



**PARVATHANENI BRAHMAYYA
SIDDHARTHA COLLEGE OF ARTS & SCIENCE**
Autonomous
Siddhartha Nagar, Vijayawada-520010
Re-accredited at 'A+' by the NAAC

Course Code				23ZOMAP234			
Title of the Course				EVOLUTION AND ZOOGEOGRAPHY			
Offered to: (Programme/s)				BSC. ZOOLOGY			
L	0	T	0	P	2	C	1
Year of Introduction:		2024-25		Semester:			3
Course Category:		MAJOR		Course Relates to:		GLOBAL	
Type of the Course:				SKILL DEVELOPMENT			
Crosscutting Issues of the Course :				Environment and sustainability			
Pre-requisites, if any				Basic knowledge about evolution and zoogeography			

Course Description:

Experimental evolution is the use of laboratory or controlled field manipulations to investigate evolutionary processes. It usually makes use of organisms with rapid generation times and small physical size, often microbes, to observe phenomena that in large multicellular organisms occur too slowly.

A zoogeographical region/realm is a sub-division of the Earth having a unique fauna, i.e. species that are found only in that area. Alfred Russel Wallace introduced six zoogeographical realms.

Course Objectives:

S.NO	COURSE OBJECTIVES
1	Acquainting and skill enhancement in the usage of laboratory equipment
2	To apply the basic concept of inheritance for applied research
3	To get familiar with phylogeny and geological history of origin & evolution of animals
4	To understand the zoogeographical distribution of animals
5	A basic goal of biology is to understand and predict the diversity and function of life, and to intervene when necessary to achieve desired

Course Outcomes : At the end of the course, the student will be able to...

CO	COURSE OUTCOME	BTL	PO	PSO
CO1	Understand the principles and forces of evolution of life on earth, the process of evolution of new species.	K2	1	1
CO2	Explain the different evidence of evolution	K2	1	1
CO3	Understand the theories of evolution	K3	1	1
CO4	Explain the various tools for evolution	K3	1	1
CO5	Map the distribution of animals according to zoological realms	K2	1	1

For BTL: K1: Remember; K2: Understand; K3: Apply; K4: Analyze; K5: Evaluate; K6: Create

CO-PO MATRIX									
CO NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	2							1	
CO2	2							1	
CO3	2							1	
CO4	2							1	
CO5	2							1	

Use the codes 3, 2, 1 for High, Moderate and Low correlation Between CO-PO-PSO respectively

SYLLABUS:

Unit – I

1. Study of fossil evidence
- 2 Study of homology and analogy from suitable specimens and pictures
 - i. <https://www.labster.com/course-packages/evolution-and-diversity>
 - ii. <https://www.biointeractive.org/classroom-resources/stickleback-evolution-virtual-lab>

Unit – II :Study of embryological evidences by charts/ pictures

Unit-III

- i. Study of Lamarckism with images /animations
- ii. Study of Darwinism with images/ animation
- iii. Study of connecting links/missing links images/charts

Unit-IV

- i. Phylogeny of horse with pictures
- ii. Study of Genetic Drift by using examples of Darwin’s finches (pictures)
- iii. Visit to Natural History Museum and submission of report

Unit-V

- i. Mapping distribution of animals according to zoogeographical regions.
- ii. Mapping zoogeographical regions

Specific Web Links:

- i. <https://www.youtube.com/watch?v=tXbmPhrS4eA><https://www.studocu.com/en-us/document/temple-university/bioe-lab-2- biomaterials/1632834116536-zoogeography-assignment/17915777>
- ii. <https://guides.library.tulsacc.edu/c.php?g=932434&p=6720765>

SEM END LAB EXAMINATION QUESTION PAPER

23ZOMAP234: Evolution & Zoogeography

Offered to B.Sc. Hons Zoology

Semester: III

Max.Marks: 50M

Time: 3 Hrs

(A) SEE Evaluation Procedure 35M

I Answer the following. Max. Marks: 30 Marks

1. Identify and write the characters of any two fossils specimens.K3. 8M
2. Observe the picture and write the embryological evidences. K2 8M
3. Compare and Write the differences between Lamarckism and Darwinism through the pictures.K4
8M
4. Identify the phylogenic characters of given picture.K3. 3M
5. Do the proper mapping to the given geographical region.K2 3M

II Viva 3M

III Record 2M

(B) CONTINUOUS ASSESMENT(Internal) 15 MARKS

15 marks for the continuous assessment (Day to day work in the laboratory shall be evaluated for 15 marks by the concerned laboratory teacher based on the regularity/ record/viva). Laboratory teachers are mandated to ensure that every student completes 80%-90% of the lab assessments.

TOTAL: (A)+(B) = 50 MARKS