CHM2045: General Chemistry I

for UF Online (http://handbook.ufonline.ufl.edu/)

Section 1A10

Spring 2016 (Jan 05 – April 25)

(3 Credit Hours)

Course Website: https://ufl.instructure.com/courses/324333

Course Materials and "Textbook": All course materials will be available through our secure course website, listed above, which is a Canvas LMS site hosted by Instructure. There is no printed textbook. Most of the activities and content will be delivered through Cengage MindTap, which is embedded in our Canvas site through which it is accessed after an initial registration. (see below).

Instructor: Georg Scheutz

Contact info: Georg is contacted through the Canvas Messaging tool
Send a test message using this method to Georg as soon as you read this!

Tentative Syllabus

(for exact ordering and detailed schedule, see the course website)

An Introduction to Matter

- Measurement and Units
- Compare and Contrast the Macroscopic and Microscopic scales
- The Scientific Method
- Atoms and the Periodic Table
- Stoichiometry and the Chemical Equation
- Molecular Nomenclature
- Solutions and Intermolecular Forces
- Thermochemistry and Energy Conservation

Chemical Bonding and Electron Rules

- Light, Quantum Theory, and Atomic Structure
- Chemical Bonding Structure and Energetics
  - Lewis Structures VSEPR Average BDE Resonance MO Theory

Molecular Motion, Kinetics, and Dynamic Equilibrium

- Phase Equilibrium
  - Gases Solids Liquids Supercritical Fluids
- Time Dependence of Chemical Processes
  - Elementary Processes Reaction Mechanisms Temperature Dependence
- Equilibrium as Rate Balance
  - The Equilibrium Expression LeChatlier van't Hoff

SPRING SEMESTER 2016

	S	M	T	W	T	F	S
Jan.						Holiday 1	2
		Registration	Drop/Add				
	3	4 Drop/Add	5	6	7	8	9
	10	11	12	13	14	15	16
	17	Holiday 18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
Feb.		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27 Spring Break
	28	Spring Break 29					
Mar.			Spring Break				
			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
Apr.						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	Reading Days 21	22	23 Commencement
	24	25	26	27	28	29	30
	Comm	Grades Due	Deg Cert.				
May	1	2	3	4	5		

This course is entirely online

Clearly you know that already. However what you may not know is that *this* online course is ***not*** easier, shorter, or less work than any CHM2045 course taught on UF's main campus. This online version of CHM2045 covers the same material in at least the same level of detail as any other General Chemistry course, and you should learn at least as much as the average student in a conventional course. However, you will have to do this learning *differently*. Instead of going to a large auditorium and listening to a 50 minute lecture delivered without interruption or interaction. You will enjoy a presentation of the same material on your computer, delivered at your pace, interspersed with example problems and interactive exercises. You choose your pace, but you must do so *wisely*. Don't fall behind. Do all the assignments by the assigned due date. To be successful, you should plan on spending at least an hour or two of work on *this* course *every day.* If you cannot commit to that, you will not succeed. That alone does not guarantee success, but without this time commitment, you have no chance.

What is MindTap?

- ➢ It is our textbook
- ➢ It contains a large number of example problems with solutions
- ➢ It has instructional videos
- ➢ It has activities that develop skills through drill
- ➢ It has assessments that help you gauge your mastery of the concepts
- ➢ It contains 610 graded responses that constitute 40% of your course grade

Register for MindTap as soon as our course begins: See the course homepage for instructions

"Office Hours" with your Instructor

Your instructor would be happy to help you learn Chemistry, face-to-face, at a time and place convenient to you. Sadly, that is not possible in a purely online course. Therefore, we will do the best we can to reproduce that experience. If you wish to contact your instructor, message him from within Canvas with ***three distinct times*** that would be convenient for you to have a conversation. If your instructor is online, he will immediately contact you, or will choose one of the times you have offered as an appointment, and message you back. Sometimes Chemistry questions can be answered through the messaging tool itself, perhaps with an attached screenshot or two. But we also have a tool called "scribblar" (the link to which is on the left column of Canvas pages) that can be used to share a virtual writing space, and if that doesn't work we can resort to Lync/Skype. (Instructional documents for the use of scribbar and Lync will be available on our Canvas site.) One way or another, your instructor is there to answer your questions, as if you were in his office.

Exams

There will be **three *proctored* (see below)** exams during the term, to be held during the following days:

02/01 03/14 04/11

Any anticipated conflict should be reported to your Instructor immediately.

Cumulative Final Exam (*proctored*)

Monday, April 25

The General Chemistry Exam Absence policy: http://iteach.chem.ufl.edu/Exam_Absence_Policy_GChem_s13.pdf
See also: https://catalog.ufl.edu/ugrad/current/regulations/info/exams.aspx

Proctor U

Our online course has four proctored exams in total. How is this done? Through a service called Proctor U, the use of which is described in a couple of pages in the Start Here module of our Canvas site. Please make sure that you are prepared for the use of Proctor U before the first exam (and for all afterwards) .

Course Grade Computation

Your course letter grade will be derived from a simple calculation: the weighted average of your performance in the proctored Exams and MindTap, *viz*.

Exam 1		14%
Exam 2		14%
Exam 3		14%
Final Exam		18%
MindTap Activities		40%
Total	100%	

Your course grade will be determined from your course performance percentage as follows:

90%	A
87%	A-
83%	B+
80%	B
77%	B-
73%	C+
70%	C
60%	D
< 50%	E

UF's Grading Policy: http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html

Getting Help

For quickest response, you might find posting questions to the Canvas Discussion Board might be a good choice. Messaging the Instructor, or even a classmate also works.

For Username/Password issues, such as difficulties logging into any Gatorlink-authenticated site at UF, (including our course website), please contact the UF Help Desk at:

helpdesk@ufl.edu
(352) 392-HELP - select option 2

Quality of Life

Resources are available at http://www.distance.ufl.edu/getting-help such as:

Counseling and Wellness resources
Disability Resources
Online Library Help Desk
Dean of Students Office

University Policy on Accommodating Students with Disabilities

Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc/). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

University Policy on Academic Misconduct

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at http://www.dso.ufl.edu/students.php.

This course satisfies the General Education requirement in the Physical Sciences

Physical Science General Education Program Objectives

Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

These objectives are accomplished through active participation in the carefully designed course activities, interaction and communication with the teaching staff and peers, and individual, but guided, effort by the student.

General Education Student Learning Outcomes

Area	Institutional Definition	Institutional SLO
CONTENT	Content is knowledge of the concepts, principles, terminology and methodologies used within the discipline.	Students demonstrate competence in the terminology, concepts, methodologies and theories used within the discipline.
COMMUNICATION	Communication is the development and expression of ideas in written and oral forms.	Students communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline.
CRITICAL THINKING	Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion.	Students analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems.

Naturally, all three areas of learning outcomes will be assessed in all categories of graded assignment administered in CHM2045.

We, the members of the University of Florida Community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity

Disclaimer for this document

Note: All aspects of course operations, including grading, course policy and policy execution, are subject to change at the discretion of the course instructor.