

## Course Schedule

<u>Special</u>	<u>Day</u>	<u>Date</u>	<u>Ch</u>	<u>Topic</u>
	R	8/20	1/1	Overview – Expectations – Projects – The Atom – Nuclear Properties
	T	8/25	1/1	Electrons in atoms. Energy Levels. Quantum Numbers. Radial Electron Distributions. Electron Configurations.
	R	8/27	1/1	Slater's Rules. $Z_{\text{eff}}$ control of Periodic Properties. Magnetism. Ground State Term Symbols.
<b>Quiz #1</b>	T	9/1	2.1/2	Electrons in Molecules: Valence; Covalence; Polar Molecules. The Chemical Bond. Lewis Structures.
	R	9/3	2/2	Lone Pair Repulsions. (VSEPR as Guide to Geometries of Molecules). Shapes of Molecules and Valence Bonds.
<b>Quiz #2</b>	T	9/8	6/3	Symmetry in Molecules: Elements and Operations. Symmetry Operations and Point Group Classification
	R	9/10	6/3	Applications of Group Theory Selections from Ch. 6 or 3
<b>Quiz #3</b>	T	9/15	2/2	M.O. Theory: Diatomics. Catch up and Review
<b>Exam I</b>	R	9/17		<b>Examination I</b>
	T	9/22	2/2	Molecular Orbitals and Diatomics; Energy Levels. Molecular Orbitals and Assignments; Bond Properties.
	R	9/24	2/2	Molecular Orbitals in Polar Diatomics—Heteronuclear diatomics. Electronegativity defined by MO theory: Bond dipoles and molecular dipole moments
Poster Outline due	T	9/29	2/2	MO's in Polyatomics. Structures of Simple Solids, Metals, and alloys.
<b>Quiz #4</b>	R	10/1	3/4	Ionic Solids. Energetics of ionic bonding.
	T	10/6	4/5	Acids and Bases
	R	10/8	4/5	Acids and Bases
	T	10/13	4/5	Acids and Bases
<b>Quiz #5</b>	R	10/15	9/10	Main Group Element Chemistry
<b>Exam II</b>	T	10/20		<b>Examination II</b>
	R	10/22	9/10	Hydrogen
	T	10/27	5/6	Redox processes
<b>Quiz #6</b>	R	10/29	5/6	Redox processes
	T	11/3		<b>Power Point Virtual Presentations</b>
	R	11/5		<b>Power Point Virtual Presentations</b>
	T	11/10	7/7	Transition Metals/Coordination Chemistry
	R	11/12		Transition Metals/Organometallics
<b>Exam III</b>	T	11/17		Transition Metals--Catalysis
	R	11/19		Coordination Chemistry—Bioinorganic TBA
	T	11/24		Coordination Chemistry—Bioinorganic TBA
		11/30		<b>NO CLASS</b> – Reading Day
<b>FINAL</b>				<b>FINAL EXAM – Virtual TBD</b>