**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](http://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.