THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

Department of Food Science and Technology

FST 201–Introduction to Food Science and Technology

COURSE PARTICULARS

Course Code: FST 201
Course Title: Introduction to Food Science and Technology
No. of Units: 2
Course Duration: Two hours of lecture per week for 15 weeks.
Status: Compulsory
Course Email Address:
Course Webpage:
Prerequisite: NIL

COURSE INSTRUCTORS

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COURSE DESCRIPTION

This course is designed to review the global food situation with emphasis on Nigeria. Students will be introduced to foods of plant and animal origin and their micro flora. The proximate composition and some natural chemical constituents of foods, the nutritional status of different foods, basic physical, chemical and biological principles of food processing and preservation will be looked into. They will also be taught engineering units and dimensions applicable to the food industry and the use of flow charts, equations and stoichiometry.

COURSE OBJECTIVES

The objectives of this course are to:

- enable the students have a perspective of the global food situation.
- introduce students to the chemical constituents and nutritional status of foods
- introduce students to some of the techniques for food processing and preservation

COURSE LEARNING OUTCOMES / COMPETENCIES

Upon successful completion of this course, the student will be able to:
(Knowledge based)

- understand the global food situation;
- understand the various chemical constituents and nutritional status of foods;
- understand some of the methods by which foods could be preserved

GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

Continuous assessment	30%
Final Examination	70%
TOTAL	**100%**

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

[1]IheKoronye A. I. and Ngoddy P.O. (1985).*Intergrated Food Science for the Tropics.Macmillan Education LTD., London and Oxford*UK.

[1]NPCS Board (2012).*Modern Technology on Food Preservation (2nd Edition)*. Asia Pacific Business Press Inc. 528p

Legend
1- Available in the University Library

COURSE OUTLINE

Week	Topic	Remarks
1	Introduction and Course Overview	This is intended to give an overview of the content of the course
2 & 3	Review the global food situation with emphasis on Nigeria. • Food security • Nutritional security • Factors influencing nutritional security • Causes of food insecurity and solution	General review of global food situation
4 & 5	Introduction to foods of plant and animal origin and their micro flora. • Different types of food from plant and animal • Micro-organisms associated with some of these foods	Students will be introduced to foods from different sources
6 & 7	The proximate chemical composition and some natural chemical constituents of foods, the nutritional status of different foods. • Protein • Fat • Ash • Fibre etc	Lectures will be based on the various chemical constituent and nutritional status of foods
8, 9 &10	Basic physical, chemical and biological principles of food processing and preservation • Moisture content/water activity (drying, salting) • Low temperature storage (refrigeration, freezing) • Acidity/alkalinity (chemical preservative)	Different processing and preservation techniques will be discussed
11 & 12	Engineering units and dimensions applicable to the food industry	Examples and importance of engineering units and dimensions in food will be discussed
13 & 14	Use of flow charts, equations and stoichiometry	The relevance and importance of charts and equations will be taught
15	REVISION	This is the week preceding the final examination.