

**CHMG-141 GENERAL & ANALYTICAL CHEMISTRY I FALL 2022**  
INSTRUCTOR: Dr. Lea Michel Office: GOS-3284 E-Mail: [lvmsch@rit.edu](mailto:lvmsch@rit.edu)

**Class:** Tuesdays and Thursdays 5-6:15 PM in GOS-1250  
**Office Hours:** Mondays 9-11 AM on Zoom or by appointment

**TEXTS:**

1. Chemistry: Atoms First; Zumdahl & Zumdahl [Recommended]
2. ***OWL2 homework system (online access) [REQUIRED]- Course key EYQD9R5SZDPLHS***

If you simply purchase “Cengage Unlimited”, you will have access to the eBook and the OWLV2 homework system. If you get just the one semester package, it WILL allow you access for 12 months. It will allow you to add a paper textbook for a nominal fee, and gives you access to ALL Cengage digital products.

**COURSE OUTLINE:**

**Objective:** Present college chemistry as a science based on empirical evidence that is placed into the context of conceptual, visual and mathematical models. Students will learn the concepts, symbolism and fundamental tools of chemistry necessary to carry on a discussion of chemistry. Emphasis will be placed on the relationship between atomic structure, chemical bonds and the transformation of these bonds through chemical reactions.

Throughout the course you will gain some important skills. These include:

- Dimensional analysis & unit conversion
- Basics of chemical nomenclature
- Balancing chemical equations
- Solving limiting reagent problems
- Chemical logic – Qualitative Analysis
- Use of the Periodic Table to predict behavior
- Working with moles, molar mass, and molarity

**The Lab**

All students should be registered for the 1-credit laboratory course, Chemical Principles I (CHMG-145) which meets for one 3-hour session each week. The lab is independent of the course and graded completely separately.

**The Lecture**

**Lecture** notes will be available on myCourses.

**Readings** for the lectures are indicated in the schedule. It is generally helpful to skim the reading assignment before lecture.

## **COURSE ASSESSMENT:**

Exams (3 – drop the lowest)	200 points
Final Exam	100 points
Homework (OWL)	50 points
Workshops, reflections, and activities	<u>50 points</u>
Total available points:	400 points

## **FINAL GRADE SCHEME**

A: 93-100%	B+: 87-89.9%	C+: 77-79.9%	D: 60-69.9%	F: <60%
	B: 83-86.9%	C: 73-76.9%		
A-: 90-92.9%	B-: 80-82.9%	C-: 70-72.9%		

## **Homework:**

Homework will be collected through the OWL V.2 online homework system.

These problem sets will help you understand my emphasis in the course. More importantly, the homework will guide you in the practice of chemistry. Practice is crucial to perform well in a quantitative, problem-oriented discipline such as chemistry. The schedule of topics is laid out in the accompanying “course schedule” and includes reading assignments from the book that correlate to the problems. Homework can be COLLABORATED UPON- I encourage you to work in teams.

**Each weekly assignment is due on Tuesday night at midnight (no exceptions).**

The total number of problems/points on the electronic homework is 50 points. The actual number of homework points will be higher than 50 but it will be scaled down to 50 points in your myCourses grade. So, for example, if there are 112 assigned OWL points and you get 118 points (yes, you can get over 100%), then your 118/112 (105.4%) gets recorded as 52.7 points on my courses (105.4% of 50 points).

## **Attendance:**

I am not requiring or monitoring attendance. I have been teaching for quite a while here at RIT, and I would fathom that 90% or more of my former students would suggest that you attend my lectures. Attendance typically correlates directly with grades.

## **Examinations:**

There will be three exams taking in-class during our normal time slot, as well as 1 final exam. These examinations will be cumulative, although the emphasis will be on “new” material since the last exam. Each exam will count 100 points toward your course grade. **There will be no make-ups for missed exams unless by PRIOR permission from me OR a DOCUMENTED emergency.** Missed exams will count as a 0. However, the lowest exam grade is dropped.

You should bring a scientific calculator and extra pencils (pens) to every exam (PLEASE DON'T FORGET). The use of laptops and headsets will not be permitted during an exam.

All exams are closed-book, closed-notes, but you may bring a single sheet of 8-1/2x11" paper with any algebraic formulas or other information that you want. All physical constants or tables of constants and a periodic table will be provided to you for each exam.

### **Learning Assistants and Supplemental Instruction Leader:**

There will be a two LAs and an SI for this course: Jamie Crawford (LA), Nico Burgado (LA), and Jason Yu (SI). We are lucky to have their expertise and experience in chemistry! The role of the LA is to attend class and to work with you to deepen your engagement with the material by asking you questions, answering your questions, and encouraging discussion between you and your peers. The LAs will also hold sessions outside of class, called LA sessions, which will provide you additional time to get help with class material, learn effective study habits specific to this class, and work with others to study and complete homework and other assignments. SI Leaders are role model students who attend classes, take notes, and use course content to facilitate two SI study sessions per week for the students in their specific section of the course. They facilitate collaborative learning techniques and activities among students to engage them in learning how to learn.

### **Plagiarism and Cheating:**

Plagiarism or cheating in any form will not be tolerated in the course. Any case of plagiarism or cheating will result in an automatic grade of zero for the exam. A second occurrence will result in a grade of "F" for the course and possible disciplinary action from the institution.

### **Electronic Devices:**

The use of cell phones is discouraged in class. If you have to be reached, set your phone on vibrate; if an important call comes through, quietly exit the room to answer the call. You may, of course, use laptops or tablets for note-taking or following the presentations.

### **Special Considerations:**

If you have any individual needs, please feel free to discuss them with me. These needs may be simple and very personal, such as a preferred name or pronoun (My pronouns: she/her/hers). These needs may be very complicated: legal restrictions, legal actions, family issues, etc. Our best hope to help you succeed is communication around these issues. The better our communication, the better your Chemistry experience and your Chemistry results.

Things arise, from time to time, that need to be addressed. These things could be tragic (e.g. illness, break-up) or joyous (e.g. weddings, births, job interviews). We can do our best to work around Life! Please communicate in a timely manner so that we can work together to construct a work-around.

\*Please put your preferred names on all exams and turned-in assignments.

**Diversity and Inclusion:**

RIT has put forth [Policy P05.0 Diversity Statement](#) for all community member. I am committed to creating an inclusive class environment where all students feel welcome and respected, with the ability to speak their mind and fully participate in all aspects of our class. If you feel that this commitment has been violated (against you or one of your peers), please let me know ASAP.