IRAN UNIVERSITY OF MEDICAL SCIENCES

School of pharmacy,

Department of Pharmacognosy & Pharmaceutical Biotechnology

Course name: Pharmacognosy I (M-Pharm)

Number of credits: 2, Saturday (13-15)

Corse type: Theoretical

Prerequisite: Medicinal Plants (Theory)

Course Instructors: Dr. Sajjad Nasseri, Dr. Paria Sharafi-Badr

Responsible Instructor: Dr. Sajjad Nasseri (Nasseri.s@iums.ac.ir)

Course Description:

In this course, students are introduced to the fundamental principles of pharmacognosy, focusing on the study of herbal medicines, control of medicinal plants and natural compounds in the pharmaceutical field. Additionally, the course explores the methods involved in processing medicinal plants, as well as the qualitative and quantitative assessment of their medicinal properties. Furthermore, students examine the role of plants in the production of medicine and gain familiarity with the chemical constituents such as carbohydrates, lipids, and alkaloids.

Learning outcomes:

Students must:

1. Be able to explain primary and secondary metabolites.

2. Be able to explain the molecular structure, pharmacological effects and usage of:

carbohydrates, lipids, and alkaloids.

Course Evaluation:

Semester Project(s)	20%
In Class Discussions	10%
Final Exam (Multiple Choice and Essay Tests)	70%

Important Note:

- Final Exam will be held as determined by the registrar's office.

In Class Discussions and Semester Project(s):

More information will be determined during class.

Pharmacognosy I (Theory, M-Pharm), 2023 Course table

Saturday (13-15)

NO.	Subject	Instructor(s)	Teaching methods	Date
1	Introduction of pharmacognosy. The scope and practice of pharmacognosy	Dr. Sharaf Bader	Discussion Based Learning Blended	23 Sep.
2	Extraction methods of natural compounds	Dr. Sharaf Bader	Discussion Based Learning Blended	30 Sep.
3	Carbohydrates	Dr. Sharaf Bader	Discussion Based Learning Blended	7 Oct.
4	Gums and mucilages	Dr. Sharaf Bader	Discussion Based Learning Blended	14 Oct.
5	Gums and mucilages	Dr. Sharaf Bader	Discussion Based Learning Blended	21 Oct.
6	Pharmaceutical fixed oils and fats, waxes	Dr. Sharaf Bader	Discussion Based Learning Blended	28 Oct.
7	Pharmaceutical fixed oils and fats, waxes	Dr. Sharaf Bader	Discussion Based Learning Blended	4 Nov.
8	Introduction of alkaloids	Dr. Sharaf Bader	Discussion Based Learning Blended	11 Nov.
9	Pyrrole and Pyrrolidine alkaloids	Dr. N asseri	Discussion Based Learning Blended	25 Nov.
10	Pyrolizidine alkaloids	Dr. N asseri	Discussion Based Learning Blended	2 Dec.
11	Tropane alkaloids	Dr. N asseri	Discussion Based Learning Blended	9 Dec.
12	Tropane alkaloids	Dr. N asseri	Discussion Based Learning Blended	16 Dec.
13	Isoquinoline alkaloids	Dr. N asseri	Discussion Based Learning Blended	23 Dec.
14	Indole and purine alkaloids	Dr. N asseri	Discussion Based Learning Blended	30 Dec.
15	Steroidal alkaloids	Dr. N asseri	Discussion Based Learning Blended	6 Jan.
16	Imidazole alkaloids	Dr. N asseri	Discussion Based Learning Blended	13 Jan.

References:

1. Drug of natural origin: A Textbook of pharmacognosy. Samuelsson G, Swedish Pharmaceutical press, The latest edition.

2- Trease and Evan's pharmacognosy. Evans WC. Saunders. Edinburg. The latest edition.

3. Pharmacognosy, Phytochemistry, Medicinal plants. Bruneton J, Intercept Ltd., The latest edition.