

INTRODUCTORY CHEMISTRY

CHM 1025, Section 3925

Spring 2017

INSTRUCTOR: Christopher Brewer

COURSE TA: Kaylee Todd

OFFICE HOURS: (Brewer) TR 9am – 10am

(Todd) MW 1:55pm – 2:45pm

Held in the Chemistry Learning Center (Keene-Flint Hall, 257-258)

LECTURE: TR 4th period (10:40am – 11:30am) CLB C130

COURSE DESCRIPTION: CHM 1025, a two-credit course, is offered for students who wish to strengthen their understanding of basic concepts of atomic structure and stoichiometry before beginning the general chemistry sequence (CHM 2045/2045L, CHM 2046/2046L). This introductory readiness course in general chemistry is for those with weak yet satisfactory backgrounds in high school chemistry and algebra. (P)

A grade of “C” or better is required for progression to CHM 2045.

COREREQUISITES: MAC 1147 or the equivalent.

COURSE COMMUNICATIONS: The instructor and course TA can be contacted via the mail function in Canvas. Please allow 24 hr for responses (48 hr over the weekends). Questions related to your grade or ANY other grading concern may NOT be discussed via email; grades can be discussed IN PERSON ONLY. Emails are not intended for distance learning. Course announcements will typically be made during lecture and are not always repeated via email. If a student is absent from lecture it is their responsibility to ask a trusted classmate what they missed.

TEXT: *Introduction to Chemistry, 4e* (Bauer, Birk, Marks) ; ISBN-13: 978-0073523002

All students in Brewer’s Spring 2017 section of CHM 1025 will receive FREE access to the e-text with and ALEKS software!

REQUIRED MATERIALS: Top Hat subscription
ALEKS (provided at no charge for Spring 2017)
See Canvas for Top Hat purchasing details.

EXAM POLICIES:

EXAM DATES: Four “cumulative” progress assembly exams will be administered during the term between 8:20 -10:20 pm on: 1/25, 2/22, 3/22, 4/12 .

Cumulative Final Examination: 4/22 , 5:30pm – 7:30pm (**Saturday**)

EXAM POLICY: Exam locations will be announced during the lecture period before the exam. Each exam will consist of a mixture of multiple choice and free response questions. Any material covered prior to the exam date is eligible to appear on the exam. **The lowest 1 progress exam score is dropped.** The final exam score cannot be dropped.

Any and all exam grade disputes or Scantron confirmations must be performed within two weeks of the scheduled exam date. Scantron errors are non-negotiable and could result in loss of points. This includes form code errors, registry errors, and name and UF ID errors. Students may not use graphing or programmable calculators on exams. You may use scientific calculators with exponent capability. No other device may be used as a calculator (cell phones, iPods, etc.). No spare calculators will be available for use during exams, nor will spare batteries.

MAKE-UP POLICY: Conflict exams may be offered to students with another assembly exam at the same time in a course with a higher number than ours, or to students with well-documented, UF-approved reasons (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>). Such exams are offered in advance of the scheduled exam. It is your responsibility to identify yourself as requiring such accommodation at least one full week prior to the exam. If you fail to do so, you may not be accommodated and the missed exam will be dropped. **There are no make-up exams in general chemistry at University of Florida.** Please refer to the official General Chemistry Exam Absence Policy available in Canvas (see the Syllabus page).

ASSIGNMENT POLICIES:

1. ALEKS OBJECTIVES AND ALEKS PIE: You will access your electronic textbook and the ALEKS homework directly from within Canvas (*Modules>ALEKS-Science*). You are graded for both on-time completion of ALEKS objectives and for completion of your ALEKS pie.

ALEKS homework is **not ever** graded/regraded manually – get help before an assignment is due. There are no extensions for technical difficulties or other reasons – the assignments are all available well in advance of their due dates. If you have a legitimate reason for an extension (illness, family emergency, etc.) you must contact the Dean of Students Office to have the situation verified before an extension will be considered. For technical help with ALEKS, contact ALEKS support (not the Help Desk or your instructor).

2. DISCUSSIONS: Students are expected to contribute to the threaded discussions (Discussions tab in Canvas) according to the advertised timeline. ***Bonus points for each discussion are available.*** There is no credit for submissions made more than 24 h after their posted due date/time, as all discussion assignments are available well in advance of their due dates. For the highest success rate in posting: 1) do not wait until too close to the 11:59 pm deadline – if your clock reads 11:55, the actual time may be a few minutes later; 2) don't click the back button in your browser after posting; 3) double-check to make sure your submission was successful – navigate back to the course home page, then navigate to the discussion and scroll down on your discussion page to ensure your post looks the way you'd like it to. For technical help, contact the Help Desk. **The one lowest discussion grades are dropped.**

3. TOP HAT: We will be utilizing Top Hat as a classroom response system in this course, beginning immediately after the Drop/Add period. You must bring a web-enabled device to each class to participate. Usually Top Hat questions will be completed in class, however in some cases I may extend the Top Hat poll so that the question may be finished after the day's lecture concludes if I see that more time would be beneficial to the students.

You must answer each question correctly to receive full credit. Points missed in Top Hat, whether it be for an absence or for getting the incorrect answer, can be made up by completing the designated make up assignments within Canvas. Since I use the total number of points for the make up sets in my calculations, it does not matter which set you complete your make up points in, as long as you do them before the deadline. There will be significantly **less** makeup points available than points completed in class through Top Hat. The total points possible for the sum of Top Hat questions and the designated make-up assignments is equal to the points available in the Top Hat assignments (i.e. you cannot achieve extra points by answering correctly in Top Hat and also doing the makeup assignments).

4. PROBLEM SETS: These will be uploaded to Canvas and can be found under the "Assignments" section. These problem sets will be graded and will **not be accepted late**. Students will need to upload their submissions as a PDF file to the assignment link in Canvas by following the instructions provided on the assignment. These problem sets are designed to help walk you through how to approach a difficult question. Most of them are constructed using my old exam questions. On occasion, I may assign a problem set in the form of a Canvas quiz.

COURSE TECHNOLOGY: All UF students are expected to have reliable access to a computer; suggested configurations may be found here: <https://training.helpdesk.ufl.edu/computing.shtml>.

UNIVERSITY POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations. Note that the DRC requires advance notice to schedule accommodated exams.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT: As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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." It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate

on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php>."

NETIQUETTE: COMMUNICATION COURTESY: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

FEEDBACK: Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online 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>.

CANVAS SUPPORT: For issues with technical difficulties for Canvas, please contact the UF Help Desk at: Learning-support@ufl.edu ; (352) 392-HELP - select option 2 ; <https://lss.at.ufl.edu/help.shtml>

FREE CHEMISTRY HELP:

HELP SESSIONS: My undergraduate TA's will hold optional help sessions at various times of the week. (See Canvas for times.) The goal of the help sessions is to give you more practice with working the problems and have the opportunity to ask questions relating to our course. Typically we will prepare worksheets for the help sessions. Although they are optional, sometimes questions from the help sessions find their way onto my homework sets and exams.

IN LECTURE TA'S: I will have a large number of undergraduate TA's present during lecture who are solely there to help YOU. When we are working questions during lecture you should take full advantage of having my undergraduate TA's available. In order to make the best use of our lecture time, as soon as you get stuck or are unsure about a question you should call over a TA. Even if you have an answer, I encourage you to ask the TA's if your answer is correct so you can confirm whether you have worked the problem correctly or not. The questions in lecture are not designed to be a quiz, they're designed to be an active team learning experience.

UF TEACHING CENTER: FREE help for our course is available at the UF Teaching Center. Times of operation can be found on their website: <https://teachingcenter.ufl.edu>

CHEMISTRY LEARNING CENTER (CLC): In addition to the office hours of myself and my TA, graduate student TA's are typically available daily from 9am – 5pm in FLI 257 for General Chemistry.

GENERIC CAVEAT: Help sessions and office hours should be used as a supplement to your own individual studying, NOT a replacement. Attendance alone will not bring success, hard work is essential to achieving success.

GRADING POLICIES:

Should a student wish to dispute any grade received in this class (other than simple addition errors), the dispute must be in writing and be submitted to the instructor within 72 h of receiving the grade (within 24 h of the final exam). Grading disputes will not be addressed in person or by email. Any assignment/exam grade that is being disputed will be evaluated as a whole, meaning the score could go up or down and the new score is non-negotiable.

GRADE DISTRIBUTION:

1. ALEKS Objectives, ALEKS pie and Problem Sets (15%)
2. Progress Exams (Best 3 of 4 exams = 45%)
3. Cumulative Final Exam (25%)
4. Discussion Boards (5%)
5. Top Hat (10%)

GRADING SCALE: (*firm, no rounding will be done*)

A	A-	B+	B	B-	C+	C	D+	D	D-	E
90%	87	84	80	76	73	67	63	59	55	<55

For more information:

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

<http://www.isis.ufl.edu/minusgrades.html>

****Please do not ask me to “bump your grade up” or ask for extra assignments/points at the end of the semester. The answer will be no. (No exceptions.) Also do not ask me to round your grade to the nearest whole number, the answer will also be no.**

GENERAL EDUCATION:

This course satisfies the General Education requirement in the Physical Sciences.

PHYSICAL SCIENCE GENERAL EDUCATION PROGRAM OBJECTIVES:

Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

These objectives are accomplished through participation in the course lectures and discussion sections, and individual work done on homework assignments and assessments.

GENERAL EDUCATION STUDENT LEARNING OUTCOMES:

Area	Institutional Definition	Institutional SLO
CONTENT	Content is knowledge of the concepts, principles, terminology and methodologies used within the discipline.	Students demonstrate competence in the terminology, concepts, methodologies and theories used within the discipline.
COMMUNICATION	Communication is the development and expression of ideas in written and oral forms.	Students communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline.
CRITICAL THINKING	Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion.	Students analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems.

Naturally, all three areas of learning outcomes will be assessed in all categories of graded assignment administered in CHM1025.

SPECIFIC GOALS OF CHM1025:

You will be required to analyze scientific concepts and think critically. This means being able to answer both quantitative (mathematical) and conceptual (quantitative) multiple choice problems in a limited period of time. Additionally, you will have to write or orally communicate during your discussion periods. We will also demonstrate how these topics can be applied to the scientific method and how observation and experimentation leads us to the development of scientific theories. To achieve this, students will be introduced to the following concepts from the text.

You will review the importance of chemistry in our everyday lives. You will be required to utilize the methods of science as a logical means of problem solving through critical thinking. This means you must analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems. To ensure your competency in these concepts you will be required to complete online homework assignments and take quizzes and exams that require critical thinking, analysis of problems, and drawing conclusions.

COURSE CONTENT:

We will be loosely following the Bauer textbook. We will cover topics from/related to the following sections, in this order: (Use this as your reading list for the semester)

Chapter 1, Chapter 6.6 - 6.7 (Specific heat and calorimetry only) Chapter 2, Chapter 3, Chapter 4, Chapter 5.1 - 5.4, Chapter 14.1 - 14.2, Chapter 5.5, Chapter 6, Chapter 7, Chapter 8, Chapter 11, Chapter 13.1 - 13.2, and a few special topics lectures.

I reserve the right to alter the pace/covering of the course material as I see fit. I also reserve the right to cover material outside of what is contained in our book, as well as omit topics from what is presented in the book. The material I discuss during lecture will be what is fair game on an exam.

COPYRIGHT NOTICE: All handouts used in this course are copyrighted and may not be copied without expressly granted (written) permission from Christopher Brewer. "Handouts" include all original materials generated for this class, which include but are not limited to syllabi, exams, problem sets, in-class materials, or other materials. Tutors and tutoring services are expressly forbidden from copying any or all of these materials. Students currently enrolled in the course are authorized to usage of this material for academic purposes. Incorporated figures from published works are not claimed as property by the instructor.

Disclaimer: *This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.*