Principles of Chemistry I

CHEM 1210

Fall 2025

Instructor:	Matthew Rowley	**Office Hours:**	Daily 11:00 am – 12:00 am
Telephone:	(435) 586-7875		
Email:	matthewrowley1@suu.edu	**Office:**	SC-220

Please include the course number in the subject line of all correspondence.

Tentative Schedule

This class will meet on Mondays, Tuesdays, Wednesdays, and Fridays from 3:00 – 3:50 in room 230 of the Science Center (SC).
For the best lecture experience, read the indicated textbook chapter *before* each lecture.

	Date	Topic	Chapter
Week 1	W, Aug. 27	Chemistry in Context	1.1
	F, Aug. 29	Phases and Classification of Matter	1.2
Week 2	M, Sep. 1	**Labor Day - No Class!**	
	T, Sep. 2	Physical and Chemical Properties	1.3
	W, Sep. 3	Measurements	1.4
	F, Sep. 5	Measurement Uncertainty, Accuracy, and Precision	1.5
Week 3	M, Sep. 8	Mathematical Treatment of Measurement Results	1.6
	T, Sep. 9	Early Ideas in Atomic Theory	2.1
	W, Sep. 10	Evolution of Atomic Theory	2.2
	F, Sep. 12	Atomic Structure and Symbolism	2.3
Week 4	M, Sep. 15	Chemical Formulas	2.4
	T, Sep. 16	The Periodic Table	2.5
	W, Sep. 17	Ionic and Molecular Compounds	2.6
	F, Sep. 19	Chemical Nomenclature	2.7

	Date	Topic	Chapter
Week 5	M, Sep. 22	**Catch-up/Review Day for Exam 1: Chapters 1 and 2**	
	T, Sep. 23	Formula Mass and the Mole Concept	3.1
	W, Sep. 24	Determining Empirical and Molecular Formulas	3.2
	F, Sep. 26	Molarity	3.3
Week 6	M, Sep. 29	Other Units for Solution Concentration	3.4
	T, Sep. 30	Writing and Balancing Chemical Equations	4.1
	W, Oct. 1	Classifying Chemical Reactions	4.2
	F, Oct. 3	Reaction Stoichiometry	4.3
Week 7	M, Oct. 6	Reaction Yields	4.4
	T, Oct. 7	Quantitative Chemical Analysis	4.5
	W, Oct. 8	**Catch-up/Review Day for Exam 2: Chapters 3 and 4**	
	F, Oct. 10	Energy Basics	5.1
Week 8	M, Oct. 13	**Fall Break - No Class!**	
	T, Oct. 14	**Fall Break - No Class!**	
	W, Oct. 15	Calorimetry	5.2
	F, Oct. 17	Enthalpy	5.3
Week 9	M, Oct. 20	Electromagnetic Energy	6.1
	T, Oct. 21	The Bohr Model	6.2
	W, Oct. 22	Development of Quantum Theory	6.3
	F, Oct. 24	Electronic Structure of Atoms (Electron Configurations)	6.4
Week 10	M, Oct. 27	Periodic Variations in Element Properties	6.5
	T, Oct. 28	**Catch-up/Review Day for Exam 3: Chapters 5 and 6**	
	W, Oct. 29	Ionic Bonding	7.1
	F, Oct. 31	Covalent Bonding	7.2

	Date	Topic	Chapter
Week 11	M, Nov. 3	Lewis Symbols and Structures	7.3
	T, Nov. 4	Formal Charges and Resonance	7.4
	W, Nov. 5	Strengths of Ionic and Covalent Bonds	7.5
	F, Nov. 7	Molecular Structure and Polarity	7.6
Week 12	M, Nov. 10	Valence Bond Theory	8.1
	T, Nov. 11	Hybrid Atomic Orbitals	8.2
	W, Nov. 12	Multiple Bonds	8.3
	F, Nov. 14	Molecular Orbital Theory	8.4
Week 13	M, Nov. 17	Gas Pressure	9.1
	T, Nov. 18	Relating Pressure, etc.: The Ideal Gas Law	9.2
	W, Nov. 19	Stoichiometry of Gaseous Substances, etc.	9.3
	F, Nov. 21	Effusion and Diffusion of Gases	9.4
Week 14	M, Nov. 24	**Thanksgiving Break - No Class!**	
	T, Nov. 25	**Thanksgiving Break - No Class!**	
	W, Nov. 26	**Thanksgiving Break - No Class!**	
	F, Nov. 28	**Thanksgiving Break - No Class!**	
Week 15	M, Dec. 1	The Kinetic-Molecular Theory	9.5
	T, Dec. 2	Non-Ideal Gas Behavior	9.6
	W, Dec. 3	**Catch-up/Review Day for Exam 4: Chapters 7–9**	
	F, Dec. 5	Intermolecular Forces	10.1
Finals Week	M, Dec. 8	**Final Exam** 3:00-4:50 Bring a pencil and a scantron sheet	