

Module Details	
Module Title	Fundamentals of Drug Delivery
Module Code	PHA6005-B
Academic Year	2023/4
Credits	20
School	School of Pharmacy and Medical Sciences
FHEQ Level	FHEQ Level 6

Contact Hours	
Type	Hours
Laboratories	15
Lectures	22
Directed Study	163

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 1

Module Aims
To develop a critical understanding of drug delivery systems including associated regulatory framework and stability testing, physico-chemical principles that determine the routes of drug delivery, and principles of dosage form design.

Outline Syllabus
This module will cover the process of developing pharmaceuticals with a focus on routes of delivery and dosage form development, performance evaluation of dosage forms and regulatory requirements. Topics to be covered include: drug development process, regulatory requirements; GMP and quality assurance; routes of drug delivery; stability of medicines; dosage forms, inhaled, topical and transdermal delivery; and formulation of biopharmaceuticals. The laboratory classes will attempt to put principles discussed in lectures into practice and will develop laboratory skills as well as scientific report writing.

Learning Outcomes	
Outcome Number	Description
01	Demonstrate an understanding of the pharmaceutical development process, associated regulatory requirements, principles that determine routes of delivery and drug dosage form design, and formulation and manufacture of dosage forms.
02	Critically evaluate pre-formulation and formulation development process proceeding from laboratory to market.
03	Demonstrate good laboratory practice.
04	Develop generic literature searching and evaluation skills.
05	Analyse data from experiments.
06	Write scientific reports for laboratory based experiments.

Learning, Teaching and Assessment Strategy
This will involve lectures that will explore concepts, principles and theoretical ideas. The latter will be developed and demonstrated in laboratory classes, which will also develop practical skills. Written laboratory reports involving rationalisation of the results/data will develop analytical skills.

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Examination - Closed Book	One two-hour closed-book examination	70%
Summative	Coursework - Written	Reports on laboratory exercises (1500 word equivalent)	30%

Reading List
To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.