

Course Objectives/Course Outline
Spokane Community College

Course Title: Intro to Organic Chemistry: w/Lab
Prefix and Course Number: CHEM& 122

Course Learning Outcomes:

By the end of this course, a student should be able to:

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Course Outline:

- I. Alkanes
 - A. Functional Groups
 - B. Structure of Alkanes
 - C. Naming and Drawing Alkanes
 - D. Physical and Chemical Properties of Alkanes
 - E. Common Uses of Alkanes
 - F. Chemical Reactions of Alkanes
- II. Alkenes, Alkynes, and Aromatics
 - A. Structure of Alkenes, Alkynes, and Aromatics
 - B. Naming and Drawing Alkenes, Alkynes, and Aromatics
 - C. Physical and Chemical Properties of Alkenes, Alkynes, and Aromatics
 - D. Common Uses of Alkenes, Alkynes, and Aromatics
 - E. Chemical Reactions of Alkenes, Alkynes, and Aromatics
- III. Alcohols, Phenols, Ethers, Thiols, and Disulfides
 - A. Structure of Alcohols, Phenols, Ethers, Thiols, and Disulfides
 - B. Naming and Drawing Alcohols, Phenols, Ethers, Thiols, and Disulfides
 - C. Physical and Chemical Properties of Alcohols, Phenols, Ethers, Thiols, and Disulfides
 - D. Common Uses of Alcohols, Phenols, Ethers, Thiols, and Disulfides
 - E. Chemical Reactions of Alcohols, Phenols, Ethers, Thiols, and Disulfides
- IV. Amines
 - A. Structure of Amines
 - B. Naming and Drawing Amines
 - C. Physical and Chemical Properties of Amines
 - D. Common Uses of Amines
 - E. Chemical Reactions of Amines
- V. Aldehydes and Ketones
 - A. Structure of Aldehydes and Ketones
 - B. Naming and Drawing Aldehydes and Ketones
 - C. Physical and Chemical Properties of Aldehydes and Ketones
 - D. Common Uses of Aldehydes and Ketones
 - E. Chemical Reactions of Aldehydes and Ketones
- VI. Carboxylic Acids and Their Derivatives (Esters and Amides)
 - A. Structure of Carboxylic acids and Their Derivatives (Esters, Amides)
 - B. Naming and Drawing Carboxylic acids and Their Derivatives (Esters, Amides)

- C. Physical and Chemical Properties of Carboxylic acids and Their Derivatives (Esters, Amides)
- D. Common Uses of Carboxylic acids and Their Derivatives (Esters, Amides)
- E. Chemical Reactions of Carboxylic acids and Their Derivatives (Esters, Amides)
- VII. Phosphoric Acid Derivatives
 - A. Structure of Phosphoric Acid Derivatives
 - B. Naming and Drawing Phosphoric Acid Derivatives
 - C. Physical and Chemical Properties of Phosphoric Acid Derivatives
 - D. Common Uses of Phosphoric Acid Derivatives
 - E. Chemical Reactions of Phosphoric Acid Derivatives
- VIII. Laboratories
 - A. Perform laboratory experiments pertaining to the above chemical concepts, record observations, gather and analyze data, and present the results in written form