Liverpool John Moores University

Title:	MICROBIAL BIOTECHNOLOGY 2
Status:	Definitive
Code:	**5115BCBMOL** (126624)
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:	FHEQ5	**Credit Value:**	20	**Total Delivered Hours:**	60
Total Learning Hours:	200	**Private Study:**	140		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	28
Practical	27
Workshop	3

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	Physiology	Enumeration of microorganisms	20	
Practice	Ecology	Microbial characterisation	20	
Exam	Theory	Theory questions	60	2

Aims

To demonstrate the principles of microbial growth and metabolism and to provide an

appreciation of the action of antimicrobials. To provide a general introduction to the ecology of micro-organisms in a variety of habitats. To provide an understanding of the use of microorganisms in natural product formation.

Learning Outcomes

After completing the module the student should be able to:

1	Explain the principles of microbial growth and metabolism and appreciate the action of antimicrobials.
2	Evaluate the importance of microorganisms in different environments
3	Analyse microbial growth data
4	Appraise the use of microorganisms in natural product formation

Learning Outcomes of Assessments

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

Enumeration of microorganisms	1	3	4
Microbial characterisation	2		
Examination	1	2	4

Outline Syllabus

Fungal and bacterial growth
Nutrition and metabolism
Microbial products
Soil microbiology
Food microbiology
Microbiology of extreme environments
Human microbiota
Modes of action of antimicrobials

Learning Activities

Lectures, practicals and workshops

Notes

This module is designed to develop an understanding of the physiology and behaviour of microorganisms populating various habitats with emphasis on their responses to particular physical and chemical conditions. It will also develop a broad understanding of the biotechnological importance of microorganisms.