Chemical Engineering

Separation Processes I (CENG0010)

Description

Aims:
- To provide an understanding of the principles of fluid separation processes;
- To develop skills in the design of practical fluid separation equipment in the context of sustainability and sustainable development;
- To provide a basic understanding of process simulation

Learning Outcomes:
On completion of this module students should:
- be able to understand the mass and heat transfer phenomena involved in fluid processes;
- be familiar with the procedures for the design of fluid separation equipment in the context of sustainability and sustainable development;
- be able to select an appropriate fluid separation process to meet a required separation performance;
- be able to simulate simple steady-state process flowsheets and mass transfer operations

Synopsis:
Fundamentals of mass transfer including driving forces, the ideal stage, mass transfer units, stage efficiency; and methods of two-phase contacting for the purpose of mass transfer;

With a focus on distillation, absorption and extraction consider:
- Estimation of thermodynamic properties
- Design and analysis methodologies
- Graphical methods for analysis
- Equipment design including column design and column internals

Key information

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<thead>
<tr>
<th>Year</th>
<th>2019/20</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>
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<td>Reading List</td>
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<tr>
<td>Tutor</td>
<td>Prof Eva Sorensen</td>
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<td>Term 1</td>
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Assessment

- Written examination (main exam period): 70%
- Coursework: 30%

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)
Fundamentals of process flowsheeting and mass transfer simulation
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Year 2019/20
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Reading List View on UCL website
Tutor Prof Eva Sorensen
Term Term 1
Timetable View on UCL website

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