

Liverpool John Moores University

Title: INTRODUCTION TO MOLECULAR BIOLOGY
Status: Definitive
Code: **4115BCBMOL** (126733)
Version Start Date: 01-08-2021

Owning School/Faculty: Pharmacy & Biomolecular Sciences
Teaching School/Faculty: Pharmacy & Biomolecular Sciences

Team	Leader
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Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 59

Total Learning Hours: 200 **Private Study:** 141

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	30
Practical	15
Tutorial	5
Workshop	7

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	The format of the exam will be given in the module handbook	60	2
Report	Newsletter	Individual newsletter (due in week 27)	40	

Aims

To enable students to understand the importance of the molecular mechanisms underpinning molecular biology. This will then allow for the introduction of omics and model organisms which will be further developed at level 5.

Tutorials linked to subject material as well as personal development planning are embedded in this module.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate a knowledge and understanding of the molecular mechanisms of DNA replication, transcription and translation processes.
- 2 Demonstrate familiarity with the mechanisms of DNA damage and repair.
- 3 Describe the basis of genetics
- 4 Demonstrate familiarity with and a basic understanding of the techniques used in recombinant DNA technology

Learning Outcomes of Assessments

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

Exam	1	2	3
Individual Newsletter	4		

Outline Syllabus

Basic molecular biology: DNA structure/function, histones, prokaryotic and eukaryotic DNA replication, prokaryotic and eukaryotic transcription, translation, operons, post translational modification, DNA repair.

Basic genetics and introduction to omics and model organisms.

Recombinant DNA technology.

Learning Activities

Lectures
Practicals
Workshops
Tutorials

Notes

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