

General Chemistry for Engineering Students, CHEM 107-506, Fall 2022
 Tuesdays and Thursdays from 11:10 A.M.-12:25 P.M. in ILCB 113

Week	Tuesday	Thursday
1. Aug. 22nd	No Class	Matter <ol style="list-style-type: none"> 1. Introduction to CHEM 107 2. Properties of Matter 3. Atomic Structure
	Assignments, Assessments, and Announcements Polling: Polling is for practice this week Lab: No lab this week	
2. Aug. 29th	Matter <ol style="list-style-type: none"> 1. Sec. 2.2: Isotopes and Atomic Weights 2. Sec. 2.5: The Periodic Table 3. Sec. 2.4: Chemical Compounds 4. Sec. 2.3: Ionic Compounds 5. Sec. 2.4: Covalent Compounds 	Matter <ol style="list-style-type: none"> 1. Sec. 3.4: The Mole 2. Sec. 3.4: Molar Masses 3. Sec. 3.5: Mass Fraction
	Assignments, Assessments, and Announcements Homework 1: Due Sunday, September 4th at 10:00 pm Polling: Polling points begin to count for course credit on Thursday, September 1st	

3. Sep. 5th	Chemical Reactions 1. Solutions 2. Balancing Chemical Equations 3. Combustion Reactions	Chemical Reactions 1. Solubility 2. Electrolytes 3. Precipitation Reactions
	Assignments, Assessments and Announcements Homework 2: Due Sunday, September 11th at 10:00 pm Quiz 1: Will be open between Sunday, September 11th at 12:00 pm and Monday, September 12th at 10:00 pm.	
4. Sep. 12th	Chemical Reactions 1. Acid/Base Reactions 2. Reaction Stoichiometry	Chemical Reactions 1. Limiting Reagents 2. Percent Yield 3. Solution Stoichiometry
	Assignments, Assessments, and Announcements Quiz 1: Will be open between Sunday, September 11th at 12:00 pm and Monday, September 12th at 10:00 pm. Homework 3: Due Sunday, September 18th at 10:00 pm	
5. Sep. 19th	Gases 1. Solution Stoichiometry 2. Properties of Gases	Gases 1. Ideal Gas Law 2. Partial Pressure 3. Gas Stoichiometry

	Assignments, Assessments, and Announcements Homework 4: Due Sunday, September 25th at 10:00 pm Quiz 2: Will be open between Sunday, September 25th at 12:00 pm and Monday, September 26th at 10:00 pm	
6. Sep. 26th	Atomic and Molecular Structure 1. Gas Stoichiometry 2. Kinetic Molecular Theory 3. Real Gases	Atomic and Molecular Structure 1. Wavelength, Frequency, and the Electromagnetic Spectrum 2. Photoelect. Effect and Photons 3. Atomic Emission and Atomic Absorption Spectra
	Assignments, Assessments and Announcements Quiz 2: Will be open between Sunday, September 25th at 12:00 pm and Monday, September 26th at 10:00 pm Homework 5: Due Sunday, October 2nd at 10:00 pm	
7. Oct. 3rd	Atomic and Molecular Structure 1. Wave-like Behavior of Matter 2. Quantum Mechanics 3. Quantum Numbers and Orbitals	Atomic and Molecular Structure 1. Orbital Diagrams 2. Electronic Configurations
	Assignments, Assessments, and Announcements Homework 6: Due Wednesday, October 12th at 10:00 pm Quiz 3: Will be open between Tuesday, October 11th at 12:00 pm and Wednesday, October 12th at 10:00 pm	

8. Oct. 10th	Fall Break No Class	Atomic and Molecular Structure 1. Electronic Configurations 2. Periodic Trends
	Assignments, Assessments, and Announcements Homework 6: Due Wednesday, October 12th at 10:00 pm Quiz 3: Will be open between Tuesday, October 11th at 12:00 pm and Wednesday, October 12th at 10:00 pm Homework 7: Due Sunday, October 16th at 10:00 pm	
9. Oct. 17th	Atomic and Molecular Structure 1. Chemical Bonding: Part 1 2. Lewis Dot Structures: Part 1 3. Lewis Dot Structures: Part 2	Midterm Exam Thursday, Oct. 20th - Take the 75 minute Canvas exam anytime between 8:00 am and 10:00 pm.
	Assignments, Assessments and Announcements Midterm Exam: Will be open between 8:00 am and 10:00 pm on Thursday, Oct. 20th. Homework 8: Due Sunday, October 23rd at 10:00 pm	

10. Oct. 24th	Atomic and Molecular Structure 1. Molecular Geometry 2. Molecular Polarity 3. Chemical Bonding: Part 2	Liquids 1. Intermolecular Forces 2. Phase Diagrams 3. Vapor Pressure
	Assignments, Assessments, and Announcements Homework 9: Due Sunday, October 30th at 10:00 pm	
11. Oct. 31st	Liquids 1. Phase Diagrams 2. Vapor Pressure Thermodynamics 1. Energy and Chemistry 2. Heat Capacity	Thermodynamics 1. Calorimetry 2. Enthalpy
	Assignments, Assessments and Announcements Homework 10: Due Sunday, November 6th at 10:00 pm Quiz 4: Will be open between Sunday, November 6th at 12:00 pm and Monday, November 7th at 10:00 pm	

12. Nov. 7th	Thermodynamics <ol style="list-style-type: none"> 1. Enthalpy of Phase Changes 2. Heats of Reaction 	Thermodynamics <ol style="list-style-type: none"> 1. Entropy and Spontaneity 2. Gibbs Free Energy
	Assignments, Assessments and Announcements Quiz 4: Will be open between Sunday, November 6th at 12:00 pm and Monday, November 7th at 10:00 pm Homework 11: Due Sunday, November 13th at 10:00 pm	
13. Nov. 14th	Kinetics <ol style="list-style-type: none"> 1. Reaction Rates 2. Rate Laws 	Kinetics <ol style="list-style-type: none"> 1. Integrated Rate Laws
	Assignments and Assessments Homework 12: Due Sunday, November 20th at 10:00 pm Quiz 5: Will be open between Sunday, November 20th at 12:00 pm and Monday, November 21st at 10:00 pm	

14. Nov. 21st	Kinetics <ol style="list-style-type: none"> 1. Collision Theory 2. Catalysis 3. Mechanisms 	Thanksgiving No Class
	Assignments and Assessments Quiz 5: Will be open between Sunday, November 20th at 12:00 pm and Monday, November 21st at 10:00 pm Homework 13: Due Monday, November 28th at 10:00 pm	
15. Nov. 28th	Equilibrium <ol style="list-style-type: none"> 1. Chemical Equilibrium 2. Equilibrium Constants 	Equilibrium <ol style="list-style-type: none"> 1. Le Chatelier's Principle 2. Free Energy and Equilibrium
	Homework 14: Due Sunday, Dec. 4th at 10:00 pm Quiz 6: Will be open between Sunday, December 4th at 12:00 pm and Monday, December 5th at 10:00 pm	

16. Dec. 5th	Equilibrium 1. Acid/Base and Solubility Equilibria	Reading Day No Class
	Quiz 6: Will be open between Sunday, December 4th at 12:00 pm and Monday, December 5th at 10:00 pm Homework: practice solubility and acid/base equilibria homework problems before taking the final exam	
Final Exams	Friday, December 9th	
17. Dec. 9th	<u>Final Exam</u> Take your 120-minute exam in Canvas anytime between 8:00 am and 8:00 pm.	