

CHM2096 – Chemistry for Engineers II – Spring 2017

INSTRUCTOR: Dr. Maria Korolev

Email (for administrative purposes): korolev@ufl.edu

Office hours: MWF periods 6 & 7, T periods 7 & 8, R period 8 in Flint 251

COURSE INFO: CHM 2096 and CHM 2046L constitute the second semester of the two term sequence of General Chemistry, CHM 2095/2045L - 2096/2046L. Prerequisite information and credit suitability can be found in the Undergraduate Catalog. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

COURSE SCHEDULE (the lecture schedule is tentative, but exam dates will not change)

Dates	Topics	Chapters (Silberberg)*
Jan 4 – Jan 6	Kinetics (3)	Chapter 16
Jan 11 – Jan 25	Chemical Equilibria (5)	Chapter 17
Jan 27 – Jan 29	Ionic Equilibria (3)	Chapter 19
January 31st (8:20pm – 10:20pm)	Progress Exam 1	Chapters 16, 17, 19
Feb 1 – Feb 8	Acids and Bases (4)	Chapter 18
Feb 10 – Feb 15	Buffers and Titrations (3)	Chapter 19
Feb 17 – Feb 27	Thermodynamics (5)	Chapter 20
March 1st (8:20pm – 10:20pm)	Progress Exam 2	Chapters 18, 19, 20
Mar 3 – Mar 27	Electrochemistry (8)	Chapters 4, 21
Mar 29 – April 3	Transition Metals (3)	Chapter 23
April 5th (8:20pm – 10:20pm)	Progress Exam 3	Chapters 4, 21, 23
April 7 – April 12	Nuclear (3)	Chapter 24
April 14 – April 19	Organic Chemistry (3)	Chapter 15
April 25th (10:00am – 12:00pm)	Final Exam	Cumulative

*The topics that will be covered from each chapter will be selective and announced in class.

Holidays (no classes): January 16th, March 6th – March 10th (Spring Break)

REQUIRED MATERIALS:

Modified MasteringChemistry/LearningCatalytics for online homework and in-class clicker questions
Any College Chemistry Textbook (such as Silberberg or Tro) for course material

COURSE OBJECTIVES: As both a general education requirement and major's course, CHM2096 serves to teach: the scientific method, skills for problem solving, general chemistry knowledge, and a connection to the principles that govern the natural world.

GRADES: Grades for the term will be determined as follows:

3 Progress Exams	600 pts
Final Cumulative Exam	200 pts
Mini-Projects	100 pts
Homework/Clickers	100 pts
TOTAL	1000 pts

The following grade cutoffs will be used (these are non-negotiable):

900-1000 = A	860-899 = A-	830-859 = B+	800-829 = B
760-799 = B-	730-759 = C+	700-729 = C	660-699 = D+
630-659 = D	600-629 = D-	< 600 = E	

Information on current UF grading policies for assigning grade points can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

MINI-PROJECTS IN DISCUSSION: Part of your grade will be determined by engineering projects done during your discussion sections. There will be three projects spread over the semester that will relate to material covered in lecture. Each project will be done over three weeks to be done both during discussions and outside the discussions. You will be graded on the scientific merit of your work in groups. More of the details of the activities will be discussed during the first class meeting. These activities are part of an initiative to improve this section of general chemistry, and are tied to a research grant. Due to this, you will need to complete a consent form as well as pre- and post-semester surveys. Your compliance with this will be worth points that contribute to your overall mini-project score. Your attendance is required in your registrar assigned section. If you have an unexcused absence during the discussion period for a given week, then you will score a 0 on the assignment for that week.

CLICKERS AND HOMEWORK: Ten percent of the course grade (100 points) will be based on performance on in-class clicker questions and online homework. You can earn points in class by correctly answering clicker questions through LearningCatalytics (½ point per correct answer). The lowest two days of clicker points will be dropped at the end of the semester. You can also earn points by answering online homework problems through MasteringChemistry by the displayed due dates. The MasteringChemistry assignments will add up to about 70 points over the semester. Your score will be calculated by MasteringChemistry based on your performance on each individual assignment. The lowest two homework assignments will be dropped at the end of the semester. You can earn up to 100 total points total through both of these combined scores.

CONTACTING THE INSTRUCTOR / OFFICE HOURS: Emails are for administrative purposes only, and not for distance-instruction. All academic inquiries must be made during office hours or before/after lectures (if time permits). If this is not possible, visit the CLC (see below). Please be prepared before coming to office hours, bring specific questions and your previous work. Questions about grades will not be discussed during office hours due to privacy regulations.

CHEMISTRY LEARNING CENTER (CLC): There is free help to be had from graduate student teaching assistants in the CLC Monday through Friday in Flint Hall 257. Your discussion TA will have office hours in the CLC, but you may go there anytime any TA is assigned there to get help on questions pertaining to chemistry. A schedule of the TA schedules will be posted in the corridor outside the CLC and also online. Additionally, there is the teaching center located on the ground floor of Broward Hall, if you'd like to use that resource. Their web site is <http://www.teachingcenter.ufl.edu>.

EXAMS: Exams will be taken in the evenings outside of class and the Exam Room Assignments will be posted. You must use a non-graphing non-programmable scientific calculator on exams (with log, ln, root, and exponent (scientific notation) functions). Be sure to also bring pencils, section number, and your UF ID card. No notes, papers, cell phones or other electronic devices can be in view during exams.

No makeup ("do over") progress exams will be given for any reason. If you must be absent for an exam due to a documented and approved academic or UF athletic conflict, bring the documentation to your instructor at least *one week prior* to the scheduled exam and an early conflict exam will be scheduled for you. If you are absent for an exam due to an unpredicted documented medical reason, you must contact the instructor as soon as possible. More information regarding this policy can be found in the *General Chemistry Exam Absence Policy* document found on Canvas.

To alleviate the stress of potential issues that do not fall under officially-sanctioned absences, we've incorporated an "average/replace" policy (the lowest of the three progress exams will be replaced by the average of the three progress exams). This "average/replace" policy will help to minimize the impact of a single poor performance but it will not completely disappear.

Any and all exam grade disputes or Scantron confirmations must be performed within two weeks of the scheduled exam date. Bubbling errors will not be negotiated, and a 5 point penalty will be applied for failure to bubble in a form code, UFID, or not taking the exam in the assigned room.

HONOR CODE: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

CANVAS (<http://elearning.ufl.edu>): Here you will find the syllabus, gradebook, files, class announcements, and other pertinent info for the course. It is your responsibility to check Canvas often to make sure that you do not miss important announcements and to ensure that your gradebook is accurate. For computer assistance, visit <http://helpdesk.ufl.edu/>.

CLASS DEMEANOR: In order to have an optimal learning environment, the classroom needs to be free of disruptions. Therefore, it is expected that students come to class on time and leave only when class is concluded by the instructor, and that the class is not disrupted by student talking or cell phone noises.

DISABILITIES: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <http://www.dso.ufl.edu/drc/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. The student is responsible for scheduling the exam dates with the DRC. Students with disabilities should follow this procedure as early as possible.

U MATTER, WE CARE: Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

EVALUATIONS: Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

GENERAL EDUCATION REQUIREMENTS: This course satisfies the general education program requirements for the physical sciences at the University of Florida. More information regarding the program objectives, student learning outcomes, and specific goals for CHM2045/CHM2046 can be found in the *General Education Program Requirements* document found on Canvas.

DISCLAIMER: This syllabus represents my current plans and objectives. If those need to change as the semester progresses, then the changes will be communicated to the class clearly.