

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: 2026-2027			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	19/06/2026	20/06/2026	0				
	22/06/2026	27/06/2026	3	Interdependence of plants and animals: Plants as producers, animals as consumers, interdependence of plants and animals for survival; Overview of plant-animal interactions	Watch videos on plant animal interaction and		Plant-animal Interactions by W. G. Abrahamson

June / July	29/06/2026	04/07/2026	3	Eevolutionary 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
July	06/07/2026	11/07/2026	3	Species interactions and the evolution of biodiversity. Diversity of plant-animal interactions: Parasitism, mutualism, antagonism, commensalism			
	13/07/2026	18/07/2026	3	Competition; multi-trophic level interaction; the sensory biology of the interaction between plants and animals- vision			
	20/07/2026	25/07/2026	3	Chemoreception, olfaction and multimodal signalling; energetics of plant-animal interactions; ISA I			
July / August	27/07/2026	01/08/2026	3	Plant reproductive biology; pollination types, cross-pollination and its significance; pollinator groups	Observe the pollinators in the campus		
August	03/08/2026	08/08/2026	3	Pollination syndromes; floral adaptation to different pollinators (insects, birds, mammals)			
	10/08/2026	15/08/2026	3	Floral attractants, types and significance; types of pollinator rewards.			
	17/08/2026	22/08/2026	3	Adaptations in plants for dispersal (fruit chemistry, palatability, fruit size, seed coat structure, secondary metabolites in fruits and seeds)			
August / September	31/08/2026	05/09/2026	3	Fruit and seed dispersers; adaptations in dispersers (external and internal). ISA II			
September	07/09/2026	12/09/2026	3	Plant crypsis, aposematism and mimicry			
	14/09/2026	19/09/2026	0	Ganesh break			
	21/09/2026	26/09/2026	3	Plant herbivore interaction; animal response to plant defense mechanism, Sensory aspects of carnivorous plants, trap mechanisms; benefits of carnivory	Observe the traps in <i>U. striatula</i>		
September / October	28/09/2026	03/10/2026	3	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; ISA-3			

October	05/10/2026	10/10/2026	3	Impact of invasive plants and GM crops on native plant-animal interactions; Climate change, habitat loss, fragmentation, pesticide use, hunting and breakdown of plant-animal interactions;			
	12/10/2026	14/10/2026	2	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