

Basic Biochemistry

Module Information

2022.01, Approved

Summary Information

Module Code	4501YAUNUT
Formal Module Title	Basic Biochemistry
Owning School	Sport and Exercise Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Yunnan Agricultural University

Learning Methods

Learning Method Type	Hours
Lecture	56
Practical	32

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	This module covers the molecular structure and function of organisms. It aims to help students understand the mechanisms of metabolic regulation. This module also introduces students to the theory of basic biochemistry experiments and focuses on developing experimental techniques.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate an understanding of fundamental biochemical principles, such as the structure/function of biomolecules, metabolic pathways, and the regulation of biological/biochemical processes.
MLO2	2	Attain the theory and operation of basic experimental techniques in biochemistry
MLO3	3	Communicate biochemical concepts and experimental results through effective written communication

Module Content

Outline Syllabus	This module covers: Nucleic acid chemistry; protein chemistry; enzymes; carbohydrate metabolism; biological oxidation and oxidative phosphorylation; lipid metabolism; protein enzymatic degradation and amino acid metabolism; nucleic acid enzymatic degradation and nucleotide metabolism; nucleic acid biosynthesis; protein biosynthesis; and metabolic regulation. Students will also carry out experiments in areas such as: yeast RNA extraction and identification; polyacrylamide gel disc electrophoresis separation; thin-layer chromatography; catalase activity determination; and the determination of nitrate content.
Module Overview	
Additional Information	This module provides students with an understanding of developments in biotechnology and principles and application in biochemistry. Students will also develop basic practical skills in biochemistry/biotechnology.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Exam - Theory	25	2	MLO1
Portfolio	Portfolio of In class tests	25	0	MLO1
Exam	Experimental Practical Exam	15	2	MLO2
Report	Practical Training Report	25	0	MLO3
Exam	Test of Practice	10	0	MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
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Elizabeth Mahon	Yes	N/A
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Partner Module Team

Contact Name	Applies to all offerings	Offerings
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