



**LEAD CITY UNIVERSITY, IBADAN**  
**Faculty of Sciences**  
**Department of Biochemistry**

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### **COURSE PARTICULARS**

**Course code:** Experimental Biochemistry  
**Course title:** BCH 213  
**No. of Units:**  
**Status:** compulsory/elective

### **LECTURER DETAILS**

**Name:** Prof. Omole, J.O  
**Qualifications:** B.Sc, Ph.D  
**Phone:** 08029089891  
**Email:** omole@yahoo.com  
**Area of Specialization:** Environmental Chemical Analysis

**Name:** Mrs. Hassan  
**Qualifications:** HND, AISLT, MECPC  
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**Area of Specialization:** Science Laboratory Technology (Chemistry/Biochemistry)

### **COURSE DESCRIPTION**

Nutrients in Foods: Qualitative tests for carbohydrates, protein, lipids; Quantitative determinations on Carbohydrates, Protein and Lipids and Dietary Fibres.

### **COURSE OBJECTIVES**

To acquaint students with use of laboratory and to introduce students to some aspects of nutritional biochemistry through experiments.

### **ASSESMENT**

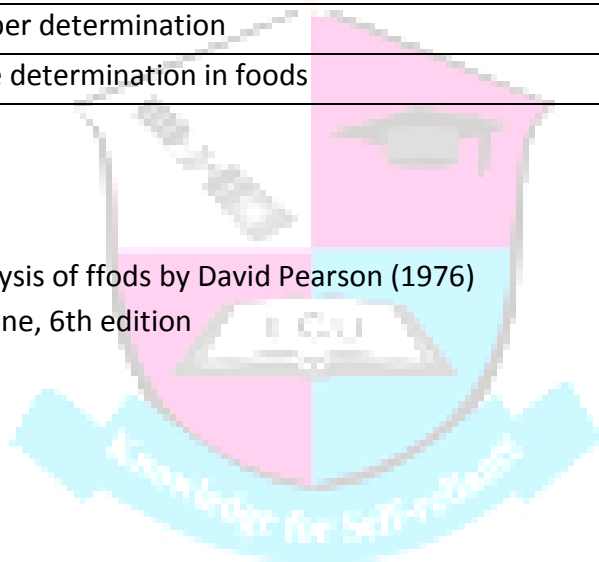
Class Attendance	5marks
Test(s) and Assignments	25marks
Final Examination	70marks

## LECTURE PLAN

Week	Topic
Week 1	General test for carbohydrates
Week 2	Test for reducing sugars and non reducing sugars
Week 3	Determination of reducing sugars in blood and beverages
Week 4	Behavior of starch with iodine and alkaline solutions
Week 5	Hydrolysis of starch, fermentation of sugar in alcohol production
Week 6	Tests for protein; solubility of proteins; precipitation of proteins
Week 7	Iso- electric point determination in proteins; amylase activity in saliva
Week 8	Amino acids in proteins and their identification
Week 9	Test for fats and oils; solubility of lipids in different solvents
Week 10	saponification of oils; saponification number determination
Week 11	Iodine number determination
Week 12	Dietary fibre determination in foods

## READING LIST

1. The chemical analysis of foods by David Pearson (1976)
2. Churchill Livingstone, 6th edition



## TUTORIAL QUESTIONS

1. Distinguish between samples A and B using the reagents provided
2. Determine the reducing sugar content of sample C using the reagents provided
- 3 (a). Determine the iso –electric point of sample D using the reagents provided  
(b) Define the iso-electric point of a protein and its significance

