

INTRODUCTORY CHEMISTRY

CHM 1025

2 CREDITS

FALL, 2013

INSTRUCTOR: Matthew Burg

OFFICE HOURS: Instructor: TBA

Visit the Chemistry Learning Center (Keene-Flint Hall 257-258) for tutoring help (Peer Mentor office schedule TBA), or the [Broward Teaching Center](#) (see their [schedule](#)).

COURSE WEBSITE: <http://lss.at.ufl.edu>

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). A chemistry readiness assessment (ChRA) is offered online on ISIS. The score achieved determines whether CHM 1025 or CHM 2045 is the appropriate first course in chemistry. 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: General course questions should be posted to the discussion board in e-Learning. The course TA or instructor will respond to Discussion posts within 24 h during the work week (allow 48 h over the weekend). Private or grade-related questions should be sent to “Instructor Role” via the Mail function in e-Learning.

REQUIRED TEXT AND MATERIALS: Basic Chemistry, Timberlake & Timberlake, 4th ed., Pearson; ISBN 9781269204927. I>Clicker2 remote (ISBN 1429280476; a rebate coupon is included in the textbook package sold at the bookstore) or web>clicker (laptop/iPhone/Android device).

PURPOSE OF COURSE: CHM 1025 is designed to help students master the basic concepts of chemistry and acquire the skills necessary for success in the mainstream general chemistry sequence.

GENERAL EDUCATION: CHM 1025, Introductory Chemistry, is a General Education physical science (P) course. The topics covered include classification of matter and nomenclature. The student will apply the topics covered, including classification of matter, to real-world items. Is a bowl of chicken noodle soup a homogeneous or heterogeneous mixture? How do thermochemical principles explain formation of condensate on the exterior of a glass of iced water?

COURSE AND GENERAL EDUCATION STUDENT LEARNING OBJECTIVES: The student will:

- Demonstrate an understanding of basic chemical concepts, including classification of matter.
- Gain an understanding of the vocabulary of chemistry, which permeates society on food and product labels, and in discussion of current events (pollution and climate change, sustainable energy).
- Demonstrate the ability to apply chemistry-centered mathematical concepts effectively to real-world solutions; for example, calculating Calories in an item of food.
- Distill and analyze information from multiple perspectives, including that presented in tabular or graphic format. The student will apply logical reasoning skills in this task.
- Communicate scientific findings clearly and effectively using oral, written or graphic forms. The student will participate in threaded discussion forums, within small cohorts, based on broader themes related to each module.

INSTRUCTIONAL METHODS: The course material is delivered via live and recorded lectures by your instructor, and by key readings in the text.

COURSE POLICIES:

EXAM POLICY: Four cumulative progress exams and a cumulative final examination will be administered. Your lowest progress exam score (NOT the final exam) will be excluded from final grade calculation. Each exam will consist of ~25 multiple choice questions. Any material covered prior to the exam date is eligible to appear on the exam.

Scantron errors are non-negotiable. 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 e-Learning.

ASSIGNMENT POLICY:

1. MASTERINGCHEMISTRY: To register for MasteringChemistry, the student will require a valid e-mail address, an access code, the zip code for your school (32611) and the course ID: MCVEIGE75521. The MasteringChemistry electronic homework component of the course consists of 28 assignments. These are rolled out and are due on Wednesdays and Sundays at midnight; please see the Due Dates Document (in Sakai: click on "Lessons", "Syllabus Information", "Due Dates Document"). Refer to your instructor's assignment grading policy at www.MasteringChemistry.com for information regarding penalties, additional attempts and late assignment completion. Generally, the student is given 10 chances to answer correctly with a small deduction for an incorrect response; multiple-choice questions are marked as incorrect after one incorrect response. Assignments may be submitted late with a penalty of 10% per day late. The grading policy can be viewed in the course page at www.MasteringChemistry.com. All assignments must be submitted by Dec. 4th at 11:59 pm, at which time access to the course page in www.MasteringChemistry.com will cease.

2. DISCUSSIONS: The student is expected to contribute to the threaded discussions (Discussion Board tab) according to the advertised timeline (see Class Schedule that follows; each post is due at 11:59 pm on the date indicated). Original posts and comments on other students' posts are required. Late submissions will not be considered for credit. See the Discussion Board grading rubric for details (in Sakai, click on "Lessons", "Syllabus Information", "Discussions").

3. I>CLICKER 2 OR WEB>CLICKER: You are required to purchase the I>clicker2 remote or web>clicker subscription for in-class participation. I>clicker2 is a response system that allows you to respond to questions posed during class, and you will be graded on that

feedback and/or your in-class participation (web>clicker works the same way). To receive this credit, you will need to register your I>clicker2 remote or set up your web>clicker account by **08/29**. *A registration tutorial will be held at the beginning of class on 08/29; please bring your laptop or a web-enabled device with you to register.* If you have decided to use web>clicker instead of a remote, please see below for registration instructions.

The clicker grade is dependent upon both student participation and correctness: incorrect responses earn 1 point per question, while correct responses earn 2 points per question. The points possible will be 75% of the points available to accommodate unavoidable absences.

I>clicker2 remote registration:

You must have come to class at least once and voted on at least one question in order to complete this registration properly. Once you have responded to a question with your I>clicker2 remote, go to <http://www.iclicker.com/registration>. Complete the fields with your first name, last name, student ID, and remote ID. Your student ID should be **your gatorlink username (this is EXACTLY the first part of your e-mail address before “@ufl.edu”;** check the case (upper/lower) and the spelling carefully). The remote ID is the series of numbers and sometimes letters found on the bottom of the back of your I>clicker2 remote. I>clicker2 will be used every day in class, and you are responsible for bringing your remote daily. *We will begin using the remotes immediately, with credit being earned from 09/03 onward.*

web>clicker registration:

To create a web>clicker account, visit <https://webclicker.iclicker.com> (USA) or <https://webclicker.ca> (Canada) or download the app for [iOS](#) or [Android](#). Creating an account automatically starts a free 14-day trial subscription. Please use this trial period to make sure web>clicker will work for all of your I>clicker2 classes before purchasing a subscription as there are no refunds afterwards.

Once you create your web>clicker account, you do not need to do anything else to register. Just be sure that your account has the following profile information:

Student ID: **your gatorlink username (this is the first part of your e-mail address: _____@ufl.edu)**
School ZIP/Postal Code: **32611**
School Name: **University of Florida**

At the end of your trial, should you decide to purchase web>clicker, you can purchase access to web>clicker in a variety of subscription lengths using your credit card online or through in-app purchase with your smartphone; this subscription includes an unlimited number of courses.

If you have an activation code from purchasing an access card in the bookstore or from a package with a textbook, you will need to redeem the code from the web>clicker website. Once redeemed, the activation will take effect for iOS and Android apps. You cannot redeem access cards from within the iOS or Android apps. To redeem on the website, visit <https://webclicker.iclicker.com> (USA) or <https://webclicker.ca> (Canada) and log into your account. Enter your code from your account profile page if you do not see an entry field upon logging into web>clicker.

If you have more questions on i>clicker registration, please visit <http://iclicker.softwareassist.com> for FAQs and other resources.

If you have **lost or broken** your I>clicker2 remote, you will have to purchase another one. Please email me with your new Remote ID so that I can manually register your new remote.

I consider bringing a fellow student's I>clicker2 to class to be cheating and a violation of the University Honor Code. If you are caught with a remote other than your own or have votes in a class that you did not attend, you will forfeit all clicker points and may face additional disciplinary action.

Please realize that we will be using I>clicker in almost every class and clicker points will make up **10%** of your final grade. Please remember that it is your responsibility to come prepared to participate with a functioning remote every day. However, I do realize that difficult circumstances do arise, and for this reason responding to 75% of the possible clicker questions will be considered a 100% response rate.

4. WRITTEN ASSIGNMENTS AND PEER REVIEW: The student will participate in "Calibrated Peer Review (CPR)" in which he/she assesses the quality of instructor-provided documents, reviews classmates' documents and performs a self-review. Each step of the process is graded; the student's skill as a reviewer affects the weight of his/her grade of his/her peers. Refer to the CPR documentation in Sakai under "Lessons", "Syllabus Information" for more details.

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>. Check the [MasteringChemistry requirements](#) to ensure you have the necessary plugins to complete the assignments.

UF 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.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.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>

GETTING HELP:

For issues with technical difficulties for E-learning in Sakai, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

** Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request an extension.

For technological help or grade disputes associated with [MasteringChemistry](#) assignments, please contact MasteringChemistry. They have technicians available 24/7 via chat or are available by telephone. See the MasteringChemistry website for details.

TUTORING/CHEMISTRY HELP:

The Chemistry Learning Center (CLC) is located in Keene-Flint Hall rooms 257 and 258. Chemistry graduate students offer free help, usually weekdays between periods 2-9.

The [UF Teaching Center](#) has free walk-in help, or you can schedule an appointment. You can also watch interactive practice CHM 1025 exams.

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 one week of receiving the grade.

GRADE DISTRIBUTION:

1. MasteringChemistry Homework (10%)
2. Written Assignments (5%)
You will be required to compose short written responses to prompts and to review your classmates' work.
3. Progress Exams (50%)
The best 3 of 4 progress exams are considered, each weighted equally.
4. Cumulative Final Exam (20%)
5. Discussion Boards (2.5%)
6. Clicker Questions (10%)
7. In-Class Activities (2.5%)
The instructor will periodically disseminate activities during lecture periods to be worked on alone or in small groups during that lecture period. Such activities will be collected at the end of the class in question. Approximately 85% of the total points available will be considered in grade calculation to accommodate unavoidable absences.
8. Publisher Worksheets
The textbook package at the Bookstore includes a set of worksheets authored by Pearson, the textbook publisher. These are for supplemental practice; solutions will be posted in e-Learning.
9. Syllabus Quiz (0.5% Extra Credit); Mid-Semester Survey (0.5% Extra Credit)

Syllabus Quiz and Survey will each be available under the Assessments tool in e-Learning/Sakai for a 1-week period. See Due Dates Document for dates.

GRADING SCALE:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
87%	84	80	77	74	70	66	64	60	56	54	<54

For more information:

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

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

COURSE SCHEDULE:

TENTATIVE LECTURE SCHEDULE:

SUN.	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SAT.
Aug. 18	19	20	21	22 Chapter 1: The Scientific Method and Key Math Skills	23	24
25	26	27 2.1-2.4 Units; Scientific Notation and Significant Figures	28	29 2.5-2.8 Unit Conversion	30	31
Sept. 1	2	3 3.1-3.2 Classification of Matter; States and Properties	4	5 3.3-3.6 Temperature, Energy/Nutrition and Specific Heat	6	7
8	9	10 4.1-4.3 Atomic Theory and the Periodic Table	11	12 4.4-4.5 Subatomic Particles	13	14
15	16	17 5.3-5.5 Electron Configuration	18	19 6.1-6.4 Ionic Compounds	20	21
22	23	24 6.5- 6.7 Molecular Compounds and Alkanes	25	26 14.1-3 Naming Acids; Strong Acids	27	28
29	30	Oct. 1 12.1-12.2 Solutions & Electrolytes	2	3 8.1-8.2 Balanced Equations	4	5
6	7	8 8.3-8.4 Reaction Types and Functional Groups	9	10 15.1-15.2 Redox; Activity Series from 15.4	11	12
13	14	15 12.3 Solubility Rules & Double Replacement	16	17 14.7 Acid/Base Reactions	18	19

		Reactions				
20	21	22 7.1-7.3 Moles and Molar Mass	23	24 7.4-7.5 Empirical and Molecular Formulas	25	26
27	28	29 9.1-9.2 Mole/Mass Relationships	30	31 9.3-9.4 Limiting Reactant and % Yield	Nov. 1	2
3	4	5 9.5 Energy in Chemical Reactions	6	7 12.4-12.5 Concentration and Dilution	8	9
10	11	12 12.5,14.8 Solution Stoichiometry	13	14 10.1 Lewis Structures	15	16
17	18	19 10.2 Molecular Geometry	20	21 10.3 Electro-negativity and Polarity	22	23
24	25	26 REVIEW	27	28	29	30
Dec. 1	2	3	4	5	6	7
8	9 FINAL EXAM 3-5 PM	10	11	12	13	14

DISCLAIMER:

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.