Course Information

Contact Details	
Instructor	Dr. Jeremy B. Maddox
Office	closed due to COVID-19
Office Hours	weekdays by appointment via Zoom
Telephone	use email instead
Email	jeremy.maddox@wku.edu
Course Details	
Course	CRN 36696 CHEM 120-A70 (3 credits)
Title	College Chemistry I
Location	Web
Day(s)/Time	Web
Prerequisite	MATH 116
Corequisite	CHEM 121
Summary	The beginning course in chemistry for science majors and minors. It also can be used for general education requirement. Covering the first half of the standard first year chemistry course, it is recommended that high school chemistry and a strong high school mathematics background precede this course.
Required Textbook	
Title	Chemistry
Author(s)	P. Flowers, K. Theopold, and R. Langley
Publisher	OpenStax, Rice University (Houston, TX)
ISBN	1938168399
Note(s)	The textbook available for free from the OpenStax website. Due to time constraints of the summer/winter term, Sapling will NOT be used for homework.

Student Learning Objectives

WKU Colonnade Learning Objectives:
During CHEM 120, students will learn and be able to (1) solve stoichiometry problems involving solids, gases and solutions, (2) apply the empirical and ideal gas laws to solve for P, V, n or T, and (3) write ground-state electronic configurations for neutral and charged species.

Students in CHEM 120 will further develop basic chemical knowledge and problem solving skills in the following topics:

- the classification of matter and its properties
- calculations involving significant figures and dimensional analysis
- atomic theory, the periodic table, and chemical nomenclature
- balancing chemical equations and stoichiometry
- solubility rules and various types chemical reactions

- calculations involving solution stoichiometry
- calculations involving gas laws
- kinetic-molecular theory
- thermochemistry
- basic electronic structure theory and periodic trends
- chemical bonding theory
- phase transitions

Reading and Problem Set Assignments

Reading and homework problem sets will be assigned regularly, and students should expect to make a significant time commitment for detailed study of this material. The reading and homework will cover various topics from the required textbook.

Homework problem sets will not be collected for a grade; however, it is imperative that students complete a significant number of homework problems in a timely fashion. Students are encouraged to use the instructor's office hours for additional discussion and assistance with the homework problems, as needed.

Examinations

There will be multiple mid-term exams taken via the Blackboard course site. Deadlines for the exams are posted on the course schedule, and the instructor reserves the right to modify the exam schedule in order to meet the time constraints of the course.

The exams will be open book and open notes, however, students should complete the exams independently, and may not discuss the exams with anyone until after the exam deadlines. Students may not use external websites for assistance with the examinations. Students may not make copies of the exam materials.

Grading Policy

Students will receive numeric scores on all mid-term exams. Each of these exam scores will carry an equal weight in determining an average course score (normalized to 100). The final average course score will be used to assign letter grades based on the following scale:

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

The last day to drop a class with a W (withdrawal) and the last day to change a class from credit to audit is posted by the WKU Registrar's Office. The student is responsible for initiating all changes in enrollment status with the WKU Registrar's Office.

Attendance Policy

The policy of the WKU Student Handbook will be followed in this course, "Registration in a course obligates the student to be regular and punctual in class attendance...When a student is absent from class because of illness, death in the family, or other justifiable reasons, it is the student's responsibility to contact the instructor as soon as possible."

Make-up work is not available for this course.

Students must maintain a high degree of engagement with the digital content provided for this online course. This includes video lectures and homework problems. Students must be responsive to email inquiries using their official WKU email account.

Academic Dishonesty, Plagiarism, and Cheating

The policy of the WKU Student Handbook will be followed in this course, "Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the coursework in which the act is detected or a failing grade in the course without possibility of withdrawal. The faculty member may also present the case to the Office of Student Conduct for disciplinary sanctions."

Student Accessibility Services

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 Policy

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.

Since this is a web-based course, students have some degree of flexibility in setting their own schedule for covering the course content. However, it is crucial that students use self-discipline to make steady progress.

A suggested course schedule for CHEM 120 is given below. The idea is to balance time spent on various topics and space out the exam assessments (on Blackboard) as much as possible. It is based upon a 2–3 day cycle for each chapter covered.

To ensure that students stay on track, there are deadlines by which certain exams must be completed. The exams will be due by 8 pm CST (Bowling Green, KY time) on the date indicated.

The instructor reserves the right to make changes to the schedule as needed in order to meet the time constraints of the course. Students will be given advanced warning of any changes in the exam deadline schedule.

Day	**Date**	**Lecture Agenda**	**Reading**	**Exam Deadline**
M	May 31	**MEMORIAL DAY**		
T	Jun 01	Essential Ideas	Chapter 1	
W	Jun 02	Essential Ideas and Exam 1	Chapter 1	
R	Jun 03	Atoms, Molecules, and Ions	Chapter 2	
F	Jun 04	Atoms, Molecules, and Ions and Exam 2	Chapter 2	
M	Jun 07	Substances and Solutions	Chapter 3	**EXAMS 1 and 2**
T	Jun 08	Substances and Solutions	Chapter 3	
W	Jun 09	Stoichiometry	Chapter 4	
R	Jun 10	Stoichiometry and Exams 3 and 4	Chapter 4	
F	Jun 11	Thermochemistry	Chapter 5	
M	Jun 14	Thermochemistry and Exam 5	Chapter 5	
T	Jun 15	Electronic Structure	Chapter 6	**EXAMS 3, 4, and 5**
W	Jun 16	Electronic Structure and Exam 6	Chapter 6	
R	Jun 17	Chemical Bonding	Chapter 7	
F	Jun 18	Chemical Bonding and Exam 7	Chapter 7	
M	Jun 21	Molecular Orbital Theory	Chapter 8	
T	Jun 22	Molecular Orbital Theory and Exam 8	Chapter 8	
W	Jun 23	Gases	Chapter 9	**EXAMS 6, 7, and 8**
R	Jun 24	Gases and Exam 9	Chapter 9	
F	Jun 25	Liquids and Solids and Exam 10	Chapter 10	**EXAMS 9 and 10**