Course Description Form

1. Course Name:
Organic Pharmaceutical Chemistry IV
2. Course Code:
Phpch23_516
3. Semester / Year:
1st Semester/ 5th Year
4. Description Preparation Date:
23/03/2024
5. Available Attendance Forms:
Students' signatures on attendance sheets
6. Number of Credit Hours (Total) / Number of Units (Total)
2 hours theory (30) / 2 units
7. Course administrator's name (mention all, if more than one name)
Name: Prof. Dr. Yasser Fakhri Email: dr.yassermustafa@uomosul.edu.iq Name: Assist. Prof. Dr. Mohammed Najim Abed Email: m.n.abed@uomosul.edu.iq Name: Assist. Prof. Dr. Moath Kahtan Email: moathkahtan@uomosul.edu.iq
8. Course Objectives

Course Objectives	• Introducing the students to advanced concepts pharmaceutical chemistry such as prodrugs, drug targeting combinatorial chemistry
9. Teaching and Learning Strategies	
Strategy	• Theory lectures with teaching aids such as videos and diagrams

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-3	6	• Understanding the concept of prodrugs	• Basic concept of prodrugs; Covalent bonds (cleavable); Prodrugs of functional groups; Types of prodrugs	• Lectures	• Paper-based exams
4-6	6	• Understanding the role of polymers as delivery systems for drugs	• Chemical delivery systems; Polymeric prodrugs; Types and structure of polymers; Cross-linking reagents	• Lectures	• Paper-based exams
7+8	4	• Understanding the concept of targeting drugs to specific tissues and organs	• Drug targeting	• Lectures	• Paper-based exams

8-15	14	• Understanding the concept of combinatorial chemistry and library design	• Combinatorial chemistry; Peptides and other linear structures; Drug like molecules; Support and linker; Solution-phase combinatorial chemistry • Detection, purification and analgesics; Encoding combinatorial libraries; High-throughput screening; Virtual screening; Chemical diversity and library design	• Lectures	• Paper-based Exams

11. Course Evaluation

- 30 M: Theoretical assessment (paper-based midterm exam, attendance)
- 70 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 Orga medicinal and Pharmaceutical chemis Delgado JN, Remers WA, (Eds); 12thediti 2010
Main references (sources)	Wilson and Gisvold Textbook of Orga medicinal and Pharmaceutical chemis Delgado JN, Remers WA, (Eds); 12thediti 2010
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	