CHM 112 – GENERAL CHEMISTRY II
SYLLABUS – FALL 2022 (UPDATED - 8/18/2022)

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Office Hours (Consultations)

Appointments are not required but students with appointments receive priority for that time slot. I anticipate holding official office hours on Tuesdays, Wednesdays, and Thursdays each week in person and/or online via Zoom, with specific times listed on BrightSpace and URI's Starfish Success Net.

- Appointments can be made using Starfish
- Students should not sign up for more than 2 consecutive time slots, but are welcome to stay longer if no one else needs assistance
- For appointments outside office hours, email me for availability or just stop by my office to see if I am available. Most weeks I am on campus Monday through Friday (also on Saturdays and Sundays I *may* be there).

Course Description

CHM 112 continues laying the foundation for future chemistry, biochemistry, pharmaceutical, and engineering courses that was started in CHM 101. The terminology, fundamental principles, and theories presented in CHM 112 will be heavily used in those future courses. An understanding of the material presented and the ability to apply the concepts being studied to real-world problems is essential for many different fields of study.

Resources & Required Course Materials

- **Textbook:** *Chemistry: Atoms First* by Julia Burdge, 4th edition.
- **Brightspace:** Brightspace will be used to post grades and for all official course communications; therefore, it is ESSENTIAL that you regularly check the Brightspace site and your URI email to ensure that you do not miss important information. Brightspace will also contain links to course materials and various other study resources.
- **Lecture Presentations:** will be conducted in person every week (2 PM on Tu, Th). It is highly recommended that you attend lectures - that will help you to better focus on and comprehend the science material being discussed during a particular week. Plus, there will be graded quizzes.
- **Optional Practice Sessions:** will be held on a weekly basis in person. Each practice session will entail solving problems pertinent to the current week lecture content. It is highly encouraged to participate in those sessions to help with the coursework.
- **Online Homework:** *McGraw Hill's Connect*; both the on-line homework and the SmartBook assignments are required as part of your grade. Information on how to access Connect will be posted on the course Brightspace site.
- **Calculator:** CHM 112 is a math intensive course, and a scientific calculator will be an essential tool for lecture, exams, and out of class assignments. Keep in mind: **graphing**

calculators with advanced functionalities, such as the ability to access the internet, capture images, communicate wirelessly, and display pdf and other non-text files, will not be allowed on exams. Older graphing calculators, such as the TI-83, are acceptable. Newer models that are **not** able to access the internet, capture images, communicate wirelessly, etc., can also be used.

Additional Study Help Resources

- **Beaupre Learning Center:** Teaching assistants keep regular office hours at the Help Office. This is a great opportunity for students to work on questions. The CHM 112 Brightspace site will contain a link to the schedule of TA office hours once that schedule becomes available.
- **Academic Enhancement Center (AEC):** The Academic Enhancement Center, located in Roosevelt Hall, is staffed with tutors and academic coaches that are trained to help you with difficult concepts in a variety of courses. Visit the URI AEC website at **uri.edu/aec** for more information.

Class Meetings

Section 2: in-person lectures at Beaupre 100, optional practice sessions at set times (locations may vary and will be announced).

Disability Accommodations

Your access in this course is important. Please send me your Disability Services for Students (DSS) accommodation letter early in the semester so that we have adequate time to discuss and arrange your approved academic accommodations. If you have not yet established services through DSS, please contact them to engage in a confidential conversation about the process for requesting reasonable accommodations in the classroom. DSS can be reached by calling: 401-874-2098, visiting: web.uri.edu/disability, or emailing: dss@etal.uri.edu. We are available to meet with students enrolled in Kingston as well as Providence courses.

Grading & Testing Policies

Course grades will be determined by each student's performance on all assignments and exams. The final grade will be calculated as follows:

Connect Homework, SmartBook, Quizzes	15 %
4 Lecture Exams (17% each)*	68 %
Final Exam	17 %
Total	**100%**

***The lowest (or missed) lecture exam score will be dropped, whereas YOUR FINAL EXAM SCORE IS UNDROPPABLE. The purpose of this policy is to eliminate the need for make-up exams**.

Formula for calculating course average:

Course Average = (Exam Average * 0.85) + (Homework average * 0.15)

At the end of the semester, the exam average will include five exams (four lecture exams and the final exam). The homework average will include Connect homework, SmartBook assignments, and quizzes.
Lecture exams are planned to be completed during lecture meeting times. Students will be taking exams at Beaupre 100 (default), using MGH Connect, Brightspace, and paper or some combination of those three learning utensils. All work must be shown (as required) for full credit.
If you believe that there is an error in your exam grade, **you must bring your concern to my attention within 48 hours of the exam being score being published.** No grade changes will be considered after this time. Any request for re-grading must be submitted in writing (e-mail), and the **entire exam** will be looked at during re-grading.

Students receiving disability accommodations, participating in **University-sanctioned** events, or observing religious holidays may receive alternative testing accommodations. These arrangements require approved documentation. Written notification of a request for alternative testing accommodations must be made **at least one full week prior to the scheduled exam period**. **If you are participating in a University activity that requires frequent travel (i.e. sports team, band, etc.), please check the exam schedule now and contact me as soon as possible if your travel will cause you to miss any exams so that you can be set up to take the impacted exam(s).**

Quizzes may be given periodically to help students evaluate their understanding and to encourage them to attend course meetings. Quizzes will be graded, and one quiz grade will be dropped to reduce the need for make-ups.

Grades in CHM 112 are based on a student's level of mastery of the material presented and must be earned by demonstrating proficiency in the required skills. Grades are not negotiable and are NOT determined by what is required by a student's desired degree program. The following grading scale will be used:

≥90% = A/A-; 80-89% = B-/B/B+; 66-79 = C-/C/C+; 55-65% = D; <55% = F

Incomplete Policy

Incomplete grades cannot be assigned except in the case of a real emergency. Any grade of incomplete must be approved by the department chair and the dean. In order to receive an incomplete, a student's **course work must have been passing** and the student **must have completed at least half of the coursework for the semester**. Incompletes should be made up within one year of the semester in which the grade of incomplete was assigned. **If an incomplete is not made up prior to the two year deadline established by the University, the "I" will be replaced with a grade calculated for the student based on the work completed and including zeroes for any work not completed.**

Assignments

McGraw Hill's Connect on-line homework and SmartBook items will be used for graded assignments. **Students see the greatest value from these tools when they register**

for Connect as soon as possible and complete all assignments in a timely manner. A link to the course Connect site will be posted on Brightspace.

To receive full credit, online homework assignments must be completed by 11:59 pm on the date indicated on the list of assignments in Connect. **Homework assignments can be attempted multiple times, with the attempt that has earned the largest number of points being used in the calculation of the final homework average.** Homework assignments can also be submitted in multiple attempts (e.g. some problems completed in one attempt and other problems completed in a different attempt) as long as you send me an email to let me know that you would like me to look at multiple attempts when calculating your homework average. Late homework will be accepted at a loss of 2 % credit per day. Late points are automatically deducted by the Connect program, so requests for extensions are not required. **Homework assignments will take time – do not wait to start your homework assignments until the night before they are due!**

Connect does not have a function to allow the automatic late submission of assignments, so **if you would like to complete an activity past the due date, you must send me a request via email. There is no limit to the number of requests for extensions on assignments**. If you do not request an extension, your grade for the assignment will be calculated by the Connect program based on the percentage completed prior to the date and time the assignment is due. All extensions will end on the last day of classes; however, it is not recommended that you wait until the end of the semester to complete your assignments because you are likely to run out of time and end up receiving zero credit for the assignments you did not have time to complete.
Homework assignments, SmartBook items, and Quizzes will be averaged together to determine the final Homework Average. For this calculation, homework assignments will be counted as the number of points earned on that assignment and SmartBook items will be counted as the number of points equal to the percentage of the assignment that was completed. Quizzes will be 10 points each. The number of points earned will be divided by the total number of points for all assignments. Since homework assignments are often worth more than 100 points, the homework assignments are worth more overall than the SmartBook items.
General chemistry contains many special terms. While the importance of these terms and the connections between them will be discussed in lectures, it is the students' responsibility to use their textbook to find the definitions.

Brightspace will be used to provide various learning tools and any additional assignments. This semester, a **brief math diagnostic test** may be provided at the semester start. The results of the test might suggest that you can complete certain recommended math modules to help you with CHM 112 math items. Worries aside, this test is not supposed to make any disqualifications, rather, it is yet another help tool in the CHM 112 course armamentarium.

Academic Integrity

Academic dishonesty is a serious offence, and URI's policy on academic honesty will be strictly enforced. Understanding the culture of source management and attribution in academe is a process of learning and relearning, with increasing complexity over time. Our goal is to better distinguish between intentional plagiarism or cheating, and making

mistakes. URI's Student Handbook (web.uri.edu/studentconduct/student-handbook/) provides guidelines concerning academic honesty in this regard. Additional assistance is available at the Writing Center and the Academic Enhancement Center. It may be useful to add a statement in your syllabi using the following language:
Students are expected to be honest in all academic work. A student's name on any written work, quiz or exam shall be regarded as assurance that the work is the result of the student's own independent thought and study. Work should be
stated in the student's own words, properly attributed to its source. Students have an obligation to know how to quote, paraphrase, summarize, cite and reference the work of others with integrity. The following are examples of academic dishonesty.

- Using material, directly or paraphrasing, from published sources (print or electronic) without appropriate citation
- Claiming disproportionate credit for work not done independently
- 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
- Fabricating or falsifying facts, data or references
- Facilitating or aiding another's academic dishonesty
- Submitting the same paper for more than one course without prior approval from the instructors

VIOLATION OF THIS POLICY MAY RESULT IN THE STUDENT RECEIVING A FAILING GRADE FOR THE ASSIGNMENT OR FOR THE ENTIRE COURSE.

University COVID General Statement

The University is committed to delivering its educational mission while protecting the health and safety of our community. While the university has worked to create a healthy learning environment for all, it is up to all of us to ensure our campus stays that way.
As members of the URI community, students are required to comply with standards of conduct and take precautions to keep themselves and others safe. Visit web.uri.edu/coronavirus/ for the latest information about the URI COVID-19 response.

- Universal indoor masking is required by all community members, on all campuses, regardless of vaccination status. If the universal mask mandate is discontinued during the semester, students who have an approved exemption and are not fully vaccinated will need to continue to wear a mask indoors and maintain physical distance.
- Students who are experiencing symptoms of illness should not come to class. Please stay in your home/room and notify URI Health Services via phone at 401-874-2246.
- If you are already on campus and start to feel ill, go home/back to your room and self-isolate. Notify URI Health Services via phone immediately at 401-874-2246.

If you are unable to attend class, please notify me prior to the start of class via e-mail. We will work together to ensure that course instruction and work is completed for the semester.

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.

Course Schedule

***Note that changes may be made to this schedule due to pandemics, weather, pace of the class, or other considerations. If school is closed on an exam day (e.g. force of nature day), THE EXAM WILL BE HELD ON THE NEXT DAY THAT THE LECTURE IS PRESENTED.**

Chapter	**Title**	**Week/Date**
13	Physical Properties of Solutions	1-4
14	Chemical Kinetics	
Exam 1	**Chapters: 13 & 14**	**September 29th**
15	Entropy and Gibbs Energy	5-8
16	Chemical Equilibrium	
Exam 2	**Chapters: 15 & 16**	**October 27th**
17	Acids, Bases, and Salts	9-11
18	**Acid-Base Equilibria** and Solubility Equilibria	
Exam 3	**Chapters: 17 & first part of 18**	**November 17th**
18	Acid-Base Equilibria and **Solubility Equilibria**	12-14
19	Electrochemistry	
Exam 4	**Chapters: second part of 18 & 19**	**December 8th**
****Final Exam: Thursday December 15th 3:00 PM – 5:00 PM**		

** Final exam dates are set by the University and are subject to change

Important Fall 2022 Semester Dates

Sept. 6	Advising Day
Sept. 7	Classes begin (pro-rata billing period for all classes begins)
Sept. 7-13	e-Campus Open Add Period
Sept. 14-20	e-Campus Permission Number Late Add Period
Sept. 20	Last day to add Pass/Fail Option

Sept. 29	Courses dropped on or after this date will have a “W” for Withdrawal recorded on the academic record (transcript)
Oct. 10	Columbus Day - Classes do not meet, offices are closed
Oct. 19	Last day for students to DROP courses in e-Campus (late drop form required after this date)
Oct. 21	Mid-semester
Oct. 21	Last day to CHANGE from Pass/Fail Option
Oct. 25	Freshmen Mid Term Grades and Mid Term Surveys due in e-Campus by 12:00 PM
Nov. 8	Election Day - Classes do not meet, offices are closed
Nov. 9	Friday Classes meet (Veterans Day Class make up)
Nov. 11	Veteran’s Day Classes do not meet, offices are closed
Nov. 24 – Nov. 27	Thanksgiving Recess Classes do not meet
Dec. 13	Last Day of Classes
Dec. 14	Reading day
Dec. 15-16, 19-21	Final Examinations
Dec. 22	Final Exams Make-up Day. (Used only in the event of Official Snow Delay or Cancellation)
Dec. 28	Final grades due in e-Campus by 12:00 PM
Dec. 31, 2022	Official date for December graduation

Please keep in mind that if unprecedented circumstances occur in the Fall semester of 2022, the given syllabus contents are subject to change.

Final Note on How to Achieve Great Success in CHM 112

CHM112 is a math-intensive course that requires a true understanding of the material being presented – **memorization alone is not enough**. CHM 112 can be a challenging course, but **with sufficient effort success is possible**! Success in this course requires significant effort from the student. You will be expected to understand many complex processes and to master numerous mathematical skills.

It is EXTREMELY important for you to stay on top of your work. Many of the scientific topics that are covered later in the semester build upon those that are learned earlier in the semester – early mastery of those concepts will make it much easier for you to understand later material.

Successful CHM 112 students are those who put in the necessary effort starting at the very beginning of the semester. You will want to attend lectures, take notes, participate in practice sessions, and exercise what you have learnt. Make sure to complete all assignments in a timely manner. Actively work to learn the material throughout the semester.

If you find that you are struggling, **SEEK HELP RIGHT AWAY**. Use the Starfish Success Net (there will be a link on the Brightspace site) to make an appointment to see me or simply stop by my office (if allowed by pandemic guidelines) – I am glad to go over the material that you are struggling with, answer questions about homework problems, etc. You can also visit the TAs during their office hours or the tutors in the AEC. The important thing is that you get help **EARLY!**

If you have any questions, do not hesitate to reach out!