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

Year 2019/20
Credit value 15 (150 study hours)
Delivery PGT L7, 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 August 2019. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.