

## Liverpool John Moores University

Title: NATURAL PRODUCTS  
Status: Definitive  
Code: **7105PHASCI** (123667)  
Version Start Date: 01-08-2020

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

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**Academic Level:** FHEQ7      **Credit Value:** 30      **Total Delivered Hours:** 52  
**Total Learning Hours:** 300      **Private Study:** 248

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	19
Practical	12
Workshop	18

**Grading Basis:** 50 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Lab Rpt	lab report	40	
Exam	Exam	exam	60	3

### Aims

*To understand various aspects of chromatographic, spectroscopic and assay techniques and approaches pertinent to natural products drug discovery, and the*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Demonstrate expertise in the understanding of chromatographic, spectroscopic and assay techniques and approaches pertinent to natural product drug discovery and the chemistry of natural products.
- 2 Apply chromatographic, spectroscopic and assay techniques to purify natural products and to assess their bioactivity
- 3 Interpret complex spectroscopic data to elucidate structures of natural compounds

## **Learning Outcomes of Assessments**

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

Lab report	2	
Examination	1	3

## **Outline Syllabus**

*Traditional medicine systems*

*Strategies, approaches and processes in natural products drug discovery*

*Various sources of natural products*

*Secondary and primary metabolites*

*Major chemical classes of natural products*

*Biosynthesis of selected bioactive natural products*

*Extraction, isolation and identification of natural products*

*Assessment of bioactivity for drug discovery*

*Properties of natural products*

## **Learning Activities**

Lectures to introduce each topic within the module

Practical sessions to give students first-hand experience of relevant techniques

Workshops to support analysis of spectroscopic data to elucidate structure of various classes of natural products

## **Notes**

Practical sessions will involve application of various aspects of chromatographic, spectroscopic and assay techniques pertinent to natural products drug discovery

Exam (three hours) will assess students' understanding of the various concepts through data interpretation and problem solving questions