



# THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

## *Department of Forestry and Wood Technology*

### **FWT 322 – Computer Applications in Forestry and Wood Technology**

#### **COURSE PARTICULARS**

**Course Code:** FWT 322

**Course Title:** Computer Applications in Forestry and Wood Technology

**No. of Units:** 2

**Course Duration:** One hour of theory and three hours of practicals per week for 15 weeks.

**Status:** Compulsory

**Course Email Address:** [fwt322@futa.edu.ng](mailto:fwt322@futa.edu.ng)

**Course Webpage:** <http://www.fwt.futa.edu.ng/courseschedule.php?coursecode=FWT%20322>

**Prerequisite:** NIL

#### **COURSE INSTRUCTORS**

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and

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#### **COURSE DESCRIPTION**

This course is a follow-up course to FWT 204 (Introduction to use of computers in natural resources). It will provide students with more knowledge of computer applications in Forestry and Wood Technology. The course will be a practical course where emphasis will be on skill acquisition. Hence, real-life situations will be used to give students hands-on training in computer usage. Our main focus will be on how we can use computer technologies to better manage forests in a sustainable manner. As forestry and wood technology are very broad in scope, it would not be possible to cover specific computer applications in all aspects. However, the very essential aspects will be covered with the hope that each student can use the skills

acquired in the course as basis for extending the application to other areas. The objective of this course is to teach the students necessary skills to facilitate their use of computer in various aspects of Forestry and Wood Technology.

## COURSE OBJECTIVES

The objectives of this course are to:

- teach the students necessary skills to facilitate their use of computer in various aspects of Forestry and Wood Technology; and
- provide students with opportunities to improve their computing skills with respect to forestry operations and practices.

**To meet the course objective:**

1. Further use of MS Word and MS Excel will be taught;
2. The use of MS Access for database design will be taught;
3. Other specific applications relevant to Forestry and Wood Technology will be taught;

## GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

|                          |                    |
|--------------------------|--------------------|
| Class Attendance         | 5%                 |
| Assignments              | 25%                |
| Test(s)                  | 20%                |
| <u>Final Examination</u> | <u>50%</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.

**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. Food and drinks are not permitted in the laboratories. Respect other students' comments, questions, opinions and ideas even when they are different from yours. Don't shout people down. Allow them to air their views freely without any intimidation. You are all here to learn. In every circumstance, always be honest. God hates lying and I do too. Don't be afraid to admit your mistakes. Learn to speak the truth though heavens fall.

**Computers for lectures and practical exercises:** Each student is encouraged to own a laptop and bring it to all class sessions. Having your personal laptop will enable you to practise at your convenience and master the skills faster. You are not allowed to engage in other activities (such as surfing the net, watching videos, *etc.*) during lectures. For every hour you spend in class or lab, spend at least an additional hour outside of class reviewing and practicing what you have been taught in class. This is a practical course that requires regular practice to attain the required skills.

## READING LIST

<sup>1</sup>Odedele, T. O. (2010). *Using Computer Software Packages*. Published by Olasunkanmi, Nigeria. 304p.

<sup>4</sup>Anderson, V. (2007). *How to do everything with Microsoft Access 2007*. The McGraw-Hill Companies, New York, USA. 617p.

<sup>4</sup>Shao, G. and K. M. Reynolds (2006). *Computer Applications in Sustainable Forest Management*. Springer, Dordrecht, The Netherlands. 276pp.

**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<br>Review of MS Word and MS Excel   | During this first class, the expectation of the students from the course will also be documented.  |
| 2 & 3   | Spreadsheets versus Databases<br>Structure of databases<br>Types of Database Applications  |  |
| 4 & 5   | Designing forest information systems <ul style="list-style-type: none"> <li>• User Needs Analysis</li> <li>• Scope and Requirements Definition</li> <li>• Designing the database structure</li> </ul>  |  |
| 6       | Introduction to MS Access  |  |
| 7 & 8   | Working with database tables <ul style="list-style-type: none"> <li>• Creating tables</li> <li>• Viewing tables</li> <li>• Saving tables</li> <li>• Opening tables</li> <li>• Relationships between tables</li> <li>• Updating tables (inserting and deleting fields and records)</li> </ul> | MID-SEMESTER TEST  |
| 9 & 10  | Working with forms <ul style="list-style-type: none"> <li>• Creating forms and subforms</li> <li>• Navigating forms</li> <li>• Finding records in a form</li> </ul>  |  |
| 11 & 12 | Working with queries <ul style="list-style-type: none"> <li>• Types of queries</li> <li>• Creating queries with wizards</li> </ul> Working with reports <ul style="list-style-type: none"> <li>• Designing reports</li> </ul>  |  |
| 13 & 14 | Applications of computers in: <ul style="list-style-type: none"> <li>• Forest Economics</li> <li>• Forest Management</li> <li>• Furniture Design</li> </ul>  |  |
| 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. |