

OPEN ELECTIVE

Course Name – WILDLIFE CONSERVATION BIOLOGY

Course Code –

Course Objectives: The course is an introduction to wildlife biology and their conservation which gives an account of understanding the concept of wildlife, its importance for humankind and entire ecosystem, threats to wildlife and various conservation measures. Topics covered will help students to have an adequate knowledge of various aspects of wildlife biology, conservation, threats to wildlife, conservation practices, issues related with human and wildlife conflicts, illegal wildlife trafficking, mitigation measures and zoonosis. The course designed may be opted by the student of any stream and either semester.

Learning outcome: After successfully completing this course, the students will be able to develop an understanding of the concept of wildlife, its significance for entire ecosystem and mankind.

UNIT - I

Conservation Biology – Concept, origin and its importance. Concept of wildlife, definition and values. Wildlife of Jammu and Kashmir, Ladakh. Human wildlife conflict – causes and consequences. Threats to wildlife.

UNIT - II

Wildlife Biology – introduction and types. Invertebrate wildlife biology, Batrachology, Herpetology, Ornithology, Mammalogy. Identification of venomous and non-venomous snakes. Global patterns and drivers of biological diversity. Snake bites, Venom, Anti-venom, First Aid and Management of snake bite cases. Zoonosis – concept, importance and examples.

UNIT -III

Conservation practices at local, national and international level. Protected Area Network concept. Ex-situ and in-situ conservation. Significance of studying wildlife biology and creation of general awareness in wildlife conservation biology.

UNIT - IV

Illegal Wildlife Trade- past and present scenario. Drivers of illegal wildlife trafficking and measures for combating illegal wildlife trade. Introduction to Wildlife Forensic and wildlife crime scene investigation.

UNIT -V

Introduction to various wildlife study techniques and their use in wildlife conservation. Wildlife protection legislation acts and laws.

REFERENCES:

1. Biodiversity. 1998. W.O. Wilson (editor). National Academy Press, Washington, D.C.

2. Caughley, G., and A. Gunn. 1996. Conservation Biology in Theory and Practice. Blackwell Science, Cambridge, Massachusetts, U.S.A.
3. Dasmann, Raymond Fredric, 1981. Wildlife Biology, 2nd ed. John Wiley & Sons, New York, New York, U.S.A.
4. NY. Dobson, A. P. 1996. Conservation and Biodiversity. Scientific American Library, New York, New York, U.S.A.
5. Hunter Jr., M. L. 2002. Fundamentals of Conservation Biology. Blackwell Science, Malden, Massachusetts, U.S.A.