

نموذج وصف المقرر

وصف المقرر

1. Educational Institution	Al-Zahrawi University College, Ministry of Higher Education and Scientific Research
2. University Department / Center	Pharmacy Department
3. Course Name / Code	Pharmaceutical Calculation\ PPCT 12
4. Programs in which it is included	This course is part of the first semester curriculum.
5. Available Forms of Attendance	Daily attendance with available options for in- person and online participation
6. Semester / Year	Second Semester / 2024-2025
7. Total Number of Study Hours	2 hours practical per week
8. Date of preparing this description	2024-2025
9. Course Objectives: Understanding pharmaceutical material calculations, including formulations, preparations, and properties.	
10. Knowledge of the biological factors related to pharmaceutical materials.	
11. Teaching pharmaceutical calculations for dilution and concentration of saline and electrolyte solutions, as well as intravenous injections.	
12.	

1. Learning Outcomes, Teaching and Learning Methods, and Evaluation

A. Knowledge and Understanding:

- 1-Recognizing various methods for pharmaceutical preparations.
- 2-Techniques for preparing solutions.
- 3-Methods for diluting solutions.
- 4-Calculating weights specific to pharmaceutical preparations.
- 5-Understanding weights and conversions related to pharmaceutical compositions.
- 6-Educating pharmacists on dose calculations and their importance in hospitals.

B. Subject-Specific Skills:

- 1-Acquiring skills in dilution and concentration techniques.
- 2-Developing proficiency in weight calculations.
- 3-Familiarity with laboratory tools used in pharmaceutical labs.
- 4-Gaining knowledge of drug dosage calculations.
- 5-Skill development in preparing pharmaceutical solutions and formulations.

Teaching and Learning Methods

1. Theoretical lectures.
2. Laboratory experiments.
3. Seminars and reports.
4. Classroom posters and activities.

C. Evaluation Methods

1. Midterm and final exams.
2. Oral and written assessments.
3. Laboratory reports.
4. Classroom activities (posters).

D. Thinking Skills:

1. Using modern methods to prepare and present lectures (e.g., PowerPoint).
2. Assigning homework related to scientific topics.
3. Presenting educational videos on the given material and utilizing visual learning.
4. Conducting real experiments with student participation in pharmaceutical preparations

Teaching and Learning Methods:

1. Lectures and presentations.
2. Seminars and homework assignments.
3. Examinations.
4. Field visits.
5. Educational posters

Evaluation Methods

- Grading, research papers, and reports, as well as examinations.

e. General and Transferable Skills :

1. Applying acquired knowledge effectively.
2. Building student confidence through seminar discussions.
3. Demonstrating practical application of learned skills in professional development

11. Course Structure

Weeks	Hours	Required Learning Outcomes	Unit Name / Course or Topic	Learning Methods	Evaluation Method
1	2	Knowlagent	Introduction in pharmaceutical science	Datashow, Seminar, board	Quizes, oral assesment
2	2	Knowlagent	Study the tools that used in the pharmaceutical laboratories	Datashow, Seminar, board	Quizes, oral assesment
3	2	Knowlagent	Study and know about the familiar mistake in pharmaceutical experiments	Datashow, Seminar, board	Quizes, oral assesment
4	2	Knowlagent	Study the types of solutions	Datashow, Seminar, board	Quizes, oral assesment
5	2	Knowlagent	Simple solution preparation	Datashow, Seminar, board	Quizes, oral assesment
6	2	Knowlagent	Study the volumetric measurements and application in pharmaceutical lab.	Datashow, Seminar, board	Quizes, oral assesment
7	2	Knowlagent	Methods of preparation and extraction of aromatic water	Datashow, Seminar, board	Quizes, oral assesment
8	2	Knowlagent	Study the osmolarity	Datashow, Seminar, board	Quizes, oral assesment
9	2	Knowlagent	Preparation of osmolar fluids	Datashow, Seminar, board	Quizes, oral assesment
10	2	Knowlagent	Osmolality and relation with pharmaceutical preparations	Datashow, Seminar, board	Quizes, oral assesment S

12. Infrastructure	
Required Readings:	References: Pharmaceutical Dosage forms and Drug Delivery System By Haward A. Ansel :latest edetion
Special Requirements (Workshops, Journals, Software, Websites):	Electronic Websites: Make tour to pharmaceutical factories
Social Services (Guest Lectures, Professional Training, Field Studies, Others)	Organizing workshops and courses for graduates:

13. Admission:	
Prerequisites	Admission according to the central plan
Minimum Number of Students	/
Maximum Number of Students	Admission exceeds the capacity plan

Name of the Instructor: Lecturer. Azher Abdulmutaleb Ibrahim