CHM 112 – GENERAL CHEMISTRY II
SYLLABUS – SPRING 2024

Instructor: Dr. Maria Donnelly
Office: Beaupre 117C (entrance to the Beaupre 117 office suite is inside room 115)
Email: madon@uri.edu
Office hours: My door is generally open, and students are welcome to stop by any time that I am in my office to ask if I am available. Appointments are not required but students with appointments receive priority for that time slot. Official office hour times for scheduled appointments will be listed on URI's Starfish Success Net.

- Appointments can be made using Starfish and should be scheduled 24 hours in advance.
- 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. While labs are in session in the spring, I will generally be on campus at least Tuesday – Friday from 11:00am until the end of the 2:00pm lab sessions (earlier on Tuesday & Thursday for lecture and on Wednesday when the CHM 102 labs begin at 8:00am).

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 these 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:** McGraw Hill <u>Chemistry: Atoms First</u>, Burdge/Overby, 4th Edition. (electronic or paper)
- **Brightspace & URI email:** Brightspace will be used to post grades and for 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. You may need to opt into receiving email notifications from Brightspace. Brightspace will also contain links to course materials, some bonus assignments, and various other study resources.
- **Lecture Slides**: **Partial** lecture presentations will be available through a link in Brightspace prior to each class meeting (or earlier). It is highly recommended that you bring a copy of these notes with you to class – they will provide an outline for you to use when taking notes that will help you to better focus on, and record, the information being discussed in class. Note that these are PARTIAL lecture notes. They are intended to assist you in your note-taking while in lecture – they are NOT a substitute for regular class attendance and will NOT supply all of the information that you will need to successfully pass CHM 112. For example, the partial presentations will include the example problems that we will cover in lecture, but they will not include the solutions to those problems.
- **Online Homework:** McGraw Hill's Connect; both the on-line homework and the Smart Book assignments are required as part of your grade. Information on how to access Connect can be found 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 homework assignments. **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, but will require a sticker indicating that they are acceptable to use during exams, especially if they are visually similar to more advanced models. Information on how to obtain a sticker will be provided prior to the first exam. A limited number of basic scientific calculators will be available for use during exams. If you will need to borrow one of these calculators for your exams, and you let me know in advance, I will make sure that one is available for you. You will

need to supply an ID to borrow a calculator; the ID will be returned to you when you turn in the calculator.

Class Meetings for CHM 112 Section 3: Tuesday & Thursday, 9:30 – 10:45 am in Beaupre 100

Additional Study Help Resources
- **Beaupre Learning Center:** Teaching assistants keep regular office hours in the Learning Center (Beaupre 1st floor, room 115). This is a great place for students to study and work problems together, especially since it is conveniently located near the offices of many of the teaching faculty, including my own. 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 (AEC) offers face-to-face and online services to undergraduate students seeking academic support. Services are based out of Roosevelt Hall, the Carothers Library room LL004, and online. Peer tutoring is available for STEM-related courses through drop-in centers and small-group tutoring. The Writing Center peer consultants offer feedback focused on supporting undergraduate writers at any stage of a writing assignment. The UCS 160 course and one-to-one Academic Skills Consultations offer strategies for improving studying and test-taking skills. Complete details about each of these programs, up-to-date schedules, contact information, and self-service study resources are all available on the AEC website, uri.edu/aec. **STEM & BUS Tutoring** helps undergraduate students navigate a variety of 100 and 200 level STEM & BUS courses through free peer tutoring in-person and online. Students can select **occasional or weekly tutoring sessions** through the TracCloud system or visit the Drop-In Center, located in the Carothers Library lower level room LL004. The TracCloud application is available through URI Microsoft 365 single sign-on and more detailed information and instructions can be found at uri.edu/aec/tutoring.

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:

Online Homework, Smart Book, & Attendance Quizzes	15 %
4 Semester Exams* (17 % each)	68 %
Final Exam	17 %
Total	**100%**

*****YOUR IN-PERSON FINAL EXAM SCORE WILL TAKE THE PLACE OF A SINGLE EXAM MISSED DURING THE TERM** (i.e. it will count twice). To maintain consistency in grading, for students who do not miss an exam, the final exam may take the place of their lowest lecture exam if the final exam grade is higher. **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 semester exams plus the final exam). The homework average includes homework, Smart Book, & attendance quizzes.

Lecture Exams will be given during class time in Beaupre 100. Students will be assigned a seat and given an exam with their name on it. **Students must sit in the assigned seat and take the exam given to them. MAKE SURE TO HAVE YOUR STUDENT ID WITH YOU ON EXAM DAYS.** Proctors will check your student ID when you hand in your exam to make sure that the correct student is taking each exam. All work must be shown to receive full credit on exam problems.

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 exams being handed back in class.** No grade changes will be considered after this time. Any request for re-grading must be submitted in writing along with the **complete original exam**, 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 alternate testing accommodations. These arrangements require approved documentation. Written notification of a request for alternate testing accommodations must be made **at least one full week prior to the scheduled exam**. Students with alternate testing accommodations should contact me at the beginning of the semester to discuss their options for exam locations. **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 appropriate arrangements can be made.**

Unannounced "quizzes" may be given periodically to help students evaluate their understanding of course material and to encourage students to attend class. Grades will be based on attendance ("attendance quizzes"), and one quiz grade will be dropped to eliminate 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. In order to receive an incomplete, a student's **coursework must have been passing** and the student **must have completed at least half of the coursework for the semester.** Students receiving a grade of Incomplete should discuss arrangements to complete the work prior to the following midsemester. **If an incomplete is not resolved within two years, or the semester before the student graduates, whichever comes first, 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. If the student does not discuss arrangements to resolve the incomplete by the end of the semester following the incomplete, the grade of "I" may be changed to a grade calculated for the student based on the work completed and including zeroes for any work not completed as early as the end of that semester unless there are extenuating circumstances which prevent a discussion on resolving the incomplete from being held at that time.**

Assignments
McGraw Hill's Connect on-line homework and Smart Book programs 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 can be found on Brightspace. Temporary courtesy access is available for students who are not able to purchase an access code right away.

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.** Combinations of assignments can be used if the student emails me to let me know that an assignment has been completed in multiple submissions. Late homework will be accepted at a loss of 2% credit per day. Late points are automatically deducted; requests for extensions are not required.

The Smart Book assignments can be submitted late without penalty, but are more valuable when completed on-time as an introduction to the material being covered in class. All late assignments are due by the last day of the semester. The grade for incomplete Smart Book assignments will be calculated by the Connect program based on the percentage completed prior to the date and time the assignment is due.

Homework, Smart Book assignments, and Attendance Quizzes will be used to determine the final homework average; for this calculation, homework assignments will be counted as the number of points earned on that assignment and Smart Book assignments will be counted as the number of

points equal to the percentage of the assignment that was completed. Quizzes will be 20 points each. The total number of points earned will be divided by the total number of points possible to calculate the homework average. Since homework assignments are often worth more than 100 points, the homework assignments are worth more overall than the Smart Book assignments.

Brightspace will also be used to post various learning tools and any additional assignments.

Academic Integrity
Academic dishonesty is a serious offence, and URI's policy on academic honesty will be strictly enforced. Students are expected to be honest in all academic work. Some examples of academic dishonesty include:

- Unauthorized possession or access to current semester 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 such as calculators, computers, or cell phones **to gain an unauthorized advantage** during exams
- **Facilitating or aiding another's academic dishonesty**
- **Posting course materials to any website without written permission from the instructor**

ACADEMIC INTEGRITY VIOLATIONS MAY RESULT IN THE STUDENT RECEIVING A FAILING GRADE OR A ZERO FOR AN EXAM, AN ASSIGNMENT, OR FOR THE ENTIRE COURSE.

URI Syllabus Statements:

Viral Illness Precautions Statement: The University is committed to delivering its educational mission while protecting the health and safety of our community. Students who are experiencing symptoms of viral illness should NOT go to class/work. Those who test positive for COVID-19 should follow the isolation guidelines from the Rhode Island Department of Health and CDC.

Academic Honesty: 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.

Excused Absences: Absences due to serious illness or traumatic loss, religious observances, or participation in a university sanctioned event are considered excused absences. Students are responsible for work missed during an excused absence but will not be penalized by grading or assignment/exam make-up policies. Students should notify faculty in advance of absences due to religious observance or university-sanction events, and as soon as possible for other absences See University Manual sections 8.51.11-8.51.14 for details. (For this course, notification of absences is only needed for exams; details of the missed exam policy can be found in the grading section of this syllabus.)

Mental Health and Wellness: We understand that college comes with challenges and stress associated with your courses, job/family responsibilities and personal life. URI offers students a range of services to support your mental health and wellbeing, including the URI Counseling Center, MySSP (Student Support Program) App, the Wellness Resource Center, and Well-being Coaching.

Land Acknowledgement: The University of Rhode Island land acknowledgment is a statement written by members of the University community in close partnership with members of the Narragansett Tribe. The statement recognizes and pays tribute to the people who lived on and stewarded the land on which the University now resides. The statement seeks to show gratitude and respect to Indigenous people and cultures and build community with the Narragansett Nation and other Native American tribes.

University of Rhode Island Land Acknowledgment

The University of Rhode Island occupies the traditional stomping ground of the Narragansett Nation and the Niantic People. We honor and respect the enduring and continuing relationship between the Indigenous people and this land by teaching and learning more about their history and present–day communities, and by becoming stewards of the land we, too, inhabit.

Anti–Bias Syllabus 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, Access, and Inclusion Services for Students Statement: 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. If you have not yet established services through DAI, please contact them to engage in a confidential conversation about the process for requesting reasonable accommodations in the classroom. DAI can be reached by calling: 401–874–2098, visiting: web.uri.edu/disability, or emailing: dai@etal.uri.edu. We are available to meet with students enrolled in Kingston as well as Providence courses.

Rhody Outpost Basic Needs Pantry: Food insecurity affects up to 30% of college students. That means you might not have enough food to get through a day or week, you don't have money to purchase groceries or personal products, or you are primarily eating foods that don't provide a lot of nutrition because they're all you can afford. This can all impact your academic success. Rhody Outpost provides URI students who are food insecure with emergency food services and resources. The Outpost is housed at the Dining Services Warehouse at 10 Tootell Road, between Flagg Road and West Alumni Avenue. We are open every Friday from 3–5:30. Any student in need is welcome to visit the Outpost after filling out a brief request form. If you have questions about food or housing insecurity, contact Barbara Sweeney, Coordinator of Food Security Outreach, at barbara_sweeney@uri.edu, or 401–874–5633. We want to help all students succeed and make URI a place with #NoRamHungry.

Final Note on how to achieve success in CHM 112

CHM112 is a math intensive course that requires a true understanding of the material being taught – **memorization alone is not enough**. CHM112 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 CHM112 students are those who put in the necessary effort starting at the very beginning of the semester. You will want to prepare for and participate in all lectures, and practice what you have learned. 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 is a link in the Brightspace site) to make an appointment to see me, or just stop by my office to see if I am available – I am happy to go over material that you are struggling with, answer questions about homework problems, etc. You can also visit the TAs in the Beaupre Learning Center or the tutors in the AEC. The important thing is that you get help **EARLY!**

SCHEDULE*
*Note that changes may be made to this schedule due to weather, pace of the class, or other considerations. If school is closed on an exam day (e.g. snow day), THE EXAM WILL BE HELD ON THE NEXT DAY THAT THE CLASS MEETS. If we have not fully covered all of the chapters listed before an exam, only the topics covered in class will be included in the exam. More detailed information on the contents of each exam will be provided closer to the exam date.

Chapter	Title	Week/Date
13	Physical Properties of Solutions	1-3
14	Chemical Kinetics	
Exam 1	**Chapters: 13 & 14**	**Tuesday Feb. 13th**
15	Entropy and Gibbs Energy	4-6
16	Chemical Equilibrium	
Exam 2	**Chapters: 15 & 16**	**Tuesday March 5th**
17	Acids, Bases, and Salts	7-10
18	**Acid-Base Equilibria** and Solubility Equilibria	
Exam 3	**Chapters: 17 & first part of 18**	**Thursday April 4th**
18	Acid-Base Equilibria and **Solubility Equilibria**	11-13
19	Electrochemistry	
Exam 4	**Chapters: second part of 18 & 19**	**Thursday April 25th**
**Final Exam: Thursday May 2nd 8:00 – 10:00am		

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

Important Spring 2024 Semester Dates:
- Monday Feb. 12th – last day to drop courses with no transcript designation of "W"
- Monday Feb. 19th – President's Day, classes do NOT meet
- Monday March 4th – Last day to drop classes in ecampus (after this date, a form is required that must be signed by your Academic Dean)
- March 10th–17th – Spring Break
- Tuesday March 19th – Mid–Term grades (First Year Students)
- Monday April 29th – last day of classes
- Tuesday & Wednesday April 30th & May 1st – reading days
- Tuesday May 14th – final grades due in ecampus

Tentative Extended Schedule – Note that the dates in this schedule are tentative and subject to change based on pace of the course during the semester. See the Connect course site for the most current deadlines for each Homework and Smart Book assignment.

Assignment due – Blue

Date	Day	Chapters & Assignments	Date	Day	Chapters & Assignments
1/22	M		3/11	M	Spring Break
1/23	Tu	Introduction & CH 13	3/12	Tu	Spring Break
1/24	W		3/13	W	Spring Break
1/25	Th	CH 13	3/14	Th	Spring Break
1/26	F	CH 13 Smart Book due	3/15	F	Spring Break
1/29	M		3/18	M	
1/30	Tu	Chap 13 & 14; CH 13 HW due	3/19	Tu	CH 17
1/31	W		3/20	W	
2/1	Th	CH 14	3/21	Th	CH 17
2/2	F	CH 14 SB due	3/22	F	CH 17 HW A due
2/5	M		3/25	M	
2/6	Tu	CH 14; CH 14 HW A due	3/26	Tu	CH 17 & 18; CH 18 SB due
2/7	W		3/27	W	
2/8	Th	CH 14 & 15	3/28	Th	CH 18
2/9	F	CH 14 HW B due	3/29	F	CH 17 HW B due
2/12	M		4/1	M	
2/13	Tu	**Exam 1 Chapters 13 & 14**	4/2	Tu	CH 18; CH 18 HW A due
2/14	W		4/3	W	
2/15	Th	CH 15; CH 15 SB due	4/4	Th	**Exam 3 Chapters 17 & 18pt1**
2/16	F		4/5	F	
2/19	M		4/8	M	
2/20	Tu	CH 15 & 16; CH 16 SB due	4/9	Tu	CH 18
2/21	W		4/10	W	
2/22	Th	CH 16	4/11	Th	CH 18
2/23	F	CH 15 HW due	4/12	F	CH 19 SB due
2/26	M		4/15	M	
2/27	Tu	CH 16; CH 16 HW A due	4/16	Tu	CH 19; CH 18 HW B due
2/28	W		4/17	W	
2/29	Th	CH 16	4/18	Th	CH 19
3/1	F	CH 16 HW B due	4/19	F	CH 19 HW A due
3/4	M		4/22	M	
3/5	Tu	**Exam 2 Chapters 15 & 16**	4/23	Tu	CH 19; CH 19 HW B due
3/6	W		4/24	W	
3/7	Th	CH 17	4/25	Th	**Exam 4 Chapters 18pt2 & 19**
3/8	F	CH 17 SB due	4/26	F	

Final Exam: Thursday 5/2 at 8:00am in Beaupre 100 (regular lecture hall)