

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	Organic chemistry
Course number	MDCN1219
Faculty	
Department	
Course type	College Needs
Course level	1
Credit hours (theoretical)	2
Credit hours (practical)	1
Course Prerequisites	

Course Objectives

- 1 - This course deals with the basic concepts of chemistry needed for health sciences students for building background knowledge about design, synthesis and analysis of organic molecules-from simple compounds to candidate drugs.
- 2 - Upon completing this course , students will be able to : At the end of the course, students become familiar with the following points:
 - Organic chemistry is essential in biological and medical fields. All living organisms are composed of abundances of organic substances. Evolution of life has been postulated to have been developed from one single organic compound called a nucleotide. Nucleotides polymerize, or join together to form the building blocks of all life, DNA (deoxyribonucleic acid).
 - Organic compounds constitute various substances in the body which are vital for life to be sustained. Proteins, carbohydrates and lipids are organic compounds that contribute to the structure of the human body.
 - Organic compounds also make up enzymes and catalysts that are mandatory for essential biological processes to occur. Also, organic compounds are responsible for governing ion transport channels in the cell which function in carrying information from one cell to another and mediating cell to cell communication. Failure of ion transport may result in failure of important biological processes in the body.
- 3 - Upon completing this course , students will be able to : At the end of the course, students become familiar with the following points:
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Intended Learning Outcomes

Knowledge and Understanding

- * Upon completing this course, students will be able to:
- At the end of the course, students become familiar with the following points:
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Course Contents

1 - 1 Introduction 2 Bonding and Isomerism 3 Alkanes and Cycloalkanes; Conformational and Geometric Isomerism 4 Alkenes and Alkynes 5 Aromatic Compounds 6 Stereoisomerism 7 Organic Halogen Compounds; Substitution and Elimination Reactions 8 Alcohols, Phenols, and Thiols 9 Ethers and Epoxides 10 Aldehydes and Ketones 11 Carboxylic Acids and their Derivatives 12 Amines and Related Nitrogen Compounds 13 Spectroscopy and Structure Determination

Teaching and Learning Methods

1 - Lectures and discussions

Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
Exams and assignments	Tow hours weekly	? Assignments 30% ? Midterm exam 20% ? Final 50%

Books and References

Course note	David J. Hart, Christopher M. Hadad, Leslie E. Craine and Harold Hart. Organic Chemistry (short course), 13th edition
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