CHM 112 - GENERAL CHEMISTRY II
SYLLABUS – SPRING 2023

Instructor: Dr. Silvana C. Ngo
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Email: silvana_ngo@uri.edu
Office hours: All office hours are via Zoom
Drop-In (masks required): MWF 12:00 AM – 12:50 PM
By appointment (Zoom): TTh 6:00 – 7:00 PM (make appointment in Starfish)

Class Meetings:
CHM 112-1: Beaupre 100 MWF 10:00 – 10:50 AM

GENERAL INFORMATION FOR STUDENTS

This sheet contains information about the organization of CHM 112 for this semester. It should be carefully read and retained, together with the course schedule, for future reference by each student taking the course.

Learning Objectives.

CHM 112 is the second course in a two-course sequence of General Chemistry. This course will cover elementary principles of solution formation, chemical equilibrium, thermodynamics, kinetics, equilibrium systems (acid/base, solubility), oxidation reduction and electrochemistry. Students should acquire general knowledge of the scientific facts and laws which have been developed from chemists' observations of the natural world and understand the theories and models that chemists employ to explain these natural phenomena. Students should also gain an appreciation of the quantitative nature of chemistry and develop the ability to apply the principles they have learned to mathematical solution of chemical problems.
Prerequisite: CHM 101 with a grade of C- or better

Resources/Required Course Materials.

- Textbook: Chemistry: Atoms First, 4th ed. by Burdge/Overby; Chapters 13-19
- Required: Online access to Connect. This gives you access to the ebook and the solutions manual as well.
- Strongly recommended: Solutions Manual for Chemistry: Atoms First
- Required: a scientific calculator will be needed for exams, group work, and assignments
- Brightspace: Course materials (lecture videos, lecture slides, study guides, grades) will be posted in Brightspace (https://web.uri.edu/brightspace/). Be sure to check Brightspace regularly throughout the course. Print out the lecture slides and use them to take notes during lecture and when watching the lecture videos.
- A copy of the textbook and the solutions manual are available through the library Reserves for 2-hour use. You will need your ID to have them released to you. Ask for these items at the front desk.

Grading Policies.

A student's course grade will be calculated as follows:

Exams (Average of 4 in-class exams)	64 %
Final Exam	16 %
HW (Connect)	15 %
Discussions	5 %
Total	100 %

Course grades will be assigned according to the scale shown:
>90 = A-/A 76 – 89.9 = B-/B/B+ 60 – 75.9 = C-/C/C+ 53 – 59.9 = D/D+ <53 = F

A student's grade is earned by demonstrating mastery/proficiency of the course material as evinced by the quality of the student's performance in exams, assignments, and group work. It is *not* open to negotiation nor dictated by what's needed to progress in the student's chosen program of study. **Note**: You need a C- to move on to any other chemistry course in our department.

No make-up exams will be given. The Final Exam score will replace the grade of one of the four in-class exams that is missed. This policy is designed to assist those students who miss an exam due to injury, illness, or family need. These students are then

able to focus on rest and recovery, or on meeting family needs, without the additional stress of arranging for a make-up exam. Students who miss an exam should not inquire as to whether they may be given a make-up exam.

Exam Format and Rules.

Exams will be a mix of multiple choice and short answer questions. Each exam may require you to use information and concepts learned in previous chapters, so all exams are cumulative

You will be assigned a seat in Beaupre 100 for taking all exams. You will receive a zero for a grade if you are not in your assigned seat for the exam. On exam days, wait outside the classroom until you are instructed to enter. All belongings must be left near the front of the room. Bring a pen (exams must be written in blue or black non erasable ink), your URI ID, and a scientific calculator. Once you have started the exam, you may not leave the room until you are finished. Please note that if the University is closed for any reason on an exam day, the exam will be given on the next class day the University is open.

Exam answers and scores will be posted in Brightspace. Any errors in grading must be brought to my attention within 48 hours of the material being handed back in class. Note that any request for re-grading must be submitted in writing and will result in the entire exam being re-graded. ***Exams must be taken in non erasable ink to be eligible for regrading***.

Group Work (GW).

The GW will count as 25 points of the exam score for the corresponding chapters. Part of your learning experience in this class will involve working in groups of 4 – 5 students solving problems given in worksheets. There will be 4 worksheets covering the material from each chapter.

You will be assigned to a group at the beginning of classes and will work together with your group throughout the course. Each group will submit one copy of the completed worksheet as a scanned **pdf file** uploaded to Brightspace by the due date. Only one file per group will be accepted. Due dates are indicated in the schedule below and **no late work** will be accepted. You can use WebEx, Zoom, or Google Hangouts to meet with your group. Go to: https://its.uri.edu/student-key-services/ for login information. You will need to login using the university SSO.

Assignments (HW).

There will be 8 HW assignments, one for each chapter we will cover plus an introductory one to get you acquainted with Connect. Information on how to register for Connect is given in Brightspace. HW due dates are indicated in the schedule below as well as in Connect. You are given unlimited chances to submit the HW with only the best score being counted. Late HW will be accepted with a 2% credit loss per day. This is done automatically in Connect and requests for extensions are not required. ***Last day to submit all late HW is 5/1/23***.

The HW assignments are long so do not wait until the last minute to start on them. Ideally, you should be working on them as you learn the material. Since the assignments are considered as study tools, you may work on them with your study groups. However, ensure that you are gaining understanding of the material instead of relying on others or just clicking the answers until you get the correct one. Gaming the system will be unproductive in the long run. Note that while some HW assignments are due on exam days for those chapters, I would advise you to do them before the exams.

Discussions.

The Discussions forum for each chapter is available in Brightspace at 6:00 AM of the day we start a chapter and closes at 11:59 PM of the exam day for the chapter. You need to post at least **2 responses** to other students' posts in the forum to earn the points. Note that you need to start a thread before you can post responses. As a starting activity, introduce yourself to your fellow students by posting something about yourself (in less than 5 sentences) to start a thread, then post responses to 2 other students' posts.

Anti-Bias Statement.

We respect the rights and dignity of each individual and group. We reject prejudice and intolerance, and we work to understand differences. We believe that equity and inclusion are critical components for campus community members to thrive. If you are a target or a witness of a bias incident, you are encouraged to submit a report to the URI Bias Response Team at www.uri.edu/brt. There you will also find people and resources to help.

Disability Accommodations.

Your access in this course is important. Please send me your Disability, Access, and Inclusion (DAI) accommodation letter early in the semester so that we have adequate time to discuss and arrange your approved academic accommodations. DAI can be reached by calling: 401-874-2098, visiting: https://web.uri.edu/disability/ or emailing: dai@uri.edu.

Help Sources. (In addition to Dr. Ngo's office hours)

- Beaupre 115 Chemistry Learning Center. Help is available from Chemistry TAs at the Learning Center. A link to the TA schedule will be posted in Brightspace once it is finalized.
- AEC (Academic Enhancement Center). Located in Roosevelt Hall, the AEC offers free face-to-face and web-based services to students seeking academic support. Peer tutoring is available for STEM-based courses by appointment online or in-person. Academic skills consultations offer students strategies and activities aimed at improving their studying and test-taking skills. Additional information is available at their website (https://web.uri.edu/aec/).

Whether you're seeking help from Dr. Ngo, an AEC Tutor, or a Chemistry TA, you'll want to arrive at your help session *on time* and *fully prepared*, so as to make the discussion as productive and efficient as possible. This means you should bring all relevant study/reference materials with you to the session (e.g., lecture notes, study notes, *written* list of specific questions).

Academic Integrity.

The university policy on academic honesty will be strictly enforced. Any incidence of academic dishonesty, as defined by the policies outlined in the URI's Student Handbook, will result in either one or all of the following**: a grade of zero for the exam, failure for the course, formal notification to the Dean.** While students are encouraged to study together, exams must represent the work of the individual student.

- Unauthorized possession or access to exams
- Unauthorized communication during exams
- Unauthorized use of another's work or preparing work for another student
- Taking an exam for another student
- Altering or attempting to alter grades
- The use of notes or electronic devices to gain an unauthorized advantage during exams
- Facilitating or aiding another's academic dishonesty

Email.

All email communications will be done through your URI email so make sure you check it regularly. I am teaching three different courses this semester, so to ensure that your email will be answered, it must include **CHM 112** in the subject line. Please write a clear and concise message and be sure to include your full name. Emails will generally be answered within 48 hours of receipt. Emails received after 5:00 PM on a Friday will be answered the following Monday. Responses to email may be in the form of direct email or announcement/email from Brightspace. If you need to discuss personal matter, please make an appointment in Starfish for the Tuesday/Thursday office hours.

CHM 112 Lecture/Exam Schedule

The breakdown for each chapter will depend on the pace of the class. You are responsible for all of the material in each chapter unless announced differently and for material presented during lectures, including those not in the text.

Week #	Monday	Wednesday	Friday
1	1/23 Syllabus; Skillcheck for CHM 101	1/25 Ch 13	1/27 Ch 13
2	1/30 Ch 13	2/1 Ch 13	2/3 Ch 14
3	2/6 Ch 14	2/8 Ch 14	2/10 Ch 14
4	2/13 Ch 14	**2/15** ***Exam 1 (Ch 13 – 14)***	2/17 Ch 15
5	2/20 No Class (Presidents' Day)	2/22 Ch 15	2/24 Ch 15, 16
6	2/27 Ch 16	3/1 Ch 16	3/3 Ch 16
7	3/6 Ch 16	3/8 Ch 16	**3/10** ***Exam 2 (Ch 15 – 16)***
8	3/13 No Class (Spring break)	3/15 No Class (Spring break)	3/17 No Class (Spring break)
9	3/20 Ch 17	3/22 Ch 17	3/24 Ch 17
10	3/27 Ch 17	3/29 Ch 17	3/31 Ch 17, 18
11	4/3 Ch 18	4/5 Ch 18	**4/7** ***Exam 3 (Ch 17; ½ of Ch 18)***
12	4/10 Ch 18	4/12 Ch 18	4/14 Ch 18
13	4/17 Ch 18	4/19 Ch 19	4/21 Ch 19
14	4/24 Ch 19	4/26 Ch 19	4/28 Ch 19
15	**5/1** ***Exam 4 (1/2 of Ch 18 – 19)***	5/3 Reading day	**5/5 *Final Exam*** ***8:00 – 10:00 AM***

Connect Assignment/Group Work Schedule

	Week #	Monday	Tuesday	Wednesday	Thursday	Friday
Jan/Feb	**2**	1/30 HW-Intro				2/3 HW 13
February	**3**					
	4	2/13 GW 1		2/15 HW 14		
	5					
	6	2/27 HW 15				
March	**7**			3/8 GW 2		3/10 HW 16
	8					
	9					
	10					3/31 HW 17
April	**11**			4/5 GW 3		
	12					
	13			4/19 HW 18		
	14					4/28 GW 4
May	**15**	5/1 HW 19				