

Course Description

Organic Chemistry II, First Course, second stage

• Educational Institution	Ministry of Higher Education and Scientific Research
• University Department / Center	Alzahrawi University /Pharmacy College
• Course Name / Code	Organic Chemistry II, PPCS 23
• Programs in which it is included	Bachelor of Pharmacy
• Available Forms of Attendance	Daily
• Semester / Year	First course-2025/2026
• Total Number of Study Hours	24 hours
• Date of preparing this description	2025-2026
• Course objective: • Synthesis and properties of benzene, arenes and aldehydes and ketones, in addition to enable students to understand the chemistry of aromatic compounds, and the classification, properties and reactions of aromatic organic compounds. It includes understanding the basic structure of phenols and amines, and features of aromatic compounds.	
• Learning Outcomes, Teaching and Learning Methods, and Evaluation	

Knowledge and Understanding

.Basic concepts of aromatic organic reactions, their classification and reaction mechanisms. to be used as a guide in structure determination . Identification and application of different organic compounds.

- **Subject-Specific Skills:**
- Get experience in carrying out different aromatic organic reactions

Teaching and Learning Methods: using white board and projector screen

- **Evaluation Methods:** Periodic exams, reports, seminars, routine homeworks, final exams.

- **Thinking Skills: Practical workshops, homeworks, exams**

Teaching and Learning Methods:

using white board and projector screen. Lectures to direct students to textbooks, notes and on-line material. Laboratory practice. Assignments and researches done and presented by the students in seminars.

Evaluation Methods : Periodic exams, seminars, and reports

e. General and Transferable Skills:

Communicate clearly by verbal and written means. Retrieve and evaluate information from different sources to improve professional competencies. Work effectively in a team. Use numeracy, calculation and statistical methods as well as information technology tools. Practice independent learning for continuous professional development. Demonstrate creativity and time management abilities. Implement writing and presentation skills. Demonstrate critical thinking, problem solving and decision making abilities.

• **Course Structure for the Second Stage, Theoretical Subject (First Course)**

Week	Hours	Required Learning Outcomes	Unit Name Course or Topic	Learning Method	Assessment Method
1	3	Knowledge	Aromatic hydrocarbons	Use of the board and display screen	Daily examination and oral questions and discussion
2-3	6	Knowledge	Carboxylic acids	Use of the board and display screen	Daily examination and oral questions and discussion

					and homework assignments
4	3	Knowledge	Carboxylic acids derivatives Part: I	Use of the board and display screen	Daily examination and oral questions and discussion and homework assignments
5	3	Knowledge	Carboxylic acids derivatives Part: II	Use of the board and display screen	Daily examination and oral questions and discussion and homework assignments
6	3	Knowledge	Functional derivatives of carboxylic acids	Use of the board and display screen	Daily examination and oral questions and discussion and homework assignments
7-8	6	Knowledge	Amines I	Use of the board and display screen	Daily examination and oral questions and discussion and homework assignments
9	3	Knowledge	Amines II	Use of the board and display screen	Daily examination and oral questions and discussion and homework assignments
10-11	6	Knowledge	Aldehydes	Use of the board and display screen	Daily examination and oral questions and discussion and homework assignments
12	3	Knowledge	Ketones	Use of the board and display screen	Daily examination and oral questions
13	3	Knowledge	Phenols Part: I	Use of the board and display screen	Daily examination and oral questions

14-15	6	Knowledge	Phenols Part: II	Use of the board and display screen	Daily examination and oral questions
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• Infrastructure	
Required Readings:	References: 1. Organic chemistry by Robert T.Morrison and Robert N.Boyd. 2. Organic chemistry by McCurry: 5th ed. Thomson Learning;CA, USA; 2000
Special Requirements (Workshops, Journals, Software, Websites):	Electronic Websites: Molecules journal, Journal of medicinal chemistry.
Social Services (Guest Lectures, Professional Training, Field Studies, Others)	Organizing workshops and courses for graduates: Distance education and electronic lectures

• Admission:	
Prerequisites	Admission according to the central plan
Minimum Number of Students	120
Maximum Number of Students	Admission exceeds the capacity plan: 140

Course coordinator: Lecturer Assistant Ahmed M. Motlk