CHM – 101 Spring 2017 General Chemistry I

Instructor: Dr. Mike McGregor
Office: 117 D Beaupre
Email: mmcgregor@chm.uri.edu
Office hours: use Starfish to make an appointment

All official communications will be through Sakai, you are responsible for checking the Sakai site and your my.uri email regularly
Course web site: Lecture notes, skill summaries, problem assignments and tutorials are available electronically on the course web site.

Teaching assistants keep regular office hours in the learning center, room 115

Syllabus

Text: General Chemistry, R. Chang 7th ed. McGraw Hill

Chapter	Title	Week
1	Introduction: Matter and Measurement	
2	Atoms, Molecules and Ions	
3	Stoichiometry: Chemical Calculations	
EXAM 1		2/9
4	Chemical Reactions in Aqueous Solution	
5	Gases	
6	Thermochemistry	
EXAM 2		3/2
7	Atomic Structure, Electron Configurations	
8	Atomic Properties, and the Periodic Table	
9	Chemical Bonds	
10	Bonding Theory and Molecular Structure	
EXAM 3		4/13
12	States of Matter and Intermolecular Forces	
13	Physical Properties of Solutions	
FINAL EXAM	8:00 am Beaupre 100	5/9

Grading: Each of 4 exam grades (23% each) includes the final exam.
8% for completing the online homework (Connect and Learnsmart)
Your final exam score will take the place for any exam missed during the term

CHM 101 learning outcomes

Gen Ed Outcome	Gen Ed Rubric Element	Specific Course Outcome
Knowledge: STEM Disciplines	**Identifies** facts, vocabulary, definitions, terms, concepts, people	Students will be able to identify chemical principles relating to: matter; physical and chemical processes; chemical structures; chemical bonds
	Recognizes concepts or tools relevant for application to a task	Students will be able to recognize the theories and models chemists use to explain natural phenomena
	Asks questions or frame hypotheses relevant to the task	Students will be able to frame questions and answer them by distilling and correlating principles and theories they have learned
	Collects information relevant to address the task – e.g. data; literature sources	Students will be able to: 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.
	Analyzes: Applies concepts to address the task	Students will be able to: 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

Gen Ed Outcome	Gen Ed Rubric Element	Specific Course Outcome
Mathematical, Statistical or Computational (MSC) Strategies	**A.1. Conceptualize: Interpretation and Representation** Finds The Necessary Information	Students will be able to read a word problem, determine what elements are needed and convert the problem into the appropriate mathematical equations needed to generate the correct solution.
	A.2. Conceptualize: Interpretation and Representation Make A Plan For How To Solve The Problem	Students will be able to restate the problem and to clearly list the mathematical steps required to generate a correct solution.
	B.1. Computation: Calculation, Application, Analysis Performs The Calculation Or Analysis.	Students will be able to apply their algebraic skills and use a scientific calculator to correctly solve a multi-step problem. Students will be able to use dimensional analysis to follow the units in a computational problem.
	B.2. Computation: Calculation, Application, Analysis Checks The Answer For Accuracy	Students will review their work for mathematical errors and to apply a reality check to their answers before submitting work. Students will be able to defend their answers to computational problems based on chemical concepts as well as mathematical models.

The Academic Enhancement Center

The Academic Enhancement Center helps URI students succeed through three services: Academic Coaching, Subject-Based Tutoring, and The Writing Center. To learn more about any of the services below, please visit *uri.edu/aec* or call 401-874-2367 to speak with reception staff.

- **Academic Coaching** is available to all students who would like to improve their academic success skills. Peer academic coaches meet with students in weekly, one-on-one appointments. The sessions are personalized and focus on a range of academic success topics, such as effective learning strategies, study skills, goal setting, time management and organization. Academic Coaching appointments should be scheduled in advance and are available through the last day of classes.
- **Subject Tutoring,** located on the fourth floor of Roosevelt Hall, helps students navigate course content in select STEM disciplines. Options for peer tutoring include: joining a *Weekly Tutoring Group*(for BIO, CHM, CMB, CSC, ECN, MTH, PHY, STA), stopping by a *Walk-In Center* (for CHM, MTH, PHY), or making a *One-Time Group Appointment*. To view more information about our offerings and schedules, please visit uri.edu/aec/tutoring.