

College Chemistry I
CHEM 120 – A04 (CRN 36696)
Summer 2017

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Office Hours: Monday-Wednesday, Friday 11:30am-12:30pm, by appointment, or if the door is open

Course Description

The first semester of college chemistry for science majors and minors is intended to provide a basic background in the principles of chemistry. The primary purpose of this course is to increase your ability to think critically and solve problems using the fundamental concepts of molecular science.

General Education

Fulfills part of the D-I (Science/Mathematics) general education requirement and objective of obtaining an understanding of the scientific method and knowledge of natural science and its relevance to life itself.

Learning Objectives

Students in CHEM 120 will develop basic chemical knowledge and problem solving skills in the following areas: the essential ideas of science; the structure of atoms, molecules, and ions; the composition of substances and solutions; the classification and stoichiometry of chemical reactions; the behavior of gases; thermochemistry; electron structure and the periodic properties of elements; chemical bonding and molecular geometry; and phase changes, intermolecular forces, and the details of matter.

Enrollment Requirements

Current enrollment requirements as stated in the WKU Course catalog.

Required Materials

- OpenStax Chemistry – *free eBook linked through Blackboard, print copy optional*
- Sapling Learning Software – *automatically billed and linked through Blackboard*
- REEF Polling Software – *automatically billed and linked through Blackboard*
- Non-programmable, Non-graphing, Scientific Calculator

Note: Sapling Learning and REEF Polling will be automatically billed to your WKU student account. Access instructions will be posted as an announcement to Blackboard and reviewed on the first day of class.

Our department at WKU has worked together to reduce the price of course materials for students. In order to save you money, maximize your effective use of your textbook, and increase learning, we have entered into a partnership with Sapling Learning and REEF Polling. By enrolling in this course, you agree to purchase the digital materials associated with this course. These materials include a 6 to 24 month (depending on the course) access to Sapling and REEF where appropriate. In order to make these savings available to you, we have partnered with The WKU Store to streamline the delivery process. As a result, around two weeks into the semester (after drop/add period), you will be billed the cost of materials for the course. Each student will have access to all course materials from day one. If you choose to drop the course during the regular add-drop period you will not be charged for the online portion of the material. You should note that for this course, you WILL BE CHARGED for these digital materials.

Graded Assessments

Grade Evaluation

Grades are based on the total number of points earned.

3 Exams @ 100 pts.	300 pts.
Comprehensive Final	200 pts.
Homework assignments	50 pts.
In-class assignments	50 pts.
Total possible points:	600 pts.

Grade Ranges

≥540	90.0 %	A	≥360	60.0 %	D
≥480	80.0 %	B	<360		F
≥420	70.0 %	C			

Exams and Final

- Questions on the exams and final will be similar to homework exercises. Practice problems will be made available. These will be ***your best study aid*** for exams.
- A calculator will be necessary to complete the exams and final. **Only non-programmable/non-graphing calculators will be allowed.** You are responsible for bringing a working non-programmable/non-graphing calculator to each exam.
- A copy of the periodic table with symbols, atomic numbers, and atomic masses will be provided with the exam packet. Other pertinent reference material may also be supplied, but no notes or aids of any other kind will be allowed.
- Advance notice of exam dates will be given. I reserve the right to modify the schedule in order to meet the time constraints of the course and the needs of the students. I will only do this to your benefit and to ensure maximum success.
- Excused exams are granted at my discretion. You must submit a written explanation with physical evidence documenting the reasons for missing the exam within three business days of returning or it will be considered unexcused. An unexcused absence will result in a grade of zero.

Homework

- All due dates are listed on the Sapling website, accessible through Blackboard. Advance notice of due dates and any changes to the posted due dates will be given.
- I reserve the right to modify the schedule in order to meet the time constraints of the course and the needs of the students. I will only do this to your benefit and to ensure maximum success.

In-class assignments

- There will be daily in-class assignments corresponding to the current material.
- In-class assignments may only be completed in class.
- These assignments will be a mixture of individual and group work, multiple choice and free response, and will adapt to meet the time constraints of the course and the needs of the students.

Re-Grades

You have seven calendar days from the date the grade is posted to Blackboard to request a re-evaluation of a grade on an assessment. All such requests **MUST** be made in person with the original assessment in hand and I reserve the right to re-evaluate the entire assessment.

Final grades

Any final grade inquires must be made to me by 10am Bowling Green local time on Wednesday, July 5, 2017. Final grades will NOT be discussed by e-mail

University Policies

ADA Accommodation

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Title IX Discrimination & Harassment

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) and Discrimination and Harassment Policy (#0.2040). Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

Academic Integrity

No student shall receive or give assistance not authorized by the instructor in taking an examination or in the preparation of an essay, laboratory report, problem assignment or other project which is submitted for purposes of grade determination. Dishonesty such as cheating, plagiarism, misrepresenting of oneself or an organization, knowingly furnishing false information to the University, or omitting relevant or necessary information to gain a benefit, to injure, or to defraud is prohibited. The maintenance of academic integrity is of fundamental importance to the University. Thus it should be clearly understood that acts of plagiarism or any other form of cheating will not be tolerated and that anyone committing such acts risks punishment of a serious nature. Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the course work in which the act is detected or a failing grade in a course without possibility of withdrawal. The faculty member may also present the case to the Office of Judicial Affairs for disciplinary sanctions. A student who believes a faculty member has dealt unfairly with him/her in a course involving academic dishonesty may seek relief through the Student Complaint Procedure.

Attendance

Regular classroom attendance is expected of all students. Although role may not be taken grades are based on the performance of assigned work and this may include class participation and attendance. A professor has the authority to determine acceptable classroom conduct for his or her students as long as those decisions do not infringe on the student's rights. Disruptive classroom behavior may also be considered unruly conduct.



Schedule

5-Jun	Syllabus and Introduction Chapter 1: Essential Ideas
6-Jun	Chapter 2: Atoms, Molecules, and Ions
7-Jun	Chapter 3: Composition of Substances and Solutions
8-Jun	Exam Review, 6-8pm. Optional, but encouraged.
9-Jun	Exam 1: Chapter 1-3 Chapter 4: Balancing and Writing Chemical Equations
12-Jun	Chapter 4: Reaction Types and Reaction Yields
13-Jun	Chapter 9: Gases
14-Jun	Chapter 5: Thermochemistry
15-Jun	Exam Review, 6-8pm. Optional, but encouraged.
16-Jun	Exam 2: Chapter 4, 9, 5 Chapter 6: Electromagnetic Energy
19-Jun	Chapter 6: Electronic Structure and Periodic Properties of Elements
20-Jun	Chapter 7: Chemical Bonding and Molecular Geometry
21-Jun	Chapter 8: Advanced Theories of Covalent Bonding
22-Jun	Exam Review, 6-8pm. Optional, but encouraged.
23-Jun	Exam 2: Chapter 6-8 Chapter 10: Liquids
26-Jun	Chapter 10: Phases and Solids
27-Jun	Review of Exam 1 & 2
28-Jun	Review of Exam 3
29-Jun	Exam Review, 6-8pm. Optional, but encouraged.
30-Jun	Final

Advance notice of any changes to the course schedule will be given. I reserve the right to modify course schedule in order to meet the time constraints of the course and the needs of the students. I will only do this to your benefit and to ensure maximum success.

How to Succeed in Chemistry (with actually trying)

- ✓ Have patience with yourself and the material.
- ✓ Be an active learner.
 - ⇒ Attend every class meeting
 - ⇒ Take a complete set of notes for each lecture
 - ⇒ Ask questions
 - ⇒ Don't just memorize
- ✓ Lectures are only the beginning of the amount of time required to master the material.
 - ⇒ Spend a minimum of 2 to 3 hours after each lecture studying chemistry
 - ⇒ An hour of study is defined as studying for 45 minutes and a break of 15 minutes
 - ⇒ Work all suggested problems
- ✓ Do not go into class cold.
 - ⇒ Read over each chapter (at least) once
 - ⇒ Look over the respective PowerPoint presentation before each class
 - ⇒ Read ahead – spoilers are a good thing here
- ✓ If you have questions or need help outside of class, you have at least four options:
 - ⇒ Visit **me!** I have set office hours and am happy to meet with you by appointment if you can't make my office hours. If my door is open, feel free to knock. It's my job to talk chemistry with you. It's most efficient if you come with specific questions, but not required.
 - ⇒ Create a small **study group** to periodically go over homework together.
 - ⇒ Visit the **Chemistry Tutoring Center** in 125B TCCW. The hours are posted on the door.
 - ⇒ Visit **The Learning Center (TLC)**. The Learning Center (located in the Downing Student Union, 2141) provides free supplemental education programs for all currently enrolled WKU students. The Learning Center at Downing Student Union offers certified, one-on-one tutoring in over 200 subjects and eight academic skill areas by appointment or walk in. Online tutoring is offered to distance learners. TLC is also a quiet study area (with side rooms designated for peer-to-peer tutoring) and a computer lab to complete academic coursework. Please call TLC in the Downing Student Union at (270) 745-5065 for more information or to schedule a tutoring appointment. www.wku.edu/tlc
- ✓ WORK PROBLEMS and ASK QUESTIONS. (These appear twice. Probably important, right?)

