

| Module Details | |
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| Module Title | Science of Solid Dosage Forms and Advanced Pharmaceutical Technologies |
| Module Code | PHA7007-B |
| Academic Year | 2021/2 |
| 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 |
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| 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 |
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| 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 physicochemical properties of solids and how they impact on the design and development of solid dosage forms. |
| 02 | 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. |
| 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 |
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| 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 | 70% |
| Summative | Laboratory Report | Report on laboratory exercises (1500 words) | 30% |

| Reading List |
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| 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.

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