

## Module Information

2022.01, Approved

### Summary Information

Module Code	3419FNDSCI
Formal Module Title	Introduction to Biochemistry and Cell Biology
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 3
Grading Schema	40

### Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

### Learning Methods

Learning Method Type	Hours
Lecture	40
Online	1
Practical	9
Workshop	8

### Module Offering(s)

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

### Aims and Outcomes

Aims	This module aims to provide key essential cell biology and biochemistry material (NQF level 3) for students progressing to programmes of study offered in PBS.
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**After completing the module the student should be able to:**

### Learning Outcomes

Code	Number	Description
MLO1	1	Identify the stages in the cell cycle and be able to identify and describe the function of organelles in prokaryotic and eukaryotic cells
MLO2	2	Describe the structure and function of biomolecules
MLO3	3	Explain how the immune system responds to pathogens and infectious diseases
MLO4	4	Describe and recall metabolic pathways

### Module Content

Outline Syllabus	Biological molecules: Carbohydrates, lipids, proteins & nucleic acids. Cell structure: Eukaryotic, prokaryotic, viruses. Methods of studying cells: Light microscope, TEM & SEM. Transport across cell membranes. Cell recognition & the immune system: antigen, phagocytosis, T lymphocytes, B lymphocytes, antibody, active & passive immunity. Photosynthesis and respiration. Metabolic pathways: glycolysis, Krebs cycle, gluconeogenesis, oxidative phosphorylation, lipolysis
Module Overview	
Additional Information	This module aims to provide an introduction to cell structure and biochemistry (at NQF level 3) so that students can then progress to degree level study.

### Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Exam	60	2	MLO1, MLO2, MLO3, MLO4
Test	Phase test (online)	40	1	MLO1, MLO2, MLO3, MLO4

### Module Contacts