

Liverpool John Moores University

Title: BUILDING BLOCKS OF LIFE
Status: Definitive
Code: **3409FNDS**CI (125825)
Version Start Date: 01-08-2021

Owning School/Faculty: Biological and Environmental Sciences
Teaching School/Faculty: Biological and Environmental Sciences

Team	Leader
Alun Hughes	Y

Academic Level: FHEQ3 **Credit Value:** 20 **Total Delivered Hours:** 55
Total Learning Hours: 200 **Private Study:** 145

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	24
Practical	9
Workshop	20.5

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	MCQ Exam	50	1.5
Test	PhasedTest	Phased Test Assessing Practicals	50	

Aims

To provide students with an overview of key concepts in cell biology, including the chemical basis of the biosciences.

Learning Outcomes

After completing the module the student should be able to:

- 1 Describe the chemical basis of biology
- 2 Recall the basic structures and functions of cells and subcellular organelles.
- 3 Summarise the principle classes of biological macromolecules and their utilities within biology.
- 4 Define the relationship between nucleic acids, proteins and genetic inheritance.
- 5 Recall the basic concepts of environmental chemistry

Learning Outcomes of Assessments

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

MCQ Exam	5	3	2	4	1
Phased Test	3	2	1		

Outline Syllabus

The chemical basis of the biosciences.

Cell structure, including organelles and their roles.

The biological macromolecules; proteins, carbohydrates, lipids and nucleic acids.

Cellular functions, including: cell membranes and transport; nucleic acids, protein synthesis and genetic inheritance; energy and cellular respiration; photosynthesis; enzymes and their actions.

Introduction to environmental chemistry.

Learning Activities

The module will be delivered using lectures, workshops and practical classes.

Notes

A core module for Level 3 students on BSc programmes with a foundation year in the School of Biological and Environmental Sciences. Throughout the module you'll gain an understanding of the basic concepts of cell biology and chemistry for the natural sciences, which you'll learn through a series of lectures, workshops and practical laboratory sessions.