Semester- 5th SEM Honours, Department of Zoology, Basirhat College
Session- 2020-2021

Lesson Plan for Course: Chordates **Code: ZOOACOR05T** **Credit: 4**

Course coordinator: Chinmoy Ghosh

Course Outcome
Upon completion of the course, the students will be able to:
CO1. Comprehend the the characteristics in different classes of chordates.

CO2. Recognize an animal as an individual of specific group or subgroup of chordates from its characteristics and distinguishing features.
CO3. Appreciate the course of evolution from the similarities and differences in lifeform and functions among various groups of animals in Phylum Chordata.
CO4. Elucidate specific way of living in different classes of chordates.
CO5. Understand the distribution of chordates in different continents and can explain the possible reason of it.

Course planner

Online Platform Used: Google Classroom

Google Classroom joining code: *33iyetn*

Month	Weeks	Course Topic	Teacher	Class-hour	Remarks*
Jul	wk1	Class suspended for Pandemic		0	
	wk2	Class suspended for Pandemic		0	
	wk3	Class suspended for Pandemic		0	
	wk4	Class suspended for Pandemic		0	
Aug	wk5	**Unit 1: Introduction to Chordates** General characteristics and outline classification of Phylum Chordata	CG	2	Online class, slide presentation
	wk6	**Unit 2: Protochordata** General characteristics and classification of sub-phylum Urochordata and Cephalochordata up to Classes. Metamorphosis in Ascidia	CG	3	Online class, slide presentation
	wk7	Chordate Features and Feeding in Branchiostoma	CG	3	Online class, slide presentation
	wk8	**Unit 3: Origin of Chordata** Dipleurula concept and the Echinoderm theory of origin of chordates. Advanced features of vertebrates over Protochordata.	CG	3	Online class, slide presentation, Assignments
	wk9	**Unit 4: Agnatha** General characteristics and classification of cyclostomes up to order	CG	2	Online class, slide presentation, Video presentaion
	Wk9	**Assesment test**		1	Online quiz

Month	Wk	Course Topic	Teacher	Class Hour	Remarks*
Sep	wk10	**Unit 5: Pisces** General characteristics and classification of Chondrichthyes and Osteichthyes up to Subclasses.	CG	3	Online class, slide presentation
	wk11	Migration and parental care in fishes	CG	3	Online class, slide presentation
	wk12	Accessory respiratory organ, Swim bladder in fishes.	CG	2	Online class, slide presentation
	wk13	**Unit 6: Amphibia** General characteristics and classification up to living Orders. Metamorphosis in amphibia.	CG	3	Online class, slide presentation
Oct	wk14	Parental care in Amphibia	CG	2	Online class, slide presentation
	wk15	**Unit 7: Reptilia** General characteristics and classification up to living Orders Poison apparatus and Biting mechanism in Snake	CG	3	Online class, slide presentation, video presentation
	wk16	**Unit 8: Aves** General characteristics and classification up to Sub-Classes. Exoskeleton in birds.	CG	2	Peer study, Group discussion
	wk17	**Mid term examination**		0	Online Assignment
Nov	wk18	**Puja Vacation**		0	
	wk19	**Puja Vacation**		0	
	wk20	**Puja Vacation**		0	
	wk21	migration in Birds	CG	1	Online class
	wk22	Principles and aerodynamics of flight	CG	1	Online class
Dec	wk23	**Unit 9: Mammals** General characters and classification up to living orders. Phylogenetic significance of Prototheria	CG	2	Online class, slide presentation
	wk24	Exoskeleton derivatives of mammals Adaptive radiation in mammals with reference to locomotory appendages. Echolocation in Microchiropterans and Cetaceans	CG	3	Online class, slide presentation
	wk25	**Unit 10: Zoogeography** Zoogeographical realms, Plate tectonic and Continental drift theory, Distribution of birds and mammals in different realms	CG	3	Online class, slide presentation
	wk26	**End term exam**		0	
	wk27	Winter recess		0	
		Total Class Hour		42	

Resources :

Recommended Online resources:

- Online Study material given in Google Classroom
- Referred You tube videos as advised in Google classroom

Text Book:

- Kardong, K. V. (2002). Vertebrates: Comparative anatomy, function evolution. McGraw Hill 4th Ed. 2005.
- Young, J. Z. (2004). The Life of Vertebrates. III Edition. Oxford university press.
- Pough H. Vertebrate life, VIII Edition, Pearson International.

References:

- Students are encouraged to explore authentic websites (for e.g. wikipedia, different university websites and OCWs) at internet for reading / audio-visual materials on a particular topic if they don't find enough in the text books or otherwise)
- Comparative Anatomy of the Vertebrates 9th Ed (2015) by Kent; McGrew-Hill
- Elements of Chordate Anatomy by Weichert and Presch, 2017, Amazon.in
- Biology of Animals; Sinha, Ganguli, Adhikari