Process Design Principles (CENG0013)

**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 3rd year design project.
- 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

**Key information**

<table>
<thead>
<tr>
<th><strong>Year</strong></th>
<th>2019/20</th>
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<tbody>
<tr>
<td><strong>Credit value</strong></td>
<td>7 (75 study hours)</td>
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<tr>
<td><strong>Delivery</strong></td>
<td>UG L5, Campus-based</td>
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<tr>
<td><strong>Reading List</strong></td>
<td><a href="#">View on UCL website</a></td>
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<tr>
<td><strong>Tutor</strong></td>
<td>Prof Eric Fraga</td>
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<tr>
<td><strong>Term</strong></td>
<td>Term 2</td>
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<tr>
<td><strong>Timetable</strong></td>
<td><a href="#">View on UCL website</a></td>
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**Assessment**

- Coursework: 60%
- Coursework: 40%

**Find out more**

For more information about the department, programmes, relevant open days and to browse other modules, visit [ucl.ac.uk](http://ucl.ac.uk).

**Disclaimer:** All information correct as of June 2019. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.