

Liverpool John Moores University

Title: BIOCHEMICAL PRINCIPLES OF NUTRITION
Status: Definitive
Code: **5019TEF** (103800)
Version Start Date: 01-08-2016

Owning School/Faculty: Sports Studies, Leisure and Nutrition
Teaching School/Faculty: Sports Studies, Leisure and Nutrition

Team	Leader
Ian Davies	Y

Academic Level: FHEQ5
Credit Value: 24
Total Delivered Hours: 60
Total Learning Hours: 240
Private Study: 180

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	25
Practical	30
Seminar	2

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Seen question/short essay question	50	3
Report	AS2	Practical log (1500 words equivalent)	25	
Report	AS3	Project report (1500 words equivalent)	25	

Aims

To extend student knowledge of biochemistry in health and disease.

Learning Outcomes

After completing the module the student should be able to:

- 1 Use formulae and equations as appropriate to explain the chemistry and metabolism of biological compounds
- 2 Explain the physiology and biochemistry of selected disease states
- 3 Interpret the application of biochemistry to nutritional status
- 4 Employ practical techniques to measurement of disease status.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

EXAM	1	2	3
Practical Log	2	4	
Project Report	3	4	

Outline Syllabus

Metabolic pathways including protein synthesis, transamination, B oxidation, glycolysis, pentose phosphate pathway, catabolism. Integration and regulation of metabolism.

Clinical chemistry in disease. Nutritional requirements in disease.

Learning Activities

Lectures and laboratory practicals will be the main form of student learning activities. Students will be required to carry out a series of practicals designed to investigate techniques used in the measurement of biochemical parameters associated with human nutritional disorders. They will be required, in groups, to design and carry out a small practical project to investigate a biochemical parameter affected by nutrition.

Notes

This module aims to provide the student with a comprehensive understanding of biochemistry in health and disease. It builds upon, and assumes a working knowledge of human physiology and chemistry. It highlights the structure and metabolism of biological compounds with emphasis on energy production. The biochemistry of various disease states will be discussed. Practical will supplement the lectures.