University of Baghdad
College of Pharmacy
Department of Pharmaceutical Chemistry
Title of the course: ***Organic Pharmaceutical Chemistry*** **I** Course number: **326**

Level: 3rd Class, 2nd Semester
Credit hours: **Theory 3 hours** **Laboratory 1 hour**
Reference text: ***Wilson and Gisvold Textbook of Organic medicinal and Pharmaceutical chemistry, Delgado JN, Remers WA, (Eds); 10th ed, 2004.***

ObjectivesTo enable understanding mechanisms of drug action at molecular : ,level and the role of medicinal chemistry in the discovery and development of synthetic -therapeutic agents. It also enables students to understand the concept of structure activity relationship and its application in design and synthesis of new compounds or .derivatives

No	Lecture title	hours
1	Drug distribution.	4
2	Acid- base properties.	3
3	Statistical prediction of pharmacological activity.	3
4	QSAR models.	2
5	Molecular modeling (Computer aided drug design).	1
6	Drug receptor interaction: force involved.	1
7	Steric features of drugs.	2
8	Optical isomerism and biological activity.	1
9	Calculated conformation.	1
10	Three- dimensional quantitative structure activity relationships and databases.	1
11	Isosterism.	1
12	Drug-receptor interaction and subsequent events.	1

13	General pathways of drug metabolism: Sites of drug biotransformation; Role of cytochrome P450 mono-oxygenases in oxidative biotransformation; Oxidative reactions; Reductive reactions; Hydrolytic reactions; Phase II reactions.	22
14	Factors affecting drug metabolism.	2