



THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

Department of Forestry and Wood Technology

FWT 502 –Forest Economics and Management

COURSE PARTICULARS

Course Code: FWT 502

Course Title: Forest Economics and Management

No. of Units: 3

Course Duration: Three hours of theory and one hour of tutorials per week for 15 weeks.

Status: Compulsory

Course Email Address: fwt502@gmail.com

COURSE INSTRUCTOR

Prof. S.A. Oluwalana

*Room 112, 1st Floor, SAAT Building,
Dept. of Forestry & Wood Technology,
Federal University of Technology, Akure, Nigeria.*

Phone: +2348062741606

Email: saoluwalana@futa.edu.ng

Prof. J.C. Onyekwelu

*Adamu Building,
Dept. of Forestry & Wood Technology,
Federal University of Technology, Akure, Nigeria.*

Phone: +2348034721633

Email: onyekwelujc@yahoo.co.uk

Dr. O. V. Oyerinde

*Room 128, 1st Floor, SAAT Building,
Dept. of Forestry & Wood Technology,
Federal University of Technology, Akure, Nigeria.*

Phone: +2348062741606

Email: ovoyerinde@futa.edu.ng

COURSE DESCRIPTION

This course presents theories of efficient utilization of natural resources and discusses issues related to current practices of use of resources. It also discusses issues of sustainability and conservation. The course aims at imparting to the students a thorough understanding of economic reasoning and knowledge of how to apply economics as a tool for decision-making on the utilisation of forests resources in rural and urban environments. The course extensively uses graphical analyses and some mathematical models. It assigns a number of theoretical

assignments and reading assignments and provides an option to the students to write a paper on a relevant natural resource issue.

COURSE OBJECTIVES

The objectives of this course are to:

- expose students to the principles and procedures of forest and natural resource economics and management;
- expose students to economic perspectives of long vs short term management decisions in relation to forest resources; and
- make students understand the economic value of different aspects in multiple-use forest and natural resource management and their possible conflicts or joint production possibilities.

COURSE LEARNING OUTCOMES / COMPETENCIES

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

- Identify links between the ecological processes, economic consequences and human goals;
- Apply the appropriate theory and methods to relevant economic valuation in forest and natural resources management; and
- Asses the possibilities and limitations of economic theories and methodologies related to forest and natural resources management.

GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

| | |
|------------------------------------|--------------------|
| Class Attendance and participation | 5% |
| Assignments | 15% |
| Test(s) | 20% |
| <u>Final Examination</u> | <u>60%</u> |
| <u>TOTAL</u> | <u>100%</u> |

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.

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 laboratories.

READING LIST

³FAO, (2010). Global Forest Resource Assessment. Main Report. FAO Forestry Paper 163. FAO, Rome. <http://www.fao.org/docrep/013/i1757e/i1757e.pdf>. 340 pp

³Jukka Muukkonen, (2009). Classification of forests. 14th Meeting of the London Group on Environmental Accounting Canberra, 27 – 30 April 2009. http://unstats.un.org/unsd/envaccounting/londongroup/meeting14/LG14_11a.pdf

¹Lipsey, R.G. and Chrystal, K.A., (1999). Principles of Economics. 9th edition. Oxford University press. pp. 14-32.

¹Wenger, K.F. (1984). Forestry Handbook. 2nd edition. Wiley Interscience Publication. New York. 133 pp. ISBN 0-471-06227-8

³Elevitch, C.R. and Wilkinson, K.M. (2000). Economics of farm forestry: Financial evaluation for land owners. Agroforestry guide for Pacific Islands #7. www.agroforestry.net/afg/. 31 pp

⁴Klemperer, W.D. 1996. Forest resource economics and finance. McGraw Hill, New York. 551pp.

⁴Pearse, P. 1990. Introduction to forest economics. University of British Columbia Press, Vancouver. 226pp.

Legend

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

COURSE OUTLINE

| Week | Topic | Remarks |
|-------|--|---|
| 1 | Introduction and Course Overview <ul style="list-style-type: none"> • Characteristics and classification of natural resource, • Issues of resource economics and management • Unique aspects of forest resource economics • Characteristics of classification forest resources | During this first class, the expectation of the students from the course will also be documented. |
| 2 | Natural resources and economic development <ul style="list-style-type: none"> • Characteristics of developing countries • Ways to economic development • Roles of natural resources in economic development | |
| 3&4 | Demand and Supply of Natural/forest resources <ul style="list-style-type: none"> • Law of demand and factors affecting it • Law of supply and factors affecting it • Prospects for demand of forest resources in Nigeria | |
| 5 | Pricing of Forest resources <ul style="list-style-type: none"> • Importance of pricing • Factors influencing pricing • Methods of pricing timber resources | |
| 6 & 7 | Forest Investment Analysis/Capital budgeting <ul style="list-style-type: none"> • Payback period; • Net Present Value (NPV); • Internal Rate of Return (IRR); and • Benefit Cost Ratio (B/C) | MID-SEMESTER TEST |
| 8&9 | Economic and environmental role of forest resources <ul style="list-style-type: none"> • Concept of market failure and externalities; • Valuation of forest/natural resources • Non-market values • Payment for ecosystem services • Carbon trading | |
| 10 | Objectives and relevance of forest management | |
| 11 | Economic consideration in forest management | |
| 12 | Determination of optimum rotation | |
| 13 | Concept of sustained yield and yield regulation | |
| 14 | Concept of multiple use in forest management | |
| 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 |
|--|--|--|