

## CH301 COURSE OUTLINE

Lecture Number	Day	Date	Topic	Worksheet	Quizzes and Exams
	H	8/28	Syllabus, course overview	Worksheet 1	
1	T	9/2	Wave Particle Duality of Light		
2	H	9/4	Development of Quantum Mechanics	Worksheet 2	
3	T	9/9	The Origin of Atomic Orbitals		
4	H	9/11	Electronic Configurations of Atoms and Ions	Worksheet 3	Quiz 1
5	T	9/16	Periodic Trends Explained by ENC		
6	H	9/18	Filled and Half Filled Shell Stability	Worksheet 4	
7	T	9/23	The Chemical Bond: Ionic Bonds		Quiz 2
8	H	9/25	Covalent Lewis Dot Structures	Worksheet 5	
9	T	9/30	More Sophisticated Ideas in Structures		
	W	10/1	Exam 1		Exam 1 on Lectures 1-9
10	H	10/2	Turning 2D into 3D VSEPR Models	Worksheet 6	
11	T	10/7	VB and VSEPR Theory		
12	H	10/9	VB Theory: Making MOs from AOs	Worksheet 7	
13	T	10/14	Molecular Orbital Theory		Quiz 3
14	H	10/16	Ideal Gas Law	Worksheet 8	
15	T	10/21	Advanced Ideas in Gas Theory		
16	H	10/23	Intermolecular Forces	Worksheet 9	Quiz 4
17	T	10/28	Theory Behind IMF		
18	H	10/30	Solids	Worksheet 10	
19	T	11/4	Getting Ready for Thermodynamics		
	W	11/5	Exam 2		Exam 2 on Lectures 10-18
20	H	11/6	Qualitative Thermodynamics	Worksheet 11	
21	T	11/11	Quantitative Thermodynamics		
22	H	11/13	Statistical Thermodynamics	Worksheet 12	Quiz 5
23	T	11/18	Internal Energy and Pies and Ice cream	Worksheet 13	
23	H	11/20	Internal Energy (continued)		
24	T	11/25	Entropy	Worksheet 14	Quiz 6
25	T	12/2	Free Energy		
	W	12/3	Exam 3		Exam 3 on Lectures 19-25
	H	12/11	Final Exam 9 am to noon		Lectures 1-25