26, 25 Ch 8
	Oct	Nov	Solids/Solutions		6, 10
7	6-	8-	Acids & Bases	11	<b>Ch 8</b> (20), 24, (31) <b>Ch 9</b> 14, 19 ab, 20 ac,
	Nov	Nov			32, <b>Ch 9</b> 23 ad,
8	13-	15-	Chemical	10	<b>Ch 11</b> 18, 19b,20 ab , 27-29, 43, (38)
	Nov	Nov	reactions		
9	20-	22-	Nuclear	6	<b>Ch 10</b> 8, 10, 13,16,21, 29, 30
	Nov	Nov	Chemistry		
	27-	29-	Thanksgiving Break		
	Nov	Nov			
10	4-	6-	wrap up, review		<b>Ch 6</b> 6abcgi, 7abdf, 9, 21,28,33,36,
	Dec	Dec			review

Final Exam Week Date and Rooms to Be Announced

# Academic Policies:

Please visit the following links and review Drexel University policies regarding academic integrity, plagiarism, cheating, disability statement and drop policy:

Note: departmental policy is zero tolerance for incidents of plagiarism and cheating. <u>http://www.drexel.edu/provost/policies/academic\_dishonesty.asp</u> <u>http://drexel.edu/studentaffairs/community\_standards/studentHandbook/</u> http://drexel.edu/oed/disabilityResources/faculty/SyllabusStatement/

Student with disabilities requesting accommodations and services at Drexel University need to present a current Accommodation Verification Letter (AVL) to faculty <u>before</u> accommodations can be made. Do <u>not</u> wait until exam week to present this. AVL's are issued by the Office of Disability Resources (ODR). For additional information, contact ODR at <u>www.drexel.edu/odr</u>, 3201 Arch St., Street, Suite 210, Philadelphia, PA 19104, 215.895.1401 (V), or 215.895.2299 (TTY).

The drop add policy can be found at

http://www.drexel.edu/provost/policies/course\_drop.asp

Note: this syllabus is subject to change. Please check BB Learn for updates!