THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

Department of Fisheries and Aquaculture Technology

FAT503 – **Post Harvest Technology**

COURSE PARTICULARS

Course Code: FAT503
Course Title: Post Harvest Technology
No. of Units: 3
Course Duration: two hour of theory and three hours of practical per week for 15 weeks.
Status: Compulsory
Course Email Address:
Course Webpage:
Prerequisite: NIL

COURSE INSTRUCTORS

Prof. E. A. Fasakin
Dept. of Fisheries &Aquaculture Technology,
Federal University of Technology, Akure, Nigeria
Phone: +2347064016196
Email: eafasakin@futa.edu.ng

COURSE DESCRIPTION

The class will start by examining the structure of fish muscle and the principal components of fish muscle. Various factors affecting fish composition will be examined. Fish spoilage and major causes of fish spoilage will be explained to the students. The physical and chemical changes in fish muscle during and after rigor mortis will be discussed. Various techniques of fish preservation and processing will be examined viz; salt curing and fish fermentation, fish drying, fish smoking, chilling of fish, fish freezing, cold storage of fish, fish canning, fish preservation by irradiation. Chemical and physical methods of fish quality assessment and organoleptic measurement of fish spoilage will be taught. The international standards for fisheries products will be discussed viz food law, codex alimentarius.

COURSE OBJECTIVES

The objectives of this course are to:

- enable students to understand the structure and component of fish muscle.
- Teach the students spoilage in fish and various factor responsible for it.
- provide students with necessary skills on appropriate methods used in fish preservation and processing.
- provide students with knowledge on how to assess the quality of fish and fishery products through physical, chemical and sensory approaches.
- provide students with knowledge of how fish and or fishery products could be packaged for international market ploidy production in fish.

COURSE LEARNING OUTCOMES / COMPETENCIES

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

(Knowledge based)

- explain the structure and composition of fish muscle.
- classify and explain the preservation and processing methods used in fish.
- understand various methods of fish quality assessment.

(Skills)

- produce processed fish of international standard:

GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

Class Attendance	10%
Assignments	10%
Test(s)	20%
Final Examination	60%
TOTAL	**100%**

GENERAL INSTRUCTIONS

Attendance: 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

[2]General and Ichthyology (Fish and Fisheries) by S.K. Gupta and P. C. Gupta Publ S, Chand & Company LTD Ram Nagar, New Delhi India
[1]Fish processing Technology in the Tropics by A. A. Eyo 2001 Pub National Institute for Fresh water fisheries Research New-Bussa
[2]Fish processing and preservation by P. Sinha publ S.B Nangia A.P.H Publishing corporation, New Dehlhi, India

Legend

1-Available in library.

2- Available as Personal Collection .

COURSE OUTLINE

Week	Topic	Remarks
1	Introduction and Course Overview	During this first class, the expectation of the students from the course will also be documented.
2 & 3	The structure of fish muscle, the principal components of fish muscle and factors affecting their composition,	
4 & 5	Major causes of fish spoilage. Rigor mortis	The principle will be discussed, and the practical will involve demonstration using live in fish.
6	Physical and chemical changes in fish muscle during and after rigor mortis.	This will be discussed on demonstration will be made with slide
7 & 8	Techniques of fish preservation and processing; salt curing and fish fermentation, fish drying, fish smoking	
9 & 10	chilling of fish, fish freezing, cold storage of fish, fish canning, fish preservation by irradiation,	
		MID-SEMESTER TEST

11 & 12	Chemical and physical methods of fish quality assessment. Organoleptic measurement of fish spoilage.	Students will be divided into groups and given sub-topics to write on and present during class session.
13 & 14	International standards for fisheries products. International standards for fisheries products.	
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.