

## Biochemical Engineering

**Chemistry and Industrial Biotechnology (BENG0031)****Description**

The module aims to provide chemistry and industrial biotechnology knowledge specifically tailored for biochemical engineers. The module will introduce aspects of industrial biotechnology which are at the interface of biochemistry and chemical synthesis. The course will introduce fundamental chemistry and thermodynamics concepts in the context of industrial biotechnology, and then develop them up to advanced level using industrial biotechnology case studies.

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

- Become familiar with organic chemistry underpinning enzyme mechanisms and protein chemical modifications
- Understand different thermodynamics and physical chemistry principles underpinning kinetic and equilibrium analysis of industrial biotechnology processes
- Appreciate protein structure, stability and ligand affinity mechanisms, and thermodynamics
- Discuss protein aggregation mechanisms and formulation chemistries
- Familiarise with the techniques for chemically modifying proteins and for protein engineering in an industrial biotechnology context

**Key information**

<b>Year</b>	2019/20
<b>Credit value</b>	15 (150 study hours)
<b>Delivery</b>	UG L6, Campus-based
<b>Reading List</b>	<a href="#">View on UCL website</a>
<b>Tutor</b>	<a href="#">Prof Paul Dalby</a>
<b>Term</b>	Term 2
<b>Timetable</b>	<a href="#">View on UCL website</a>

**Assessment**

- Written examination (main exam period): 70%
- Oral examination (departmentally managed): 15%
- Coursework: 15%

**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)