

Science of Solid Dosage Forms and Advanced Pharmaceutical Technologies

Module Code:	PHA7007-B
Academic Year:	2018-19
Credit Rating:	20
School:	School of Pharmacy and Medical Sciences
Subject Area:	Pharmacy
FHEQ Level:	FHEQ Level 7 (Masters)

Pre-requisites:

Co-requisites:

Contact Hours

Type	Hours
Lectures	20
Laboratory	18
Directed Study	162

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Semester 1 (Sep - Jan)

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.

Module Learning Outcomes

On successful completion of this module, students will be able to...

- 1 Evaluate physicochemical properties of solids and how they impact on the design and development of solid dosage forms.
- 2 Evaluate the various approaches for developing a solid dosage form given a material with particular physicochemical properties and identify appropriate process technology for the purpose.
- 3 Demonstrate an advanced level of laboratory practice.
- 4 Analyse data from experiments.
- 5 Formulate a literature survey and develop evaluation skills that demonstrate scholarly competence.
- 6 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	Length	Weighting	Final Assess'
Summative	Examination - closed book	Closed book unseen examination	2 hours	70%	Yes
Summative	Coursework	Report on laboratory exercises	0-1500 words	30%	No

Legacy Code (if applicable)

PH-4037D

Reading List

To view Reading List, please go to [rebus:list](#).

