

نموذج وصف المقرر

Performance review of higher education institution (assessment of the academic program)

وصف المقرر

This course description summarizes the key characteristics and anticipated learning objectives for students, assessing their utilization of available learning resources, and must be aligned with the .program description

1. Educational Institution	Ministry of Higher Education and Scientific Research / Al-Zahrawi University College
2. University Department / Center	Pharmacy Department / Pharmaceuticals Branch
3. Course Name / Code	Pharmaceutical Technology II / PPCT 36
4. Programs in which it is included	Bachelor of pharmacy
5. Available Forms of Attendance	Daily attendance
6. Semester / Year	2024-2025 / second course / third stage
7. Total Number of Study Hours	3 hours theory + 2 hours practical
8. Date of preparing this description	2024-2025
9. Course Objectives:	
Teaching basic information about different pharmaceutical forms (emulsions, suppositories, topical preparations, capsules, sprays and powders) in terms of their raw materials, compositions, methods of preparation, stability and storage, in addition to identifying and .describing potential incompatibilities that may occur between pharmaceutical forms	
1. Learning Outcomes, Teaching and Learning Methods, and Evaluation	

A. Knowledge and Understanding

1. Enabling students to have comprehensive knowledge of the concepts of different pharmaceutical doses and enabling them to acquire and understand the methods of preparing them in small scales in the laboratory and pharmacy.
2. Enabling students to identify the theoretical technological rules used in preparing pharmaceutical doses according to their raw materials, contents, preparation methods, stability, storage and uses.

B. Subject-Specific Skills

1. Enabling students to acquire the basic principles in preparing the pharmaceutical form of emulsions, suppositories, topical preparations, capsules and powder.
2. Enabling students to acquire the skills of storing medicines after completing their preparation.
3. Acquiring the skill of extracting the required information from its approved sources.

Teaching and Learning Methods

1. Using the smart board.
2. Teaching and giving theoretical lectures
3. Educational seminars and posters

C. Evaluation Methods

1. Midterm and final exams
2. Oral and written exams
3. Classroom activities and posters

D. Thinking Skills

1. Thinking skills through translating, analyzing, evaluating and extracting ideas.
2. Extracting the correct methods for preparing emulsions, suppositories, topical preparations, capsules, sprays and powders .

e. General and Transferable Skills

1. Acquire skill in using the computer
2. Give confidence to the student through presenting scientific research
3. Give confidence to the student through discussing reports
4. Acquire skill in dealing
5. Acquire skill in leadership

10. Course Structure					
Evaluation Method	Learning Methods	Unit Name / Course or Topic	Required Learning Outcomes	Hours	Week
Daily and monthly exams and discussion	Using the smart board	Emulsion	Introduction Definition, Types, Classification of emulsions, Disadvantage of emulsion, Theory of emulsion	۳	۱
Daily and monthly exams and discussion	Using the smart board	Emulsion	Emulsifying agents: Main properties, Types Calculation of concentration of SAA, Small Scale Large scale, main method of emulsification	4	۲
Daily and monthly exams and discussion	Using the smart board	Emulsion	Stability of emulsions, storage of emulsion preservation	۳	۳
Daily and monthly exams and discussion	Using the smart board	Suppository	Ideal properties Types of bases, Suppository Molds,	۳	۴
Daily and monthly exams and discussion	Using the smart board	Suppository	Determination of the amount of base* Vaginal Inserts* Packaging and Storage*	3	۵
Daily and monthly exams and discussion	Using the smart board	Semisolids	Introduction: ideal properties of ointment, base types of ointment bases (USP) comparison between the ointment bases.	4	۶
Daily and monthly exams and discussion	Using the smart board	Semisolids	Selection of ideal ointment base, Preparation of ointment compendial requirements for ointments, Ophthalmic ointment, creams, gels	۳	۷
Daily and monthly exams and discussion	Using the smart board	Powders and Granules	Definition, Route of administration, Uses & Characterization of powders, Particle size Terminology of powder Methods for determination of particle size & Shape, Flowability, Comminution of drug, bending of powder	۳	8
Daily and monthly exams and discussion	Using the smart board	Powders and Granules	Problems associated with particle size reduction, Medicated powders, Dispensing of powders, Granules & Effervescent granules	۳	9
Daily and monthly exams and discussion	Using the smart board	Capsules	Definition, advantages, types, hard gelatin capsules, shell composition, properties, manufacturing of hard capsules Hard Preparation of filled hard gelatin capsules	۳	۱0
Daily and monthly exams and discussion	Using the smart board	Capsules	Enteric coated capsules, Counting of capsules, Storage of capsules Evaluation of capsules	۳	۱1

Daily and monthly exams and discussion	Using the smart board	Aerosols and Foams	Pharmaceutical aerosols: Definition advantages& components of an aerosols Pharmaceutical Foams: definition, advantages& types	6	12 - 13
Daily and monthly exams and discussion	Using the smart board	Pharmaceutical incompatibility	Types of incompatibility: physical incompatibility, chemical incompatibility	6	14- 15

11. Learning and teaching resources	
Required books	Ansel's pharmaceutical dosage forms and drug delivery 10th Edition by Loyd Allen (Author)
Main References (Sources)	- American Pharmacy. - Aulton's Pharmaceutics: The Design and Manufacture of Medicines, 3ed Michael E. Aulton (Author). Churchill, Livingstone- Elsevier

Name of the Instructor: