

**Course Code** : ENCM 12572  
**Title** : Forest Resources  
**Pre-requisite** : ENCM 11522  
**Co-requisite** : None  
**Status** : Compulsory, Theory cum Practical

**Learning outcomes:**

After completion of the course unit, the student will be able to;

- describe ecosystem functions in tropical forests,
- identify the major threats to sustainable utilization of forest resources,
- explain the provisions in the Forest Act in the management of forest resources in Sri Lanka, and
- demonstrate skills in forest measurements and inventorying.

**Course content:**

Introduction to tropical forests, Patterns in Tropical Forests (Structural Concepts and Diversity of Tropical Forests); Role of forests in biogeo-chemical cycling, Natural microbial processes (decomposition), Reproductive Biology of Plants: Growth, Physiology, Animal Plant Interactions: Ecological Guilds, Animals as pollinators, Animals as seed dispersers, Coevolution, Symbiotic associations, Disturbance Ecology (Large Scale Disturbances and Succession; Small Scale disturbance and Regeneration), Carbon sequestration, Major threats (local and global) on Forest resources, Governance of the Forest Resource in Sri Lanka: National forest policy and Forest Ordinance, Reduce Emission from Deforestation programme, Measuring individual trees (dbh, age, height, tree basal area), measuring stands (stand basal area, stocking density), Forest profile diagrams, Forest inventorying, (Practical sessions on forest measurements and inventorying.

**Method of teaching and learning:**

A combination of lectures, field studies, computer assisted learning, assignments and discussions.

**Assessment:**

In-course assessment and end of semester examination.

**Recommended reading:**

1. Jaboury, G. & S. Douglas (2010). Tropical Rain Forest Ecology, Diversity, and Conservation. Oxford Biology.
2. Kangas, A. & M. Maltamo (2006). Forest Inventory: Methodology and Application. Springer Publication, printed in Netherlands.
3. National Forest policy 1995 and Forest (amendment) Act No. 65 of 2009 of Sri Lanka.