Ministry of Higher Education and Scientific Research
Kurdistan Region – Iraq
NOBLE TECHNICAL INSTITUTE

Academic Year 2023 – 2024

2snd semester 1st graders

A COURSE MODULE DESCRIPTOR FORM

Module Information			
Course Module Title	Pharmaceutics		
ناوی کۆرس مۆدیول	دەرمانسازی		
عنوان الوحدة	صيدلانيات		
Course Module Type	Core	**Module Code**	PH202
ECTSs	7		
Department	Pharmacy		
Department Code	PH		
Module Website (CMW)	List of Modules (noble.edu.krd) / Noble Insitute – Noble Institute		
Module Leader (ML)	Narmin Mahmoud		
NTI - E - mail	**Narmin.Ismail@noble.edu.krd**		
ML Acad. Title	Assistant Lecture		
ML ORCID	https://orcid.org/0000-0003-3174-1066		
ML Google Scholar Acc	Narmin.kurdneth@gmail.com		

Relation with Other Modules	
Pre-requisites	None
Module Aims, Learning Outcomes and Indicative Contents	
Module Introductory Description	The course is designed to provide the student with the basic information about Pharmaceutics; a broad science which deals with drugs dosage form design, and it provides an understanding of drug production, particularly prescription production / small scale, with special focus on liquid and semi-solid systems. Pharmaceutics introduce the students to the practical aspects of formulating and producing a variety of dosage forms and drug formulations, also it enables the students to use and measure the quantity of drug substances in a proper way by using suitable type of measuring equipment,
Module Aims	Course designed to impart basic knowledge and skills required to learn various aspects and concepts of pharmaceutical science
Module Learning Outcome	Upon successful completion of the course, the students will be able to: 1. Upon completion of the course, the student shall have 2. An understanding of the concept of various parts of pharmaceutical science 3. Understanding the important of Pre-formulation tests 4. Understanding the important and application of pharmaceutical technology 5. Understanding the important and application of biopharmaceutics 6. Understanding the important and application of pharmaceutical calculation
Learning and Teaching Strategies	

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Strategies	The teaching consists of Lectures, discussion groups, tutorials, problem solving and seminars. The instructions are partially or completely in English. Emphasis is placed on the student's ability to collect and process material as well as the student's ability to write and make oral presentation on the efficacy and safety of pharmaceutical drugs.

Required texts and References
1. Ansel s the science of dosage from and drug delivery 9 th eddition (Loyd V. Allen, Jr., PhD, Nicholas G. Popovich, PhD and Howard C. Ansel, PhD) 2. Pharmaceutical Preformulation and Formulation (A Practical Guide from Candidate Drug Selection to Commercial Dosage Form) edited by Mark Gibson 3. fast track in pharmaceutical dosage from and designing by (David Jones)

Module Delivery	
Total workload	
Contact Theoretical Hours – Per semester	1hr
Contact Practical Hours – Per Semester	2 hrs

	NA

Module Assessment			
Module Activities	**Time /Number**	**Weight (Marks)**	**Week Due**
- **Contact hours – Participation**	- **Daily bases**	- **5%**	- **Weekly**
- **(Science / Lab)** - **(Social science / Critical thinking)**	- **1 per group**	- **5%**	- **weekly**
- **Seminar**	- **1 per group**	- **5%**	- **Week 7**
- **Tutorial**	- **1**	- **5%**	- **Within 16 weeks**
- **Self-study**	- **Individually**	- **5%**	- **Within 18 weeks**
- **Quiz**	- **1 per group**	- **5%**	- **Week 4-5**
- **Oral assessment**	- **Individually**	- **5%**	- **Week 4-9**
- **Midterm Exam**	- **exam**	- **20%**	- **Week 8**
- **Final Exam**	- **Paper exam**	- **40%**	- **Week 15**
- **Total**	-	- **100 %**	- **In total of 14 weeks**

Delivery Plan (Designed Syllabus)	
	Course Module Content/ theory
Week 1	1. introduction to Pharmaceutics
Week 2	2. Introduction to dosage forms
Week 3	3. Pharmaceutical dosage forms & Fundamental of measurement

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Week 4	4. Solid dosage forms
Week 5	5. Semisolid dosage forms
Week 6	6. Liquid dosage form
Week 7	7. **Seminar**
Week 8	8. **Mid term**
Week 9	9. Tablets: formulation and compaction 10.
Week 10	11. Modified-Release Dosage Forms and Drug Delivery Systems(slow-delay-target-extend) control drug release
Week 11	12. Continue with week 11
Week 12	13. Biopharmaceutical aspects of drug administration
Week 13	14. Continue with week 12
Week 14	15. Biopharmaceutics and factor affecting drug absorption
Week 15	16. Excipients
Week 16	Overall course evaluation and tutorial
Week 17	Quick revision - overall
Week 18	Final exam session

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	Course Module Content/ practical
Week 1	Introduction to the lab usage /report
Week 2	Calculation of percentage of error
Week 3	Preparation of Isotonic solution (saline)
Week 4	Preparation of Isotonic solution /D5W
Week 5	Preparation of Emulsion (pharmaceutical technology emulsion)
Week 6	Preparation of Emulsion (pharmaceutical technology emulsion)
Week 7	seminar
Week 8	Mid term
Week 9	Reports evaluation
Week 10	prepare simple ointment
Week 11	prepare sulfur ointment
Week 12	prepare zinc ointment
Week 13	Report evaluation
Week 14	**Quick revision - overall**
Week 15	**Final exam**

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Course Keywords
Pharmaceutics, pharmaceutical calculation, pharmaceutical technology, biopharmaceutics