CHEM 151 - General Chemistry - Fall 2021

Dr. Douglas Tusch	djtsch@rit.edu, (585) 475-6567
Class Location	GOS-A300
Class Time	Mo, We, Fr 9:05 – 9:55 am
Office Hours	GOS-3266, TBD
Required Text	Paul Flowers, Chemistry, Atoms First 2nd edition, OpenStax.
Homework	ALEKS

Course Description: An accelerated entry-level course designed for chemistry and biochemistry majors. Topics include measurement, atomic theory, chemical bonding and structure, stoichiometry, equilibrium and acid-base chemistry.

TENTATIVE COURSE SCHEDULE

Week	Dates	Topics	HW
1	8/23 – 8/27	Welcome/ Review of Chemistry Fundamentals	ALEKS Summer Objective Due 8/30 at 11:59 pm
2	8/30 - 9/3	Spectroscopy/ Electronic Structure	ALEKS Objective 1 Due 9/6 at 11:59 pm
3	9/6	Labor Day – No Classes!	
	9/8 - 9/10	Electronic Configurations	ALEKS Objective 2 Due 9/13 at 11:59 pm
4	9/13- 9/17	Periodic Trends	ALEKS Objective 3 Due 9/20 at 11:59 pm
5	9/20 - 9/22	Chemical Bonding	
	9/24	**Exam 1**	
6	9/27 - 10/1	Molecular Structure	ALEKS Objective 4 Due 10/4 at 11:59 pm
7	10/4 - 10/8	Hybridization/Geometry	ALEKS Objective 5 Due 10/11 at 11:59 pm
8	10/11	Fall Break – No Classes!	
	10/13 - 10/15	Gases	ALEKS Objective 6 Due 10/18 at 11:59 pm
9	10/18 - 10/22	Intermolecular Forces	ALEKS Objective 7 Due 10/25 at 11:59 pm
10	10/25 - 10/27	Solution Chemistry	
	10/29	**Exam 2**	
11	11/1 - 11/5	Thermochemistry	ALEKS Objective 8 Due 11/8 at 11:59 pm
12	11/8 - 11/12	Equilibrium	ALEKS Objective 9 Due 11/15 at 11:59 pm
13	11/15 - 11/19	Acid / Base Reactions	ALEKS Objective 10 Due 11/22 at 11:59 pm
14	11/22	Electrochemistry	
	11/24- 11/26	Thanksgiving Holiday – University Closed	
15	11/29 - 12/3	Electrochemistry	ALEKS Objective 11 Due 12/6 at 11:59 pm
Finals	12/6	**Exam 3**	
	12/7	*Reading Day*	
	TBD	**Final Exam**	

Course Assessment: Your final letter grade will be assigned based on the following scale:

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%		

ALEKS assessments (200 pts): We will be utilizing ALEKS, an adaptive online learning program to compliment the material discussed in class. You will need to register in ALEKS and take an initial assessment. The goal of the initial assessment is to find out which topics you really never mastered, or have forgotten through lack of recent practice, and to recover them prior to the deadline for the first objective, called "Summer Prep". Look in your Gradebook in the ALEKS learning mode to see your score, and make sure that is 100 percent prior to **August 24, 2019 at 11:59pm**. Because the initial assessment and first objective can take a little while to work through, it will be worth 4 times as much as subsequent objectives (see below). ALEKS will be worth 200 points (33%) of your course grade, distributed as follows:

* Objectives (140 pts): You will be expected to reach certain "mileposts" in your mastery of the entire curriculum at certain dates. ALEKS will keep track of this, and report it to your instructor, who will assign a portion of your grade (10 pts per intermediate objective; 40 pts for the Summer Prep objective) based on whether or not you reached the milestone. Check the Gradebook for your score on this metric.

* Final mastery: the remainder of your homework grade (60 pts) will be determined by your overall level of mastery at the end of the class -- how many topics ALEKS says you've mastered. The purpose of this is to give you credit for mastery whenever it is achieved, even if it's achieved well after the initial deadline. Look at the numerator on the fraction above the ALEKS pie for your score here.

Exams (400 pts): There will be three exams and one final exam. These exams will emphasize the material discussed since the previous exam, but since knowledge in chemistry is cumulative, some topics may be revisited in later exams. Each exam will be assessed at 100 points. Scheduled dates for these exams are posted in the syllabus. Missed exams will count as zero points. There will be no make-up exams for missed exams during the semester, except in the case of *documented* emergencies (to be decided at the discretion of the instructor).

Exam Format: Exams will be 50 minutes in length and will require only a scientific calculator, writing implement and scrap paper. No other devices (including phones or personal audio systems, e.g. iPods) or aids will be permitted. The final exam will by 2 hours in length and will be cumulative. Exams will be held during the scheduled class time in the regularly scheduled class room.

Testing accommodations: RIT is committed to providing academic adjustments to students with disabilities. If you would like to request academic adjustments such as testing modifications due to a disability, please contact the Disability Services Office. Contact information for the DSO and information about how to request adjustments can be found at www.rit.edu/dso. If you do receive testing accommodations and would like to use them in this class, please let me know of your intention before each exam at least two days in advance.

Learning Assistant: Our Learning Assistant, Kathryn Aumick, will be holding an LA hour to answer any questions or review topics. Kathryn will also assist us in class during problem solving activities. Kathryn has taken the course in a previous semester and knows her way around. She is also a chemistry major, so you may find her insights useful! More info on when she will be available and how to contact her will be posted on mycourses.

MyCourses: Lecture notes and recordings will be posted on MyCourses. Supplemental handouts and other materials will be posted on MyCourses. Grading will be recorded on MyCourses for your reference. Please become familiar with MyCourses as I will use it as a primary communication channel with you.

Text Book: Good news: Your book is available in web view and PDF for free. You can also choose to purchase on iBooks or get a print version via the campus bookstore or from OpenStax on Amazon.com. You can use any format you want. If you buy on Amazon, make sure you use the link on your book page on openstax.org so you get the official OpenStax print version. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.)
Find it here: https://openstax.org/details/books/chemistry-atoms-first-2e

Honor Code: As an institution of higher learning, RIT expects students to behave honestly and ethically at all times, especially when submitting work for evaluation in conjunction with any course or degree requirement. The School of Chemistry and Materials Science encourages all students to become familiar with the RIT Honor Code and with RIT's Academic Integrity Policy. Collaboration on assigned homework problems is encouraged. All examinations will be closed book and closed notes. The exams given are your way of proving to me that you know the material. If you fail to complete the exams following the RIT Honor Code, your exam will be no longer valid.

Attendance: Attendance will not be taken, but *you* are responsible for the material covered each day in class. RIT's official policy on attendance in part reads:

> "Absences, for whatever reason, do not relieve students of their responsibility for fulfilling normal requirements in any course. In particular it is the student's responsibility to make individual arrangements in advance of missing class due to personal obligations such as religious holidays, job interviews, athletic contest, etc., in order that he or she may meet his or her obligations without penalty for missing class." *(RIT Governance Policy D4.0, Section I.B)*

Class participation policy: During the lecture, you will be expected to participate in the in-class problems. Come prepared with pencil/pen and paper. Cell phones and laptops are permitted and even encouraged when used for class-centered activities, but please use them with common sense. Please avoid actions which interrupt the learning of you or your classmates.

Office Hours: Office hours are times that I choose to be available to answer questions relating to this course (or anything really…) that you do not need to schedule. I will be available at these times via my zoom link: https://rit.zoom.us/j/3451605212 . These hours are available, but by no means the only available hours that I have. If these times don't work for you, please feel free to email me to set up a meeting at a different time.

Title IX: Title IX violations are taken very seriously at RIT. RIT is committed to investigate complaints of sexual discrimination, sexual harassment, and sexual assault and other sexual misconduct to ensure that appropriate action is taken to stop the behavior, prevent its recurrence, and remedy its effects.