

Course Description Form

1. Course Name:					
Organic Pharmaceutical Chemistry II					
2. Course Code:					
Phpch23_413					
3. Semester / Year:					
1 st Semester/ 4 th year					
4. Description Preparation Date:					
21/03/2024					
5. Available Attendance Forms:					
Students' signatures on attendance sheets					
6. Number of Credit Hours (Total) / Number of Units (Total)					
3 hours theory + 2 hours practical (75) / 4 units					
7. Course administrator's name (mention all, if more than one name)					
Theory					
Name: Assist. Prof. Dr. Mahmood Khudair Oglah					
Email: mahmoodpharm76@uomosul.edu.iq					
Name: Assist. Prof. Dr. Moath Kahtan Bashir					
Email: moathkahtan@uomosul.edu.iq					
Practical					
Name: Assist. Lec. Safaa Polis Behnam					
Email: safaapk@uomosul.edu.iq					
Name: Assist. Lec. Sawsan Hasan					
Email: sawsan.hasan@uomosul.edu.iq					
Name: Assist. Lec. Sara Ahmad					
Email: sarah.ahmed@uomosul.edu.iq					
8. Course Objectives					
Course Objectives		<ul style="list-style-type: none"> • Introducing the students to pharmaceutical chemistry • Explain the interaction between chemical structure and Biological activities. 			
9. Teaching and Learning Strategies					
Strategy		<ul style="list-style-type: none"> • Theory lectures with teaching aids such as videos and diagrams • Practical sessions where students actively perform experiments 			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1+2	3+2	<ul style="list-style-type: none"> • Introduction to Autonomic nervous system • Preparation of Salicylic acid 	<ul style="list-style-type: none"> • Autonomic Nervous System • Organic synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based exams • Lab-based unknowns
3+4	3+2	<ul style="list-style-type: none"> • Cholinergic drugs • Anti-cholinergic drugs • Re-crystallization of salicylic acid 	<ul style="list-style-type: none"> • Autonomic Nervous System • Organic synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based exams • Lab-based quiz

5+6	3+2	<ul style="list-style-type: none"> • Adrenergic agonist • Antiadrenergic drugs • Synthesis and re-crystallization of aspirin 	<ul style="list-style-type: none"> • Autonomic nervous system • Organic synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based exams • Lab-based quiz
7+8	3+2	<ul style="list-style-type: none"> • Opioid analgesic • NSAIDs analgesics • Preparation of nitrobenzene 	<ul style="list-style-type: none"> • Analgesics • Sulfonamide synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based Exams • Lab-based quiz
9+10	3+2	<ul style="list-style-type: none"> • Sedative, hypnotic anxiolytic • Preparation of acetanilide 	<ul style="list-style-type: none"> • Central Nervous System • Sulfonamide synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based Exam • Lab-based quiz
11+12	3+2	<ul style="list-style-type: none"> • Antiepileptics • Re-crystallization of acetanilide 	<ul style="list-style-type: none"> • Central Nervous System • Sulfonamide synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based Exam • Lab-based quiz
13	3+2	<ul style="list-style-type: none"> • Antidepressant • Chlorosulfonation of acetanilide 	<ul style="list-style-type: none"> • Central Nervous System • Sulfonamide synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based exam • Lab-based quiz
14	3+2	<ul style="list-style-type: none"> • Antipsychotics • Amination of <i>p</i>-chlorobenzene sulfonyl chloride 	<ul style="list-style-type: none"> • Central Nervous System • Sulfonamide synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based exam • Lab-based quiz
15	3+2	<ul style="list-style-type: none"> • Anaesthetics • Hydrolysis of <i>p</i>-chlorobenzene sulfonyl chloride to sulfanilamide 	<ul style="list-style-type: none"> • Anaesthetics • Sulfonamide synthesis 	<ul style="list-style-type: none"> • Lectures • Practical 	<ul style="list-style-type: none"> • Paper-based exam • Lab-based quiz

11. Course Evaluation

- 20 M: Theoretical assessment (paper-based midterm exam, attendance)
- 20 M: Practical assessment (attendance, quizzes, unknowns, reports)
- 60 M: paper-based theoretical final exam

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- 100 M total

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Wilson and Gisvold Textbook of Organic medicinal and Pharmaceutical chemistry Delgado JN, Remers WA, (Edition 12th edition, 2010) Graham L. Patrick textbook of An Introduction to Medicinal Chemistry, latest edition. Laboratory Handbook for Practical Pharmaceutical Chemistry adopted by department.
Main references (sources)	Wilson and Gisvold Textbook of Organic medicinal and Pharmaceutical chemistry Delgado JN, Remers WA, (Edition 12th edition, 2010) Laboratory Handbook for Practical Pharmaceutical Chemistry adopted by department.
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	