

CHM 2046**GENERAL CHEMISTRY****SPRING TERM 2018**

The instructor may post additional information and corrections to the syllabus. Students will be notified of any changes made via announcement on CANVAS.

PERIOD	ROOM	INSTRUCTOR	OFFICE	OFFICE HRS.
MWF 9 th T (Discussions)	CLB C130	Dr. Anna Brajter-Toth <i>atoth@chem.ufl.edu</i>	Sisler Room A228A	M, W, R 4 th period

TEXT: Silberberg, 8th Edition, Chemistry, *The Molecular Nature of Matter & Change* (McGraw Hill).

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.

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

CLASS WEB SITE: Exam rooms and all course materials used in class and in discussion will be posted on CANVAS. Please be sure to check as announcements will also be posted. Of particular interest are homeworks, worksheets for the week notes and useful Tables.

E-mail: The email for Dr. Toth is available for emergencies. Dr. Toth will answer all other concerns in person.

TENTATIVE SCHEDULE

<u>WEEK</u>	<u>DATES</u>	<u>TOPICS</u>	<u>READING</u>
1	Jan 8, 10, 11	Chemical Equilibrium	Chapter 17
2	Jan 12, 17, 18 (Q1)	Chemical Equilibrium	Chapter 17
3	Jan 22, 24, 25	K _w & pH, Acids & Bases	Chapter 18
4	Jan 29 (Q2)	Acids & Bases	Chapter 18
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WEDNESDAY JAN 31 st		8:20 – 10:10 PM EXAM 1	Chapters 17-18
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4 contd	Feb 1	AB Reactions, Buffers	Chapter 19
5	Feb 5, 7, 8	AB Reactions, Buffers	Chapter 19
6	Feb 12, 14, 15	Buffers, Titration, Solubility	Chapter 19
7	Feb 19, 21, 22 (Q3)	Complex Ion Equilibria, Thermodynamics	Chapter 19, 20
8	Feb 26	Redox Reactions	Chapter 21
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WEDNESDAY FEB 28 th		8:20 – 10:10 PM EXAM 2	Chapters 19-20, 21
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8 contd	Mar 1	Electrochemistry	Chapter 21

March 3 – MAR 10		SPRING BREAK	HAVE FUN
9	Mar 12, 14, 15	Electrochemistry	Chapter 21
10	Mar 19, 21, 22	Electrochemistry, Metals	Chapter 21
11	Mar 26, 28, 29	Transition Elements	Chapter 22
12	Apr 2, 4, 5 (Q4)	Coordination Compounds	Chapter 23
MONDAY APR 9 th 8:20 – 10:10 PM		EXAM 3	Chapters 14, 21-23
13	Apr 11, 12	Nonmetals	Chapter 14
14	Apr 16, 18, 19	Nonmetals; Organic & Biochemistry	Chapter 15
15	Apr 23, 25	Finish Up & Review	Chapter 15
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MONDAY APR 30 th 3:00- 5:00 PM		FINAL EXAM	All Chapters Listed Above

NOTES: In class we will be working problems using class worksheets. You will need a calculator for this class. The blank worksheets will be available on CANVAS. It is recommended that you print the worksheets and use in class. Working problems is recommended as the primary study activity.

HOMEWORK: A homework problem set will be available weekly on CANVAS usually on Thursday before the Tuesday discussion. The first problem set will be available first week of class. You will need to print the homework and complete it by hand. Homework will be discussed and completed/corrected as needed the following Tuesday in discussion (except the weeks of major exams). There will be no regular homework the week after each major exam. The discussion attendance and the documented work on the 11 homework sets and 4 quizzes in discussion will count in your grade. 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 CANVAS. 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 have a perfect attendance record in discussion and complete all quizzes and all homeworks will get the maximum possible score for the homework/quizzes. If you must be absent for a discussion due to a documented and approved academic or UF athletic conflict, bring documentation to your instructor Dr. Toth at least one *week prior* to the scheduled discussion and homework/quiz grade adjustment will be scheduled for you. If you are absent for an exam due to an unpredicted documented medical reason, you must contact Dr. Toth and your TA as soon as possible.

EXAMS: Three evening midterm exams will be given on the dates indicated on the preceding schedule. The exam rooms will be posted on Canvas as soon as available. Students are expected to plan their work and other activities so as to be available at these times. Classes will be cancelled on the days of each exam. If a midterm is missed for any reason, a grade adjustment will be made based on the average of your other midterms and the final. Be sure to bring along a non-graphing non-programmable scientific calculator for the exams. Be sure to bring your UF ID card and pencils.

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

EXAM AND OTHER ABSENCES: Makeup midterm exams will not be available. Students are expected to plan their work and other activities so as to be available at these times. Attendance records will be maintained in discussion. If a midterm is missed for any reason, a grade adjustment will be made based

on the average of your other midterms and the final. A makeup final exam will be available in case of emergencies only. You are responsible for all announcements made and material distributed in class and posted on CANVAS. Missing class is an effective means of falling behind.

No makeup progress exams will be given for any reasons. If you must be absent for an exam due to a documented and approved academic or UF athletic conflict, bring documentation to your instructor Dr. Toth at least one *week prior* to the scheduled exam and an early conflict exam will be scheduled for you. If you are absent for an exam due to an unpredicted documented medical reason, you must contact the instructor as soon as possible.

GRADE DISPUTES: Check your grades regularly on CANVAS. To make grading accurate exams will be graded electronically. Exam grades will be posted on CANVAS as soon as available, usually within two days of the exam. Discussion grades will be recorded on CANVAS, usually each week. If you find what you believe an error in the posted discussion grades, see your TA first, within ONE WEEK of the posting of the grades in discussion. Contact Dr. Toth about any unresolved disputes. .

Contact Dr. Toth for Scantron disputes or confirmations within ONE WEEK of the posting of the grade. Bubbling errors will not be negotiated. This means you have to make sure to bubble in a form code, UFID and take the exam in the right room. If you miss a midterm and need a grade adjustment as specified above you will need to contact Dr. Toth the last week of classes.

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)			=	<u>200 points</u>
	TOTAL		=	800 points

GRADE SCALE: A grade scale is shown below. This grading scale will be used without changes. Borderline cases will be reviewed. The points for discussion attendance and 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. 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 CANVAS. Your own scores will appear on CANVAS. 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 in JHH building, is a study facility available to all chemistry students. You may work there 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 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.

OFFICE HOURS: Make sure to see your own TA in this class during his/her office hours in CLC if you need any help, no appointment necessary. DR. TOTH is available individually to all students. Her office hours and location are listed above. If you need to talk to Dr. Toth about seeing her outside of office hours contact her in class. The times at which the CHM 2046 assistants for this class are available will be posted on CANVAS. Assistants teaching in other courses who will be available in CLC should also be able to assist you with most topics, even if they are not currently teaching CHM 2046. .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 teaching assistants. Then complete these yourself.

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. Unfortunately Dr. Toth will not be able to answer questions by email. You will need to get the answers in person so plan ahead. Much of the help you get will probably be from TAs in this class and 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!

Class courtesy: As a courtesy to others turn off the cell phones in class. You may use your computer for class work in class. Be aware that it may disturb others when you engage in different non-class related activities in class. Be kind! If you are late, please use the back door to enter CLB 130 so not to disturb others. Try to help make this a good experience for all. Thanks.