

## Planning and Quality Assurance Affairs

Form (A)

### Course Specifications

#### General Information

Course name	Pharmaceutical Botany
Course number	PHCG2201
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	2
Credit hours (practical)	0
Course Prerequisites	

#### Course Objectives

- 1 - to provide the students with basic knowledge of plant biology: morphology, anatomy and basic function of plants
- 2 - to explain the concept of adaptation and its relation to secondary metabolites
- 3 - to understand the concept of crude drug its preparation and nomenclature
- 4 - to provide the student with the basic skills of plant collection and processing
- 5 - to show the importance of plants as a source of medicinal drugs
- 6 - to give the basic principles of plant classification
- 7 - to classify medicinal plants into families referring to morphological and chemical characteristics
- 8 - to show the importance of medicinal plants

## Intended Learning Outcomes

<b>Knowledge and Understanding</b>	<ul style="list-style-type: none"><li>* the student will be able to understand the origin of pharmacological active agents in the plant as secondary metabolites</li><li>* the student will be familiar with the common plant families and their characteristics</li><li>* the student will learn about uses, active principles of some common medicinal herbs</li><li>* the student will be able to define the correct plant species by using description references</li></ul>
<b>Intellectual Skills</b>	<ul style="list-style-type: none"><li>* the student will be able to use the terminology of morphology and anatomy for drug identification</li><li>* the student will be able to define the correct plant species by using description references</li></ul>
<b>Professional Skills</b>	<ul style="list-style-type: none"><li>* the student could predict the classification of a herbal medicine based on morphology</li><li>* the student could make prediction about the uses and/ or toxicity of herbal drugs based on taxonomical characters</li><li>* the student will be familiar with pharmacological uses of common herbal drugs</li></ul>
<b>General Skill</b>	<ul style="list-style-type: none"><li>* the student will improve observation skills</li><li>* the student will improve its views towards natural plants</li></ul>

## Course Contents

1 - chapter 1: importance of medicinal plants
2 - chapter 2: basic plant morphology
3 - chapter 3: plant histology
4 - chapter 4: plant physiology and production of secondary metabolites
5 - chapter 5: crude herbal drug: production and nomenclature
6 - chapter 6: principles of taxonomy
7 - Chapter 7: Algae, bryophytes and pteridophytes
8 - chapter 8: Gymnosperm
9 - chapter 9: Angiosperm-monocotyledons
10 - chapter 10: Angiosperm-dicotyledons

## Teaching and Learning Methods

1 - lectures prepared as power point by the lecturer
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## Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
quiz 1	third week second semester 2023	10
quiz 2	sixth week second semester 2023	10
midterm exam	eighth week second semester 2023	30
quiz 3	thirteenth week second semester 2023	10
final exam	sixteenth week second semester	40

## Books and References

Course note	lectures prepared as power point by the lecturers
Essential books	A. C. DUTTA. ( 1965). CLASS-BOOK OF BOTANY 12th edition
Other References (Periodical, web sites, .... etc.)	<a href="https://bio.libretexts.org/">https://bio.libretexts.org/</a>

## Knowledge and Skills Matrix

Main Course Contents	Study Week	Knowledge and Understanding	Intellectual Skills	Professional Skills	General Skill
chapters 1-6: general part	1-6	the student should understand the importance of plants in medicine, principles of drug identification, ,production of crude drugs and principles of taxonomy	the student should be able to describe plant morphologically and anatomically, to name crude herbal drugs,	the student will be able to classify and identify herbal medicinal drugs	encourage the student to interact with his environment and increase observation skills
Chapters 7-10	7-15	the student will study the basic groups of plants, their morphological and chemical characteristics and common medicinal herbs and their uses	the student will be familiar with the main taxonomic groups of plants and their relations	the student will be familiar with the common pharmacological active principles of herbal drugs and acknowledged with their pharmacological effects	development of student relation with surrounding nature