



# THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

## *Department of Forestry and Wood Technology*

### **FWT 202 - Introduction to Forest Resources Management and Agroforestry**

#### **COURSE PARTICULARS**

**Course Code:** FWT 202

**Course Title:** Introduction to Forest Resources Management and Agroforestry

**No. of Units:** 3

**Course Duration:** Two hours of theory and three hours of practical per week for 15 weeks.

**Status:** Compulsory

**Course Email Address:**

**Course Webpage: Prerequisite:** NIL

#### **COURSE INSTRUCTORS**

**Dr D.O.Oke**

*Room 11, SAAT Annex,*

*Dept. of Forestry & Wood Technology,*

*Federal University of Technology, Akure, Nigeria.*

**Phone:** +2348034277138

**Email:** [dooke@futa.edu.ng](mailto:dooke@futa.edu.ng)

**Dr. A. G. Adedayo**

*Room 010, Ground Floor, SAAT Building,*

*Dept. of Forestry & Wood Technology,*

*Federal University of Technology, Akure, Nigeria.*

**Phone:** +2348038165812

**Email:** [agadedayo@futa.edu.ng](mailto:agadedayo@futa.edu.ng)

and

**Mr. A. Lawal**

*Dept. of Forestry & Wood Technology,*

*Federal University of Technology, Akure, Nigeria.*

**Phone:** +2347031641263

**Email:** [alawal@futa.edu.ng](mailto:alawal@futa.edu.ng)

#### **COURSE DESCRIPTION**

This course is designed to broaden students' knowledge about the forest as a renewable natural resource. It topics on the features of the forest ecosystem, the distribution of the forest in Nigeria,

classification of forest resources, important indigenous tree species, characteristics of the tropical forest, importance of the forest, meaning of forestry, silviculture, plantation forestry, natural forest; deforestation; land use problems in the tropics. The agroforestry aspect shall include: concept of agroforestry; historic developments and socio-economic rationale of agroforestry; agroforestry systems and practices; classification of agroforestry systems; multidisciplinary approach to land- use; sustainability and adaptability criteria; biological and economic considerations.

## **COURSE OBJECTIVES**

The objectives of this course are to:

- enable students have a good understanding of forest as a renewable natural resource;
- make the have a good understanding of the characteristics of the tropical forest, importance of the forest, meaning of forestry and silviculture
- familiarize students with the concepts and principles of agroforestry;
- make the students to understand the complexity and diversity of agroforestry;
- familiarize students with some traditional and improved agroforestry technologies

## **COURSE LEARNING OUTCOMES / COMPETENCIES**

Upon successful completion of this course, the student will be able to:

*(Knowledge based)*

- explain the importance of forest resources
- discuss the principles of forest resources management;
- explain the role of forests in environmental sustainability;
- define agroforestry and explain the basic concepts and principles;
- explain the role of agroforestry in a land use system;
- identify the functional components of an agroforestry system
- classify the different agroforestry technologies into relevant groups;
- explain how and establish where farmers can use appropriate agroforestry technologies to improve their farming system

## **GRADING SYSTEM FOR THE COURSE**

This course will be graded as follows:

Class Attendance	10%
Practical	10%
Test(s)	20%
<u>Final Examination</u>	<u>60%</u>
<b><u>TOTAL</u></b>	<b><u>100%</u></b>

## GENERAL INSTRUCTIONS

**Attendance:** It is expected that every student will be in class for lectures and also participate in all practical exercises. Attendance records will be kept and used to determine each person's qualification to sit for the final examination. In case of illness or other unavoidable cause of absence, the student must communicate as soon as possible with any of the instructors, indicating the reason for the absence.

**Assignments and Group Work:** Students are expected to submit assignments as scheduled. Failure to submit an assignment as at when due will earn you zero for that assignment. Only under extenuating circumstances, for which a student has notified any of the instructors in advance, will late submission of assignments be permitted.

**Code of Conduct in Lecture Rooms and Laboratories:** Students should turn off their cell phones during lectures. Students are prohibited from engaging in other activities (such as texting, watching videos, etc.) during lectures. Food and drinks are not permitted in the laboratories.

## READING LIST

<sup>2,4</sup>Suzuki k., Ishii K., sakurai S. and Sasaki S. (eds)(2006). *Plantation Technology in Forest Science*. Springer-Verlag, Tokyo. 292 pages.

<sup>2,4</sup>Wrangham R and Ross E (1997) *Science and Conservation in African Forests*. Cambridge University Press. 254 pages.

<sup>2,4</sup>Johns G.A. (1997) *Timber Production and Biodiversity Conservation in Tropical Rainforests*. Cambridge University Press. 255 pages.

<sup>2,3,4</sup>Nair P.K.R. (1993). *An introduction to Agroforestry*. Kluwer Academic Publishers, Dordrecht/Boston/London in Cooperation with International Centre for Research in Agroforestry 499 pages.

<sup>2,3,4</sup>Young A. (1989) *Agroforestry for Soil Conservation*. CAB International. 276 pages

<sup>2,4</sup>Umrani R. And Jain C.K.(2010). *Agroforestry Systems and Practices*. Oxford Book Company, Jaipur,India. 294 pages

### Legend

- 1- Available in the University Library
- 2- Available in Departmental/School Libraries
- 3- Available on the Internet.
- 4- Available as Personal Collection
- 5- Available in local bookshops.

## COURSE OUTLINE

Week	Topic	Remarks
1	Introduction and Course Overview Classification of forest resources and names of important indigenous tree species in Nigeria.	During this first class, the expectation of the students from the course will also be documented.
2	Characteristics of the tropical forest and importance of the forest	Students will visit typical natural tropical forest site for firsthand experience
3	Plantation forestry <ul style="list-style-type: none"> <li>• types,</li> <li>• establishment,</li> <li>• advantages and</li> <li>• disadvantages</li> </ul>	Practical exercise will involve visits to forest plantation sites to identify the species examine their growth pattern.
4 & 5	Deforestation, <ul style="list-style-type: none"> <li>• causes and</li> <li>• consequences</li> </ul>	
6	Desertification	
7	Silviculture, afforestation	<b>MID-SEMESTER TEST</b>
8	Concepts and principles of agroforestry. Agroforestry components.	Students will be required to prepare a field album of some important agroforestry tree species.
9 & 10	Agroforestry systems/technologies. Classification of agroforestry systems.	
11 & 12	Description of specific examples of traditional agroforestry practices <ul style="list-style-type: none"> <li>• Shifting cultivation/bush fallow</li> <li>• Homegarden</li> <li>• Live fences</li> </ul>	Students will be made to visit an abandoned natural fallow and examine the vegetation.
13 & 14	Description of specific examples of modern/improved agroforestry technologies <ul style="list-style-type: none"> <li>• Improved fallow technology</li> <li>• Alley cropping</li> <li>• Taungya</li> </ul>	Students will be required to maintain an established alley cropping farm.
15	REVISION	This is the week preceding the final examination. At this time, evaluation will be done to assess how far the students' expectations for the course have been met.