



Tentative Course Plan
DEPARTMENT OF BOTANY

Class: BS (BOTANY)		Semester- 2 nd		Session: Spring (2018-22)	
Instructor	Dr. Nargis Naz			Email: nargis.naz@iub.edu.pk	
Course Title	Plant Systematics, Anatomy & Development			Program	BS
Course Number	BOTA-01204			Credit Hours	4(3+1)
Lecture	Monday to Thursday: period (08:30a.m to 09: 30a.m), Room# 00				
Course Objective:					
Systematics is the study of the nature, cause, patterns and trends in variations among taxa. From the structural point of view systematics is the study of the basic taxonomic components and evolution. Study of plant systematics, anatomy and development deal with the study of classification systems, naming of plants and characteristics features of major plant families along with structure and function of various tissues such as parenchyma, collenchyma, sclerenchyma, epidermis, xylem and leaf, and phloem.					
Course Outcomes:					
This course also covers structure and development of plant body, structure of ovules, and endosperm formation. The laboratory work includes the study of anatomy and taxonomy of plants mentioned in theory.					
Methods of Teaching <ul style="list-style-type: none">Assigned readingsGroup activities & DiscussionAudiovisual aids lecturesWeb-assisted instructionStudent-Directed Teaching					
Resource Material	1. Philip, R. 2011. The Anatomy Lesson. Random House.				
	2. Michael, G. S. 2010. Plant Systematics. Academic Press.				
	3. Dennis, W. W. 2009. Contemporary Plant Systematics. Andrews University Press.				
	4. Malik, T. A. 2007. Principles of Botany. The Caravan Press, Lahore.				
	2.Reference Book		3.Research Papers		
	i		i		
	ii		ii		
	4.Hot Research Papers		5.Web Resources		
i		i			
ii		ii			
Office Help Hours	Monday,_ Friday: 01:00-02:00 pm				
Grading	Exam (Date to be announced) Mid- Exam (30%) Final Exam (50%) Problem Session/Assignments (20%)				
Problem Sessionday: 00 and 00 periods (0:00-00:00am), Room# 00				
SEQUENCE OF TOPICS TO BE COVERED					
Session #	Topics (outline of main topics and sub topics)			Chapter #	Tutorial /Laboratory
1	Introduction to Plant Systematics: aims, objectives and importance.				
2 & 3	Classification: brief of various systems of classification with emphasis on Takhtajan.				Students shall submit 40 fully identified herbarium specimens.
4 & 5	Brief introduction to nomenclature, importance of Latin names and binomial system with an introduction to International Code of Botanical Nomenclature (ICBN).				-

5 & 6	Morphology: morphological characters of root and stem.		-
7 & 8	Morphological characters of leaf and inflorescence.		-
9 & 10	Morphological characters of Flower, placentation.		Identification of families and technical description of flowering plants belonging to families mentioned in theory syllabus. Field trips shall be undertaken to study and collect local plants.
11 & 12	Diagnostic character, economic importance and distribution pattern of the following families: Brassicaceae (Cruciferae),		
13 & 14	Diagnostic character, economic importance and distribution pattern of the following families: Fabaceae (Leguminosea).		
15	Mid Term Exam	Course/Discussion from session 1 to 14	
16 & 17	Diagnostic character, economic importance and distribution pattern of the following families: Rosaceae, Euphorbiaceae		
18 & 19	Diagnostic character, economic importance and distribution pattern of the following families: Cucurbitaceae.		Study of stomata, epidermis. Tissues of primary body of plant. T.S of angiosperm stem and leaf.
20 & 21	Diagnostic character, economic importance and distribution patten of the following families: Solanaceae and Poaceae.		-
22 & 23	Cell wall: structure and chemical composition.		-
24 & 25	Concept, structure and function of various tissues like: i. Parenchyma, collenchyma		-
26 & 27	Concept, structure and function of various tissues like: Sclerenchyma		-
28 & 29	Concept, structure and function of various tissues like: Epidermis (including stomata and trichomes).		-
30	Final Term Exam	Course/Discussion from session 1- 29	

Student Evaluation criteria:

Attendance	5%
Workshop / Assignments/Case study	5%
Surprise Test/Sudden Test , Quizzes	5%
Class Participation	5%
Mid Term Paper	30%
Final Term paper	50%
Total	100%

Student Responsibilities:

Students must attend class. Failure to attend class may result in failure in the course. Students must also arrive on time and remain in class for the entire period. Cellular Phones and Beeper must be Turned off (Proper classroom

decorum [behavior] adopts, Course outlines and calendars explain requirements and assignments, students are responsible for knowing what they say. Students are also responsible for doing all assigned work on time. Excessive absences (more than 03) will result in “F Grade”. Students may prepare Sketchbook for taking notes and for references.

Instructor/Tutor

Approved by:

Dean/ Chairman/ HOD/ Subject Specialist/ Program Coordinator