

Module Details	
Module Title	Science of Solid Dosage Forms and Advanced Pharmaceutical Technologies
Module Code	PHA7007-B
Academic Year	2024/5
Credits	20
School	School of Pharmacy and Medical Sciences
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Laboratories	18
Lectures	20
Directed Study	162

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

Module Aims
To develop a critical understanding of the properties of the solid state and its significance in the design, development, and performance of solid pharmaceutical dosage forms as well as its impact on associated processing technologies. There is a particular focus on particle engineering and relevant technology. A key aspect is hands-on experience of current technologies.

Outline Syllabus
Topics to be covered include; crystallisation technologies, amorphous forms and polymorphism, particle engineering, melt extrusion, coating, freeze drying of proteins, and nanocrystals. 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	Evaluate the physicochemical properties of solids and how they impact the design and development of solid dosage forms.
02	Evaluate the various approaches for developing a solid dosage form given material with particular physicochemical properties and identify appropriate process technology for the purpose including sustainability aspects.
03	Demonstrate an advanced level of laboratory practice.
04	Analyse data from experiments.
05	Formulate a literature survey and develop evaluation skills that demonstrate scholarly competence.
06	Write well-structured, concise and coherent 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 unseen examination	50%
Summative	Laboratory Report	Report on laboratory exercises (2000 words)	50%

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.