Course: CHEM 1120 – General Chemistry II
Semester: Spring 2012
Instructors:
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Course Supervisor: Dr. Jeff T. Horner, Dean of Natural Science, Office NSCI 126,
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Office Hours: Office Hours are posted on the instructors’ door
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Secretary: 423-585-6865 (Sherry Woody)

Required Textbook and Supplementary Materials:
Publishing (2010).
Additional Materials: Scientific calculator (required); Study Guide (optional)

Catalog Course Description:
A study of fundamental concepts and properties of selected elements and compounds. Topics
covered are: physical properties of solutions: chemical kinetics: chemical equilibrium; acids
and bases: general properties; acid-base equilibria; solubility equilibria; entropy; free energy;
and equilibrium; electrochemistry; metallurgy and the chemistry of metals; nonmetallic elements
and their compounds; transition metal chemistry and coordination; nuclear chemistry and organic
chemistry; polymers and industrial chemistry. (Prerequisite: CHEM 1110; Corequisite CHEM
1121) - 3 semester credits

Course Outcomes:
Upon completion of this course students will be able to:
1. Understand the importance of intra- and inter- molecular forces.
2. Use various concentration units and colligative properties of solutions.
3. Understand kinetic reaction rate and mechanisms.
4. Establish the relationship between kinetics and thermodynamics.
5. Manipulate chemical equilibria to determine the resulting effect on reaction direction,
   concentrations, acidity, basicity and solubility.
6. Utilize enthalpy, entropy and free energy as fundamental principles of chemical
   thermodynamics.
7. Understand basic principles of nuclear chemistry

The subject content for the core is shown as learning outcomes which are available on the
Common Core:
A. Organic Chemistry Chapters 10.2-10.7 & 20
B. Intermolecular Forces Chapters 11
C. Solutions Chapter 12
D. Chemical Kinetics Chapter 13
E. Chemical Equilibria Chapter 14
F. Chemistry of Acids, Bases and Buffers Chapter 15
G. Solubility Equilibria Chapter 16
H. Thermodynamics Chapter 17
I. Nuclear Chemistry Chapter 19
J. Redox Reactions & Electrochemistry Chapter 18

General Education Course Designation: Natural Science (3 semester hours)

Instructional and Evaluation Methods:
Lectures and discussion: You are expected to attend class, pay attention, and participate actively in discussions by answering questions, asking questions, and making comments. You will get more out of the lecture if you have read the material in the textbook ahead of time. Always bring your book with you to lecture. Learning Outcomes for students can be found in the Walters State home page for this course and the chemistry section of the Natural Science homepage. Outlines and PowerPoint presentations used in lecture may be available for your review on the course’s eLearn home.

Reading: The textbook provides a good general introduction to the field of Chemistry. Most of the topics that are approached in the class are covered by the book. Thus, it will serve to augment lecture and to provide material for discussion. In addition, readings in the book will support the material that you will be studying in labs. The book includes many things which will help you understand the material and study for the tests, including a list of key concepts, chapter summaries, review questions, quizzes, and a list of key terms.

Expectations
Satisfactory performance in college courses generally asks for two hours of study outside of class for each hour in class. This estimate applies to an "average" student expecting an "adequate" (C) grade. Students aiming higher or those with academic problems should expect to spend more effort than the minimum. Should you procrastinate, not read ahead of time, or expect to cram everything on last days before exams this course may not be for you.

The Student Can Expect from the teacher:
1. Email response within 24 hours during the normal work week. Holidays and vacations excepted.
2. Email during the weekend will be answered on Monday.
3. Exams to be graded and returned in a timely manner.
4. Enthusiasm for the subject and encouragement to help you when you need it.
5. A fair grading system, with feedback.
6. Learning that ties concepts into the real world around us.
7. Respect for you as a learner.

Exams and Grading
Chemistry exams will emphasize factual knowledge and assess the achievement of the Learning
Outcomes. Short answer, essay questions and multiple choice may be used. Exams focus on what happens in class as supplemented and amplified by the readings.

**Grading Scale:**

- 90 - 100% = A
- 80 - 89% = B
- 70 - 79% = C
- 60 - 69% = D
- 0 - 59% = F

**Testing Procedures:** (generally two chapters per exam)

- Exam 1:
- Exam 2:
- Exam 3:
- Exam 4:
- Exam 5:
- Exam 6:

  5 exams average = 70%
  Final = 30%

**Course Ground Rules:**

- Students should attend the first day of class or contact the instructor prior to the first class. Failure to do this may result in being dropped from the class.

- Plagiarism, cheating, and other forms of academic dishonesty are prohibited.

- Students with disabilities must register with Student Support Services (CCEN), Room 262 (phone 423-585-6892) if they need any special facilities, services, or consideration.

- Students in need of tutoring assistance are encouraged to contact the Office of Student Tutoring located in the College Center (CCEN), Room 261. The phone number is 423-585-6920.

- Students receiving any type of financial aid or scholarship should contact the Financial Aid Office before making any changes to their schedule. Schedule changes without prior approval may result in loss of award for the current term and future terms.

- Students who have not paid fees on time and/or are not correctly registered for this class and whose names do not appear on official class rolls generated by the Admissions and Records Office will not be allowed to remain in class or receive credit for this course.

- Cellular phones and other electrical devices (ipods, headphones, etc.) use during classroom interaction is prohibited. Cellular phones must be turned to the non-audible mode until after class, at which time calls can be received or checked. (See the Walters State Catalog/Handbook)

For information related to the cancellation of classes due to inclement weather, please check the college’s Web site at [www.ws.edu](http://www.ws.edu) or call the college’s student information line, 1-800-225-4770, option 1; InfoConnect, (423) 581-1233, option 1045; the Sevier County Campus, (865) 774-5800, option 9; or the Greeneville/Greene County Center for Higher Education, (423) 798-7940, option 4. Also, please monitor local TV and radio stations for weather-related announcements. For additional information on this policy see the college catalog.
In the event of a pandemic or other college declared critical event that impacts the college’s ability to proceed with academic course activities as planned, the college reserves the right to alter this course plan. In the event of a pandemic or other event, please refer to the college’s home web page, www.ws.edu or call InfoConnect, (423) 581-1233 for further information.

Regular class attendance is a student’s obligation. (See the Walters State Catalog/Student Handbook) If for some reason a student misses class, it is his or her responsibility to see the instructor regarding missed assignments and/or activities and to be prepared for the next class. Excessive absences may substantially lower the semester grade. The college requires the instructor to keep accurate records and to report when students are not attending class.

Students are required to supply a #2 pencil for each lecture exam.

The wearing of hats and caps in class is not allowed! Students will be asked to remove their hats and caps.

**STAY AWAKE IN CLASS.** Your mere presence in class is not sufficient—you must be able to actively process the information presented! Sleeping in class is disruptive in two ways: the student who is snoozing is not interested and not participating in the classroom discussion; secondly, sleeping in class is considered to be disrespectful to the teacher and other students. The penalty for sleeping in class may range from the student being requested to leave the class with a following conference with the instructor, to notification of the Vice-President of Academic Affairs (in the cases of habitual sleepers). If you have a medical condition that prevents you from staying awake in class, please discuss this with the instructor.

**WSCC Catalog Notification Statement:**
All students attending Walters State Community College, regardless of the time and location of the class, must abide by the rules and regulations outlined in the current Walters State Catalog/Student Handbook and the current “Walters State Timetable of Classes.” A copy of the Catalog/Handbook and the “Timetable of Classes” may be obtained from the Admissions Office on the Main campus or at any of our off-campus sites. You may also access the Catalog/Handbook on-line at the following web address: http://www.ws.edu/catalog.

**Alternative Teaching Plan**
In the event of a pandemic or other college declared critical event, the lead faculty member for this course will use eLearn to communicate with the students. If the lead faculty member is affected by this event, another member from the teaching team will assume instruction for the course. The course will continue utilizing an online format of instruction and testing.

**ATTENTION:** The Natural Science faculty members are concerned with proper academic advising of students in **ALL** Pre-Professional programs. It is our explicit desire to help you with any advising problems you may encounter.