CHMG-142-01   **General & Analytical Chemistry II**
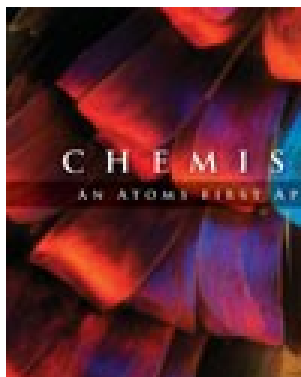**Fall 2023**

Instructor: Dr. Alla Bailey
Office: COS 08-3260
Phone   (585) 475-6831
E-mail   avbsch@rit.edu

Class Meetings:

Lectures: Class meets 3 times per week on Monday, Wednesday and Friday at 9:00-9:50 AM, Carlson Ctr Imaging (CAR)-1125

Office Hours: TBA

Recourses:

1. Steven S. Zumdahl; Susan A. Zumdahl "**Chemistry: An Atoms First Approach, 2nd Edition"** (Recommended). ISBN: 9781305264571. Please read the "The Textbook Options" posted in MyCourses.
2. **OWL** <u>access code</u> for homework assignments **(**Required). It comes with e-book. Please read the "Easiest way to register for OWL homework" posted in MyCourses. You can use the same access code that you used for the CHMG.141.
3. **iClicker** (Recommended). We will be using **iClicker Student App** so you will need ether iPhone, iPad or your laptop to answer my questions.
4. **Power Point** lectures posted weekly in MyCourses
5. **Recorded lectures (video)** via Zoom or "Camtasia" posted in MyCourses
6. **Practice problems** will be posted weekly in MyCourses.

Course Outline:

Key Concepts:
- The structure of macroscopic matter depends on the nature of microscopic bonds
- Changes in bonding (i.e. chemical reaction) gives rise to energy release or absorption
- The rate of a chemical reaction is strongly dependent on reaction conditions (macroscopic) and reaction mechanism (microscopic).
- At dynamic equilibrium, the macroscopic rate of reaction is zero. At the microscopic

level, reactants and products are constantly inter-converting.
- Phase equilibrium also involves dynamic processes.

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

- Use thermochemical reference tables
- Use rate laws and the Arrhenius equation to determine reaction rates
- Write equilibrium expressions
- Solve chemical equilibrium problems.
- Relate free energy to equilibrium constants

The best ways to organize you work:

- Follow the Syllabus, Weekly Plan and my daily/weekly announcements posted in MyCourses
- Follow also MyCourses Calendar
- Recognize the chapters and lectures topics and read both
- Attend lectures
- Go through Power Point Lectures posted weekly in MyCourses Content folder
- Watch Recorded lectures (video) via Zoom and "Camtasia" posted weekly in MyCourses Content folder if it is needed
- Go through sample-practice/recitations problems (posted in MyCourses Content folder).
- Work on the weekly OWL Homework assignments

Lectures

We will meet for lectures three time per week: Monday, Wednesday and Friday at 9:00-9:50AM, Carlson Ctr Imaging (CAR)-1125. Readings for the lectures are indicated in the Weekly Plan. It is generally helpful to skim the reading assignment before lecture, without worrying about understanding everything. After lecture, the material should be reexamined to clarify your questions.
Lectures notes (Power Point) will be available on MyCourses

Weekly Homework (required, graded):

In this course, you will be using **OWLv2** from Cengage (simply OWL), an online tutorial and homework program that accompanies your textbook. It comes with e-book and Thinkwell videos. You will not need a course key or link because this will be integrated with D2L via MyCourses. You will see a link in MyCourses "Content" tab called "OWL Homework link", this is a direct link to the course and students will login to Cengage once.

Easiest way to register for the homework and work on the homework assignments:

1. Go to MyCourses
2. Go to "Content" tab at the top
3. Go to "OWL Homework" folder
4. Go to "OWL Homework link" and create or login to your Cengage account.

5. Please follow the instruction given in the "Student start here: Getting started with OWLv2"; find it also under "OWL Homework".
6. To work on the weekly homework, go to "OWL Homework link", click on [CHMG 142.01](#), than "Assignments" and work on INTRO, HW1, than HW2 and so on. Please pay attention that each week homework divided into separate parts according to the topics covered in lectures and all of them are due to the same day according to the schedule.

Do you prefer print textbook? You can get a textbook rental with your activation through Cengage Unlimited for $7.99 + free shipping and the option to purchase a loose-leaf version of your textbook, which you can keep. Cengage Unlimited is available in the bookstore or at **[cengage.com/unlimited](#)**. Please read the "The Textbook Options" posted in Mycourses.

During the first 14 days of the semester, you can have a free trial. At the conclusion of your trial you will need to enter the access code or click "Subscribe Now" in your student dashboard.

Please read the "**Student start here: Getting started with OWLv2"** posted in MyCourses in the "Content" tab under "OWL Homework".

Homework can be COLLABORATED UPON, so you may work in teams. Each weekly assignment is due on **Monday** by midnight. I will download your Exercise scores and will post them on MyCourses.
Make sure you have reviewed all the appropriate sections of the textbook before embarking on these coursework exercises. Each coursework module should take you about three-four hours or so to complete.
Please note the following: you have three more days to finish the assignment after due date, however with penalty 10%. The program allows students to use the assignment for practice but only after the unavailable date.

Exams

There will be four exams.

Three exams will be given throughout the semester. THE LOWEST EXAM GRADE IS DROPPED.
A FINAL EXAM will be giving during Finals' Week at particular time. The Final Exam is mandatory and cannot be dropped.

Exam Policies

There will be no make-ups for missed exams unless by PRIOR permission from me. Missed exams will count as a 0.
Use of calculators will be permitted (and is encouraged) on exams, but sharing of calculators is not allowed. An expensive calculator is not necessary. The following standard functions will be useful for this course: +, -, X, ÷, LOG, EE or EXP or y^x or 10^x and +/- and can be found on any standard scientific calculator.

Laptop computers and tape recorders may be used in lecture, but may not be used for exams. It is naturally assumed that laptop computers used during lectures will be for note taking and not for playing Solitaire, etc. No headsets will be allowed in lecture or during exams. Manual or oral

communication is not permitted during exams, except when directed to the instructor or proctor.

The maximum time allowed for exams will normally be 50 minutes. Students may leave an exam before the allotted time has expired. A quiet, non-disturbing exit is expected and there will be no congregating at the back of the exam location. People who arrive at the exam after the first person has left will not be permitted to begin.

Students with cell phones or pagers should have the courtesy to turn them off or put them on a vibrate mode so that others are not disturbed during a lecture or exam. If it is necessary to return a call, please leave the room quietly, however permission should be requested if leaving becomes necessary during an exam.

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

Tentative schedule:

 Exam 1: Week 6, Fri, Oct. 06 (Lecture time, lecture room)
 Exam 2: Week 11, Fri, Nov. 10 (Lecture time, lecture room)
 Exam 3: Week 16, Sun -Mon, Dec. 10- 11, Online
 Exam 4 (Final): Final Exams Week, 12/13/2023, Wednesday, 8:00AM - 10:30AM, Carlson Ctr Imaging (CAR)-1125, Lecture room

Quizzes (graded)

Quizzes will be conducted online through MyCourses. There are will eight quizzes. Each Quiz will be 30-40 minutes in duration and you can take it at *any time within the assigned day that it is available*.

Tentative schedule:

Quiz 1 (Liquids, Solids) - Wed, Sep 13
Quiz 2 (Solutions) - Wed, Sep 20
Quiz 3 (Kinetics) - Wed, Oct 04
Quiz 4 (Chemical Equilibrium) - Wed, Oct 18
Quiz 5 (Acids-Bases) - Wed, Oct 25
Quiz 6 (Titration, Solubility) - Wed, Nov 08
Quiz 7 (Thermodynamics) - Wed, Nov 15
Quiz 8 (Electrochemistry) - Fri, Dec 08

Introduce yourself (graded)
I also would like you all to post a *brief introduction of yourself* **to the MyCourses** discussion section "Introduce Yourself". This way we can all interact on a more social level before/as we get down to the material.

I will consider this introduction as your first discussion assignment for the class, contributing 0.25 point towards your final grade! Your introduction should consist of not less than 10 sentences for full credits and it is due the first week Thursday of the course.

Attendance:

You have to sign the attendance sheet before the lecture. Two point bonus if you missed not more than 3 lectures.

Bonus "Clicker Activity"

iClickers are used to participate in practice questions during lectures and are a way to earn bonus points. I will be using the "clickers" to take daily **activity** worth max 3 point (bonus) just get added to your final grade. Your final iClicker grade will be calculated as (points earned)/(total possible points for the class) x 100.
We will be using **iClicker Student App** so you will need ether iPhone, iPad or your laptop to answer my questions.
You are eligible for points from these bonus questions only if you have registered an iClicker: the Instruction "iClicker – student registration" will be posted in MyCourses.

Grading Policies

Grading will be based on the three exams, weekly **OWL** homework, weekly quizzes, and bonus.

Course Assessment:

Three Exams
(3 hourly – drop lowest):   46%
Final Exam: 23%
OWL Homework: 18%
Quizzes: 12.75%
Introduce yourself   0.25%
Total   100%

Bonus "Clicker Activity": max 3 points to the final grade
Bonus "Attendance": 2 points to the final grade

The grading scale:

Final Average (rounded to the nearest ones place)	Final Letter Grade
92-100	A
90-91	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+

72-76	C
69-71	C-
60-68	D
59 and lower	F

Plagiarism or Cheating

Plagiarism or cheating in any form will not be tolerated in the course. By taking this course you agree that all work submitted is your own work. Any case of plagiarism will result in an automatic grade of "F" for the course and a memo documenting the event will be sent to the student's department.

Contact

➢ Please post any general course questions in Q/Answers of MyCourses (Discussion Board). I will check it regularly, but if you can help a fellow student please feel free to help with answers.

➢ For private questions the best way to contact me is directly through email at avbsch@rit.edu. You should generally expect a response within 48 hours. However, **while I will make many efforts to respond to your questions as quickly as possible**, should you send a question at 6 PM on Friday evening a response cannot be guaranteed until the following Monday.

Special Needs

If you have any special needs for testing situations, please consult with me as soon as possible so that appropriate accommodations can be made.

Extra help

If you need extra assistance in understanding a topic, concept, or problem, please seek help in any of the following ways.

- Seek help from friends or classmates (but not on exams, of course).
- Seek help from me, attend the office hours
- Attend the LA, TA and SI students' sessions

Students needing accommodations due to any type of disability are encouraged to connect with the Disability Services Office (DSO). RIT is committed to making all facets of the student experience accessible. DSO takes an individualized approach to coordinating necessary accommodations for RIT students, and helps coordinate accommodations and other access supports in the context of this class. Learn more about how students can apply for accommodations with DSO.

I very much look forward to working with you through this course!

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