

CASPER COLLEGE COURSE SYLLABUS
CHEM 1025 Chemistry I

Semester/Year: Fall 2015 Sections 01,02

Lecture Hours: 3

Lab Hours: 0

Credit Hours: 3

Class Time:

01: 8-8:50; **02:** 9-9:50 AM

Days: MWF

Room: PS315

Problems Class: Th 11-11:50 AM, PS 317

Instructor's Name: Mitchel D. Millan, Ph.D.; PS333, 307-2683017, mmillan@caspercollege.edu

Office Hours: MWF 10-11 AM, W 1-3 PM

Course Description: The first semester of a general course designed to meet the requirements of pre-professional, engineering, science, and liberal arts majors. Covers fundamental principles, atoms, subatomic particles, periodicity of elements, stoichiometry, bonding, oxidation states, states of matter, and solutions. (Taken with CHEM 1028, equivalent to UW CHEM 1020.)

Statement of Prerequisites: MATH 0930, or an ACT math score of 23 or better or an appropriate COMPASS exam within the past year, or permission of the instructor. High school chemistry strongly recommended.

Goal: This class will introduce students to the principles of chemistry. Skills involved will include (but will not be limited to) critical thinking, and ability to analyze qualitative, numerical and chemical problems.

Outcomes:

1. Learn to use the Scientific Method in this course and in the corresponding lab course.
2. Solve problems using critical thinking.
3. Use quantitative analytical skills to evaluate and process numerical data.

Course Objectives:

Upon completion of this course, students will gain and show proficiency in metric system conversions, chemical and solution stoichiometry, thermochemistry, atomic structure, electronic configurations, periodicity, covalent and ionic bonding, states of matter, composition of solutions, nomenclature and prediction of reaction products.

Methodology: Lectures will be delivered using Powerpoint and various websites as necessary. To help students prepare for class, the Powerpoint slides will be posted as pdf files in the Moodle class shell. Moodle will also be used to deliver announcements. Chapter Quizzes and Homework will be administered using the Mastering Chemistry system (see below).

Evaluation Criteria:

Four REGULAR TESTS (total adjusted to 500 points). These will involve essay / explain questions, plus calculation problems. The essay questions may themselves involve some math. The nature of the course necessitates that each succeeding Test be somewhat cumulative. However, each Test will focus *mainly* on the coverage in the Schedule below. Make-up Tests *may* be given: (i) at your instructor's discretion, and (ii) when *reasonable* and *unavoidable* circumstances are involved, and (iii) when notice is given to your instructor.

Advanced notice that you can't take an Test as scheduled is appreciated. Otherwise, you must contact your instructor by phone or email on the same day of the missed Test. A coach's/doctor's/police certificate

will be required as appropriate. Under all other circumstances, you get zero for the test. The three highest Tests will be credited, after dropping the lowest score. Tests will be given as scheduled below.

CHAPTER QUIZZES (15 pts each; adjusted to 150 pts total). These are quizzes administered at the end of each chapter of the textbook, using **Mastering Chemistry**. Quizzes are open for 72 consecutive hours. Each Quiz is worth 15 pts. Quizzes with more or less than 15 questions will have a score that will be converted to an equivalent of 15 pts. Nine attempts will be allowed per item per quiz.

Go to <http://masteringchemistry.com/> and click on **Students** in the **Register Now** box. (If you have used MC before, log in with your current credentials).

Click on **In US or Canada** in the **Select your location** box.

In **Do you have a Course ID from your instructor?** click **Yes, I have a course ID**. In the box type **MDMCHEM1025F15** click **Go** then **Next**. Note that this Course ID is valid only for the Fall of 2015 and for this course only. Any other Course IDs will not work for this term, and this Course ID will not work for other courses even during the Fall of 2015.

If you purchased a new textbook with an accompanying MC access code, click **Yes, I have an access code**, then **Next**. Follow the remaining instructions to complete your registration for the course.

If you did not purchase a textbook, or purchased a used book without an MC access code, click **No, I need to buy access**, then **Next**.

In **Select your book**, keep clicking on the Right arrow (>) until you see the cover of your text, click on **Brown et. al., Chemistry: The Central Science, 13/e**. This should be the image second from the left. Click on the image and **Next**.

In **This Mastering course contains an eText options**, click **I would like to buy it without the eText**. (unless you want access to the eText rather than a paper textbook. Access to the eText MIGHT lapse when the semester is over). Click **Next**. Follow the remaining instructions to complete your registration for the course.

Please be aware of the cost associated with Mastering Chemistry, when not purchased with a new textbook, which is currently \$66.00.

Under **Do You have a Pearson Education account?** you should *probably* click **Not sure if you have an account?** if you've never dealt with Pearson before. Continue providing all other information that the system will require.

HOMEWORK (10 pts each; adjusted to 100 pts total). HW will also be administered through the **Mastering Chemistry** system described above. HW are open within the duration of each lecture chapter. Each HW is worth 10 pts. HW with more or less than 10 questions will have a score that will be converted to an equivalent of 10 pts. Unlimited attempts will be allowed per HW, within the time period allotted.

Comprehensive FINAL TEST (250 pts). You may opt not to take the Final if you have a pre-final grade of a B or better AND have taken all four Regular Tests.

<i>GRADE DISTRIBUTION</i>	<i>Your Scores:</i>	<i>GRADING SCALE</i>
4 Regular Tests: 50%	500 pts	A: 900-1000 pts
Final Test: 25%	250 pts	B: 800-899 pts
Chapter Quizzes: 15%	150 pts	C: 700-799 pts
Homework: 10%	100 pts	D: 600-699 pts
Attendance: 1%	10 pts	-----

Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.

Required Text, Readings, and Materials:

Chemistry: The Central Science 13th Ed. by Brown, et. al.

Mastering Chemistry on-line assessment system

Class Policies: Last Date to Change to Audit Status or to Withdraw with a W Grade:

- By registering for, and staying in, this class, you agree to (i) abide by the policies, and (ii) fulfil all the requirements, described in this syllabus. Your instructor reserves the right to make revisions and modifications to this syllabus as needed, subject to sufficient notice to the class of such changes. You are responsible for all announcements (verbal and posted on Moodle), homework exercises, quizzes, and Tests, as well as changes in the schedule, whether or not you are in class. Absence neither excuses you from responsibility, nor entitles you to special opportunities or extra notification.
- Review sessions will not be held during class time. Your instructor will post (in Moodle) “Need-To-Know” Sheets that outline what to expect in each Test and the Finals. Also, your instructor has office hours, an email address, and a phone- use them. Your Tests will be returned and discussed, typically within two meetings after the test. You may discuss your test results and grade with your instructor during office hours.
- Attendance will be checked using a sign-up sheet passed around at the beginning of class. Come to class on time. Coming late *can be* disruptive, and *is* disrespectful to your classmates and instructor. Your instructor reserves the right to deny attendance sign-up to latecomers.
- Your instructor reserves the right to initiate an RA after three consecutive no-shows and an FIW after two continuous weeks of absence (six meetings).
- **Turn your cell phones off prior to class, unless you are a firefighter, EMT, the parent of a child for whom you must be available, or waiting for an emergency call. If so, keep your phones on vibrate and step outside the classroom to take the call. You must inform your instructor on a per-meeting basis about your potential incoming call. Text Messaging during class is extremely rude, and will not be allowed at any time. Your instructor reserves the right to take appropriate action if this policy is flagrantly violated.**
- **Laptops are allowed in class if you use it to take notes. None-class (i.e. not of this particular class) material viewed or written on your laptop, whether notes, homework, or Internet is not allowed. Your instructor reserves the right to check that your laptop is being used appropriately during class.**
- You *will* be called upon to participate in class. Pay attention. Stay awake.

The last day for withdrawal (a grade of W) without instructor permission is Nov 12.

Student Rights and Responsibilities: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Chair (Dr. Eric Mechalke), the interim Dean of the School of Science (Dr. Grant Wilson), and lastly the Vice President for Academic Affairs (Dr. Tim Wright).

Academic Dishonesty - Cheating & Plagiarism: Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

Official Means of Communication: Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly.

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, bheuer@caspercollege.edu. The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

Schedule:

Chapters are from Brown, et.al.

Dates	Material
Aug 24,26,28,31	Discussion of Syllabus Ch 1 (Introduction: Matter and Measurement)
Sep 2,4,9	Ch 2 (Atoms, Molecules, and Ions)
7	Labor Day: No Meeting
11,14,16,18,21,23	Ch 3 (Stoichiometry...)
25	Test 1 (Chs 1-3)
28,30, Oct 2,5,7,9	Ch 4 (Reactions in Aqueous Solution)
Oct 12,14,16,21,23	Ch 5 (Thermochemistry)
19,20	Fall Break: No Meeting
26	Test 2 (Chs 4,5)
28,30, Nov 2,4	Ch 6 (Electronic Structure of Atoms)
Nov 6	Advising Day: No Meeting
9, 11	Ch 7 (Periodic Properties of the Elements)
13	Test 3 (Chs 6,7)
13	Deadline for Withdrawal without Instructor Permission
16,18,20,23	Ch 8 (Basic Concepts of Chemical Bonding)
25,27	Thanksgiving Break: No Meetings
30, Dec 2,4,7	Ch 9 (Molecular Geometry and Bonding Theories)
Dec 9	Test 4 (Chs 8,9)
11	General Review / Assessment
14-17	Final TBA

All Chapter Quizzes, e.g. Ch1Q (Chapter 1 Quiz) in **Mastering Chemistry** and will be available for 72 hours. To ensure Customer Service availability, the 72 hours window for MC quizzes will be only during weekdays. All Homework, e.g. Ch1HW (Chapter 1 Homework) will be open in **Mastering Chemistry** for the duration of the lecture chapters.