

## Liverpool John Moores University

Title: PRACTICAL SKILLS IN BIOCHEMISTRY  
Status: Definitive  
Code: **4101BCBMOL** (122481)  
Version Start Date: 01-08-2021

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

| Team          | Leader |
|---------------|--------|
| Amanda Reid   | Y      |
| Iain Dykes    |        |
| Kehinde Ross  |        |
| Andrew Powell |        |
| Helen Burrell |        |
| Helen Smalley |        |
| Glyn Hobbs    |        |

**Academic Level:** FHEQ4      **Credit Value:** 20      **Total Delivered Hours:** 62  
**Total Learning Hours:** 200      **Private Study:** 138

### Delivery Options

Course typically offered: Semester 1

| Component | Contact Hours |
|-----------|---------------|
| Lecture   | 22            |
| Practical | 10            |
| Tutorial  | 6             |
| Workshop  | 22            |

**Grading Basis:** 40 %

### Assessment Details

| Category     | Short Description | Description       | Weighting (%) | Exam Duration |
|--------------|-------------------|-------------------|---------------|---------------|
| Exam         | Exam              | Exam              | 60            | 2             |
| Presentation | Oral              | Oral presentation | 40            |               |

### Aims

*To facilitate effective study of Biochemistry by providing a foundation in communication and research skills, data handling, IT, laboratory techniques and underpinning theory. The module will be delivered via a mixture of lectures, practicals, workshops and tutorials.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Apply numerical and statistical methods to the presentation and interpretation of scientific data.
- 2 Locate and analyse scientific information from a wide range of sources and communicate this effectively.

## **Learning Outcomes of Assessments**

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

|                   |   |   |
|-------------------|---|---|
| Written exam      | 1 | 2 |
| Oral presentation | 1 | 2 |

## **Outline Syllabus**

*Study skills: The presentation of written material including essays, practical reports and graphical and tabular presentation of data. Oral presentation.*

*Numeracy: Algebra, powers, orders of magnitude and logarithmic scales.*

*Expression of results, significant figures, linear equations. Basic statistics.*

*Concepts linked to basic laboratory calculations on concentration, amount, dilution, pH and buffers.*

*Information technology: Introduction to the LJMU PC network and webpages. Word processing and spreadsheets, graphical representation of data, email and the world wide web.*

*General laboratory skills: Introduction to health and safety. The laboratory notebook. Laboratory skills such as use of equipment, preparation of solutions and dilutions and measurement of concentration.*

*Lecture material may include study skills, health and safety, basic laboratory techniques, basic numeracy, basic statistics, spectroscopy, pH and buffers, chromatography and electrophoresis.*

*Tutorials will include literature searching, formative essay writing and oral presentation. Tutorials and workshops will reinforce material delivered in lectures.*

## **Learning Activities**

Lectures, workshops, practicals, tutorials, PDP.

## **Notes**

This module will provide support for PDP. As tutorials are within the module students will have small group teaching sessions and individual feedback on tutorial work.