Fundamentals of Chemistry II Syllabus, CH 152

Master Syllabus

Department of Chemistry, Washburn University

Purpose: “A continuation of Chemistry 151. Includes a study of equilibrium, electrochemistry, thermodynamics, thermochemistry, and kinetics. Laboratory work deals with experimental studies on the theories of chemistry, qualitative analysis and independent laboratory projects. Three class periods, one hour of recitation, and one three hour laboratory period per week.”

This course will satisfy the general education requirements in Natural Sciences and Mathematics distribution. The Washburn University Student Learning Outcome which will be assessed in this course is “Quantitative and Scientific Reasoning and Literacy” given the three following objectives.

Objective 1: Demonstrate a conceptual understanding of fundamental chemical concepts in the areas of equilibrium, electrochemistry, thermodynamics, thermochemistry, and kinetics. This objective will be assessed using 100% of the questions on the final exam which will be the American Chemical Society Exam for the Full Year of General Chemistry.

Objective 2: Demonstrate an understanding of mathematical principles and numerical data as applied to fundamental chemical concepts. This objective will be assessed using a minimum of 50% of the questions on the final exam which will be the American Chemical Society Exam for the First Term of General Chemistry.

Course Objective 3: Demonstrate the collection and use of empirical data using the scientific method. This objective will be assessed using the final grade on the 100% of Laboratory Mid-term exam questions and the Qualitative Analysis Unknowns.

The General education Student Learning Outcome will be evaluated using the Final exam which is a minimum of 25% of the final course grade and the Laboratory Mid-term and Qualitative Analysis Unknowns which are a minimum of 25% of the overall laboratory grade.

Prerequisite: CH 151

Textbook (as specified in the instructor syllabus):
- *Connect Chemistry*, on-line homework (required)
- *Laboratory Manual for Principles of General Chemistry prepared for Department of Chemistry, Washburn University*, 9th Ed. by J.A. Beran (required)
- *Supplemental Laboratory Experiments and Exercises*, Washburn University, 2015 (required)
- Student Lab Notebook with permanent or spiral binding, 100 carbonless duplicate sets, Hayden McNeil Specialty Products (required)
- At least 2 Dry Erase Markers for Recitation (required)
- Scientific calculator equipped with a solver function (required)

Grading: The instructor for the course and lab will state a specific grading scheme in supplemental syllabi. The lecture and recitation grade will comprise 80% of the overall grade and the laboratory grade will comprise the remaining 20%. The laboratory instructor is responsible for the laboratory section instruction and assessment, and at the end of semester will communicate an overall lab grade for each student to the lecture instructor. As the lecture instructor is the overall instructor for the course, she/he will determine the final grade. As chemistry is an empirical science, a student’s overall grade in the course will not be more than one letter grade higher than her/his laboratory grade.

Lecture Exams (typically four hourly exams and a final exam) contribute 65-80% of the points toward the final grade. Homework, recitation questions, quizzes, and special assignments contribute 0-15% of the
points toward the final grade. Laboratory experiments, write-ups, questions and quizzes comprise the remaining 20%.

Student final grades typically average 2.5 on a scale of F = 0.0 to A = 4.0.

**Attendance:** Attendance is required for lecture, recitation and laboratory. If a university field trip or athletic event conflicts with a class time, it is the student's responsibility to make arrangements with the lecture or laboratory instructor to make up any missed material at the discretion of the lecture or laboratory instructor.

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.

**Laboratory Safety:** The following safety rules must be followed to ensure every student’s safety. Special safety issues will be discussed for each experiment if necessary. Violation of any safety rules shall be dealt with (e.g. loss of points, removal from laboratory, etc.) at the discretion of the Instructor, Laboratory Supervisor, and/or Department Chair.

- Students must view the “Starting with Safety” video before working in the laboratory.
- Students must read, agree to, and sign the “Safety Regulations in the Laboratory” before working in the laboratory.
- In the unlikely event an accident occurs in the laboratory, the student(s) involved with the guidance of the laboratory instructor will submit a completed “Accident Report Form” to the Laboratory Supervisor.
- Students must wear safety goggles at all times in the lab.
- Students must wear shoes in the lab. Open-toed shoes, sandals, or shorts do not offer adequate protection against spilled chemicals or broken glass. Open-toed shoes or sandals are not allowed.
- Eating or drinking is not allowed in the lab.
- Chemicals should not be used for purposes other than those stated in the experiments.
- Wastes must be disposed of properly in accordance with instructions.

revised 1/12/15
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 an undergraduate 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.

Notice of Non-Discrimination/Safe Educational Environment:
Washburn University prohibits discrimination on the basis of race, color, sex, religion, age, national origin, ancestry, disability, marital or parental status, sexual orientation/gender identity, genetic information, or other non-merit reasons, in University programs and activities, admissions, educational programs or activities, and employment, as required by applicable laws and regulations. The following person has been designated to handle inquiries regarding the non-discrimination policies: Dr. Pamela Foster, Equal Opportunity Director, Washburn University, 1700 SW College Ave, Topeka, Kansas 66621, 785.670.1509, eodirector@washburn.edu

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 http://www.washburn.edu/copyright. 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: http://www.washburn.edu/academic-impropriety.

Student Services Center:
The Student Service Center is the place where students can take care of a range of matters related to admissions, financial aid, student records/registration, and student accounts. The "one-stop" concept in Morgan Hall, room 152 incorporates the front office services of the Business Office, Financial Aid and the Registrar in one convenient location. Stop in and visit with a University Service Advisor for assistance or give us call us at (785) 670-2162. You can also email us at SSC@washburn.edu.

Student Health Services:
Student Health Services (SHS) provides support for students experiencing challenges with learning and adapting to university life. SHS offers urgent care for illness and injury; sports, school, and travel abroad physicals (including TB testing); well woman exams; STD and pregnancy testing; immunizations/vaccinations; and care of chronic illness. Services are provided by Board Certified Advanced Practice Registered Nurses (APRN) who collaborate with WU Student Counseling Services and physicians in the Topeka area. More information can be found at http://www.washburn.edu/health

WU Counseling Services
Licensed mental health professionals are available in the Counseling Services’ office for personal, academic, and mental health support. This is accomplished by providing a variety of counseling services as well as resources and referrals to students. More information can be found at http://www.washburn.edu/counseling
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, Memorial Student Union/Mosiman Room (MOVED effective 1/6/2014)
Web: [http://www.washburn.edu/student-services](http://www.washburn.edu/student-services)
Phone: 785-670-1629
E-Mail: student-services@washburn.edu

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

Center for Student Success:
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 Center for Student Success (Office of Academic Advising, University Tutoring and Writing Center, First-Year Experience, and Testing and Assessment) 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 the center at 785-670-1942, advising@washburn.edu, or visit Mabee Library, Room 201.

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. These deadlines will be different for short-term, out-of-sequence, or summer courses. To view the deadline dates for your courses visit the “Last Day” Deadlines web page at: [https://www2-prod.washburn.edu/self-service/coursedates.php](https://www2-prod.washburn.edu/self-service/coursedates.php). Depending on the timing of the request to withdraw from a course, students may be eligible for a full or partial refund. Information regarding tuition refunds is available at [http://www.washburn.edu/current-students/business-office/ tuition-refunds.html](http://www.washburn.edu/current-students/business-office/tuition-refunds.html). Please note: tuition refund amounts and deadlines are changing effective Fall 2014. In addition, depending on the timing of the request to withdraw from a course, students may be responsible for repaying all or a portion of their financial aid.

Students who do not attend their courses and fail to officially withdraw themselves will receive a grade of “F” and may also be required to repay all or a portion of their financial aid based on their non-attendance. For further information, contact the Financial Aid Office at 785.670.1151 or e-mail financialaid@washburn.edu.

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 set a forwarding address in the Outlook Web App by following the steps below.

Outlook Web App: Set Forwarding Address
1. Go to [http://outlook.washburn.edu](http://outlook.washburn.edu)
2. Sign in
3. Click the Gear in the upper right
4. Choose Options
5. Select Forward your email from the list on the right
6. In the lower portion of the screen, **enter the email address** to which you want to forward all your email.

7. Click the **start forwarding** button

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.