



Course Specification

— (Bachelor)

Course Title: Pharmacognosy-I

Course Code: PHGN 321

Program: Pharmaceutical sciences

Department: Pharmacognosy

College: Pharmacy

Institution: Najran University

Version: 4

Last Revision Date: 18-08-2024

Table of Contents

A. General information about the course:	3
B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods	4
C. Course Content	5
D. Students Assessment Activities	6
E. Learning Resources and Facilities	6
F. Assessment of Course Quality	7
G. Specification Approval	7





A. General information about the course:

1. Course Identification

1. Credit hours: (3h (2+1))

2. Course type

A. ☐ University ☐ College ☐ Department ☐ Track ☒ Program
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (5th / 3rd)

4. Course general Description:

Pharmacognosy-1 (PHGN 321) course provides the students general Knowledge about plant nature, cultivation, drying, package, storage and adulteration of natural drugs, in addition, studying of macroscopical and microscopical characters of leaves, bark and flowers. Also, differentiation between the classes of 2ry metabolites and their evidence based on medicinal uses and application.

5. Pre-requirements for this course (if any):

6. Co-requisites for this course (if any):

7. Course Main Objective(s):

- a. Acquire the knowledge about the Macroscopical and microscopical Characters of different plant organs.
- b. Understand the different classes of plant constituents, their identification and uses

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning 		
4	Distance learning		



3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	30
3.	Field	0
4.	Tutorial	0
5.	Others (specify)	0
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Demonstrate special knowledge of macroscopical and microscopical characters of leaves, barks and flowers of the medicinal plants under study.	K1	Lectures	Written Exams and assignments
1.2	Understanding the classes of plant constituents and uses.	K1	Lectures	Written Exams and assignments
2.0	Skills			
2.1	Integrate between different plant organs and constituents.	S2	Lectures	Written Exams
2.2	Determine the characteristic elements of different plant organs	S2	Lab. work	Practical exams Reports
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate professional use of the tools pharmacognosy	V1	Practice sessions	Practical exam Observation card



Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
	lab. to recognize genuine medicinal plant and detect admixture or adulteration.			

C. Course Content

No	List of Topics (Theoretical)	Contact Hours
1.	I- General introduction : 1- Origin of crude drug. 2- Reserved food material. 3- By-product. 4- Active constituents (V.O, alkaloids, phenolic glycosides, tannins, bitter principles, saponins,....etc.)	8
2.	II- Preparation of crude drugs: 1- Cultivation of medicinal plants. 2- Collection of medicinal plants. 3- Drying of crude vegetable drugs. 4- Storage of crude drugs.	2
3.	III-Leaves: 1- Introduction 2- Studying of macroscopical and microscopical characters, active constituents and uses of (Datura stramonium, Atropa belladonna, Hyoscyamus, Digitalis, Senna and Buchu). 3- Studying of macroscopical and microscopical characters, active constituents and uses of (Boldo, Squill, tea, Coca, Hamamelis, Jaborandi, and peppermint leaves).	8
4.	IV- Flowers: 1- Introduction. 2- Studying of macroscopical and microscopical characters, active constituents and uses of (pyrethrum, Clove, German Chamomile, Roman Chamomile and Hibiscus). 3- Studying of macroscopical and microscopical characters, active constituents and uses of (Santonica, Saffron, Safflower, Calendula, Arnica and Lavender).	6
5.	V- Bark: 1- Introduction. 2- Studying of macroscopical and microscopical characters, active constituents and uses of (Cascara, Cinnamon and Cinchona barks) 3- Studying of macroscopical and microscopical characters, active constituents and uses of (Frangula, Quillaia, Cascarilla and Pomegranate).	6
Total		30





No	List of Topics (Practical)	Contact Hours
1.	Lab safety measures and introduction of handling of the electronic microscope	2
2.	Microscopical investigation of dusting powders, e.g. Starch (wheat, potato, maize and rice)	2
3.	Microscopical investigation of dusting powders, e.g. Talc, Kaoline, sulphure and bentonite	2
4.	Introduction into leaves (macroscopical characters)	2
5.	Introduction into microscopical characters of leaves	2
6.	Macroscopical and microscopical characters of Senna leaf and mentha	2
7.	Macroscopical and microscopical characters Datura and hyoscyamus	2
8.	Revision	2
9.	Introduction to bark	2
10.	Macroscopical and microscopical characters Cinnamon and cassia	2
11.	Macroscopical and microscopical characters Cascara and quallaia	2
12.	Introduction to flowers	2
13.	Macroscopical and microscopical characters Chamomile and pyrethrum	2
14.	Macroscopical and microscopical characters Lavender, Karkadeh	2
15.	Revision	2
Total		30

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Mid-Term	7-9	20
2.	Assignments	15	5
3.	Observation card	1-15	5
4.	Practical quiz	15	5
5.	Practical handbook (report)	1-15	5
6.	Quizzes	3-14	10
7.	Final practical exam	16	10
8.	Final theoretical exam	17-19	40
Total			100

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Trease and Evans Pharmacognosy, International Edition E-Book
Supportive References	Textbook of pharmacognosy, by T. E. Wallis. J. and A. Churchill
Electronic Materials	www.dlaf.nu.edu.sa





Other Learning Materials

<https://www.slideshare.net/jelalalaban5/group-4-ppt-44950682>

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1. A Suitable lecture room equipped with data show, internet, and sufficient number of seats. Suitable laboratories equipped with health and safety tools, internet, and sufficient number of seats.
Technology equipment (projector, smart board, software)	1. Computer 2. Internet access Data show
Other equipment (depending on the nature of the specialty)	1. Samples of different organs of medicinal plants 2. Optical microscope, glass slides and glass covers. 3. Test tubes

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Head of department Students	Indirect Indirect
Effectiveness of Students assessment	Faculty members Students	Indirect Indirect
Quality of learning resources	Faculty members Students	Indirect Indirect
The extent to which CLOs have been achieved	Faculty members Student	Direct Indirect
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Pharmacognosy Department Council
REFERENCE NO.	14460213-1061-00001
DATE	20-08-2024

