Advanced Delivery Systems

Module Information

2022.01, Approved

Summary Information

Module Code	6003PHASCI
Formal Module Title	Advanced Delivery Systems
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Lecture	25
Practical	12
Workshop	18

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	To present and illustrate methods for the formulation and application of advanced drug delivery systems.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate an understanding of the design, formulation and evaluation of a variety of drug delivery systems.
MLO2	2	Formulate and evaluate a pharmaceutical delivery system.
MLO3	3	Review and appraise the application of techniques in the current literature

Module Content

Outline Syllabus	Material will be delivered within a number of specified drug delivery topics, which may be subject to change depending on current staff expertise and will focus on topical delivery systems of current interest. Potential topics include; The preparation and evaluation of polymeric micro and nano-particle drug delivery systems Lipid based drug delivery systems; emulsification, liposomes, nanostructured lipid carriers Targeted drug delivery Advanced crystal growth techniques and the characterisation of solid state properties. Antimicrobial drug delivery The delivery of biopharmaceuticals Particle engineering Pharmaceutical approaches to inform inhaled drug delivery Practical: Group project to formulate and evaluate an assigned API within a delivery system
Module Overview	This module will present and illustrate methods for the formulation and application of advanced drug delivery systems.
Additional Information	Practical sessions will involve students developing hands-on experience of formulating, producing and evaluating advanced drug delivery systems such as liposomes, micro/nano particles, clays and polymeric films. Exam will assess students understanding of the principles through data interpretation and problem solving questions

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Practical Report	40	0	MLO2, MLO3
Centralised Exam	exam	60	2	MLO1, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Iftikhar Khan	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings