FOUR YEAR UNDERGRADUATE PROGRAM (2024 – 28)
DEPARTMENT OF ZOOLOGY
COURSE CURRICULUM

PART- A: Introduction

Program: Bachelor in Life Science *(Diploma / Degree / Honors)*		**Semester - IV**	Session: **2024-2025**
1	**Course Code**	**ZOSC-04P**	
2	**Course Title**	**Diversity of Chordates and Comparative Anatomy**	
3	**Course Type**	**Discipline Specific Lab Course**	
4	**Pre-requisite** (if, any)	***As per Program***	
5	**Course Learning Outcomes (CLO)**	**After successfully completing lab course the students will be able to -** ➢ Develop understanding on the diversity of life with regard to different classes of vertebrates. ➢ Gain knowledge to identify and classify the animals on the basis of their morphological characteristics. ➢ Acquire the detailed knowledge about evolutionary history and relationship between the different classes of vertebrates through salient features some important animals. ➢ Learn comparative account of various systems in all the classes of vertebrates.	
6	**Credit Value**	**1 Credits**	***Credit =30 Hours Laboratory or Field learning/Training***
7	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks: 20**

PART -B: Content of the Course

Total No. of learning-Training/performance Periods: 30 Periods (30 Hours)

Module	Topics (Course contents)	No. of Period
Lab./Field Training/ Experiment Contents of Course	**List of labs to be conducted** ➢ Study of animals through models, slides and museum specimens in the laboratory with details on their classification, biogeography and diagnostic features of different class of Vertebrate. ➢ Study of histological slides of different class of Vertebrate. ➢ Study of Axial skeleton of Amphibia, Reptilia, Aves and Mammals. Comparative study of Appendicular skeleton Girdles and limb bones) of Amphibia, Reptilia, Aves and Mammals. ➢ Comparative study of heart of Fish, Amphibia, Reptilia, Aves and Mammals with the help of models and charts. ➢ Comparative study of Aortic Arches Fish, Amphibia, Reptilia, Aves and Mammals with the help of models and charts. ➢ Comparative study of brain of Fish, Amphibia, Reptilia, Aves and Mammals with the help of models and charts. ➢ Comparative study of Urinogenital system of Fish, Amphibia, Reptilia, Aves and Mammals with the help of models and charts. ➢ Histological study of Endocrine tissue ➢ Study of Vertebrate animals in nature during a survey of a National Park/ Forest area/College campus. ➢ **Group discussion/Viva or Seminar presentation on any one of above topics** ➢ An **"animal album or Practical Record"** containing sketches, photographs, cut outs, with appropriate write up about the above mentioned taxa. ➢ Study of some videos to develop understanding on the animals of different taxa.	**30**
Keywords	*Museum specimens, Histological slides, Alternative of Dissection, Practical Record*	

Signature of Convener & Members (CBoS) :

PART–C: Learning Resources

Text Books, Reference Books and Others

Text Books Recommended –

- S.S. Lal, Practical Zoology, Vertebrate. 12th Edition Rastogi Publications, Meerut, New Delhi.
- A manual of practical Zoology. Dr. P.S Verma, S. Chand Publication, New Delhi
- Saxena, R. K. and Saxena, S. (2015) Comparative Anatomy of Vertebrates (2nd edition).
- R.L. Kotpal, Modern Text Book of Zoology, Vertebrates, Rastogi Publication, Merut
- Tiwari, V.K. Unified Zoology, B.Sc. Part I, Shivlal Agarwal and Company, Indore

Reference Books Recommended –

- Young, J. Z. (2004). *The Life of Vertebrates.* III Edition. Oxford university press.
- Weichert, C.K. (1970) Anatomy of Chordates (4th edition).

Online Resources–

- https://www.youtube.com/watch?v=W4gQxADeryw
- https://www.youtube.com/watch?v=Ts9GsrBvi18

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks:	**50 Marks**
Continuous Internal Assessment (CIA):	**15 Marks**
End Semester Exam (ESE):	**35 Marks**

Continuous Internal Assessment (CIA): **(By Course Teacher)**	Internal Test / Quiz-(2): **10 & 10** Assignment/Seminar +Attendance - **05** Total Marks - **15**	Better marks out of the two Test / Quiz + obtained marks in Assignment shall be considered against **15** Marks
End Semester Exam (ESE):	**Laboratory / Field Skill Performance: On spot Assessment** **A. Performed the Task based on lab. work - 20 Marks** **B. Spotting based on tools & technology (written) – 10 Marks** **C. Viva-voce (based on principle/technology) - 05 Marks**	**Managed by Course teacher as per lab. status**

Name and Signature of Convener & Members of CBoS: