Name of the Programme: M. Sc. Zoology

Course Code: ZOO-609 **Title of the Course**: Ornithology (Practical)

Number of Credits: 01

Effective from AY: 2023-24

Pre-requisites for the Course:	Basic knowledge on birds and their identification at taxonomic level and the systematics Parallel enrollment for ZOO-609 Ornithology (Theory)	
Course Objectives:	1. To develop on-field bird identification skills 2. To provide knowledge on statistical analysis of data using software	
Content:	Identification of birds on the field, based on colour, size, flight, and call. Comparative study of resident and migratory birds with respect to habitats (Plateau, Forest and Wetland). Analysis of ornithological data using statistical software. Study of nesting behaviour of Baya Weaver. Acoustic analysis of bird calls and songs. Structural and functional analysis of avian feathers. Anatomy of bird (poultry chicken): flight muscles, digestive system, respiratory system, urinogenital system, skeletal system, and brain.	15 x 2 hours
Pedagogy:	Use of conventional, online and ICT Methods. Field visit/project/self-study/Lecture/Tutorials/Assignments	
References/ Readings:	1. S. Ali, The Book of Indian Birds. India, Bombay Natural History Society and Oxford University Press, 2016. 2. C. J. Bibby, N.D. Burgess, A. Hill, Bird Census Techniques. UK, Academic Press, 1992. 3. M. S. Brainard, and A. J. Doupe,. Auditory feedback in learning and maintenance of vocal behavior. (1, 31-40) Nature Rev. Neurosci, 2000 4. J. Faborg and S. B. Chaplin, Ornithology: an Ecological Approach. New Jersey, Prentice Hall Inc. 1988. 5. F. B. Gill, Ornithology. (3rd ed.) New York, NY. W. H. Freeman and Company, 2007 6. P. Goodfellow, Birds as Builders. New York, Arco Publishing Co., 1977 7. A. J. Lovette and J. W. Fitzpatrick, Handbook of Bird biology (3rd Ed) Wiley publishers. 2016 8. C Inskipp, R Grimmett and T Inskipp, Birds of the Indian Subcontinent, Princeton University Press2011.	

	9. D.B. Meyer, The Avian Eye and its Adaptations. In: Crescitelli F. (eds) The Visual System in Vertebrates. Handbook of Sensory Physiology, (vol 7 / 5). Berlin, Heidelberg Springer,. 1977 10. P. D. Sturkie, Sturkie's Avian Physiology. 5th Edition. San Diego, Academic Press, 1998.
Course Outcomes:	The learner will 1. Identify the birds on the field and be familiar with the methods for bird studies. 2. Analyze various aspects of avian biology such as evolution, taxonomy, anatomy, and physiology. 3. Review ecology of birds with respect to their feeding, breeding, roosting and migration. 4. Comment on applied ornithology 5. Reflect on recent research in the field.

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