Instructor: Dr. Elizabeth Kiesewetter
Email: ekiesewetter@uri.edu
Office: Beaupre 117E (access through 115)

Office Hours in Beaupre 117E:
T/Th 1p-2p
W 10a-11a and by appointment

Class Meetings in Beaupre 100: Section 2: T/Th 11:00 am – 12:15 pm

In-Class Exam Dates (exams will be held during class time in Beaupre 100)
Exam 1: Tuesday 2/14  Exam 3: Thursday 4/6
Exam 2: Thursday 3/9  Exam 4: Thursday 4/27

Cumulative Final Exam Section 2: Thursday 5/4 8:00 am – 11:00 am

Books/Resources
• Raymond Chang, General Chemistry: The Essential Concepts 7th edition: chapters 1-13 (skip ch. 11)
• Online access to Connect (Chang 7e), required

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 thermochemistry, e.g. first law of thermodynamics, heat, work, enthalpy, system, surroundings
• 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.

**Course Site**

All lecture notes, study guides and suggested problems are available electronically on Sakai. 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.** A link to the connect homework site is also posted on Sakai.

**Course Grades**

The course is graded strictly by the grades you achieve on the homework, the 4 in-class exams and the cumulative final exam. **There is no extra credit.** The final exam is cumulative and is mandatory for all students.

The final exam score will replace the grade of any one of the four lecture exams that is missed OR lower than the final exam score. **The purpose of replacing a missed lecture exam with the final exam score is to eliminate the need for a make-up exam. No make-up exams will be given. Students who miss an exam should NOT inquire as to whether they may be given a make-up test.**

Homework assignments will be administered through Connect. Your lowest homework grade will be dropped. Assignment due dates are clearly indicated in Connect and no extensions will be given. Homework due dates are also included in this syllabus. Only the assignments titled “Homework” will be graded. The sections titled “Extra Practice” and “LearnSmart” are for your use only and will not be graded. **Information and links for registering for Connect are given on my Sakai site.**

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Exams (average of 4 exams)</td>
<td>68 %</td>
</tr>
<tr>
<td>Final Exam</td>
<td>18 %</td>
</tr>
<tr>
<td>Connect homework (best 11 out of 12)</td>
<td>14 %</td>
</tr>
<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: A = 100-92; A- = 91-87; B+ = 86-82; B = 81-78; B- = 77-74; C+ = 73-70; C = 69-66; C- = 65-62; D+/D = 61-55; below 55 = F. **Note:** You need a C- to move on to any other Chemistry course in our department!
Exam Format and Rules
Exams 1-3 will consist of multiple choice questions and/or short answer questions and/or problems. All work must be shown to get credit. The format for the fourth exam and the final exam will be multiple choice. 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. 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. Things to bring to each exam: calculator, pen and your URI ID. Cell phone calculators or any devices with internet capability are NOT allowed. Headphones are NOT allowed. Once you have started the exam, you may not leave the room until you are finished. Exams 1-3 must be taken in ink (no pencil). Exam 4 and the final exam must be taken in pencil (NO ink). Please note that if the University is closed for snow or any other reason on an exam day, the exam will be given on the next class day the University is open.

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 must be submitted in writing and will result in the entire exam being re-graded. Exams must be taken in ink to be eligible for regrading.

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

Subject Tutoring, located on the fourth floor of Roosevelt Hall, helps students navigate course content in select STEM disciplines (including chemistry!). Options for peer tutoring include: joining a Weekly Tutoring Group, stopping by a Walk-In Center or making a One-Time Group Appointment. To view more information about offerings and schedules, please visit uri.edu/aec/tutoring.

Academic Integrity
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. The university policy on academic honesty will be strictly 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/or formal notification to the Dean of Students. The following are examples of academic dishonesty:

- 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
• Facilitating or aiding another’s academic dishonesty

Lecture/Exam Schedule Spring 2017

<table>
<thead>
<tr>
<th>Week #</th>
<th>Tuesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td>1</td>
<td>1/24 Syllabus, CH1</td>
<td>1/26 CH 1/2</td>
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<tr>
<td>2</td>
<td>1/31 CH 2</td>
<td>2/2 CH 3</td>
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<td>3</td>
<td>2/7 CH 3</td>
<td>2/9 CH 3</td>
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<tr>
<td>4</td>
<td>2/14 Exam 1 (CH 1, 2, 3)</td>
<td>2/16 CH 4</td>
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<tr>
<td>5</td>
<td>2/21 CH 4</td>
<td>2/23 CH 4/5</td>
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<td>6</td>
<td>2/28 CH 5</td>
<td>3/2 CH 6</td>
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<td>7</td>
<td>3/7 CH 6</td>
<td>3/9 Exam 2 (CH 4, 5, 6)</td>
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<td>8</td>
<td>3/14 No Class Spring Break</td>
<td>3/16 No Class Spring Break</td>
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<tr>
<td>9</td>
<td>3/21 CH 7</td>
<td>3/23 CH 7/8</td>
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<tr>
<td>10</td>
<td>3/28 CH 8/9</td>
<td>3/30 CH 9</td>
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<tr>
<td>11</td>
<td>4/4 CH 9</td>
<td>4/6 Exam 3 (CH 7-9)</td>
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<td>12</td>
<td>4/11 CH 10</td>
<td>4/13 CH 10</td>
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<td>13</td>
<td>4/18 CH 12</td>
<td>4/20 CH 12/13</td>
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<tr>
<td>14</td>
<td>4/25 CH 13</td>
<td>4/27 Exam 4 (CH 10, 12, 13)</td>
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Cumulative Final Exam in Beaupre 100 Thursday 5/4 8:00am – 11:00 am

Homework (HW) Due Dates Spring 2017
All homework assignments are due at 11:59 pm on the date listed below unless you are notified otherwise.

HW 1 (Chapter 1): Wed 2/1
HW 2 (Chapter 2): Mon 2/6
HW 3 (Chapter 3): Mon 2/13
HW 4 (Chapter 4): Fri 2/24
HW 5 (Chapter 5): Wed 3/1
HW 6 (Chapter 6): Wed 3/8
HW 7 (Chapter 7): Tues 3/28
HW 8 (Chapter 8): Thurs 3/30
HW 9 (Chapter 9): Wed 4/5
HW 10 (Chapter 10): Mon 4/17
HW 11 (Chapter 12): Mon 4/24
HW 12 (Chapter 13): Wed 4/26