Fundamentals of Drug Delivery

Module Code: PHA6005-B
Academic Year: 2018-19
Credit Rating: 20
School: School of Pharmacy and Medical Sciences
Subject Area: Pharmacy
FHEQ Level: FHEQ Level 6

Pre-requisites:
Co-requisites:

Contact Hours

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Lectures</td>
<td>22</td>
</tr>
<tr>
<td>Laboratory</td>
<td>15</td>
</tr>
<tr>
<td>Directed Study</td>
<td>163</td>
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</table>

Availability Periods

<table>
<thead>
<tr>
<th>Occurrence</th>
<th>Location/Period</th>
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<tbody>
<tr>
<td>BDA</td>
<td>University of Bradford / Semester 1 (Sep - Jan)</td>
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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.

Module Learning Outcomes

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

1. 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.

2. Critically evaluate pre-formulation and formulation development process proceeding from laboratory to market.

3. Demonstrate good laboratory practice.

4. Develop generic literature searching and evaluation skills.

5. Analyse data from experiments.

6. 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

<table>
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<tr>
<th>Type</th>
<th>Method</th>
<th>Description</th>
<th>Length</th>
<th>Weighting</th>
<th>Final Assess'</th>
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<tbody>
<tr>
<td>Summative</td>
<td>Examination - closed book</td>
<td>Closed-book examination</td>
<td>2 hours</td>
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<tr>
<td>Summative</td>
<td>Coursework</td>
<td>Reports on laboratory exercises</td>
<td>1500 word equivalent</td>
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Legacy Code (if applicable)

PH-3307D

Reading List

To view Reading List, please go to rebus:list.