

KOLHAN UNIVERSITY, CHAIBASA



Proposed Syllabus for FYUGP, NEP-2020 B.Sc. (Hons.) Zoology (Effective from Academic Year 2022-23 onwards)

Draft Prepared by:

Dr. Anjna P.V. Khalkho
Assistant Professor
Univ. Dept. of Zoology
KU, Chaibasa

Dr. Amar Kumar
Assistant Professor
Degree College,
Manoharpur

Dr. Shovit Ranjan
Assistant Professor
Univ. Dept. of Zoology
KU, Chaibasa

Dr. Nitish Kumar Mahato
Assistant Professor
Univ. Dept. of Zoology
KU, Chaibasa

Dr. Prabhat Kumar Mahato
Assistant Professor
Tata College, Chaibasa

Dr. N. Venkat Appa Rao
Associate Professor
St. Xavier's College, Ranchi
(External Member)

Dr. S. B. Lal
Retired Associate Professor
Univ. Dept. of Zoology
KU, Chaibasa
(External Member)

EXAMINATION FRAMEWORK FOR M.Sc. ZOOLOGY

Zoology Paper Type	Credits	Full Marks	Pass Marks	End Semester Examination
MDC(Theory)	3	75	30	75

END SEMESTER UNIVERSITY EXAMINATION (ESE):

- For End Semester Examination (ESE 75 marks, 3Hrs Exam), there will be two group of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of I mark each. Question No. 2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type six questions of fifteen marks each, out of which any four are to answer.

Multi-Disciplinary Course (MDC)
Animal Diversity

Theory (Credits 3):

UNIT I: Protista, Porifera & Cnidaria **8 hrs**
General Characteristics and Classification upto classes; Locomotory Organelles in Protozoa; Canal System in Porifera.

UNIT II: Platyhelminthes, & Nematelminthes **4 hrs**
General Characteristics and Classification upto classes.

UNIT III: Annelida, Arthropoda, Mollusca & Echinodermata **14 hrs**
General Characteristics and Classification upto classes; Vision in Arthropoda; Torsion and Detorsion in Gastropoda.

UNIT IV: Protochordata & Agnatha **5 hrs**
General Characteristics and Classification upto classes; Retrogressive Metamorphosis in Urochordata.

UNIT V: Pisces, Amphibia & Reptilia **8 hrs**
General Characteristics and Classification upto classes; Migration in fishes.

UNIT VI: Aves & Mammals **6 hrs**
General Characteristics and Classification upto classes; Flight adaptations in birds.

Recommended Readings:

- Barnes, R.D. (2006) *Invertebrate Zoology*. VII Edition, Cengage Learning, India.
- Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002) *The Invertebrates: A New Synthesis*. III Edition, Blackwell Science
- Young, J. Z. (2004) *The Life of Vertebrates*. III Edition. Oxford university press.
- Barrington, E.J.W. (2012) *Invertebrate Structure and Functions*. II Edition, EWP Publishers
- Ruppert, E.E., Fox, R.S., Barnes, R. D. (2003) *Invertebrate Zoology: A Functional Evolutionary Approach*. VII Edition, Cengage Learning, India
- Pechenik, J. A. (2015) *Biology of the Invertebrates*. VII Edition, McGraw-Hill Education
- Pough H. *Vertebrate Life*, VIII Edition, Pearson International