

Course Code : HRT 406
Course Title : Agroforestry
Credit Hours : 2 (1+1) Full Marks: 50 Theory: 25s Practical :25

OBJECTIVES

Upon the completion of this course, the student will have basic knowledge on principles and practices of agro forestry systems.

I.SYLLABUS

Concept of Agro-forestry: Definition, importance and scope. Roles of trees in fulfilling the basic requirements of people, characteristics of trees for Agro-forestry development and tree improvement. Agroforestry System (AFS): Classification of the Agroforestry system (AFS) and over-view of AFS in Nepal and similar agro-eco-zoning in the World. Tree-crop-interaction: Nature of interactions, factors, types, quantifying interactions. Soil management under AFS: Soil-water conservation approaches, soil-fertility management. Designing AFS: Conceptual framework for designing AFS. Project development: ICFAF's diagnosis and design, diagnostic methods and tools used in AFS. Management of trees in AFS: Tree-management, agricultural management, silvicultural and management operations. Quantifying agroforestry products.

II. COURSE OUTLINE

A. Lecture

S.N.	Topics	No. of Lectures
1.	Concept of Agroforestry: Definition, importance and scope.	1
2.	Tree selection and improvements:	2
	2.1 Roles of trees in fulfilling the basic requirements of people	
	2.2 Characteristics of trees for Agroforestry development and tree improvements	
3.	Agroforestry system (AFS):	2
	3.1 Classification and over-view of Agroforestry System (AFS)	
	3.2 Overview of AFS in Nepal and similar agro-eco-zoning in the world	
4.	Tree-crop-interaction:	2
	4.1 Factors and types on nature of tree-crop interaction	
	4.2 Quantifying Agroforestry products	
5.	Soil management under AFS:	2
	5.1 Approaches of soil-water conservation	
	5.2 Soil-fertility management	
6.	Designing AFS:	2
	6.1 Conceptual framework for designing AFS	
	6.2 Factors affecting AFS	
7.	Project development:	2
	7.1 ICFAF's diagnosis and design	
	7.2 Diagnostic methods and tools used in AFS	
8.	Management of trees in AFS:	2
	8.1 Management of trees in Agriculture	
	8.2 Agricultural and Silvicultural management in relation to crop	
Total		15

B. Practical

S.N.	Topics	No. of Practicals
1.	Tree selection and identification for AFS at different areas:	3
	1.1 High Hills	
	1.2 MidHills	
	1.3 Terai	
2.	Practice in contour farming system	1
3.	Preparation 'A' -frames and determines contour lines	1
4.	Lay-out of a soil-water conservation systems.	1
5.	Nursery establishment for AFS	3
	5.1 Collection and identification of seeds of Agroforestry trees	
	5.2 Preparation of nursery bed for Agroforestry tree	
	5.3 Seed sowing for Agroforestry trees	
6.	Tree-clinic for AFS.	1
7.	Training and pruning for Agroforestry trees	1
8.	Height and canopy measurement for selected Agroforestry trees	1
9.	Different AFS development (SALT and home garden)	1
10.	Establishment of Agroforestry farm at Agriculture and Forestry University (AFU)	1
11.	A visit to success story of Agroforestry project(s) at local level	1
	Total	15

REFERENCES

- Dwivedi, A.P. 1992. Agroforestry: Principles and Practices. Oxfood and IBH Publishing Co. Pvt. Ltd. India.
- Chaundawat, B.S. and S.K. Gautam. 1996. Text of Agroforestry. Oxfood and IBH Publishing Co. Pvt. Ltd. India.
- Singh, S.P. 1998. HandBook of Agroforestry. Agrotech Publishing Academy, India.
- Thapa, F. 2001. Nepalese Flora for Agroforestry Systems. S.B. Bhandari Publication, Nepal.
- Prakash, Ram. 1991. Propagation Practices of Improtant Indian Trees. International Book Distributions, India.