

Liverpool John Moores University

Title: PRACTICAL LABORATORIES 1
Status: Definitive
Code: **4003APCHEM** (121125)
Version Start Date: 01-08-2020

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

Team	Leader
Mark Wainwright	Y
Steve Enoch	
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Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 78
Total Learning Hours: 200 **Private Study:** 122

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Practical	78

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	Test	Online test	50	
Report	Report	Practical Report	50	

Aims

This course will provide an introduction to the techniques and practice of a modern chemical laboratory, including each of the areas of Inorganic, Organic, Physical, Analytical and Computational Chemistry. The course will also establish the requirements for written and computational work throughout the programme, and

thus for future work in the chemical and allied industries.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify and practise health and safety requirements in the laboratory.
- 2 Select and construct suitable laboratory equipment for standard operations.
- 3 Carry out simple chemical separations.
- 4 Select and perform simple analytical procedures.

Learning Outcomes of Assessments

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

On line Test	1	2	3	4
Practical Report	1	2	3	4

Outline Syllabus

Good laboratory practice; chemical drawing; labware construction; simple mixture separation; recrystallisation; thin layer chromatography; infrared spectroscopy; ultraviolet-visible spectrophotometry, fluorimetry; quantitative analysis.

Learning Activities

Laboratory classes in Inorganic, Organic, Physical and Analytical Chemistry, including an introduction to the application of information technology and computing to Chemistry.

Notes

The course provides introductory level experience in the chemical laboratory, particularly in respect of safety, equipment and manipulations and covers the practical aspects of Inorganic, Organic, Physical and Analytical Chemistry dealt with in the two accompanying first-semester theoretical modules.