

## CHEM105 21F Course Schedule

<u>Week #</u>	<u>Week Start Date</u>	<u>Lect #</u>	<u>Lecture Topic</u>	<u>Text Sections</u>
<b>Week 1:</b>	<b>8/23/21</b>	L1	Energy Overview, Physics of Energy (1.5) , Coulomb's Law (pp 143-146)	1.4-1.5, 1.8, pp 143-145
		L2	Units Conversion (1.8), Boltzmann Distrution (13.4)	1.4-1.5, 1.8, pp 143-145
		L3	Electromagnetic Radiation	3.1
		L4	Atomic Spectra and Blackbody Radiation	3.2-3.3
<b>Week 2:</b>	<b>8/30/21</b>	L5	Radioactive Decay	21.1-21.2
		L6	Rates of Radioactive Decay	21.3-21.4
		L7	Nuclear Fission and Power, Nuclear Reactions and Fusion	21.6-21.8
		L8	Biological Effects of Radioactivity	21.9-21.10
<b>Week 3</b>	<b>9/6/21</b>	L9	Electron Energy Levels for Hydrogen-Like Atoms	3.4
		L10	Wave Nature of Matter	3.5
		L11	Organization of Electron Energy Levels and Electron Configurations	3.6-3.9
		L12	Periodicity of Atomic Properties	3.10-3.12
<b>Week 4</b>	<b>9/13/21</b>	L13	Ionic and Covalent Bonding	4.1
		L14	Chemical Nomenclature	4.2
		L15	Lewis Structures	4.3-4.7
		L16	Molecular Geometry	5.1-5.5
<b>Week 5</b>	<b>9/20/21</b>	T1	Test 1 Open Book Problem Set	Chapters 1,3,4,5,21
		T1	Test 1 Closed Book	Chapters 1,3,4,5,21
		L17	Intermolecular Forces	6.1-6.2
<b>Week 6</b>	<b>9/27/21</b>	L18	Thermodynamics - 1st Law Part A	9.1-9.4
		L19	Thermodynamics - 1st Law Part B	9.4-9.5
		L20	1st Law Part C - Enthalpies of Formation	9.5-9.7
		L21	1st Law Part D - Bond Energies & Hess's Law	9.6-9.7
<b>Week 7</b>	<b>10/4/21</b>	L22	Entopy	12.1-12.3
		L23	Global Entropy Changes	12.4-12.5
		L24	Gibbs Free Energy	12.6-12.7
<b>Week 8</b>	<b>10/11/21</b>	L25	Vapor Pressure, Clausius-Clapeyron Equation	11.3
		L26	Henry's Law, Liquid-Liquid Solubility	11.6
		L27	Colligative Properties	11.1-11.2, 11.4-11.5
<b>Week 9</b>	<b>10/18/21</b>	T2	Test 2 Open-Book Problem Set	Chapters 6,9,11,12
		T2	Test 2 Closed Book Test	Chapters 6,9,11,12
<b>Week 10</b>	<b>10/25/21</b>	L28	Reactions at Equilibrium	14.1-14.2, 14.9-14.10
		L29	Equilibrium Calculations	14.3-14.6, 14.8
		L30	Equilibrium Response to Change	14.7
<b>Week 11</b>	<b>11/1/21</b>	L31	The Nature of Acids and Bases	15.1-15.4
		L32	Weak Acids and Bases	15.5-15.6
		L33	Acid Base Buffers	15.7-15.8
<b>Week 12</b>	<b>11/8/21</b>	L34	Oxidation-Reduction Reactions	8.6, 17.1-17.3
		L35	Galvanic Cells	17.4-17.6
		L36	Electrolysis	17.7-17.10
<b>Week 13</b>	<b>11/15/21</b>	L37	Photochemical Smog	13.1
		L38	Chemical Kinetics	13.2-13.3,13.6
		L39	Reaction Rate Models	13.4-13.5
<b>Reading Week</b>	<b>11/22-23, 11/29-30</b>	<b>Environmental Science Book</b>		
<b>Week 14</b>	<b>12/1/21</b>	T3	Test 3 Closed Book Test	Chapters 13,14,15,17
<b>Final Exam Week</b>				
	<b>12/8/21</b>	Cumulative Final Exam on 1st Full Day of Exam Period		
	<b>12/10/21</b>	Book Report Due by Midnight on 3rd Full Day of Exam Period		