



# THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

## Department of Fisheries and Aquaculture Technology

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**FAT 411      Production and Marketing of Marine Fish Products      (2 units)**

### **COURSE PARTICULARS**

**Course Code:**            FAT 411

**Course Title:**            Production and Marketing of Marine Fish Products: Molluscs

**No. of Units:**            2

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

**Status:** Compulsory

**Course Email Address:**    NIL

**Course Webpage:**        NIL

**Prerequisite:**            NIL

### **COURSE INSTRUCTORS**

**Professor O.A. Bello-Olusoji**

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### **COURSE DESCRIPTION**

Biology: External and Internal morphology and Anatomy, Systematics, Geographical distribution and Evolution. Reproduction in Mollusk. Community ecology. Life history, genetics of gastropods, bivalves, cephalopods etc. Ecology of larval and early post larval Gastropods and

Bivalves and Cephalopods Ecology of Monoplacophora (*Neopilina*) Polyplacophora (Chitons), Aplacophora (wormlike molluscs).

Cultivation and Farming Methods: old and modern methods of molluscs farming

Production techniques for Mussels, Oyster, Scallops and Clams. Pearl Production techniques, production level and marketing. Harvesting, utilization and processing of Octopuses, Squids and other Cephalopods. Trade and Marketing of Molluscs products

## COURSE OBJECTIVES

The objectives of this course are to:

- expose students to the act of farming crustacean for food security. This will lead to job creation among the youths, generation of fund, the products can be exported, to generate foreign exchange.
- introduce students to the acts of mollusc collection and marketing. They will also learn the various ways of processing and storing these animals

## COURSE LEARNING OUTCOMES / COMPETENCIES

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

- a) acquire knowledge about the economic importance of molluscs, abundance, distribution and their production level all over the world
- b) identify various species of bivalves, cephalopds and gastropods of commercial importance;
- c) collects and assemble bivalves and aquatic gastropds from the wild; and
- d) learn how to produce pearl

## GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

Class Attendance	10%
Practical	20%
Test(s)	30%
<u>Final Examination</u>	<u>40%</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. To sit for the terminal examination student cumulative attendance should not be less than 65%. 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.

**Lateness:** Coming late to lecture is an act of indiscipline. Student should be sitting at least 5minutes before the commencement of the lecture. Latecomers shall not be allowed into the class 10 minutes into the lecture.

## READING LIST

1. *Aquaculture and Water Resource Management*, by D. Baird, M. Beveridge, L. Kelly and J. Muir
2. *Aquaculture: The Farming and Husbandry of Freshwater and Marine Organisms*, by John E. Bardach, William O. McLarney and John H. Ryther
3. *Aquaculture Sourcebook: A Guide to North American Species*, by Edwin S. Iverson and Kay K. Hale
4. *Fundamentals of Aquaculture: A Step-by-Step Guide to Commercial Aquaculture*, by J.W. Avault

**5. *Introduction to Aquaculture*, by Matthew Landau**

**6. *Introduction to the General Principles of Aquaculture*, by H. Ackefors, J.V. Huner and M. Konikoff**

**7. *Principles of Aquaculture*, by Robert R. Stickney**

**8. *Sustainable Aquaculture*, by John E. Bardach**

## COURSE OUTLINE

Weeks	Topics	Remarks
1	Introduction: Economic importance of Molluscs.	Economic importance
2 & 3	Biology: External and Internal morphology and Anatomy, Systematics, Geographical distribution and Evolution.	Ability to identify various species.
4	Reproduction in Mollusk.  Community ecology	Reproductive system
5	Life history, genetics of gastropods, bivalves, cephalopods etc.	Identification of the various developmental stages. Environmental factors.
6	Ecology of larval and early post larval Gastropods and Bivalves and Cephalopods	Environmental factors influencing its availability and growth
7	Ecology of Monoplacophora ( <i>Neopilina</i> ) Polyplacophora (Chitons), Aplacophora (wormlike molluscs)	Abundance and distribution of other classes of mollusks
8	Cultivation and Farming Methods: old and modern methods of molluscs farming	Different methods of culturing molluscs.
9 & 10	Production techniques for Mussels, Oyster, Scallops and Clams.	Production Techniques
11	Pearl Production techniques, production level and marketing.	Types of pearl, production and marketing
12 & 13	Harvesting, utilization and processing of Octopuses, Squids and other Cephalopods	Preservation methods
14	Trade and Marketing of Molluscs products	
15	Test and Revision	