



Biochemical Engineering

Bioprocess Systems Engineering (BENG0038)

Description

To provide students with skills in advanced modelling, optimisation and statistical techniques such that they are adequately equipped to address problems related to evaluating the cost-effectiveness and robustness of alternative bioprocess design strategies.

Upon completion of the course, a student should be able to:

- Use a set of software tools for discrete-event simulation, Monte Carlo simulation and linear and mixed-integer programming
- Perform multi-variate data analysis to derive insights from complex datasets
- Formulate decision problems related with bioprocessing design in a structured way and select appropriate methods to solve them
- Build simulation models, optimise key decision variables and critically analyse output results
- Conduct advanced research in Bioprocess Systems Engineering
- Take the acquired expertise into industry to work as developers of simulation/optimisation/process economics models in real biomanufacturing companies

Key information

Year	2019/20
Credit value	15 (150 study hours)
Delivery	PGT L7, Campus-based
Reading List	View on UCL website
Tutor	Dr Sofia Simaria
Term	Term 2
Timetable	View on UCL website

Assessment



- Written examination (main exam period): 65%
- Coursework: 35%

Find out more

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk



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