



Tentative Course Plan
DEPARTMENT OF BOTANY

Class:		Semester-		Session:	
Instructor	Dr. Syeda Sadaf Zehra		Email: sadaf.zahra@iub.edu.pk		
Course Title	Plant Ecology-II		Program	BS	
Course Number	BOTA-01703		Credit Hours	3(2+1)	
Lectureday: period (00:00a.m to 00: 00a.m), Room# 00				
Course Objective:					
<ol style="list-style-type: none"> 1. To provide comprehensive knowledge of population, community, ecosystem ecology and its relevance to mankind 2. To enable the students to access & generate new knowledge in purposeful fashion. 3. To understand the types of questions regarding ecologists ask, how they relate to one another, 4. To learn to think about how data support or refute hypotheses. 					
Course Outcomes:					
The specific outcomes are emphasized:					
<ol style="list-style-type: none"> 1. Understand and explain major ecological concepts. 2. Use critical thinking and scientific skills to analyze and solve problems. 3. Effectively communicate biological problems and solutions to both the scientific community and the public at large in writing and in discussion. 4. Formulate logical hypotheses and test them by designing and running appropriate experiments or observational studies and analyses. 5. Identify the central body of knowledge in genetics, evolution, ecology and organismal biology. 6. Use scientific literacy and knowledge of ecology to analyze contemporary social and environmental issues and contribute to informed opinion. 					
Methods of Teaching					
<ul style="list-style-type: none"> • Assigned readings • Group activities & Discussion • Audiovisual aids lectures • Web-assisted instruction • Student-Directed Teaching 					
Resource Material	1.Books Prescribed: Volume (edition)				
	2. Plant Ecology and Phytogeography, by N. Arumugam, V. Kumaresan, 2012.				
	Plant Ecology, by Ernst-Detlef Schulze, Erwin Beck and Klaus Muller-Hohenstein, 2015				
	Plant Ecology and Phytogeography Paperback – 2016, by V Kumaresan, N Arumugam				
	Billings, W.B. (1965) : Plants and the Ecosystem Wadsworth Publishing Co., Inc., Belmont. Misra, R. (1968) : The Ecology work Book Oxford & INH Publishing Co., Calcutta				
Odum E.P. (1971) : Fundamentals of Ecology (2nd Edn.,) Saunders & Co., Philadelphia & Natraj Publishers, Dehradun –574pp.,					
Ambasht, R.S. (1974) : Text book of Plant Ecology (3rd Edn.,) Students & Friends Co., Varanasi - pp., Odum E.P. (1975) : Ecology Holt, Rinert & Winston- pp.,					
Oosting, H.G. (1978) : Plants and Ecosystem Wadworth Belmont.					
Kochhar, P.L. (1975) : Plant Ecology(9th Edn.,) S.Nagi & Co., Jullandhar pp.,					
2.Reference Book			3.Research Papers		
i				i	
ii				ii	
4.Hot Research Papers			5.Web Resources		
i				i	

	ii		ii	
Office Help Hoursday,day: 00:00am			
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/ Weeks	Topics (outline of main topics and sub topics)			Tutorial /Laboratory
1	Introduction to Population Ecology ,			
2	Population structure and plant demography			Measurement of vegetation by Quadrat method
3	Seed dispersal,			
4	Seed Bank,			
5	Seed dormancy			
6	Community concepts and attributes			
7	Methods of sampling community			
8	Community's interactions include competition, predation, herbivory, symbiosis, etc			
	Mid Term Exam			
9	Food chain and food web			Field trips to ecologically diverse habitats
10	Ecological succession, Hydrosere			
11	Xerosere and psamosere			
12	Different Ecological Zones of Pakistan and their characteristics			
13	Vegetation of Pakistan			
14	Ecosystem concepts, Boundaries of ecosystem, Compartmentalization and system concepts			
15	Biogeochemical cycles, water cycle			
16	Carbon cycle and Nitrogen cycle			
	Final Term Exam			

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