

ST. JOSEPH'S COLLEGE (AUTONOMOUS)

BENGALURU-27



Re-accredited with 'A++' GRADE with 3.79/4 CGPA by NAAC
Recognized by UGC as College of Excellence

DEPARTMENT OF ZOOLOGY

**OPEN ELECTIVE SYLLABUS FOR UNDERGRADUATE
PROGRAMME**

FOR THE BATCH OF 2021-2024

SUMMARY OF CREDITS IN ZOOLOGY

DEPARTMENT OF ZOOLOGY (UG)								
(2021-2024)								
Semester 4	Code Number	Title	No. of Hours of Instructions	Number of teaching Hrs/ week	Number of credits	Continuous Internal Assessment (CIA) Marks	End Semester Marks	Total marks
Open Elective	ZOOE6	Animal Behavior	42	03	03	40	60	100
Total Number of credits:03								

Open Elective Course Outcomes and Course Content
Under New Education Policy – Year 2021-22 for
III Semester
Core Course Content

Course Title: Animal Behavior	Course Credits: 3
Course Code: ZOOE6	L-T-P per week: 3-0-0
Total Contact Hours: 42 hours	Duration of ESA: 120 minutes
Formative Assessment Marks: 40	Summative Assessment Marks: 60

Course Outcomes (COs):

At the end of the course the student should be able to understand:
<ul style="list-style-type: none"> ● Will provide a sound knowledge of how animals interact with one another and their environment. ● Understanding different behavioral patterns. ● Learners would gain an insight into different types of animal behavior and their role in biological adaptations.

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs)

Course Outcomes (COs) / Program Outcomes (POs)	C	C	C	C	C	C	C	C	C	C	C
	T	2	3	4	5	6	7	8	9	10	11
I Core competency	X										
II Critical thinking	X										
III Analytical reasoning	X										
IV Research skills	X										
V Team work											

Note: Course Articulation Matrix relates course outcomes of course with the corresponding program outcomes whose attainment is attempted in this course. Mark ‘X’ in the intersection cell if a course outcome addresses a particular program outcome

Course Content

Units	UNDERSTANING THE NATURAL HISTORY OF ANIMAL BEHAVIOR	42hr
1	Introduction: Aims and objectives, contributions of Konrad Lorenz, Karl Von Frisch and Niko Tinbergen. Approaches (Mechanistic, vitalistic, and ethological).	4hr
2	Inborn Behavior: Characteristics, taxis, kinesis, reflexes & instincts with suitable examples. Migration in fishes and birds.	4hr
3	Learning Behavior: Imprinting, habituation, associative learning (Classical and instrumental conditioning), latent learning, insight learning.	4hr
4	Talking to strangers: Animal Communication: Chemical, auditory, visual, tactile(Features with examples). Preening and grooming.	5hr
5	Living together-Animal societies: Hamilton's rule and Altruism; advantages and disadvantages of social grouping. Sociality in Insects, Bird Sociobiology: Cooperative breeding in birds and Brood Parasitism, Primate Sociality: Social systems in primates with examples.	6hr
6	Sexual Behavior and parental care: Asymmetry of sex, Sexual dimorphism, Mate choice, Intra-sexual selection (male rivalry), Inter-sexual selection (female choice), Leks, promiscuity. Parental care in animals with suitable examples.	4hr
7	Hunting and Escaping: Optimal foraging theory, Group foraging with special reference to birds. Prey-predator strategies with examples	3hr
8	Chronobiology: Types of Biorhythms, biological clock Hibernation and aestivation in animals.	3hr
9	Field ethology: Techniques involved in study of Animal Behavior.	2hr
10	Behavioral genetics: Genes and behavior, Evaluation of behavior, Co-evolution	2hr
11	Home making: Nest building in fishes, amphibians, reptiles, birds and mammals with suitable examples	3hr
12	Human behavior: Understanding emotional intelligence, gestures, adolescence,	2hr

References:

1. Biological Rhythms: Vinod Kumar (2002) Narosa Publishing House, Delhi/ Springer-Verlag, Germany
2. Chronobiology Biological Timekeeping: Jay. C. Dunlap, Jennifer. J. Loros, Patricia J. DeCoursey (ed). 2004, Sinauer Associates, Inc. Publishers, Sunderland, MA, USA
3. David Attenborough (1991). The Trials of Life: A Natural History of Animal Behavior. Little Brown and Company
4. John Alcock, Animal Behavior, Sinauer Associate Inc., USA.
5. Mandal Fatik Baran (2015). Textbook Of Animal Behaviour. PHI Learning Pvt. Ltd.
6. Manning, A. and Dawkins, M. S, An Introduction to Animal Behaviour, Cambridge, University Press, UK.

Pedagogy: Written Assignment/Presentation/Project / Term Papers/ Seminar

Formative Assessment	
Assessment Occasion	Weightage in Marks
House Examination/Test – Mid semester test	20
Written Assignment/Presentation/Project /Seminar - I	10
Written Assignment/Presentation/Project /Seminar - II	10
Total	40

End Semester Question Paper Pattern:

Questions	With choices	Total mark
1 mark	20 x 1	20
2 marks	5 x 2 (7 questions)	10
5 marks	2 x 5 (4 questions)	10
10 marks	2 x 10 (3 questions)	20
TOTAL		60