



SRI VENKATESWARA UNIVERSITY

Programme: B.Sc. Honours in Zoology (Major)
w.e.f. AY 2026-27

COURSE STRUCTURE (for Semester IV)

Year	Semester	Course	Title of the Course	No. of Hrs /Week	No. of Credits
II	IV	8	Immunology	3	3
			Immunology-Practical	2	1
		9	Animal Biotechnology	3	3
			Animal Biotechnology-Practical	2	1
		10	Wildlife and Conservation Biology	3	3
			Wildlife and Conservation Biology-Practical	2	1

SEMESTER-IV

COURSE 10: WILDLIFE AND CONSERVATION BIOLOGY

Theory

Credits: 3

3 hrs/week

COURSE OBJECTIVES:

- To Grasp the principles of wildlife ecology, identify key threats to wildlife in India, and evaluate conservation approaches.
- To Recognize the importance and types of protected areas (National Parks, Sanctuaries, Biosphere Reserves) and their components in habitat conservation.
- To Apply wildlife management strategies and legislation to protect and manage endangered species and their habitats.
- To Examine the complexities of human-wildlife interactions and propose effective mitigation strategies.
- To Discuss national and international conservation initiatives, including conventions (CITES, IUCN, CBD, Ramsar) and their role in biodiversity protection.

LEARNING OUTCOMES:

This course will provide students with a deep knowledge in acquiring laboratory skills, by completion of the course the graduate shall able to –

- Know the Concept of wildlife and reasons for their depletion
- Know the wild life management strategies
- Know the Importance of ecologically sensitive areas
- Know the human Impact on environmental resources
- Understand the human wildlife interaction

SYLLABUS:

UNIT I

- 1.1 Wildlife wealth of India & threatened wildlife.
- 1.2 Reasons for wildlife depletion in India. Wildlife conservation approaches and limitations.
- 1.3 National Parks, Sanctuaries and Biosphere Reserves, cores and Buffers, Nodes and corridors. Community Reserve and conservation Reserves

Activity: Assignment /Students Seminar/Quiz/Project/Peer teaching/Report writing after watching any video on the above/Case study

Evaluation: Instructor supposed to prepare a detailed Rubrics for the evaluation of the above activity

UNIT II

- 2.1 Red Data Book and Conservation status (endangered, vulnerable, rare, threatened and near threatened species)-definitions.
- 2.2 Wild life Trade & legislation- Assessment, documentation, Prevention of trade
- 2.3 Policies and laws in Wild life management (national) and ethics.

Activity: *Assignment /Students Seminar/Quiz/Project/Peer teaching/Report writing after watching any video on the above/Case study*

Evaluation: *Instructor supposed to prepare a detailed Rubrics for the evaluation of the above activity*

UNIT III

- 3.1 Biodiversity extinction and conservation approaches- Identification and prioritization of Ecologically sensitive area (ESA).
- 3.2 Regional and National approaches for biodiversity conservation.
- 3.3 Population viability analysis-conceptual foundation, uses of PVA models.

Activity: *Assignment /Students Seminar/Quiz/Project/Peer teaching/Report writing after watching any video on the above/Case study*

Evaluation: *Instructor supposed to prepare a detailed Rubrics for the evaluation of the above activity*

UNIT IV

- 4.1 National and International efforts for conservation- Information on CITES, IUCN, CBD
- 4.2 International agreements for conserving marine life. Convention on wetlands of International Importance (Ramsar convention).
- 4.3 Human impact on Terrestrial and Aquatic resources. Overview of conservation of Forest & Grassland resources

Activity: *Assignment /Students Seminar/Quiz/Project/Peer teaching/Report writing after watching any video on the above/Case study*

Evaluation: *Instructor supposed to prepare a detailed Rubrics for the evaluation of the above activity*

UNIT V

- 5.1 Human – wildlife interactions
- 5.2 Strategies to reduce human-wildlife interactions
- 5.3 Role of Government and NGOs in controlling human-wildlife interactions Socio-economic issues related to human-wildlife interactions

Activity: *Assignment /Students Seminar/Quiz/Project/Peer teaching/Report writing after watching any video on the above/Case study*

Evaluation: *Instructor supposed to prepare a detailed Rubrics for the evaluation of the above activity*

REFERENCE BOOKS

- M.Kato. The Biology of Biodiversity, Springer.
- J.C. Avise. Molecular Markers, Natural History and Evolution, Chapman & Hall, New York.
- E.O. Wilson. Biodiversity, Academic Press, Washington.
- G.G. Simpson. Principle of animal taxonomy, Oxford IBH Publishing Company.
- E. Mayer. Elements of Taxonomy.
- E.O. Wilson. The Diversity of Life (The College Edition), W.W. Northem& Co.
- B.K. Tikadar. Threatened Animals of India, ZSI Publication, Calcutta.

SUGGESTED ACTIVITIES:

- Visit to nearby biosphere reserve
- Visit to local Ramsar site and report preparation with pics

SEMESTER-IV

COURSE 10: WILD LIFE AND CONSERVATION BIOLOGY

Practical

Credits: 1

2 hrs/week

COURSE OBJECTIVES:

To Understand the importance of various biomes

To Understand and gain knowledge of animal architecture

SYLLABUS:

1. Using photographs / paintings / coloured drawings identify and study ecological role of characteristic animal species (major representative species only) of various Biomes.
2. Identify marine and fresh water planktons (preserved water samples may be used).
3. Study of animal architecture (photographs / diagram / abandoned specimen); Hive of honey bee, nest of COURSE wasp, nest of potter wasp, Mount of termite, Nests of Weaver Bird and tailor bird.
4. Using photographs / paintings / coloured drawings identify and study distribution and ecological role of common bivalves and gastropods that occur along a sea-shore.
5. Compare and interpret given sonograms of bird calls (any two e.g. Courtship calls, Alarm calls)
6. On a phytogeographic map of India locate & demarcate major sanctuaries / national parks

WEB RESOURCES FOR LAB:

https://www.naturepl.com/pictures/pdfs/NPL_Architecture.pdf

<https://youtu.be/31PWjb7Do1s>

4- Year UG Honours, Major
Syllabus
(2026-27)
Semester-IV

Model Question Paper

Time : 3hrs

Marks:75

Part-A

Answer any Five Questions. Each Question carries 3 Marks.

5x3=15

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Answer the following questions. Each question carries 12 Marks

5x12=60

11. a) Unit-I
(Or)
b) Unit-I

12. a) Unit-II
(Or)
b) Unit-II

13. a) Unit-III
(Or)
b) Unit-III

14. a) Unit-IV
(Or)
b) Unit-IV

15. a) Unit-V
(Or)
b) Unit-V