

Semester Lecture Plan (Theory)

Name of the college: Government College of Arts, Science and Commerce, Sanquelim							
Name of Faculty: Dr Jyosna Gawas			Subject: Botany				
Paper code: BOT-211			Program/Course: B.Sc.		Division: A		
Academic Year: 2025-2026			Semester: III		Total Lectures: 45		
Course Objectives: 1. To develop an in-depth understanding of the ecological, evolutionary, and sensory mechanisms underlying plant–animal interactions 2. To analyze adaptations in plants and animals for reproduction, dispersal, defense, and resource acquisition							
Course Objectives: This course aims to: 1. Enable students to explore the diversity and understand the mechanism of interactions between plants and animals. 2. Assess the outcome of the interactions at population, community and ecosystem level.							
Course Learning Outcome: On completion of this course, students will be able to: 1. Understand the relationships between plants and animals. 2. Summarize types of plant-animal interactions. 3. Evaluate the effect of climate change, habitat loss, fragmentation, hunting and introduction of invasive species and GM crops on these interactions. 4. Appraise the significance of plant-animal interactions for conservation and survival of human species.							
Month	Lectures		No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
	From:	To:					
June	20/06/2025	21/06/2025	1	General introduction			
	23/06/2025	28/06/2025	0	Universal Human Values – Induction Program	Watch videos on plant animal interaction and		Plant-animal Interactions by W. G. Abrahamson
	30/06/2025	5/07/2025	3	Interdependence of plants and animals: Plants as producers, animals as consumers, interdependence of plants and animals for survival; Overview of plant-animal			

				interactions; evolutionary perspective of plant-animal interactions; evolution and coevolution of plants and animals	find out what kind of interaction is it?		Plant Ecology by M. J. Crawley
	7/07/2025	12/07/2025	3	Species interactions and the evolution of biodiversity. Diversity of plant-animal interactions: Parasitism, mutualism, antagonism, commensalism			
	14/07/2025	19/07/2025	3	Competition; multi-trophic level interaction; the sensory biology of the interaction between plants and animals-vision			
	21/07/2025	26/07/2025	3	Chemoreception, olfaction and multimodal signaling; energetics of plant-animal interactions;			
	28/07/2025	2/08/2025	3	Plant reproductive biology; pollination types, cross-pollination and its significance; pollinator groups	Observe the pollinators in the campus		
	4/08/2025	9/08/2025	3	Pollination syndromes; floral adaptation to different pollinators (insects, birds, mammals); ISA			
	11/08/2025	16/08/2025	2	Floral attractants, types and significance; types of pollinator rewards.			
	18/08/2025	23/08/2025	3	Adaptations in plants for dispersal (fruit chemistry, palatability, fruit size, seed coat structure, secondary metabolites in fruits and seeds)			
	25/08/2025	30/08/2025	0	Ganesh Chaturthi Break			
	1/09/2025	6/09/2025	3	Fruit and seed dispersers; adaptations in dispersers (external and internal).			
	8/09/2025	13/09/2025	3	Plant crypsis, aposematism and mimicry; ISA-2			
	15/09/2025	20/09/2025	3	Plant herbivore interaction; animal response to plant defense mechanism	Observe the traps in <i>U. striatula</i>		
	22/09/2025	27/09/2025	3	Sensory aspects of carnivorous plants, trap mechanisms; benefits of carnivory			

	29/09/2025	4/10/2025	2	Plants as ant food; pollination by ants; leaf-cutting and seed-harvesting ants; effect of harvesters on vegetation; ants as primary and secondary seed dispersers	List down the impact of bt cotton		
	6/10/2025	11/10/2025	3	Impact of invasive plants and GM crops on native plant-animal interactions; ISA-3			
	13/10/2025	18/10/2025	3	Climate change, habitat loss, fragmentation, pesticide use, hunting and breakdown of plant-animal interactions; impact on community, diversity, productivity and livelihood.			

Assessment Rubrics

Component	Max Marks
ISA 1	7.5
ISA 2	7.5
ISA 3	7.5
Practical	NA
Project	NA
Semester End Exam	60