Advanced Process Design Principles (CENG0052)

Description

Aims:
- To provide an introduction to process design, bringing together elements of process analysis and detailed process phenomena and preparing the students for the main design project (CENG0043).
- To develop skills in the use of computational modelling and optimisation tools.

Learning Outcomes:
Upon completion of this module students should:
- understand what design entails and how to apply this to both new and existing process designs;
- understand the use of modelling, simulation and optimisation tools in design;
- understand the connection between the technologies, the phenomena and overall processes

Synopsis:
- Introduction to design: processes, economics, flowsheeting
- Flowsheet design: heuristic, algorithmic
- Heat exchanger network design
- Case studies: reactor system design, separation sequencing, recycles

This is a Masters level (level 7) version of the module CENG0013 Process Design Principles but will have a stronger focus on unseen, and more open ended, problem solving, including a design project.

Key information

<table>
<thead>
<tr>
<th>Year</th>
<th>2020/21</th>
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<tbody>
<tr>
<td>Credit value</td>
<td>15 (150 study hours)</td>
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<tr>
<td>Delivery</td>
<td>PGT L7, Campus-based</td>
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<tr>
<td>Reading List</td>
<td><a href="https://www.ucl.ac.uk">View on UCL website</a></td>
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<tr>
<td>Tutor</td>
<td>Prof Eric Fraga</td>
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<td>Term</td>
<td>Term 2</td>
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<tr>
<td>Timetable</td>
<td><a href="https://www.ucl.ac.uk">View on UCL website</a></td>
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Assessment

- Coursework: 70.0%
- Coursework: 10.0%
- Coursework: 20.0%

Find out more

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