Course Description Form

1. Course Name:
Pharmacognosy I (Theoretical+ Practical)
2. Course Code:
Phcog24_229--
3. Semester / Year
2nd Semester/2nd year
4. Description Preparation Date:
19/1/2025
5. Available Attendance Forms:
Students' signature on attendance sheet
6. Number of Credit Hours (Total) / Number of Units (Total)
3 hours Theoretical + 2 hours Practical (75) /4 units
7. Course administrator's name
Theoretical
Name: Assist. Prof Dr. Mohanned Emad Qazzaz Email: mohannad.qazzaz@uomosul.edu.iq Dr. Sameer M Mahmood Email: sm.mahmood@uomosul.edu.iq Dr. Ban Ali Ahmed Email: ban-alnuaimy67@uomosul.edu.iq
Practical
Assist. Lecturer: Zena Sideeq Email: zena.sideeq@uomosul.edu.iq Assist. Lecturer: Samara sameer Email: samara.sameer@uomosul.edu.iq Assist. Lecturer: Sura Maan Salim Email: sura.maan@uomosul.edu.iq Pharmacist: Noor Saad Email: noormahmoodph88@gmail.com Pharmacist: Mayada Muhammed Email: Mayadamohammed@unmousl.edu.iq
8. Course Objectives

Course Objectives To introduce students to the fundamer concepts and principles of pharmacogno focusing on the study of natural produ derived from plants, animals, microorganisms.	• To familiarize students with the identificati collection, preparation, and evaluation of crude dr and herbal medicines. • To provide students with an understanding of chemical constituents, pharmacological propert and therapeutic uses of medicinal plants and natu products. • To develop practical skills in the extraction, isolati purification, and analysis of bioactive compou from natural sources.

9. Teaching and Learning Strategies	
Strategy	Lecturing Homework Quiz Practical laboratory demonstrations and experiments

10. Course Structure

Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	3+2	*The Scope of Pharmacognosy, definitions and basic principles *Micro measurement and magnification	General Introduction	Theoretical lectures. Laboratory experiments	Paper-based exams
2	3+2	*Drugs from natural sources, crud drugs, official and non-official drugs *Microscopical identification of crude drugs and cell contents	General Introduction	Theoretical lectures. Laboratory demonstration.	Paper-based exams
3	3+2	*Classification of natural products. *Microscopical identification of crude drugs and cell contents	Introduction pharmacognosy	Theoretical lectures. Laboratory demonstration.	Paper-based exams
4	3+2	*Plant nomenclature and taxonomy. *Extraction and separation techniques	Introduction pharmacognosy	Theoretical lectures. Laboratory demonstration.	Paper-based exams
5	3+2	* Cultivation, collection, drying and storage *Extraction and separation techniques	Production of crude drugs	Theoretical lectures. Laboratory experiments.	Paper-based exams
6	3+2	*Deterioration of crude natural products *Chromatography	Production of crude drugs	Theoretical lectures. Laboratory demonstration.	Paper-based exams

7	3+2	*Pharmacological activities of natural products *Chromatography	Natural products	Theoretical lectures. Laboratory demonstration.	Paper-based exams
8	**Mid-term exam**				
9	3+2	*Chemistry of natural drug products *Paper chromatography	Natural products	Theoretical lectures. Laboratory demonstration.	Paper-based exams
10	3+2	Quality control *Paper chromatography	Quality control	Theoretical lectures. Laboratory demonstration.	Paper-based exams
11	3+2	Phytochemical investigation of herbal products *Introduction to thin-layer chromatography	Phytochemical investigation	Theoretical lectures. Laboratory demonstration.	Paper-based exams
12	3+2	*Separation technique *TLC on microscope slides	Separation technique	Theoretical lectures. Laboratory demonstration.	Paper-based exams
13	3+2	Traditional plant medicines as a source of new drugs. *Partition chromatography for the separation of volatile oils	Bioassay-guided fractionation	Theoretical lectures. Laboratory demonstration.	Paper-based exams
14	3+2	Tissue culture of medicinal plant *Effect of activity of adsorbents on Rf values	Tissue culture of medicinal plant	Theoretical lectures. Laboratory demonstration.	Paper-based exams

11. Course Evaluation

- 20 M Theoretical assessments;
  (Paper-based mid-term exam + quiz + attendance)
- 20 M practical assessment (attendance + quiz + practice)
- 60 M paper-based theoretical final exam

100 M total

12. Learning and Teaching Resources

Required textbooks	• Trease, and Evans,W.C., Pharmacognosy,16th edition,2009,Elsevier Health Sciences.
Main references (sources)	