Physiological Biochemistry

Module Information

2022.01, Approved

Summary Information

Module Code	4104BCBMOL
Formal Module Title	Physiological Biochemistry
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Lecture	28
Practical	12
Seminar	3
Workshop	13

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To provide an introduction to, and make the link between, nutrition, physiology and cellular metabolism in prokaryote and eukaryote cells. In addition, the chemistry which underpins each biochemical process is made clear by making use of worked examples and through practical experiments.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Describe a number of metabolic and synthetic biochemical pathways operating in eukaryotic and prokaryotic cells.
MLO2	2	Execute a number of biochemically related laboratory techniques and report on their findings by making reference to the literature.
MLO3	3	Exemplify how changes in cellular metabolism can result in disease
MLO4	4	Demonstrate an understanding of the use of reference ranges for interpreting a laboratory test result.

Module Content

Outline Syllabus	Physiology: selected organs including GI tract, kidney, liver, pancreas.Biochemical basis of nutrition.Endocrine function.Biochemical pathways operating in prokaryotes, eukaryotes (animals and plants) including photosynthesisEnergy balance in prokaryotic and eukaryotic cells: Electron transport chain pathway, ATP synthesis, properties of ATP.
Module Overview	This module enables you to explore the link between, nutrition, physiology and cellular metabolism in prokaryote and eukaryote cells. In addition, the chemistry which underpins each biochemical process is made clear by making use of worked examples and through practical experiments. This module will also introduce you to the concept of cellular metabolism and how nutrition and physiology impact on both eukaryotic and prokaryotic cells.
Additional Information	This module will introduce the concept of cellular metabolism and how nutrition and physiology impact on both eukaryotic and prokaryotic cells. Recommended text and journal reference links can be found on the Canvas site for this module.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Portfolio	Practical reports	50	0	MLO2, MLO4
Centralised Exam	Exam	50	2	MLO1, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Iain Hargreaves	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings