CHM 2046 GENERAL CHEMISTRY SPRING TERM 2015

PERIOD	ROOM	INSTRUCTOR	OFFICE	OFFICE HRS.
MWF 5rd T (Discussions)	CLB C130	Dr. Anna Brajter-Toth *atoth@chem.ufl.edu* http://www.chem.ufl.edu/~atoth/2046S15	Leigh Hall Room 312	M – 7,8 W – 7,8

TEXT: Silberberg, 6th Edition, Chemistry, *The Molecular Nature of Matter & Change* (McGraw Hill), 2012.

PREREQUISITES: CHM 2045 and 2045L. This is the second semester of the sequence: CHM 2045-2045L-2046-2046L.

OBJECTIVES: CHM 2046 General Chemistry is a broad survey of basic chemistry. This semester we will look at the use of chemical equilibrium concepts and other principles (structure, bonding, and energetics) to understand a broad range of chemical properties.

COREQUISITE: CHM 2046L. The class will occasionally draw on specific examples of chemistry studied in lab. Such relevant examples are "fair game" on homework, quizzes, and exams.

DISCUSSION: Start 2nd week of class. The discussion classes will include several activities: discussion of homework, worksheets including some new material, practice quizzes and exams.

CLASS WEB SITE: http://www.chem.ufl.edu/~atoth/2046S15. **A good source of information about the course. Please bookmark the class home page. Please be sure to reload this every time you visit, as it will change frequently. Of particular interest are Homeworks, Worksheets for the week notes and useful Tables.**

TENTATIVE SCHEDULE

WEEK	DATES	TOPICS	READING
1	Jan 7, 9	Chemical Equilibrium	Chapter 17
2	Jan 12, 14, 16 (Q1)	Chemical Equilibrium	Chapter 17
3	Jan (H), 21, 23	K_w & pH, Acids & Bases	Chapter 18
4	Jan 26, 28, 30(Q2)	Acids & Bases	Chapter 18
5	Feb 2	AB Reactions, Buffers	Chapter 19
WEDNSDAY FEB 4	8:20 – 10:10 PM	EXAM 1	Chapters 17-18
5 *contd*	Feb 6	AB Reactions, Buffers	Chapter 19
6	Feb 9, 11, 13	Buffers, Titration, Solubility	Chapter 19
7	Feb 16, 18, 20 (Q3)	Complex Ion Equilibria,Thermodynamics	Chapter 19, 20
8	Feb 23, 25, 27	Redox Reactions	Chapter 21
FEB 28- MAR 7		SPRING BREAK	HAVE FUN

9	**Mar 9**	**Electrochemistry**	**Chapter 21**

WEDNSDAY MAR 11 8:20 – 10:10 PM		**EXAM 2**	**Chapters 19-20**

9 *contd*	**Mar 13**	**Electrochemistry**	**Chapter 21**
10	**Mar 16, 18, 20**	**Electrochemistry, Metals**	**Chapter 21**
11	**Mar 23, 25, 27**	**Transition Elements**	**Chapter 22**
12	**Mar 30 Apr 1, 3 (Q4)**	**Coordination Compounds**	**Chapter 23**
13	**Apr 6, 8**	**Nonmetals**	**Chapter**
14			

THURSDAY APR 9 8:20 – 10:10 PM		**EXAM 3**	**Chapters 14, 21-23**

14	**Apr 13, 15, 17**	**Nonmetals; Organic & Biochemistry**	**Chapter 15**
15	**Apr 20, 22**	**Finish Up & Review**	**Chapter 15**

SATURDAY APR 25 7:30 -9:30 AM		**FINAL EXAM**	**All Chapters Listed Above**

In class we will work be working problems using class worksheets. The worksheets will be available on class website http://www.chem.ufl.edu/~atoth/2046S15**. It is recommended that you print the worksheets and use in class. Working problems is recommended as the primary study activity.**

HOMEWORK: A problem set will be available weekly on the website usually on Thursday. The first problem set will be available first week of class. You will need to print it and complete it by hand. Completed homework is to be turned in on the following Tuesday in discussion to your TA (except the weeks of major exams), at the beginning of class. Late homework is not accepted. There will be no regular homework due the week after each major exam. The 11 homework sets will count in your grade. You will get a grade for the returned completed homework and practice quizzes. Grade distributions are shown below.

In addition to the posted problem sets, a number of text problems will be recommended in the homework. Solutions to the homework problems, and the textbook problem solutions will be available on class website at http://www.chem.ufl.edu/~atoth/2046S15**. Working problems is recommended as the primary study activity.**

QUIZZES: A practice quiz will be available on some Fridays as indicated. The completed quiz is to be turned in on the following Tuesday in discussion. Those who complete and turn in on time all quizzes and all homeworks, and have a perfect attendance record in discussion, will get the maximum possible score for the homework/quizzes.

EXAMS: Three evening midterm exams will be given on the dates indicated on the preceding schedule. Students are expected to plan their work and other activities so as to be available at these times. Students with evening labs or classes may arrange to take the exams on the same day earlier. Classes will be cancelled on the Wednesdays for the week of each exam and Friday for the week of the exam.

The 3 exam scores, plus the final, and the homework and quiz grade will count in your grade.

EXAM AND OTHER ABSENCES: The GEN CHEM exam absence policy can be found at http://iteach.chem.ufl.edu/file.php/1/Exam_Absence_Policy_GChem_s13.pdf . Makeup midterm exams will not be available. If one midterm is missed for any reason, a grade adjustment will be made based on the average of your other 2 midterms and the final. In case of multiple absences for reasons that may be excused, or

unusual circumstances, see Dr. Toth as soon as possible. For the excused grade adjustments, you will need to see Dr. Toth again about adjusting your grade during the last week of classes. A makeup final exam will be available for those with valid reasons for needing this. Attendance records will be maintained in discussion. You are responsible for all announcements made and material distributed in class and posted on class website. Missing class is an effective means of falling behind.

GRADE DISPUTES: To make grading accurate exams will be graded electronically. Homework and quiz grades will be recorded and will appear on SAKAI each week. Exam grades will be posted a soon as available usually within two days of the exam. If you find what you believe an error in the posted homework or quiz grades, see your TA first, within ONE WEEK of the posting of the grade. If you are still not satisfied or have any questions, see Dr. Toth. Also contact Dr. Toth about any errors you feel may have been made on the grading of the major exams.

GRADING:

Homework/Quizzes/Discussion				
	HW	**11 @ 5**	**points each**	**= 55 points**
	Q	**4 @ 10**	**points each**	**= 40 points**
Exams		**3 @ 200**	**points each**	**= 600 points**
Final (cumulative)				**= 200 points**
			TOTAL	**= 800 points**

GRADE SCALE: A grade scale is shown below. The points for Homework/Quizzes are included as bonus points, which means that you can earn more than 800 points. To estimate your grade you can use the grading scale shown below. The curve can be slightly different, with adjustment for our perception of the relative difficulty of the exams. Please be conservative when extrapolating your total during the middle of the term.

704 = A 672= A- 640 = B+ 608 = B 576= B- 544= C+ 512 = C 480 = C- 448 = D+ 400 = D

GRADE POSTING: Homework and quiz grades will be recorded on SAKAI each week. Your own scores will appear on SAKAI. All exam scores are posted as soon as available after each exam. To estimate your grade you can use the grading scale shown above.

CHEMISTRY LEARNING CENTER: The CLC, located in Flint Annex 257-258, is a study facility available to all chemistry students. You may work here whenever the building is open, generally up to 10 or 11 pm weekdays. Please be quiet, and ask others to be so also, when you are in this room. Eating and socializing are to be conducted outside in one of our many courtyards. Chemistry teaching assistants (TAs) will be available here to answer questions and provide help during most daytime and early hours. The times at which the CHM 2046 assistants are available will be posted on the web and outside the CLC.

You may see your own TA in this class during his/her office hours, no appointment necessary. Assistants teaching in other courses should also be able to assist you with most topics, even if they are not currently teaching CHM 2046. The times at which the CHM 2046 assistants are available will be posted on the web and outside the CLC. If you use outside help/tutoring be aware that you may be misinformed about the expected success in mastering the material.

ACADEMIC HONESTY: Students are expected to be aware of and abide by the University's academic honesty policies. See, for instance, http://www.dso.ufl.edu/stg/. You may discuss the homework sets with other students and our teaching assistants. Then complete these yourself and turn in your own work.

Students with Disabilities requesting classroom accommodation must first register with the Dean of Students Office. Then, discuss with Dr. Toth what assistance you will need, well in advance of when it will be needed, so that we will be prepared to provide help as appropriate.

DR. TOTH is available individually to all students. Her office hours and location are listed above. Yes, this is a huge course but we do get to know you all if you are in class. Much of the help you get will probably be

from TAs in the CLC which is available all the time (see above). We all got into this business, however, because we like to discuss chemistry. We also are concerned about your progress. We are available to discuss and advise you about any individual difficulties that might affect your ability to satisfactorily complete this course. Please do take advantage of the opportunities to meet and work with your instructors. We want you all to do well!

Letters of recommendation: If Dr. TOTH knows you, she can write a letter. Make yourself known!