**Applied Cell and Molecular Biology (BENG0048)**

**Description**
As biologics and cell-based therapies become an increasingly important product class in the pharmaceutical industry so the skill sets of process engineers must expand to suit. The ability to acquire manipulate human cells and manage DNA-based tools, conventionally restricted to product development, is now being applied to process development within a 'whole bioprocess' approach. This course will provide an understanding of the science and techniques of cell and molecular biology as they relate to development of cell-based platform technologies. Application themes include host cells for biopharmaceutical manufacturing (biosimilars, vaccines), cells as therapeutics within regenerative medicine and development of whole cell biocatalysts in industrial biotechnology.

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

- Utilize basic recombinant DNA techniques
- Communicate with life scientists using appropriate terminology
- Apply biology knowledge acquired on yeast, mammalian and bacterial cells for industrial use
- Understand the biology of human stem cells
- Relate molecular biology to bioprocessing challenges

**Key information**

- **Year**: 2018/19
- **Credit value**: 15 (150 study hours)
- **Delivery**: UG L6, Campus-based
- **Reading List**: [View on UCL website](#)
- **Tutor**: Dr Darren Nesbeth
- **Term**: Term 2
- **Timetable**: [View on UCL website](#)

**Assessment**

- Coursework: 40%
- Written examination (main exam period): 60%

**Find out more**
For more information about the department, programmes, relevant open days and to browse other modules, visit [ucl.ac.uk](#)
Biochemical Engineering

Applied Cell and Molecular Biology (BENG0048)

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Key information
- **Year**: 2018/19
- **Credit value**: 15 (150 study hours)
- **Delivery**: PGT L7, Campus-based
- **Reading List**: View on UCL website
- **Tutor**: Dr Darren Nesbeth
- **Term**: Term 2
- **Timetable**: View on UCL website

Assessment
- Written examination (main exam period): 60%
- Coursework: 40%

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Key information
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- Credit value: 15 (150 study hours)
- Delivery: UGM L7, Campus-based
- Reading List: View on UCL website
- Tutor: Dr Darren Nesbeth
- Term: Term 2
- Timetable: View on UCL website

Assessment
- Coursework: 40%
- Written examination (main exam period): 60%

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