CHAPTER OVERVIEW

1: INTRODUCTION AND REVIEW

LEARNING OBJECTIVES

After reading this chapter and completing ALL the exercises, a student can be able to

- discuss the origins of organic chemistry - refer to section 1.1
- use and apply the language of Atomic Structure (atomic number, mass number, isotopes) - refer to section 1.2
- draw, interpret, and convert between Lewis (Kekule), Condensed, and Bond-line Structures - refer to sections 1.3, 1.4, 1.5, and 1.6
- apply bonding patterns and polarity to organic compounds - refer to section 1.7 and 1.8
- identify polar bonds and compounds - refer to section 1.9
- draw resonance forms and predict the relative contribution of each resonance form to the overall structure of the compound or ion - refer to section 1.10
- recognize acids and bases - refer to sections 1.11 and 1.12
- use the definition of Lewis Acids and Bases to recognize electron movement in reactions - refer to section 1.13
- predict reaction products of acid-base reactions - refer to sections 1.11, 1.12 ,and 1.13
- determine relative strengths of acids and bases from their pK_a values - refer to section 1.14
- determine the form of an acid or base at a specified pH (given the pK_a) - refer to section 1.14
- predict relative strengths of acids and bases from their structure, bonding and resonance - refer to section 1.15
- determine the empirical and molecular formulas from combustion data - refer to section 1.16

Template:HideTOC