

Liverpool John Moores University

Title: ANALYTICAL CHEMISTRY
Status: Definitive
Code: **4005PHASCI** (122591)
Version Start Date: 01-08-2021

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

Team	Leader
Raymond Fox	Y
Linda Seton	
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Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 60
Total Learning Hours: 200 **Private Study:** 140

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	32
Practical	15
Tutorial	5
Workshop	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	CW	Practical report	40	
Exam	Exam	Written examination	60	2

Aims

To provide a basic, practical and relevant mathematical and analytical chemistry foundation for the quantitative aspects of the Pharmaceutical and Cosmetic Science programme.

Learning Outcomes

After completing the module the student should be able to:

- 1 Perform basic numerical manipulations, including those with signed quantities
- 2 Perform statistical analysis of data with the aid of appropriate graphical software
- 3 Demonstrate an understanding of the basic principles of qualitative and quantitative analytical methods

Learning Outcomes of Assessments

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

Practical report	3	2
Examination	1	3

Outline Syllabus

Critical Thinking, Mathematics, Statistics, and Data Analysis

Chromatography, and Quantitative Chemistry

Qualitative and Quantitative Analytical Methods: Titrimetry and Spectroscopy

Learning Activities

Lectures covering the topics of the philosophy of science, statistics and data analysis, quantitative and qualitative chemistry, and analytical chemistry.

Practicals: Basic spectroscopic techniques (UV), thin-layer chromatography, titrimetry, colour tests.

Tutorials and workshops: Calculations, data manipulation, and spectroscopy.

Notes

This module will help develop a number of key skills including: Analysis, and problem-solving, Written communication, Initiative, Information literacy, and ICT skills