Chemical Engineering

Process Design Principles (CENG0013)

Description

Aims:
1. 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;
2. To develop skills in the use of computational modelling and optimisation tools;

Learning Outcomes:

Upon completion of this module students should:
1. understand what design entails and how to apply this to both new and existing process designs;
2. understand the use of modelling, simulation and optimisation tools in design;
3. 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

Year 2018/19
Credit value 7 (75 study hours)
Delivery UG L5, Campus-based
Reading List View on UCL website
Tutor Prof Eric Fraga
Term Term 2
Timetable View on UCL website

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

Disclaimer: All information correct as of December 2018. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.
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