# **INTRODUCTORY CHEMISTRY (ONLINE)**

CHM 1025

2 CREDITS

**SUMMER B, 2013** 

**ONLINE CLASS** 

**INSTRUCTOR:** Melanie Veige

CLB C130B

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(352) 392-0518

**OFFICE HOURS:** MWF 5<sup>th</sup> period

**COURSE TA:** TBA

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:** Chemistry: A Molecular Approach, Tro, 2<sup>nd</sup> ed., Pearson. Access to an electronic copy of the textbook is included with the access code (ISBN 9781256485995).

**ADDITIONAL REQUIREMENTS:** A computer with webcam, microphone, and speakers is required.

**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 recorded lectures by your instructor, and by key readings in the text.

#### **COURSE POLICIES:**

**QUIZ/EXAM POLICY:** The midterm and cumulative final exam will be administered via e-Learning using Assessments. These exams are remotely proctored by ProctorU. It is your responsibility to register with ProctorU and reserve an exam time within the window specified in the Due Dates schedule at least 5 days prior to each exam date. To

register go to <a href="http://go.proctoru.com">http://go.proctoru.com</a>. If you fail to make a reservation in advance, you will incur a late fee, and may have difficulty obtaining a desirable exam time. Same-day appointments are not permitted. Failure to reserve a time slot in advance is not an acceptable reason for a make-up. If you have technical difficulties, call ProctorU at 205-870-8122.

End of chapter quizzes are delivered via e-Learning using Assessments. These quizzes are not proctored, but are timed. The student may take the quizzes at any time within a 24 h window.

MAKE-UP POLICY: A conflict exam/quiz will be offered to those students with valid conflicts (<a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</a>). It is your responsibility to identify yourself as requiring such accommodation at least one week prior to the exam. If, during the exam, you experience technical difficulties with ProctorU, the correct course of action is to contact ProctorU at 205-870-8122. If you experience technical difficulties with e-Learning, contact the Help Desk immediately at 392-HELP. A ticket number will be created to log the time and nature of the problem. You must contact your instructor via e-mail within 24 h of the technical difficulty to be considered for a make-up. The ticket number will be required by your instructor should a make-up exam be requested.

ASSIGNMENT POLICY: The MasteringChemistry electronic homework component of the course consists of 28 assignments. The first five assignments are available from the first day of class; the remaining assignments are released in sets of five on Saturday mornings. Assignments are due on Wednesdays, Fridays, and Mondays at 11:59 pm. For free-answer questions, the student is given 4 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 <a href="https://www.MasteringChemistry.com">www.MasteringChemistry.com</a>. All assignments must be submitted by Aug. 9<sup>th</sup> at 11:59 pm, at which time access to the course page in <a href="https://www.MasteringChemistry.com">www.MasteringChemistry.com</a> will cease.

To register for MasteringChemistry, the student will require a valid e-mail address, an access code (purchase online at <a href="www.ufchemistry.com">www.ufchemistry.com</a>), the zip code for your school (32611) and the course ID: <a href="https://mcveige.gov/mcveige.g

The student is expected to contribute to the threaded discussions (Discussion Board tab) according to the advertised timeline. Original posts and comments on other students' posts are required. See the Discussion Board grading rubric for details.

COURSE TECHNOLOGY: The student may require Adobe Acrobat Reader, Adobe Flash Player, Microsoft Silverlight and other software; there are free tutorials on many software applications you may encounter on Lynda.com. All UF students are expected to have reliable access to a computer; suggested configurations may be found here: <a href="https://training.helpdesk.ufl.edu/computing.shtml">https://training.helpdesk.ufl.edu/computing.shtml</a>. ProctorU has specific hardware/software requirements: <a href="http://www.proctoru.com/tech.php">http://www.proctoru.com/tech.php</a>. Check the <a href="MasteringChemistry requirements">MasteringChemistry requirements</a> 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 (<a href="http://www.dso.ufl.edu/drc/">http://www.dso.ufl.edu/drc/</a>). 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 <a href="http://www.dso.ufl.edu/students.php">http://www.dso.ufl.edu/students.php</a>.

**NETIQUETTE: COMMUNICATION COURTESY:** All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. <a href="http://teach.ufl.edu/wp-">http://teach.ufl.edu/wp-</a>

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 a make-up.

Other resources are available at http://www.distance.ufl.edu/getting-help for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit <a href="http://www.distance.ufl.edu/student-complaints">http://www.distance.ufl.edu/student-complaints</a> to submit a complaint.

## TUTORING/CHEMISTRY HELP:

The Chemistry Learning Center (CLC) is located in Keene-Flint Hall rooms 257 and 258. Chemistry graduate students offer free help.

The <u>UF Teaching Center</u> 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. E-Homework (20%)
- 2. Quizzes (25%)
  - Time-limited end-of-chapter quizzes will be delivered in a multiple-choice and fill-in-the-blank format through Assessments in e-Learning. Each quiz is weighted equally.
- Proctored (online) Midterm (25%) and Final (25%) Exam
   The midterm and final exam (timed, multiple-choice and fill-in-the-blank format) will be delivered through Assessments in e-Learning and will be proctored remotely by ProctorU.

#### 4. Class Participation (5%)

The student will regularly (approximately 2x per week) post comments/insight on assigned topics to the Discussion Board in e-Learning. The posts will be visible to each student's group within e-Learning (approximately 30 students per group).

5. Syllabus Quiz and Surveys
The Syllabus Quiz, Survey #1, Survey #2 and Self-Assessment Survey are each worth 0.5% extra credit for a total of 2% possible extra credit.

#### **GRADING SCALE:**

| Α   | A- | B+ | В  | B- | C+ | С  | C- | D+ | D  | D- | E   |
|-----|----|----|----|----|----|----|----|----|----|----|-----|
| 88% | 85 | 81 | 78 | 75 | 70 | 66 | 64 | 60 | 56 | 54 | <54 |

For more information:

https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx#hgrades http://www.isis.ufl.edu/minusgrades.html/

### **COURSE SCHEDULE:**

**MIDTERM AND FINAL EXAM:** Reserve your exam times with ProctorU for the dates shown on the Suggested Study Schedule.

#### **SUGGESTED STUDY SCHEDULE:**



| SUN.<br>June<br>30 | MONDAY July 1 (1.1-1.5) Classification of Matter                          | TUESDAY 2 (1.6-1.8) Units and Problem Solving           | WEDNESDAY 3 (2.1-2.7) Atomic Structure & the Periodic Table | THURSDAY 4 (2.8-2.9) Atomic Mass & Molar Mass                 | FRIDAY<br>5 (3.1-3.6) Ionic<br>Nomenclature         | SAT. |
|--------------------|---|---|---|---|---|------|
| 7                  | 8 (3.1-3.6) Naming<br>Molecular<br>Compounds and<br>Acids                 | 9 (3.7-3.8) Moles and<br>Composition of<br>Compounds    | 10 (3.9) Empirical and<br>Molecular Formulas                | 11 (3.10-3.11) Balancing Equations & Naming Organic Compounds | 12 (4.2-4.3) Limiting<br>Reagent & Percent<br>Yield | 13   |
| 14                 | 15 (4.4-4.6)<br>Solution<br>Stoichiometry &<br>Precipitation<br>Reactions | 16 (4.7-4.8)<br>Acid/Base Reactions                     | 17 (4.9) Redox Reactions                                    | 18 (6.2-6.4) First Law;<br>Heat & Work<br>Midterm Exam        | 19 (6.5-6.7)<br>Calorimetry                         | 20   |
| 21                 | 22 (6.8) Hess' Law  | 23 (6.9) Standard<br>Enthalpy Changes                   | 24 (7.5-7.6; 8.2-8.4)<br>Electron Configuration             | 25 (8.4-8.9) Periodic<br>Trends                               | 26 (9.2-9.4) Bonding,<br>Ionic Bonding              | 27   |
| 28                 | 29 (9.4) Lattice<br>Energies  | 30 (9.5-9.7) Lewis<br>Structures &<br>Electronegativity | 31 (9.5-9.7,9.9) Lewis<br>Structures &<br>Electronegativity | 1 (9.8) Resonance & Formal Charge                             | 2 (9.10) Bond<br>Energies and Bond<br>Lengths       | 3    |

| 4  | 5 (10.2-10.5) | 6 (10.2-10.5) VSEPR | 7          | 8 | 9 | 10 |
|----|---------------|---------------------|------------|---|---|----|
|    | VSEPR         |                     | Final Exam |   |   |    |
| 11 | 12            |                     |            |   |   |    |
|    | (grades due)  |                     |            |   |   |    |

<u>Disclaimer:</u> 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.