

Fundamentals of Chemistry I Syllabus CH 151, Fall 2011, Dr. Schmidt

Lecture:	Section B	MWF 10:00 – 10:50am	ST138
Recitation:	Section BR1	M 12:00 – 12:50pm	ST311
	Section BR2	M 2:00 – 2:50pm	ST316
	Section BR3	T 1:00 – 1:50pm	ST311
Lab:	as assigned		

Instructor: Dr. Shaun E. Schmidt e-mail: shaun.schmidt@washburn.edu
Office: 312E Stoffer Science Hall URL: <http://www.washburn.edu/cas/chemistry/sschmidt/>
Phone: (785) 670-2265 Office hours: MWF 11am-noon or as arranged

Purpose: “Designed for those students who need one year of general chemistry. This course discusses vocabulary and basic laws that are necessary as a foundation for future studies in chemistry. Topics covered will include such subjects as atomic structure, states of matter, chemical bonding and solutions. Credit for CH 151 precludes subsequent earning of credit in CH 121. Three class periods, one hour of recitation, and one three hour laboratory period per week.” CH 151 is designed to develop the student’s abilities in three areas: 1) fundamental chemical concepts, 2) problem solving techniques, and 3) critical thinking skills.

The following skills will be emphasized to satisfy general education requirements:

- Reason mathematically and understand numerical data – you will be exposed to fundamental mathematical skills both in lecture and laboratory. You will be taught to use numerical data as a means of developing some of the fundamental laws of chemistry. Some direct applications of these skills will involve development of the gas laws, law of definite proportions and the stoichiometry of chemical reactions.
- Process information both in terms of synthesis and analysis – you will develop the skill of evaluating empirical evidence (both mathematical and nonmathematical) in terms of developing models that describe chemical phenomena. You will learn to assess the validity and non-validity of the information in terms of consistency with the model. Where the information is consistent with the model further refinement of the model will be developed and when the information is not consistent with the model you will learn how to modify the model to bring it in congruence with the empirical evidence.
- Solve problems using the methods of analysis considering evidence, relevance, and validity. In both lecture and laboratory you will develop the skill of analyzing both numerical and other data to draw conclusions concerning chemical and physical systems.

The three skills discussed above will be evaluated through homework, quizzes, examination, and the analysis of laboratory reports.

Prerequisite: MA 116 or concurrent enrollment

Textbook etc.:

- *Chemistry: The Molecular Nature of Matter and Change*, 6th Ed., by M. S. Silberberg, 2012 (required)
- *Connect Chemistry*, on-line homework (required)
- At least 2 Dry Erase Markers for Recitation (required)
- Scientific calculator (required) (A scientific calculator equipped with a Solver function will be required for CH152)

Attendance: Attendance is required for BOTH lecture and recitation. The instructor must be notified by e-mail and in person at least one week prior to any potentially excused absence. In the very unlikely case of a dire emergency, you must immediately notify your instructor by phone or in person and then request an excuse by e-mail once the situation has passed. In addition, **missed quizzes, homework and exams will receive a zero and will not be made-up.** In the rare case that you have an excused absence, an exam grade based on your Make-up Exam grade or Final Exam grade may be recorded for

the missed hourly exam. If a university field trip or athletic event conflicts with an exam time, it is the **student's** responsibility to make arrangements with the instructor to take the exam early.

Laboratory participation is required for the successful completion of this course. If you are pregnant or become pregnant during this semester you should consult with your physician to decide if it is advisable for you to continue with this chemistry course. You may obtain a list of chemicals used during labs from your instructor.

Grading: Final grades will be assigned based on four hourly exams (125 points each), a Make-up Exam (125 points that can replace one hourly exam), a comprehensive final exam (300 points), and on your laboratory grade (200 points). Unscheduled Pop-Quizzes and Pop-Exams may be given at the discretion of the instructor and included in the grading scheme as the instructor deems appropriate. Grades will be assessed based on a 1,000 point total. As chemistry is an empirical science, your overall grade in the course will not be more than one letter grade higher than your laboratory grade.

Make-up Exam: The Make-up Exam will be given on Wednesday, December 8th at 5pm. Special arrangements will be made for **scheduled class conflicts only**. Your grade on the Make-up Exam can replace your lowest hourly exam score. The Make-up Exam is comprehensive.

Homework: Late homework will not be accepted. Assigned homework will be comprised of both Introductory homework assignments and Exam Mastery homework assignments. Un-assigned homework is comprised of every problem in the applicable chapter of the textbook.

- **Introductory** "LearnSmart" homework assignments are will be completed before every class on-line through the "Connect Chemistry" link on the class homepage on my website. These assignments are only meant to introduce the material to be covered that day in lecture and do not reflect the level of understanding expected for the exams. You will need to register with "Connect Chemistry" using the access code purchased with your lecture text. The course URL is http://connect.mcgraw-hill.com/class/s_schmidt_fall_2011_section_b.
- **Chapter Mastery** homework assignments also will be completed on-line through the "Connect Chemistry" link on the class homepage on my website. Assignments will be due after the material is covered in lecture. The due dates are specified on the "Connect Chemistry" website.

Credit for homework will be given in the form of a homework curve on the pertinent exam:

- A homework average (of the percentage complete of the Daily homework assignments and the percentage correct for the Exam Mastery homework assignments) greater than or equal to exactly 90% will receive the full 5% point curve,
- between exactly 82% up to 90% will receive a 4% point curve,
- between exactly 74% up to 82% will receive a 3% point curve,
- between exactly 67% up to 74% will receive a 2% point curve,
- between exactly 60% up to 67% will receive a 1% point curve,
- less than 60% will receive no curve.

The URL for "Connect Chemistry" is

http://connect.mcgraw-hill.com/class/s_schmidt_fall_2011_section_b .

Also please note that the solutions to all of the colored numbered problems are given in your textbook, so a conscientious student will complete of all of the problems as a way to study the material.

Success: How can you further your success in this course? Read the book, turn in all of the homework, *do all of the chapter problems*, participate in lecture, participate even more in recitation, experience chemistry in the lab, study some more, think about what you've studied, *ask questions about what you've studied*, take advantage of Supplemental instruction (SI), use the "free" tutors, *get help from Dr. Schmidt...*

Here is what I expect you to do:

1. Quickly skim/read the chapter.
2. Complete the Introductory homework assignment.
3. Re-read the chapter in more detail and start asking a lot of questions (Why, How, Where, When, Why not, etc.). In some cases you may need to make some flashcards.
4. Participate in Lecture.
5. Work on the Exam Mastery on-line Chapter Homework Assignment and additional problems in the text. Focus on learning and understanding the chemistry, **not** on memorizing computational algorithms.
6. Actively participate in Recitation.
7. Complete the Exam Mastery on-line homework assignment.
8. Re-re-read the chapter; *ask a lot of questions (Why, How, Where, When, Why not, etc.)*. You should be assimilating your ideas by now into your understanding of the Universe.
9. The day before the exam, review the material.
10. Perform at your peak level of expertise on the exam by **applying** the fundamental Chemical concepts that you have made a part of your understanding of the Universe.

“Chemistry requires rigorous and meticulous habits.”

UNIVERSITY ADDITIONS – COURSE SYLLABUS

Mission of the University:

Washburn University enriches the lives of students by providing opportunities for them to develop and to realize their intellectual, academic, and professional potential, leading to becoming productive and responsible citizens. We are committed to excellence in teaching, scholarly work, quality academic and professional programs, and high levels of faculty-student interaction. We develop and engage in relationships to enhance educational experiences and our community. *Washburn University Board of Regents, 2010*

Definition of a Credit Hour:

For every credit hour awarded for a course, the student is typically expected to complete approximately one hour of classroom instruction, online interaction with course material, or direct faculty instruction and a minimum of two additional hours of student work each week for approximately 15 weeks for one semester or the equivalent amount of work over a different amount of time.

Academic Misconduct Policy:

All students are expected to conduct themselves appropriately and ethically in their academic work. Inappropriate and unethical behavior includes (but is not limited to) giving or receiving unauthorized aid on examinations or in the preparation of papers or other assignments, or knowingly misrepresenting the source of academic work. Washburn University's Academic Impropriety Policy describes academically unethical behavior in greater detail and explains the actions that may be taken when such behavior occurs. For guidelines regarding protection of copyright, consult

www.washburn.edu/copyright/students. For a complete copy of the Academic Impropriety Policy, contact the office of the Vice President for Academic Affairs, Bradbury Thompson Alumni Center Suite 200, or go on-line to:

www.washburn.edu/admin/vpaa/fachdbk/FHsec7.html#VIII

Disability Services:

The Student Services Office is responsible for assisting in arranging accommodations and for identifying resources on campus for persons with disabilities. Qualified students with disabilities must register with the office to be eligible for services. The office MUST have appropriate documentation on file in order to provide services. Accommodations may include in-class note takers, test readers and/or scribes, adaptive computer technology, brailled materials. Requests for accommodations should be submitted at least two months before services should begin; however, if you need an accommodation this semester, please contact the Student Services Office immediately.

Location: Student Services, Morgan Hall Room 135 (new location)

Phone: 785-670-1629 or TDD 785-670-1025

E-Mail: student-services@washburn.edu

Students may voluntarily identify themselves to the instructor for a referral to the Student Services Office.

Office of Academic Advising:

As a Washburn student, you may experience difficulty with issues such as studying, personal problems, time management, or choice of major, classes, or employment. The Office of Academic Advising is available to help students either directly through academic advising, mentoring, testing and developing learning strategies or by identifying the appropriate University resource. If you feel you need someone with whom to discuss an issue confidentially and free of charge, contact Academic Advising in Morgan 122, 785-670-1942, advising@washburn.edu.

Withdrawal Policy:

During fall and spring semesters, students may go online and withdraw from full semester courses through the second week of class with no recorded grade. From the third through the eleventh week a “W” is recorded for any dropped course. After the eleventh week, there are NO withdrawals, and a grade will be assigned for the course (View dates of deadlines by linking to the appropriate academic calendar <http://www.washburn.edu/admin/vpaa/calendars.html>). For short-term or summer course deadlines, please check the appropriate Semester/Session Course Bulletin Web Site (www.washburn.edu/schedule)

Attendance/Administrative Withdrawal:

Although it is the student's responsibility to initiate course withdrawals, an instructor, after due notice to the student, may request withdrawal of the student from a course because of nonattendance through the same date as the last day a student may withdraw from a course. This would NOT absolve the student of financial responsibility for tuition/fees for the course in question. The inclusion of this information in the course syllabus is considered due notice.

Official E-Mail Address:

Your Washburn University e-mail address will be the official address used by the University for relaying important messages regarding academic and financial information and the University will consider this your official notification for important information. It may also be used by your instructors to provide specific course information. If you prefer to use an alternate e-mail address to receive official University notices, you can access your MyWashburn e-mail account, choose the "Options" tab, and select "Settings", scroll to the bottom of the screen, click enable forwarding and enter the e-mail address you would like your Washburn emails forwarded to in the “mail forwarding” area. Click add and then click on save changes. This will complete the process of forwarding your Washburn e-mail. It is your responsibility to ensure that your official e-mail box does not exceed your message quota resulting in the inability of e-mail messages to be accepted into your mailbox.

Success Week:

Success Week for undergraduate students is designated as the five week days preceding the first day of scheduled final examinations each Fall and Spring semester. Success Week is intended to provide students ample opportunity to prepare for final examinations. For academic programs, the following guidelines apply:

A. Faculty are encouraged to utilize Success Week as a time for review of course material in preparation for the final examination. If an examination is to be given during Success Week, it must not be given in the last three days of Success Week unless approved by the Dean or Department Chair. Assignments worth no more than 10% of the final grade and covering no more than one-fourth of assigned reading material in the course may be given.

B. Major course assignments (extensive research papers, projects, etc.) should be due on or before the Friday prior to Success Week and should be assigned early in the semester. Any modifications to assignments should be made in a timely fashion to give students adequate time to complete the assignments.

C. If major course assignments must be given during Success Week, they should be due in the first three days of Success Week. Exceptions include class presentations by students and semester-long projects such as a project assignment in lieu of a final. Participation and attendance grades are acceptable. The Success Week policy excludes make-up assignments, make-up tests, take-home final exams, and laboratory examinations. It also does not apply to classes meeting one day a week for more than one hour. All University laboratory classes are exempt from this policy.