SEED ECOLOGY (2 Credits)

Objective
In this course, the current information available on the ecological aspects of seed biology will be provided. Broadly representative overview on seed and seedling interaction with environmental factors will be presented.

Course Contents
REPRODUCTION STRATEGIES (Reproductive allocation and reproductive effort, Seed size and seed number, Comparison of reproduction methods and cost of reproduction, Maternal effects on seeds during development, Competition, behavior and seed size, Seed polymorphism);

SEED DISPERDAL (Predispersal challenges, Seed dispersal mechanisms, Dispersal and seed size, Evolution of seed dispersal, Post dispersal challenges);

SEED BANK (Soil seed bank, Aerial seed bank, Serotiny, Ecology of seed bank);

SEED DORMANCY (Definition, Types of seed dormancy, Ecological effects of seed dormancy, seed dormancy and seed bank, Seed responses to light, The role of temperature in the regulation of seed dormancy);

SEED GERMINATION AND SEEDLING ESTABLISHMENT (Ecology of seed germination, The role of temperature, light and moisture on germination, Germination and soil environment, Dessication tolerance, Germination and climate change challenges, Role of fire in regeneration from seed, Germination, establishment and seed size, Factors limiting establishment, Seedling survival and seed size, The effect of seedling regeneration on structure and dynamics of plant population);

GAP AND PLANT REGENERATION (Patch dynamic and species diversity)
Text Books: