Introduction to Biochemical Engineering (BENG0003)

**Description**
This module will act as an introductory course to Biochemical Engineering, outlining the principles and industrial applications of the discipline.

It will support learning in the Faculty's Integrated Engineering ENGS101P and is timetabled to run concurrently.

It provides a brief overview of whole bioprocesses including principles of fermentation and downstream processing, using real world scenarios.

The relationships between relative timescales of manufacturing, clinical phases, drug discovery, distribution, delivery and marketing for different biopharmaceutical products will be discussed.

Issues are demonstrated in biological product engineering and as part of a conceptual design project for a therapeutic product.

Global implications of the emergence of new diseases are discussed along with the role of biotechnologists and biochemical engineers in combating them.

The responsibility of the WHO, governments and pharmaceutical companies are also discussed including the reality of responsive pharmaceutical manufacturing.

Challenges such as cost of research and development, supply of raw materials, plant capacity and adaptability, rapid clinical development, patent restrictions versus shared information, and the impact of global distribution are also studied.

**Key information**
- **Year**: 2018/19
- **Credit value**: 15 (150 study hours)
- **Delivery**: UG L4, Campus-based
- **Reading List**: View on UCL website
- **Tutor**: Dr Qasim Rafiq
- **Term**: Term 1
- **Timetable**: View on UCL website

**Assessment**
- Coursework: 100%
- Written examination (main exam period): 70%
- Coursework: 30%

**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.