ENS 501 ENVIRONMENT AND ECOLOGY

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

Environmental Science and 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
Ecology: 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- Detlef 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- ShormilaMukherji, 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.