

Summary Information

Module Code	4004PHASCI
Formal Module Title	Formulation Science
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Lecture	33
Practical	18
Workshop	15

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To understand the physicochemical properties of active ingredients and to introduce the basic principles of pharmaceutical and cosmetic formulations.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate knowledge of the physicochemical properties of active ingredients and the techniques used to measure these.
MLO2	2	Demonstrate an understanding of different formulations, their routes of delivery and packaging requirements to ensure stability

Module Content

Outline Syllabus	Introduction to dosage forms and routes of delivery. Liquid formulations, topical preparations, emulsions, foams and suspensions. Viscometry and Rheology. Preformulation studies, salt formation, intrinsic dissolution rate. Stability and stability testing. Crystallisation, polymorphism, thermal analysis. Particle size analysis, milling, mixing, powder flow. Packaging.
Module Overview	This module enables you to understand the physicochemical properties of active pharmaceutical ingredients and introduces you to the basic principles of pharmaceutical formulation.
Additional Information	This module will build on the basic principles of physical chemistry introduced in module 4001PHASCI and develop the understanding of pharmaceutical and cosmetic formulations.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Presentation	Coursework	40	0	MLO1, MLO2
Centralised Exam	Exam	60	2	MLO1, MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Raida Al Kassas	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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