

Meets: Tuesday & Thursdays, May 28 to July 18, 2024

from 9:30am to 12:20pm in Building 57, room 209)

Required materials:

- Chemical Splash Goggles & Lab Coat
- Molecular Models Kit: "MOLECULAR VISIONS™ Model Kit"
- Lab Manual: *CHM2210L/2211L, Broward College, North Campus*. Pearson Learning Solutions, 2019. ISBN 13: 9781323900260.

| DATE | EXPERIMENT TITLE AND PRIOR READING ASSIGNMENTS |
|---------------------------|---|
| May 28 [Tuesday] | Introduction, Lab Safety, and Introduction to ChemDraw or ChemDoodle |
| May 30 [Thursday] | Learning Basic Operations, Part A (Standard Scale-Reaction & Separation) |
| June 4 [Tuesday] | Learning Basic Operations, Part B (Measuring Density), Graphing with Excel, and Purification of an Unknown Compound by Recrystallization (Week 1) |
| June 6 [Thursday] | Purification of an Unknown Compound by Recrystallization (Week 2 - Melting Point) and Heating Under Reflux: Synthesis of Salicylic Acid from Wintergreen Oil (Week 1) (Microscale –Reaction, Separation, & Purification) |
| June 11 [Tuesday] | Heating Under Reflux: Synthesis of Salicylic Acid from Wintergreen Oil (Week 2) (Microscale–Analysis - Melting Point) and The Structures of Organic Molecules |
| June 13 [Thursday] | Boiling Point, Refractive Index, I.D. of a Petroleum Hydrocarbon (Standard Scale-Purification [Simple Distillation & Boiling point] and Molecular Models: Conformational and Structural Isomers. |
| June 18 [Tuesday] | Boiling Point, Refractive Index, I.D. of a Petroleum Hydrocarbon-Density Measurement & Refractive Index Measurement and Molecular Models: Conformations of the Cyclohexane Ring |
| June 20 Thursday] | Sugar Identification using Polarimetry [Vernier Chemical Polarimeter] and Molecular Models: Stereoisomers & Configurations. |
| June 25 [Tuesday] | EXAM 1 |
| June 27 [Thursday] | Structures and Properties of Stereoisomers - ONLY PARTS: B & C [Boiling Point, Refractive Index, & Optical Rotation by Polarimetry] |
| July 2 [Tuesday] | Structures and Properties of Stereoisomers - ONLY PART D [Molecular Modeling] and Investigating Gas Chromatography ["The Vernier Mini GC"] |
| July 4 [Thursday] | NO LAB, INDEPENDENCE DAY! |
| July 9 [Tuesday] | Addition, Sublimation: A Green Synthesis of Camphor (Microscale) – Reaction, Separation, & Purification |
| July 11 [Thursday] | Addition, Sublimation: A Green Synthesis of Camphor (Microscale) – Analysis, and Thin Layer Chromatographic Analysis of Drug Components. |
| July 16 [Tuesday] | Nucleophilic Substitution Rates of Alcohols and Oxidation of Alcohols by Potassium Permanganate. |
| July 18 [Thursday] | EXAM 2 |