

Microbial Biotechnology 1

Module Information

2022.01, Approved

Summary Information

Module Code	4112BCBMOL
Formal Module Title	Microbial Biotechnology 1
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Lecture	23
Practical	27
Workshop	5

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	This module aims to: provide a broad spectrum of knowledge about microorganisms and their activities which will provide a foundation for microbiology modules at Levels 5 and 6.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Recognise the diversity of microorganisms in natural environments, and important morphological features.
MLO2	2	Describe the basic methods for cultivation, observation, enumeration and identification of microorganisms, including factors which influence growth.
MLO3	3	Describe the impact of microorganisms in the environment, and their role in health and disease.
MLO4	4	Recognise the importance and future potential of microorganisms in industrial processes.

Module Content

Outline Syllabus	Position of microorganisms in the natural world with emphasis on bacteria, fungi and viruses. Structural characteristics and growth requirements of the major microbial groups. Practical methods to study microorganisms: cultivation of bacteria; principles of bacterial identification; assessment of cell growth. Microbial signalling and communication. Biofilms. Microorganisms as agents of disease, modes of infectious disease transmission and the methods used to prevent and treat infections. Antibiotics and antimicrobial resistance. Microorganisms of industrial importance. Microorganisms and environmental processes. The biology of plasmids and bacteriophages.
Module Overview	This module provides you with a broad spectrum of knowledge about microorganisms and their activities which will provide a foundation for microbiology modules at Levels 5 and 6. The module will be delivered through a series of lectures, practicals and workshops.
Additional Information	The module will be delivered through a series of lectures, practicals and workshops. There will be one piece of coursework involving a laboratory practical assessment. The final assessment component will be a written examination. Students will be required to do some independent learning and reading around the topics.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Exam	60	2	MLO1, MLO3, MLO4
Report	Report	40	0	MLO1, MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Katie Evans	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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