



THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

Department of Forestry and Wood Technology

FWT 513 – Forest Research Methodology and Scientific Writing

COURSE PARTICULARS

Course Code: FWT 513

Course Title: Forest Research Methodology and Scientific Writing

No. of Units: 2

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

Status: Compulsory

Course Email Address: fwt513@gmail.com

COURSE INSTRUCTORS

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COURSE DESCRIPTION

The purpose of this course is to equip students with strategies and methods for execution and communication of studies and investigations in forestry research. The course is to give the students the theoretical and practical skills to conduct, analyze and present written research tasks in Forestry and Wood Technology; and to give insight and understanding of research methodology. It provides fundamental understanding of different scientific research methods, techniques and scientific knowledge. It also enables students, irrespective of their research focus, in developing the most appropriate methodology for their research studies. Students will learn how to evaluate the elements of academic research, title, abstract, literature review, methodology, results and discussion of a research manuscript. Desirable and undesirable qualities of each element will be discussed.

COURSE OBJECTIVES

The objectives of this course are to:

- Provide students a comprehensive understanding of the method of scientific research;
- Introduce to basic concepts in research methodology for forestry; and
- Equip students on write good research proposal/report for their research work.

COURSE LEARNING OUTCOMES / COMPETENCIES

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

- Demonstrate the use of modern scientific research methods;
- Utilize skills relating to the process of conducting science and apply the scientific method;
- Prepare scientific research plans and proposals; and
- Convey ideas, scientific knowledge and experimental outcomes through written and oral communication.

GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

Class Attendance	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

^{3,4}Youdeowei, A., Stapleton, P. and Obubo, R., (eds.) 2012. Scientific Writing for Agricultural Research Scientists –A Training Resource Manual, Wageningen, The Netherlands: CTA. 192p

^{3,4}ICRA (2010). Proposal Formulation– Key Concepts. ICRA learning resource, <http://www.icra-edu.org>, 8p

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 <ul style="list-style-type: none"> • Definition of scientific research • Types of scientific research • Characteristics of scientific research • Importance and limitations of scientific research 	During this first class, the expectation of the students from the course will also be documented.
2	Scientific writing <ul style="list-style-type: none"> • Meaning and criteria of a scientific writing • Types of scientific writing 	
3	Information sources for research <ul style="list-style-type: none"> • Types of sources • Formats of information 	
4	Planning and conducting research activities <ul style="list-style-type: none"> • Basic research methods • Steps in conducting research 	

5	<p>Identification and formulation of research problems, hypothesis and variables</p> <ul style="list-style-type: none"> • Methods to identify research problems • Formulation of research problems • Technique to determine scope of research • Meaning of hypothesis and research variables • Types of hypothesis and research hypothesis 	Students are expected to engage in personal practice on the topic.
6	<p>Literature review</p> <ul style="list-style-type: none"> • Significance of literature review • Types of scientific literature • Criteria of good and recommended references • Techniques and rules in citing reference • Techniques in writing references 	
7&8	<p>Research proposal writing</p> <ul style="list-style-type: none"> • Definition of research proposal • Types of research proposal • Basic elements of a research proposal • Work plan and budgeting 	<p>Students will be divided into groups and requested to discuss, and develop a research proposal on a chosen topic</p> <p>MID-SEMESTER TEST</p>
9	<p>Writing of abstract/summary of research results</p> <ul style="list-style-type: none"> • Meaning of abstract/summary • Content of abstract and summary • Writing technique for abstract and summary 	
10	<p>Writing of research reports</p> <ul style="list-style-type: none"> • Types of reports • Report writing process/schedule • Basic elements of research reports 	With particular reference to writing undergraduate thesis and seminar papers
11	<p>Presentation of research results</p> <ul style="list-style-type: none"> • Using tables • Using illustrations : graphs, photographs, maps etc • Oral presentation: slides, posters etc 	Class demonstration of how to prepare and present tables, figures, PowerPoint slides, posters etc will be done.
12	<p>Writing scientific articles/reports</p> <ul style="list-style-type: none"> • Writing skills and styles, • Proof-reading and editing of research reports 	.
13	<p>Ethical issues in research</p> <ul style="list-style-type: none"> • Definition • Reasons for ethics in research • Ethical Issues 	
14	<p>Oral presentation of the research proposal prepared by the groups</p>	The groups will make slides presentation of their research proposals
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
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