



**COURSE CURRICULUM**

**Course Title: Mammalogy**

**Course Code:**

**Credit Units: 02**

**Level: PG**

**Course Objectives:**

The objective of this course is to describe about the mammals, adaptations in mammals and metabolism and thermo-regulation. To also study the behaviour and social organization in mammals; social and mating systems, and mammalian diet.

**Prerequisites:**

Graduate from Biological science Bachelor degree in Science/Zoology/Botany/Anthropology/Veterinary/Environmental Science/Forestry/ Agriculture/Geography/Natural Resources/Ecology and minor in any of these subjects.

**Course Contents/Syllabus:**

	Comments (if any)
<b>Module I: Introduction to Mammalogy</b>	<b>30</b>
History of mammalogy. Evolution of mammals and morphology. Adaptations in mammals; hibernation, torpor, aestivation, locomotion and water regulation.	
<b>Module II: Physiological Aspects</b>	<b>40</b>
Metabolism and thermo-regulation; Ectothermy, homeothermy and cold stress, body size versus homeothermy. Body size variation in mammals and its influence	

L	T	P/S	SW/FW	TOTAL CREDIT UNITS
2	0	0	0	2

on life history, metabolic rate, weight constraints, feeding behaviour, niche width and reproduction. Mammalian skin and its derivatives.	
<b>Module III: Behavioural Aspects</b>	<b>30</b>
Behaviour and social organization in mammals; social and mating systems; territories; communication. Mammalian diet; digestive systems; anatomy, morphology and function.	

### Student Learning Outcomes:

1. Differentiate the major families of extant mammals.
2. Describe the anatomy, physiology, and reproduction of mammals.
3. Use characters and dichotomous keys to identify mammals.
4. Explain the role of evolution and biogeography in influencing the formation of major groups of mammals.
5. Depict the ecological interactions that occur between mammals and their environment.

### Pedagogy for Course Delivery:

Class room lectures, PowerPoint presentations, Tutorial sessions, Discussions and Interactions and assignments/tests/term papers/seminars

### Assessment / Examination Scheme:

Theory L/T (%)	Lab/Practical/Studio (%)	End Term Examination
30%	NA	70%

### Theory Assessment (L&T):

Continuous Assessment/Internal Assessment					End Term Examination
Component (Drop down)	Mid-Term Exam	Project	Viva	Attendance	
Weightage (%)	10	10	5	5	70

### References:

- Herpeofauna
- Duellman, W.E., and Trueb, L.(1994). Biology of Amphibians. Johns Hopkins University Press. (CWS212)

- Gururaj, K.V. (2012) Pictorial Guide to Frogs and Toads of the Western Ghats. Gubbi Labs. Gubbi.
  - Dutta, S.K. (1997). Amphibians of India and Sri Lanka (Checklist and Bibliography). Odyssey Publishing House, Bhubaneshwar, India. (CWS170)
  - Pough, F.H., Andrews, R.M., Cadle, J.E., Crump, M.L., Savitzky, A.H., and Wells, K.D. (2001). Herpetology. 2nd Edition. Prentice-Hall. (CWS081)
  - Pough, F.H., Janis, C.M., & Heiser, J.B. (2003). Vertebrate life. Pearson Education.
  - Whitaker, R., & Captain, A. (2004). Snakes of India: A Field Guide. Draco Books
  - Zug, G.R., Vitt, L., and Caldwell, J. (2001). Herpetology: an introductory biology of amphibians and reptiles. Academic Press. (CWS216)
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- Feldhamer, G.A., Drickamer, L.C., Vessey, S.H., and Merrit, J.F. (2003). Mammalogy: Adaptation, diversity and ecology. Second Edition, McGraw Hill, New York.
  - Harder, J.D. (2004). Laboratory manual for mammalogy. Zip Publishing, Columbus.
  - Martin, R.E., Pine, R.E. and DeBlase, A.F. (2001). A manual of mammalogy with keys to families of the world. Third Edition. McGraw Hill, New York.
  - Menon, V. (2003). A field guide to Indian Mammals. Dorling Kindersley, New Delhi.
  - Prater, S.H. (1971). The book of Indian animals. Third Edition, Bombay Natural History Society.