

Pharmaceutical Organic Chemistry Syllabus

(Module coordinator: Pr-MOSTEFA-KARA Bachir)

Course Outline:

Part 1: General Organic Chemistry

I. Nomenclature and Concepts of Plane Isomerism

- Nomenclature of Organic Compounds
- Molecular Formula and Concepts of Plane Isomerism II. Structure of the Carbon Atom

II. Structure of the Carbon Atom

II. Stereochemistry

- Definitions and Representation Methods
- Conformational Isomerism
- Geometric Isomerism (CIS/TRANS or Z/E)
- Optical Isomerism - Absolute and Relative Configuration

IV. Electronic Effects

- Polar Covalent Bonds and Electronegativity
- Inductive Effect
- Mesomeric Effect - Resonance and Conjugation

V. Reaction Mechanisms

- Introduction
- Reaction Intermediates and Different Types of Reactions.
- Radical Reactions
- Nucleophilic Substitution Reaction
- Elimination Reaction
- Addition Reactions
- Electrophilic Substitution Reaction

2nd Part: Descriptive Organic Chemistry

I- Aliphatic Hydrocarbons:

- Alkanes
- Alkenes and Dienes
- Alkynes

II- Aromatic Hydrocarbons

III- Halogenated and Organometallic Compounds

IV- Halogenated Derivatives

V- Organometallic Compounds

VI- Alcohols, Phenols, and Thiols

VII- Amines

VIII- Carbonyl Compounds: Aldehydes and Ketones

IX- Carboxylic Acids

X- Acid Derivatives

- Acid Chlorides and Anhydrides
- Amides
- Esters

Courses

Mrs. HAMZI Imane (MCA) (2x 1.5h = 3 h) *1st quarter*

Mr. MOSTEFA-KARA Bachir (Professor) (2x 1.5h = 3 h) *2nd quarter*

Tutorials

Monday:

Mrs. BENZERDJEB Salima (MAA) (2x 1.5h = 3 h)

Mr. MOSTEFA-KARA Bachir (Professor) (2x 1.5h = 3 h)

Mr./Mrs./Miss ?????? (2x 1.5h = 3 h)

Wednesday:

Mrs. DRICI Wassila (Professor) (2x 1.5h = 3 h)

Mrs. HAMZI Imane (MCA) (2x 1.5h = 3 h)

Laboratory Work

Sunday:

Lab 1: **Mrs. HAMZI Imane** (3 h) / **Miss SOLTANI** (3 h) (Adjunct)

Lab 2: **Mrs MERABET Ihcène** (3 hours) (Adjunct) / **Miss MISSOUM Hadjer** (3 hours) (Adjunct)

Tuesday:

Lab 1: **Mrs. BENZERDJEB Salima** (3 h) / **??????**(3 h) (Adjunct)

Lab 2: **Mrs MERABET Ihcène** (3 h) (Adjunct) / (Adjunct) , **??????** (3 h) (Adjunct)

List of Organic Chemistry Books

available at the Department of Pharmacy Library

	Title	Author(s)	Remarks
1	Chimie Organique 1 et 2 - Structure des molécules - Réactivité	Allinger, Cava, Johnson, De Jongh, Lebel, Stevens	courses + some practice exercises. excellent book, but for on-site consultation only
2	Chimie Organique UE1 : QCM	J.P Bouillon Francois Estour	MCQ(s)
3	Chimie Organique CONCOURS PHARMACIE	Yveline Rival Ed sciences	exercises
4	Chimie Organique	H.Galons	Courses
5	Chimie Organique	Paul Arnaud.	exercises
6	Chimie organique	Nicholas Rabasco Ed de boeck	This book provides course summaries
7	Chimie organique	Brigitte Jamart coll Paul Arnaud	courses / MCQ(s) / applications
8	Chimie organique	Paul Depovere	a Cheat sheet book
9	Chimie organique et chimie générale Exercices corrigés et annales	M. Polisset et Salles Ed Ellipses	exercises
10	Chimie organique Exercices et Problèmes	R Didier et P. Grecias Ed TEC & Doc	exercises
11	Chimie organique : Les grands principes Cours et exercices corrigés	John Mc Murry Ed Dunod	Courses + exercises
12	Chimie organique (PCEM) Cours et exercices corrigés	Melania Kiel	Courses + exercises
13	Exercices de Chimie organique	Olivier Lafont / Joelle Mayrargue Ed TEC & Doc	exercises
14	Chimie organique Concours pharmacie Cours et Qcm et Qcd corrigés	Yveline Rival Ed sciences	exercises + MCQ(s)