Providence Extension Program/ Organic Chemistry Course – Fall 2018/ Quarter 1 – Week at a Glance				
Week	**Chapters**	**Discussion Topic**	**Homework Due**	**Laboratory**
Week 1 – August 20th	**Chapter 1 – Atomic and Molecular Structure**	Introduction to Organic Chemistry, atomic structure, electron configurations, covalent bonding, Lewis structures and the octet rule, electronegativity properties of bonds, ionic bonds up to (pp. 1 - 20, stop at Section 1.9).		Lab 1 – *Writing Lewis Structures*
Week 2 – August 27th	**Nomenclature I – Introduction: The Basic System for Naming Simple Organic Compounds**	Writing formal charges, resonance theory, molecular representation in various notation forms (pp. 20 – 39, stop at Section 1.15).	□ Lab 1 Report Sheet	Lab 2 – *Writing Formal Charges*
Week 3 – September 3rd		Introduction to biological molecules; naming simple organic molecules (pp. 39 – 47; 54 – 75)	□ Lab 2 Report Sheet	Lab 3 – *Modeling Biological Molecules I: Proteins, Carbohydrates, Nucleic Acids*
Week 4 – September 10th	**Chapter 2 – Three-Dimensional Geometry, intermolecular Interactions and Physical Properties**	Molecular geometry; VSEPR theory; dipoles and dipole moments; physical properties, functional groups, and intermolecular interactions (pp. 76 – 89, stop at Section 2.6)	□ Test 1 – Chapter 1 □ Homework for Chapter 1 □ Lab 3 Report Sheet	Lab 4 – *Molecular Modeling – VSEPR Theory*
Week 5 – September 17th		Intermolecular interactions, and physical properties; solubility (pp. 89 - 106, up to 2.9)	□ Lab 4 Report Sheet	Lab 5 – *Solubility of Flavor Compounds in Ethanol – Flavor Extracts*
Week 6 – September 24th		Protic and aprotic solvents; soaps and detergents; lipids (pp. 106 – 120).	□ Lab 5 Report Sheet	Lab 6 – *Modeling Biological Compounds II: Triglycerides*
Week 7 – October 1st	**Chapter 3 – Orbital Interactions I**	Atomic orbitals and wave nature of electrons; orbital interactions; molecular orbital theory; hybridized atomic orbitals (pp. 128 – 143, stop at 3.5)	□ Test 2 – Chapt 2, Nomen. 1 □ Homework problems for Chapter 2 and Nomenclature I □ Lab 6 Report Sheet	Lab 7 (part I) – *Soapmaking Laboratory I – Preparing the Reactants*
Week 8 – October 8th	**Article by James Tour on Nanocar synthesis**	Valence bond theory; sigma and pi bonds; nonbonding orbitals; triple bonding; cis/ trans isomerism; hybridization and effective electronegativity (pp. 143 - 158)	Response paper for Nanocar Synthesis not due until the week of October 15th.	Lab 7 (part II) – *Soapmaking Laboratory II – Saponification Reaction*

Items in RED are due that day

August 13, 2018