

Biochemical Engineering

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

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