Danville Area School District
Course Overview and Scope and Sequence

Course Title: Honors Organic Chemistry
Content Area: Science
Grade Level: 11th and/or 12th
Date Developed: June 2023

COURSE OVERVIEW: This course is designed for students who are considering the pursuit of a science major or students who plan to pursue health-care professions. The course will emphasize the identification, naming and drawing of organic molecules with the following functional groups: alkanes, alkenes, alcohol, carboxylic acids, aldehydes, ketones, amines, amides, ethers, and esters. Characteristic chemical reactions of these functional groups will be introduced. Common organic laboratory skills, techniques and equipment will also be used.
ANCHOR STANDARDS: 1. Organization for Matter and Energy Flow in Organisms 2. Structures and Properties of Matter 3. Chemical Reactions
KEY COURSE TEXT AND MATERIALS: None
KEY ASSESSMENTS: Diagnostic: None Formative: POGILS, Labs and discussions Summative: Tests

SCOPE AND SEQUENCE					
Unit	PRIORITY STANDARDS	SUPPORTING STANDARDS	ASSESSMENT	MATERIALS	TIMEFRAME
1. Bonding and Isomerism	3.1.9-12F	3.2.9-12A 3.2.9-12C	Science in motion, FLINN organic smells.	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	14
2. Introduction to Nomenclature and Alkanes	3.1.9-12F	3.2.9-12A 3.2.9-12C	Vernier distillation Science in motion	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	14
3. Alkenes and Alkynes	3.1.9-12F	3.2.9-12A 3.2.9-12C	FLINN isomerization Lab	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	12
4. Stereoisomerism	3.1.9-12F	3.2.9-12A 3.2.9-12C	Bucknell table top lab	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	8
5. Organic Reactions	3.1.9-12F	3.2.9-12E 3.2.9-12F	FLINN soap making, Caffeine Extraction	Content is teacher created. In addition to lab/project	10

				supplies, materials are posted in Google Classroom.	
6. Functional Groups	3.1.9-12F	3.2.9-12A 3.2.9-12C	Science in Motion	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	14
7. Spectroscopy and Structure Determination	3.1.9-12F	3.2.9-12A 3.2.9-12C	Science in Motion, IR Spectroscopy, Field Trip to Wilkes U for NMR	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	10