This is a tentative outline of the sections of the textbook that should be the main emphasis of each day's lecture. Some topics may carry over into the next lecture and, if time permits, we may begin some topics prior to the day mentioned. This outline is not carved in stone and may change as the semester progresses.

Lecture	Date	Main Topics	Homework
1	W: 1/13	Course outline/Syllabus 12.1: Intermolecular Forces If necessary: You should review drawing Lewis structures, molecular geometry and determining the polarity of molecules.	
2	F: 1/15	12.2: Properties of Liquids 12.3: Phase Changes and Heating	
3	W: 1/20	12.4a: Vapor Pressure and Boiling Point 12.4b: Clausis-Clapeyron Equation 12.5: Phase Diagrams	
4	F: 1/22	12.6: Classification of Solids 12.7a: The Unit Cell	
5	M: 1/25	12.7b: The Structure of Crystalline Solids	
6	W: 1/27	13.1: The Solution Process	
7	F: 1/29	13.2: Saturated, Unsaturated and Supersaturated Solutions 13.3: Concentration Units	Homework 12 due 01/30/2021 at 11:55 PM

8	M: 2/1	13.4: Colligative Properties of Electrolytes	
9	W: 2/3	Finish Chapter 13 material	
10	F: 2/5	Review	Homework 13 due 02/06/2021 at 11:55 PM
11	M: 2/8	Exam #1: 9:30 AM to 10:30 AM	
12	W: 2/10	14.1: Rates of Reactions 14.2: Reaction Rates and Concentrations: Rate Laws	
13	F: 2/12	14.3: Integrated Rate Laws and Half-Lives 14.4: Reaction Rates and Temperature: Activation Energy	
14	W: 2/17	14.5: Reaction Mechanisms 14.6: Catalysis	
15	F: 2/19	Finish Chapter 14 material	Homework 14 due 02/20/2021 at 11:55 PM
16	M: 2/22	15.1: Introduction to Equilibrium 15.2: Equilibrium Constants	

17	W: 2/24	15.3: Using Equilibrium Expressions 15.4: The Reaction Quotient	
18	F: 2/26	15.5: Calculations Using ICE Tables	
19	M: 3/1	15.6: Le Chatelier's Principle	
20	W: 3/3	16.1: Ionization Reactions of Acids and Bases 16.2: Bronsted-Lowry Theory	
21	F: 3/5	16.3: Autoionization of Water 16.4: pH Calculations	Homework 15 due 03/06/2021 at 11:55 PM
22	M: 3/8	16.5: Weak Acids and Bases 16.6: Polyprotic Acids	
23	W: 3/10	16.7: Acid-Base Properties of Salts	
24	F: 3/12	16.8: Relating Acid Strength to Structure 16.9: Lewis Acids and Bases	Homework 16 due 03/13/2021 at 11:55 PM
25	M: 3/22	Exam #2: 9:30 AM to 10:30 AM	
26	W: 3/24	17.1: Introduction to Buffer Solutions	

27	F: 3/26	17.2: The Hederson-Hasselbalch Equation 17.3: Titrations of Strong Acids and Strong Bases	
28	M: 3/29	17.4: Titrations of Weak Acids and Weak Bases 17.5: Indicators in Acid-Base Titrations	
29	W: 3/31	17.6: Solubility Product Constant 17.7: The Common-Ion Effect	
30	F: 4/2	17.8: Precipitation: Q versus K_{sp} 17.9: Qualitative Analysis	
31	M: 4/5	17.10: Complex ion Equilibria, K_f 18.1: Entropy and Spontaneity	
32	W: 4/7	18.2: Entropy Changes – Both Chemical and Physical	
33	F: 4/9	18.3: Entropy and Temperature 18.4: Gibbs Free Energy	Homework 17 due 04/10/2021 at 11:55 PM
34	M: 4/12	18.5: Free-Energy Changes and Temperature 18.6: Gibbs Free Energy and Equilibrium	
35	W: 4/14	19.1: Redox Reactions 19.2: Balancing Redox Reactions	
36	F: 4/16	19.3: Redox Titrations 19.4: Voltaic Cells	Homework 18 due 04/17/2021 at 11:55 PM

37	M: 4/19	19.5: Cell Potential 19.6: Free Energy and Cell Potential	
38	W: 4/21	19.7: The Nernst Equation and Concentration Cells	
39	F: 4/23	19.8: Voltaic Cell Applications 19.9: Electrolytic Cells	Homework 19 due 04/24/2021 at 11:55 PM
40	M: 4/26	Exam #3: 9:30 AM to 10:30 AM	
41	W: 4/28	20.1: Natural Radioactivity 20.2: Nuclear Stability	
42	F: 4/30	20.3: Half-Life 20.4: Radiometric Dating	
43	M: 5/3	20.5: Fissions and Fusion 20.6: Energetics of Nuclear Reactions	
44	W: 5/5	20.7: Nuclear Binding Energy	
45	F: 5/7	Review	Homework 20 due 05/08/2021 at 11:55 PM
	W: 5/12	Final Exam: 8:00 AM to 10:00 AM	