

CASPER COLLEGE COURSE SYLLABUS
CHEM 1005 – Basic Chemistry I

Semester/Year: Fall 2015

Lecture Hours: 3

Lab Hours: 0

Credit Hours: 3

Class Time: Section 01 8:00-8:50 AM; Section 02 9:00-9:50 AM

Days: Monday, Wednesday, and Friday

Room: PS 317

Instructor's Name: Mark Mehn, Ph.D.

Instructor's Contact Information: PS 311

Office Phone: (307) 268-2370

Email:
mmehn@caspercollege.edu

Office Hours: Mondays, Wednesdays, Fridays from 10:00-10:50, Tuesdays from 12:00-12:50, and Thursdays from 13:00-14:50 (1:00-2:50 PM) or by appointment.

Course Description: Designed primarily for students who have not had high school chemistry or feel that they need a review, this course consists of a study of matter, atomic structure and bonding, the periodic table, chemical symbols, nomenclature and chemical equations, quantitative composition of compounds, calculations from chemical equations. Provides acceptable credit for students enrolled in agriculture, forestry, home economics, nursing, and petroleum technology. Not recommended for engineering, pre-medicine, pre-dentistry, pre-pharmacy, pre-veterinary medicine or any of the physical science majors. Students needing laboratory credit should enroll concurrently in [CHEM 1006](#). (Taken with [CHEM 1006](#), equivalent to UW CHEM 1000.)

Statement of Prerequisites: none.

Goal: This course includes basic and applied study of the interactions that govern all chemical phenomena. It emphasizes the relationships of space, time, mass and energy, electromagnetic radiation, macroscopic and microscopic views of matter, chemical transformations, and quantum mechanical principles. This course also introduces the scientific approach and its scope and limitations. Skills involved will include (but will not be limited to) critical thinking and the ability to analyze qualitative, numerical, and chemical problems.

Outcomes: The following Casper College General Education outcomes may apply to this course:

1. Using the scientific method;
2. Solving problems using critical thinking and creativity; and
3. Using quantitative analytical skills to evaluate and process numerical data.

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

Course Objectives: Upon successful completion of this course, students will be able to:

- i) understand the physical and chemical properties of matter;
- ii) perform basic algebraic operations relating to dimensional analysis with full attention to units and significant figures;
- iii) apply dimensional analysis to chemistry calculations;
- iv) understand the basic and currently accepted models of the atom;

- v) understand the concepts of bonding;
- vi) use the concepts of bonding in drawing simple Lewis structures and determining molecular geometry;
- vii) utilize the concepts of electronegativity and symmetry to determine polarity;
- viii) balance chemical equations; and
- ix) use of the mole concept in stoichiometric calculations.

Methodology: Lectures will be delivered using Powerpoint. To help students prepare for class, the Powerpoint slides will be posted as pdf files in the Moodle4Me class shell. Moodle will also be used to deliver announcements and other content. Moodle is an official means of communication for this class. Changes are made each semester as a result of student feedback, so please complete your course evaluations at the end of the course. Your feedback is valuable as the instructor uses course evaluations in determining course methodology.

Evaluation Criteria:

- Three out of Four Regular Hour Exams (3 exams x 100 pts/exam = 300 pts). The three highest exam grades will be credited (i.e., the lowest score will be dropped). These will involve multiple choice, short answer fill in the blank, essay/explanation questions, as well as calculation problems. The essay questions may involve some math. The nature of the course necessitates that each exam be somewhat cumulative. However, each test will focus on the material in that unit (please see the schedule below). Examinations will be held on the dates listed in the course outline (see below). No hats, MP3 players, ipods, phones with ear pieces, smart watches, Google Glass, or other devices that could be used to replay pre-recorded material or communicate with another person will be allowed during the exam. You are *not* permitted to program any information into your calculator for an exam. No extra time will be given for late arrival. Makeup examinations will be provided only if a student unavoidably misses a scheduled hour examination (for instance, illness with doctor's note, family emergency, etc.). If you know that you will miss an examination (e.g., a college authorized absence), please see me at least a week before the exam to arrange to take the exam early. If you have a college authorized absence and do not alert me until after the exam, then no make-up examination will be provided and a zero will be recorded in the grade book. Please, work with me to ensure an equitable examination for all of your peers. Students are expected to review the grading of their exams and request re-grading, if necessary, only during the two weeks following the exam. No re-grading will occur after this time period and requests for re-grading after that time will be ignored.
- Comprehensive Two Hour Final Exam (150 pts). The registrar has already posted the tentative final exam times.

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| <p>Section 01 (Meets MWF at 8 am) Final on Tuesday 15th December 2015 from 8-10 am. Section 02 (Meets MWF at 9 am) Final on Monday 14th December 2015 from 8-10 am.</p> |
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- Nine of Eleven Regular Quizzes (9 quizzes x 10 pts/quiz = 90 pts). These are administered roughly on a weekly basis. They will focus on the most recent material and may not be announced in advance.
- Nine of Eleven Regular Exercises (9 exercises x 10 pts/exercise = 90 pts). These will be posted on the Moodle course shell. Exercises are due by 5:00 PM on the due date. Late exercises will not be accepted. Each exercise will have a different total score that will be converted to 10 pts.
- Attendance (20 pts total). Percentage will be based on signing the attendance sheets throughout the semester.

- ❑ There is absolutely no EXTRA CREDIT offered in this course for any reason.

| <i>POINT DISTRIBUTION</i> | <i>Your Scores</i> | <i>GRADING SCALE</i> |
|--------------------------------------|---------------------------|-----------------------------|
| 3 Hour Exams (300 pts): 46.2% | max. 300 pts | A: 585-650 pts |
| Final Exam (150 pts): 23.1% | max. 150 pts | B: 520-584 pts |
| Quizzes (90 pts): 13.8% | max. 90 pts | C: 455-519 pts |
| Exercises (90 pts): 13.8% | max. 90 pts | D: 390-454 pts |
| Attendance (20 pts): 3.1% | max. 20 pts | F: 389-0 pts |

Required Text, Readings, and Materials: Introductory Chemistry, 5th Ed., by Nivaldo Tro.

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) fulfill 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 Moodle4Me), homework exercises, quizzes, and exams, 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.
- ❑ The term 'Basic' is used to describe this course. It is assumed that as college students, you have the 'basic' science, math, and English skills from high school. You may not have taken chemistry at all, but you should be able to do (or are currently taking) simple algebra and word-problem calculations. Your instructor will assume that you can READ. This is a science class that will exercise your science, math, and English abilities through a variety of quizzes, exercises, discussions (you will be asked to contribute in class), and exams. If you feel your skills are not well developed, you should get help as soon and as often as you can. Ignoring your deficiencies will not make Basic Chemistry any easier.
- ❑ Review sessions will not be held during class time. Also, your instructor has office hours, an email address, and a phone – please, make use of them. Your exams 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 (or by the instructor). 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 points to latecomers.
- ❑ Laptops are allowed in class, but please keep to the course material. If you must 'surf' during class, do so in the back row and do not disrupt the learning of your classmates. If you are being disruptive, the instructor reserves the right to ask you to leave without accommodation for the material missed during that class meeting.
- ❑ Your instructor reserves the right to initiate a retention alert (RA) after three consecutive no-shows and a faculty initiated withdraw (FIW) after two continuous weeks of absence (six meetings).
- ❑ Please, turn the ringer OFF on your cell phone/pager when you are in class and NO texting while working in lab. This is a courtesy to your classmates and instructor and is for your safety and the safety of those around you. **Possible exemptions include: 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.

- ❑ The last day for withdrawal from the course (assigning a grade of W) is the 12th Nov., 2015.

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 Head (Dr. Eric Mechalke), the Dean of the School of Science (Dr. Grant Wilson), and lastly the Interim Vice President for Academic Affairs (Dr. Shawn Powell).

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. Moodle Mail will be used regularly and is also considered an official means of communication. Students are responsible for checking their accounts regularly. This is also where you will find course evaluation links during course evaluation periods.

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.

Calendar:

| Date | Material | Exercise |
|---|-------------------------------|-----------------|
| 24, 26 and 28 th Aug. 2015 | Syllabus, Chapters 1 and 2 | |
| 31 st Aug., 2 nd and 4 th Sept 2015 | Chapter 2 and 3 | 1 |
| 7, 9, 11, and 14 th Sept. 2015 | Chapter 3 | 2 |
| 7 th Sept. 2015 | Labor Day | No Class |
| 9, 11, 14 and 16 th Sept. 2015 | Chapter 3 | 2 |
| 18 th Sept. 2015 | Exam #1 (Chapters 1-3) | --- |
| 21, 23, and 25 Sept. 2015 | Chapter 4 | 3 |
| 28 and 30 th Sept. 2015 | Chapter 5 | 4 |
| 2, 5 and 7 th Oct. 2015 | Chapter 6 | 5 and 6 |
| 9 th Oct. 2015 | Exam #2 (Chapters 4-6) | --- |
| 12, 14, and 16 th Oct. 2015 | Chapter 7 | |
| 19, and 20 th Oct. 2015 | Fall Break | No Class |
| 21, 23, and 26 th Oct. 2015 | Chapter 7 | 7 and 8 |
| 28, 30 th Oct., and 2 Nov. 2015 | Chapter 8 | 9 |
| 4 th Nov. 2015 | Exam #3 (Chapter 7-8) | --- |
| 6 th Nov. 2015 | Advising Day | No Class |
| 9, 11, 13 and 16 th Nov. 2015 | Chapter 9 | 10 |
| 18, 20, 23 rd Nov. 2015 | Chapter 10 | |
| 25 th -27 th Nov. 2015 | Thanksgiving Break | No Class |
| 30 Nov. 2015 | Chapter 10 | 11 |
| 2 nd Dec. 2015 | Exam #4 (Chapter 9-10) | --- |
| 4, 7, and 9 th Dec. 2015 | Chapter 11 | --- |
| 11 th Dec. 2015 | Chapter 11 Wrap Up and Review | |
| Section 1 (8 am lecture) Tuesday. 15 Dec. 2015: 8-10 am Section 2 (9 am lecture) Monday. 14 Dec. 2014: 8-10 am | Final Exam | |

As the instructor, I reserve the right to alter the contents of this syllabus. All revisions will be delivered either verbally in class or in writing (via either your Casper College or Moodle Mail email account).

I, the undersigned, confirm that I have received, read, and understand my duties and responsibilities as stated in the syllabus for CHEM 1005 (in either Section 1 or 2), for the Fall semester of the 2015-2016 academic year.

Signature: _____ Date: _____

Please print your name here: _____

Please also use the bottom half of this page to convey any other information you would like the instructor to know at the outset of this course. (For instance, student activities that may lead to College Excused Absences, allergies to certain substances (e.g., peanuts or sulfites), history of seizures that may endanger yourself or others, etc.) This information will be kept for one semester beyond your completion of the course and then shredded or in some other way destroyed.

Tell me about yourself! Is there anything you want me to know about you (memorable, unique, concerns, etc.).

Any Previous Chemistry Experience:

Any Previous Math Experience:

Any questions for me?

[NOTE: COMPLETING and TURNING THIS PAGE IN gives you 10pts for Quiz 01!]