

### Summary Information

<b>Module Code</b>	4107BMBMOL
<b>Formal Module Title</b>	Fundamentals of Biomedical Science
<b>Owning School</b>	Pharmacy & Biomolecular Sciences
<b>Career</b>	Undergraduate
<b>Credits</b>	20
<b>Academic level</b>	FHEQ Level 4
<b>Grading Schema</b>	40

### Module Contacts

#### Module Leader

Contact Name	Applies to all offerings	Offerings
Emmanuel Babafemi	Yes	N/A

#### Module Team Member

Contact Name	Applies to all offerings	Offerings
Amanda Reid	Yes	N/A
Kenneth Ritchie	Yes	N/A
Nicholas Bryan	Yes	N/A
Giles Watts	Yes	N/A

#### Partner Module Team

Contact Name	Applies to all offerings	Offerings
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## Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

## Learning Methods

Learning Method Type	Hours
Lecture	33
Practical	8
Tutorial	3
Workshop	8

## Module Offering(s)

Offering Code	Location	Start Month	Duration
SEP-CTY	CTY	September	12 Weeks

## Aims and Outcomes

<b>Aims</b>	4107BMBMOL will introduce the work of clinical laboratories and recent developments of relevance to biomedical scientists. This module is underpinned by a commitment to course identity, teamwork, transferable skills and reflective practice. The overarching aims of the module are to teach effective study of Biomedical Science through provision of fundamental skills in basic methodology, data handling, IT and laboratory techniques
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## Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Identify and reflect upon self-awareness and personal development focusing on strengths, weaknesses, motivations, and threats, and conceptualise the value of this in career planning.
MLO2	Describe the organisation of clinical laboratory services in the UK and use case study based accounts to understand the value of medical laboratory science practice in detection, control, and treatment of disease and public health.
MLO3	Perform independent research around a topic in Biomedical Science and present it orally using appropriate audio-visual aids.
MLO4	Demonstrate skills in performing appropriate lab tasks and relevant data analysis
MLO5	Demonstrate of understanding of intercultural skills

## Module Content

### Outline Syllabus

The role of professional and regulatory bodies; IBMS and HCPC, MHRA, UKAS and HTA. Case studies that will include the nature and organisation of work in clinical laboratories, recent developments in biomedical sciences and the role of biomedical laboratories in relation to health. Social, economic, environmental and cultural factors which enhance or discriminate against health. Principles and practice of screening tests in the control of disease and monitoring of disease during epidemics and the effects on public health strategies. Study and Communication Skills: The learning process, types of learner, strategies for study & revision, time management, working in groups, organisation and leadership. The presentation of written material including essays, graphical & tabular presentation of data. Oral presentation. Numeracy: Algebra, powers, orders of magnitude and logarithmic scales. Expression of results, significant figures, linear equations. Basic statistics and introduction to the use of computer based data analysis. Introduction to Health and Safety in the laboratory. Good laboratory practice. Theory and practice of a range of techniques important in Biomedical Science, for example spectroscopy, electrophoresis, chromatography, microscopy, concepts linked to basic laboratory calculations on concentration, amount, dilution, pH and buffers. Information Technology: Introduction to the University PC network and University webpages. Word processing and spreadsheets, graphical representation of data, email & the World Wide Web.

### Module Overview

#### Additional Information

This module will introduce the work of clinical laboratories and recent developments of relevance to biomedical scientists. This module is underpinned by a commitment to course identity, teamwork, transferable skills and reflective practise. The lectures will cover most of the learning outcomes, but students will be required to do some independent learning around the topics. The module will be delivered through a series of lectures, practicals, case studies and workshops. The exam will consist of a laboratory-based assessment related to practical work, statistics workshop and case studies (practical scenarios related to clinical practice). In order for the credit to be released for this module students must, in addition to achieving a pass mark, satisfy and demonstrate understanding of intercultural skills by completing a mandatory non-assessed online learning task.

### Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Centralised Exam	exam	50	2	MLO2, MLO4, MLO1, MLO5
Presentation	presentation	40	0	MLO3, MLO1
Future Focus e-learning task	e-learning	10	0	MLO1