Instructor: Dr. Shahla Yekta
Email: shahla_yekta@uri.edu

Class Meetings in Shep Bldg 315: Mo/We 6:00 pm – 9:45 pm

In-Class Exam Dates (exams will be held during class time in Shep Bldg 315)

Exam 1: Friday 5/31
Exam 2: Wednesday 6/5
Exam 3: Wednesday 6/12

Cumulative Final Exam: Wednesday June 19 6:00 pm – 9:00 pm in Shep Bldg 315

Books/Resources
- Textbook: “Chemistry 103, Seager/Slabaugh, 8th Edition” (At URI bookstore or the Feinstein bookstore). NOTE: We will not use OWLv2 online program for this course.
- CHM103 Skills Practice Book. This book is required for the course.

Course Site
Any relevant material for course is available electronically on Sakai. It is your responsibility to read and be familiar with the contents of this syllabus and any due dates for course material. All official communications will be through Sakai (http://sakai.uri.edu/portal). You are responsible for checking the Sakai site and your my.uri email regularly.

Course Description: CHM 101 is the first course of a two-semester course in college chemistry. It covers fundamental chemical concepts and principles with an emphasis on quantitative problem solving.

Course Learning Objectives
- Understand the chemical principles associated with the atom, e.g. atomic theory, electronic configuration, quantum numbers
- Understand periodic trends, e.g. electronegativity, ionization energy, electron affinity, physical properties, atom and ion size
- Realize quantitative relationships in chemical processes, e.g. mole, molar mass, empirical formula, balancing equations, net ionic equations, gram/mole conversion, yields, mole ratios
- Understand factors that affect bonding patterns in compounds
- Understand principles governing solutions and the means of expressing concentrations, e.g. molarity, molality, mole fraction, mass percent
- Learn about oxidation-reduction reactions and how to determine oxidation states
- Understand reaction equilibria and Le Châtelier’s Principle,
- Learn the principles that govern gases, e.g. gas laws, ideal gas equation, Dalton's law of partial pressures
Student Learning Outcomes
Upon successful completion of this course, students will be able to:

- Identify chemical principles relating to: matter; physical and chemical processes; chemical structures; chemical bonds
- Recognize the theories and models chemists use to explain natural phenomena
- Frame questions and answer them by distilling and correlating principles and theories they have learned
- Use periodic trends to predict properties of substances; predict reaction products and balance chemical reactions; estimate physical properties based on intermolecular forces of attraction; determine energetics involved in chemical and physical processes.
- Differentiate between factors that affect chemical processes; integrate various chemical principles to predict reaction outcomes; employ stoichiometry and dimensional analysis for quantitative relationships in chemical changes
- Read a word problem, determine what elements are needed and convert the problem into the appropriate mathematical equations needed to generate the correct solution.
- Restate the problem and to clearly list the mathematical steps required to generate a correct solution.
- Apply their algebraic skills and use a scientific calculator to correctly solve a multi-step problem.
- Review their work for mathematical errors and to apply a reality check to their answers before submitting work.
- Defend their answers to computational problems based on chemical concepts as well as mathematical models.

Class Participation
Class participation is mandatory for this course. It counts for 22% of your course grade and that is very significant. To be successful, students will need to consistently and diligently prepare for lecture, participate fully in every class session, and then practice the required skills—to become confident, competent and efficient at analyzing and solving problems. You will be handing in problems that you solve at the end of every lecture session.

Students need to plan for significant study time outside of class. A rule of thumb for most chemistry courses: students should expect to study two to three hours outside of class for every one-hour in lecture. Please realize that for Summer Sessions, this translates to at least 3.5 hours of study per day.

Students should prepare to participate actively in each lecture by:

- Becoming familiar with concepts to be presented in lecture ahead of time (by pre-viewing the Skills Summaries, and the relevant sections of textbooks).
- Staying current in practicing problems relevant to each lecture concept
- Reviewing concepts from previous lectures that are essential to learning new skills (By revisiting Skills Summaries, lecture notes, and worked practice problems).

In the event of an absence, students should plan to immediately obtain copies of missed lecture content, handouts, and announcements from fellow students in class (not from the instructor).

YOU CANNOT AFFORD TO FALL BEHIND IN THIS COURSE! EVERY new concept will build on material that students should have previously MASTERED. You MUST take responsibility for reviewing those concepts as per your own needs. Therefore, you MUST identify your own needs and weakness to master topics.
Course Grades

The course is graded strictly by the grades you achieve based on class attendance, the 3 in-class exams and the cumulative final exam. Grades in the CHM103 lecture are earned by demonstrating mastery and proficiency in the required skills; these skills include problem-solving, critical thinking, and the ability to apply course concepts within relevant scenarios. **There is no extra credit.**

To be clear: Each student’s grade is determined by the quality of the student’s performance on the lecture course work items. The grade is not open to negotiation, and it is not dictated by what is needed to progress in the student’s chosen program of study. The grade must be earned by achieving proficiency in the skills identified as essential to ongoing success in the student’s degree program.

If you miss a class, you will lose 10% of the class participation. If you miss a second class, you will receive a zero on that portion of the course. The final exam must be written for you the pass the class.

If your grade on the final exam is higher than one of the 3 in-class exams, it will replace that grade.

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

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<tr>
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<tbody>
<tr>
<td>Exams (average of 3 exams)</td>
<td>60 %</td>
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<tr>
<td>Final Exam</td>
<td>18 %</td>
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<tr>
<td>Class participation and assignments</td>
<td>22 %</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100 %</strong></td>
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Anyone who has the following overall average is guaranteed at least the grade shown: >94 = A; 90-93 = A-; 89-87 = B+; 86-84 = B; 83-80 = B-; 77-79 = C+; 76-74 = C; 73-70 = C-; 69-67 = D+; 66-64 = D; <63 = F.

**Note: You need a C- to move on to any other Chemistry course in our department!**

Exam Format and Rules

Exams may be a mix or entirely consist of multiple-choice questions, short answer questions and problems. All work must be shown to get credit. Each exam may require you to use techniques and concepts learned in previous chapters, so all exams are cumulative.

*Students must attend all examinations in the section they are registered.* **Things to bring to each exam: calculator, pen and your URI ID.** Cell phone calculators or any devices with internet capability are NOT allowed. Once you have started the exam, you may not leave the room until you are finished. **Exams must be taken in ink (no pencil).**

Any errors in grading must be brought to my attention within 48 hours of the material being handed back in class. No changes in any grades will be made after that point. Note that any request for re-grading means the entire exam will be re-graded.

If you are caught cheating on an exam or committing any act against the University’s academic integrity policy, you will receive a grade of zero on that exam. This grade cannot be dropped and will count toward your final grade.
Disability Accommodations
Alternate testing accommodations will be provided for students with a documented disability. Contact Disabilities Services for Students Office at 330 Memorial Union, 401-874-2098 as early in the course as possible. You must provide your approved documentation to me at the latest, one full week before the exam.

The Academic Enhancement Center (AEC)
At the AEC (www.uri.edu/aec) you can work alone or in groups, and tutors and professional learning specialists are available to help you to learn, manage your time and work, and study well. All services are free and no appointment is needed. You can call them for complete information at 874-2367, or just stop by the center on the fourth floor of Roosevelt Hall.

Academic Integrity
The university policy on academic honesty will be enforced. Any incidence of academic dishonesty, as defined by the policies outlined in the URI Student Handbook, will result in either one or all of the following: a grade of zero for the exam, failure for the course and formal notification to the Dean of Students.

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<thead>
<tr>
<th>Week #</th>
<th>Monday</th>
<th>Wednesday</th>
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<tbody>
<tr>
<td>1</td>
<td>5/20 Syllabus, CH 1</td>
<td>5/22 CH 2,3</td>
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<tr>
<td>2 (No Monday class)</td>
<td>5/29 (WED) CH 3,4</td>
<td>5/31 (FRIDAY) CH 4 Exam 1 (CH 1,2,3)</td>
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<td>3</td>
<td>6/3 CH 5,6</td>
<td>6/5 CH 6,7 Exam 2 (CH 4, 5, 6)</td>
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<td>4</td>
<td>6/10 CH 7,8</td>
<td>6/12 CH 8,9 Exam 3 (CH 7, 8, 9)</td>
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<td>5</td>
<td>6/17 CH 9</td>
<td>6/19 Final Exam (Cumulative) 6:00 pm – 9:00 pm</td>
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