

## EVS 501 Environment and Ecology

(Credits 04)

**Objective:** To provide substantive knowledge and understanding of environment, environmental science, and ecology with system's perspective so that the learners acquire analytical perspective and technical skills for conservation and quality of environment

### Syllabus

<b>Environmental Science and Education:</b>	Environment- Definition, types and importance; Limiting factors; The multidisciplinary nature and need of public awareness; Environmental Education- Principles, objectives and approaches; Role of Government and Non-Governmental Organizations in environmental protection.
<b>Ecology:</b>	Definition, types, its relationship with other disciplines of science and humanities; Ecosystem- Concept, structure, cybernetics and functions; Ecological pyramids; Ecosystem perturbations; Development and evolution of ecosystem; Global ecosystems; Population dynamics; Ecosystem modeling and ecological engineering.

### SUGGESTED READINGS

- Principles of Environmental Science* - W.P. Cunningham and M.A. Cunningham, Tata McGraw Hill Pub. Co. P. Ltd., New Delhi.
- Principles of Environmental Science and Engineering* – P. Venugopal Rao, Prantice Hall of India P. Ltd., New Delhi.
- Environmental Science*- G.T. Miller, Thomson Asia, Singapore.
- Environmental Studies* – R. Rajagopalan, Oxford University Press, New Delhi.
- Environmental Studies* – Benny Joseph, Tata McGraw Hill, Pub. Co. P. Ltd., New Delhi.
- Environmental Studies* – D.L. Manjunath, Pearson Education.
- Fundamentals of Ecology*– Eugene P. Odum, W. Saunders, Philadelphia, U.S.A.
- Plant Ecology* – Ernst- Dettlef Schulze, Erwin Beck and Lkaus Miller- Hohenstein, Springer- Verlag, Berlin.
- Concepts of Ecology* – E.J. Kormondy, Prentice- Hall of India, P. Ltd., New Delhi.
- Ecology, Environment and Resource Conservation* – J.S. Singh, S.P. Singh and S.R. Gupta, Anamaya Publishers, New Delhi.
- Introduction to Environmental Science*- Y. Anjaneyulu B. S. Publications, New Delhi.
- Environmental Science*- D. Daniel Chiras, Jones and Bartlett Publishers, London.
- Fragile Environment*- Shormila Mukherji, Manak Publication Pvt. Ltd., New Delhi.
- Environment* - Peter H. Raven, Linda R. Berg and Goerge B. Johnson, Saunders College Publishing, U.S.A.
- A Text Book in Environmental Science* – V. Subramanian, Narosa Publishing House, New Delhi.
- Environmental Science* (8th edn.) - R.T. Wright and B.J. Nebel, Prentice Hall India P.Ltd., New Delhi.