



Tentative Course Plan
DEPARTMENT OF BOTANY

Class:		Semester-		Session:	
Instructor	Dr. Nargis Naz			Email: nargis.naz@iub.edu.pk	
Course Title	Biodiversity and Conservation			Program	BS
Course Number	BOTA-01404			Credit Hours	3(2+1)
Lecture	Tuesday: period (08:30a.m to 03:30p.m), Room# 00				
Course Objective:					
As the concept of sustainability and biological diversity became more apparent to agricultural researchers and plant specialists, conservation began to focus on the interdependence of soil, plants, climate and all living organisms. Conservation biology helps in wild land management and rural restoration plantings found in nearby preserved indigenous plant and animal populations. Environmental organizations learned that properly managed agricultural use can benefit restoration activities. Agricultural and conservation organizations, native plant societies and small regional nurseries began working together to develop conservation principles and planting guidelines that supported the use of native plants. This course help the students to get information about sustainable collections for <i>ex situ</i> activities for augmentation of species specific genetic diversity by locating and collecting plant propagules of target species from distribution sites, Optimization of conservation and cryopreservation protocols for recalcitrant seed, <i>in vitro</i> plants and pollen of targeted fruit by using different conservation strategies.					
Methods of Teaching					
<ul style="list-style-type: none">Assigned readingsGroup activities & DiscussionAudiovisual aids lecturesWeb-assisted instructionStudent-Directed Teaching					
Resource Material	1. Richard, S. O., William H. S. 2011. The Year in Ecology and Conservation Biology. Wiley-Blackwell.				
	2. Helene, C. 2011. Hemlock. Blackwell.				
	3. Richard, S. O., William, H. S. 2010. The Year in Ecology and Conservation Biology. Wiley-Blackwell.				
	4. Malcolm, L. H., James, G. 2009. Fundamentals of Conservation Biology, 4 th Edition. Blackwell.				
	5. Schmitz, O.J. 2007. Ecology and Ecosystem Conservation, Island Press, New York.				
	6. Stohlgren, T.J. 2006. Measuring Plant Diversity, Oxford University Press, New York				
	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: 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 #	Topics (outline of main topics and sub topics)			Chapter #	Tutorial /Laboratory
1	Course Introductory lecture				
2 & 3	Importance and need of biodiversity: species diversity, ecological diversity,				Field excursion. Data collection. Plant exploration to

	genetic diversity		determine the quantitative and qualitative ecotypic differences in species from diverse habitats.
4 & 5	Causes and depletion of biodiversity Habitat loss; Habitat fragmentation;		Causes of local species extinction. Preparation of an inventory of the flora and fauna of given region.
5 & 6	Over-exploitation of plants; Climatic changes; Invasive species;		-
7 & 8	How the species become endangered; Extinction of species, present rate, theory of mass extinction		-
9 & 10	Inventory and measure of biodiversity.		-
11 & 12	Importance of red data book;		
13 & 14	Class test, quiz & Discussions		
15	Mid Term Exam	Course/Discussion from session 1 to 14	
16 & 17	Implementation of laws for the protection and conservation of various taxa		
18 & 19	Measuring plant diversity; Sustainable use of biodiversity		-
20 & 21	Conservation strategies, <i>ex-situ</i> vs <i>in-situ</i> conservation		-
22 & 23	Protected areas of Pakistan. Criteria for determining different categories of protected areas		-
24 & 25	IUCN categories for threatened species, criteria for recognizing different categories of threatened species.		-
26 & 27	Role of herbaria and botanical gardens in conservation		-
28 & 29	Class test, quiz & Discussions		-
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