University of Arkansas – Fort Smith
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General Syllabus

CHEM 2711 Organic Chemistry II Laboratory

Credit Hours: 1 Lecture Hours: 0 Laboratory Hours: 3

Prerequisite or corequisite: CHEM 2713 Organic Chemistry II

Effective: 2018~2019

I. Course Information

A. Catalog Description

Presentations of the physical and chemical properties, and structural analysis of aliphatic and aromatic hydrocarbons, alkyl halides, and alcohols

II. Student Learning Outcomes

A. Subject Matter

Upon successful completion of this course, the student will be able to:

1. Name, write structural formulas for, and demonstrate important chemical reactions and preparations of each of the functional groups mentioned in the topical outline below.
2. Demonstrate an understanding of the chemistry of lipids, carbohydrates, and proteins through lab assignments.
3. Demonstrate proper lab techniques and uses of instruments in the separation and analysis of compounds.

B. University Learning Outcomes

Organic Chemistry II Laboratory enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will identify a problem or issue and will research, evaluate, and compare information from varying sources in order to evaluate authority, accuracy, recency, and bias relevant to the problems/issues. Students will generate solutions/analysis of problems/issues evaluated and will assess and justify the solutions and/or analysis.

Communication Skills (written and oral)
Students will communicate proficiently. Students will compose coherent documents appropriate to the intended audience and effectively communicate orally in a public setting.

Ethical Decision Making
Students will model ethical decision-making processes. Students will identify ethical dilemmas and affected parties and will apply ethical frameworks to resolve a variety of ethical dilemmas.

Global & Cultural Perspectives
Students will reflect upon cultural differences and their implications for interacting with people from cultures other than their own. Students will demonstrate understanding or application of their discipline in a global environment and will demonstrate how their discipline impacts or is impacted by different cultures.

III. Major Course Topics

A. Alcohols, Ethers, and Epoxides
B. Aldehydes and Ketones
C. Carboxylic Acids and Their Derivatives
D. Amines and Phenols
E. Biochemistry