

Course Code	Course Title	Credit Hours
ENS-850	Advances in Plant Ecology	3 (3+0)

Course Description

This course is designed to update the students about recent developments in plant ecology and physiological modifications with reference to the environment, its conservation and management.

Course Outline

Global Aspects of Plant Ecology: Life history strategies of plants, survival and extinction.

Plant Population Dynamics: Species richness, vegetation dynamics, fine–scale to large–scale dynamics.

Leaf Energy Budgets: Effects of Radiation and Temperature.

Life Cycles: Annuals and perennials, environmental influences and plant adaptations. **Biotic Influences:** Symbiotic associations, pathogenicity, parasitic associations and carnivory.

Ecological Biochemistry: Allelopathy and defense against herbivores.

Plant Invasions and their Threats to Plant Diversity: Conservation, management and restoration of threatened plant communities.

Recommended Books

1. Maarel, E. D. (2005). *Vegetation Ecology*. Blackwell Publishing, Oxford, UK.
2. Lambers, H. and Chapin, F. S. (2005). *Plant Physiological Ecology*. Thijs L. Pons, Springer.
3. Shulze, E. D., Beck, E. and Muller-Hohenstein, K. (2005). *Plant Ecology*. Springer, Berlin.