

Liverpool John Moores University

Title: MICROBIOLOGY
Status: Definitive
Code: **4106BMBMOL** (122378)
Version Start Date: 01-08-2021

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

Team	Leader
Ismini Nakouti	Y
Jo Foulkes	
Katie Evans	
Helen Smalley	
Alan Gunn	
Glyn Hobbs	
George Sharples	

Academic Level: FHEQ4
Credit Value: 20
Total Delivered Hours: 55
Total Learning Hours: 200
Private Study: 145

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	24
Practical	23
Workshop	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Practice	Lab based	Practical Assessment	50	
Exam	Exam	Exam	50	2

Aims

This course 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.

Learning Outcomes

After completing the module the student should be able to:

- 1 Explain the basic methods for cultivation, observation, enumeration and identification of microorganisms, including growth kinetics.
- 2 Recognise the role of bacterial, fungal and viral diseases in man, animals and plants.
- 3 Appreciate the impact of emerging drug resistance and understand the role of antimicrobials.
- 4 Discuss the fundamental role of biofilms.

Learning Outcomes of Assessments

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

Practical assessment	1	2		
Examination	1	2	3	4

Outline Syllabus

Good microbiological laboratory practice. Risk assessments, personal protection equipment and spillage management. Introduction to bacteria, fungi, parasites and viruses together with an appreciation of the complexity and diversity of their life cycle. Normal flora and microbial classification. Microbial growth kinetics and the effects of the environment on microbial culture. Isolation and identification of suspected pathogens. Bacterial, fungal and viral diseases, including routes of transmission and infection control. Antimicrobials together with an emphasis on emerging drug resistance. Practical methods in microbiology. Biofilms.

Learning Activities

Lectures, Practical, Workshops, Videos, Clickers.

Notes

The module will be delivered through a series of lectures, practicals and workshops. There will be a compulsory laboratory practical assessment. The final assessment component will be an examination. The lectures will cover most of the learning outcome but students will be required to do some independent learning and reading around the topics.

No specific benchmarks are available for this module, but the learning outcomes at least meet, if not exceed, those stipulated in the relevant qualification descriptors for a higher education qualification at level 4 as defined by QAA, Sept 2015. The module has also been informed by the benchmark statement for Biomedical Science June 2015.

Intake is every September.

The criteria for admission to the module require that candidates meet the criteria for admission to the BSc Biomedical Science programme (32805).

The final award is Certificate of Professional Development in Microbiology, 20 credits at Level 4.

The students have access to a module Blackboard site and the University's other range of electronic support such as access to the electronic library facilities. The module content is regularly updated on the Blackboard site including contemporary reading lists and links to journal articles. Students have access to the community site for Biomedical Science. All students have access to the module leader through phone contact and email. Module and CPD guides are also provided, which provide a range of information.

The programme is assessed and run in line with the Academic Framework

<http://www.ljmu.ac.uk/eaqs/121984.htm>

The module is accredited by The Institute for Biomedical Science (Sept 2016- Aug 2021). The module forms part of the BSc Biomedical Science programme (32805) which was reviewed in April 2016.

The methods for improving the quality and standards of learning are as follows:

- Annual monitoring Review;
- Liaison and feedback from the students;
- Reports from External Examiner;
- Programme team ensuring the module reflects the values of the current teaching and learning strategy;
- Module leader updating knowledge and skills to ensure these remain current and relevant.

The module is included in the programme specification for the BSc Biomedical Science programme (32805). The module is aligned with the same BSc Biomedical Science module for annual monitoring and external examining purposes.