Introduction to Biophysics (MPHY0006)

**Description**
This course provides an introduction to biophysics of the human body. It forms part of the Physics with Medical Physics (BSc), Medical Physics (MSci) and Natural Sciences (BSc and MSci) undergraduate degrees. The aims of this course are three-fold: 1. To explore the biophysics of signalling and movement at the cellular level; 2. To introduce mathematical modelling in biophysics; 3. To appreciate how biophysical measurements can be acquired and used in clinical environments; At the cellular level, topics will include: diffusion, membrane potentials, ion channels, synapses, action potentials, contraction of muscle cells, and neural coding. Guest lectures from clinicians will cover electrocardiography (ECG), electromyography (EMG), and anaesthesia.

**Key information**
- **Year**: 2020/21
- **Credit value**: 15 (150 study hours)
- **Delivery**: UG L5, Campus-based
- **Reading List**: View on UCL website
- **Tutor**: Prof Adrien Desjardins
- **Term**: Term 2
- **Timetable**: View on UCL website

**Assessment**

**Find out more**
For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk
Introduction to Biophysics (MPHY0006)

Description
This course provides an introduction to biophysics of the human body. It forms part of the Physics with Medical Physics (BSc), Medical Physics (MSci) and Natural Sciences (BSc and MSci) undergraduate degrees. The aims of this course are three-fold: 1. To explore the biophysics of signalling and movement at the cellular level; 2. To introduce mathematical modelling in biophysics; 3. To appreciate how biophysical measurements can be acquired and used in clinical environments; At the cellular level, topics will include: diffusion, membrane potentials, ion channels, synapses, action potentials, contraction of muscle cells, and neural coding. Guest lectures from clinicians will cover electrocardiography (ECG), electromyography (EMG), and anaesthesia.

Key information
- Year: 2020/21
- Credit value: 15 (150 study hours)
- Delivery: UG L6, Campus-based
- Reading List: View on UCL website
- Tutor: Prof Adrien Desjardins
- Term: Term 2
- Timetable: View on UCL website

Assessment

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 March 2020. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.