THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

Department of Forestry and Wood Technology

FWT 306 – Industrial plantation Establishment and Technology

COURSE PARTICULARS

Course Code: FWT 306
Course Title: Industrial Plantation Establishment and Technology
No. of Units: 2
Course Duration: One hour of theory and three hours of practical per week for 15 weeks.
Status: Compulsory
Prerequisite: NIL

COURSE INSTRUCTORS

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and

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COURSE DESCRIPTION

.The course is designed to train students in Forestry and general agriculture the techniques of raising tree seedlings in the nursery, establishing the tree seedlings in the field and nurturing them into mature tree. The various aspect of the training includes nursery site selection and preparation; seed sowing techniques; nursery management; plantation site preparation; planting operations and techniques; care and management of planted trees.

COURSE OBJECTIVES

The objectives of this course are to:

- Train students in tree nursery establishment and management; and
- Train students in tree plantation establishment and management.

COURSE LEARNING OUTCOMES / COMPETENCIES

Upon successful completion of this course, the student will be able to:
(Knowledge based)

- articulate the factors to be considered for selecting suitable site for tree nursery
- explain the techniques for nursery and plantation site preparation
- differentiate seed sowing methods and types of seed beds in the nursery
- know how to prepare the nursery beds
- know how to handle tree seedlings in the nursery before planting
- know how to plant tree seedling in the field
- have sound knowledge of tending newly planted seedlings in the field
- know how to protect young tree plantation from damaging agents

(Skills)

- identify a suitable site for locating tree nursery
- establish and manage a commercial tree nursery
- establish and manage a tree plantation

GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

Field based practical	20%
Test(s)	20%
Final Examination	60%
TOTAL	**100%**

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 report to me or the practical instructor indicating the reason for the absence.

Academic Integrity: Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances are prohibited. You are not allowed to make copies of another person's work and submit it as your own; that is plagiarism. All cases of academic dishonesty will be reported to the University Management for appropriate sanctions in accordance with the guidelines for handling students' misconduct as spelt out in the Students' Handbook.

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 lecture rooms.

READING LIST

[1]Julian Evans (1992). *Plantation Forestry in the tropics.*Clarendon press,Oxford. 403p

[4]Chris Palzer (2002). *Tree Nursery manual for Eritrea.* Sida's Regional Land Management Unit (RELMA). Technical hand book No. 26. 126p

[1] Katherine Moir et al (2007). *Growing trees and Gardens for life*. Jacaranda designs Ltd. Nairobi, Kenya. 87p

[1] Sven Gunter et al (2011). *Silviculture in the tropics.* Springer Heidelberg Dordrecht. London. New york 559p

Legend
1- Available in the Departmental/School Libraries
2- Available in the University library
3- Available on the Internet.
4- Available as Personal Collection

COURSE OUTLINE

Week	Topic	Remarks
1	Reasons for plantation establishment	During this first class, the expectation of the students from the course will also be documented.
2 & 3	Nursery Technology • types of tree nursery • nursery site selection and preparation • nursery layout and preparation of nursery bed • seed sowing • watering of planted seeds and seedlings	Practical exercise will involve preparation of nursery bed, filling of polypots and sowing of seed
4 & 5	Nursery Technology(Contd) • pricking out and transplanting of seedlings • maintenance of nursery site soil	The lectures on nursery technology will expose the students to various operations in the tree nursery including seed sowing, transplanting of seedlings to transplant beds

	fertility • hardening off • grading and culling • field storage of planting stock	or stand-on-bed and care of nursery stocks.
6	Plantation Technology • plantation site preparation • ground preparation • determination of number seedlings required for planting	Practical activities will involve clearing and packing of planting sites; cutting of peg; lining and pegging
7 & 8	Plantation Technology (contd) • time of planting • Planting methods • Organisation of planting operation	Students will be requested to work in groups in the field and carry out tree planting exercise on the prepared plantation site
		MID-SEMESTER TEST
9 & 10	Post planting management • beating up • weeding • cleaning	Each student will have a plot to manage with respect to beating up; weeding and cleaning operations
11 & 12	Post planting operation (contd) • protection of planted seedlings • pruning	Students will be divided into groups to discuss various ways by which the planted seedlings can be protected from fire; insect pest; wild animals and domestic animals
13 & 14	Post planting operation (contd) • thinning • benefits of thinning to trees • methods of thinning	Pruning and thinning activities are crucial to plantation growth and development. An instructor will demonstrate these two operations to students using existing old plantation in the plantation site of the Department.
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.