Applications of Biomedical Engineering (MPHY0039)

Description
This module illustrates how the foundation knowledge of biomedical engineering is used in the provision of clinical services.

Topics include:

1. electrophysiology:
   electroencephalography (EEG), electrical impedance tomography (EIT) and electromyography (EMG);

2. respiratory measurement:
   mechanics of breathing, diffusing capacity, whole body plethysmography;

3. urology:
   lower urinary tract, bladder, incontinence technology;

4. rehabilitation robotics and assistive technology:
   manual wheelchair, robots;

5. rehabilitation engineering:
   prosthetic leg, functional electrical stimulation;

Key information
Year: 2018/19
Credit value: 15 (150 study hours)
Delivery: UG L6, Campus-based
Reading List: View on UCL website
Tutor: Dr Terence Leung
Term: Term 2
Timetable: View on UCL website

Assessment
Written examination (main exam period): 100%

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.
Medical Physics and Biomedical Engineering

Applications of Biomedical Engineering (MPHY0039)

**Description**

This module illustrates how the foundation knowledge of biomedical engineering is used in the provision of clinical services.

**Topics include:**

1. **electrophysiology:**
   - electroencephalography (EEG), electrical impedance tomography (EIT) and electromyography (EMG);

2. **respiratory measurement:**
   - mechanics of breathing, diffusing capacity, whole body plethysmography;

3. **urology:**
   - lower urinary tract, bladder, incontinence technology;

4. **rehabilitation robotics and assistive technology:**
   - manual wheelchair, robots;

5. **rehabilitation engineering:**
   - prosthetic leg, functional electrical stimulation;

**Key information**

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

**Assessment**

- Written examination (main exam period): 100%

**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.
Applications of Biomedical Engineering (MPHY0039)

Description
This module illustrates how the foundation knowledge of biomedical engineering is used in the provision of clinical services.

Topics include:
1. electrophysiology:
electroencephalography (EEG), electrical impedance tomography (EIT) and electromyography (EMG);
2. respiratory measurement:
mechanics of breathing, diffusing capacity, whole body plethysmography;
3. urology:
lower urinary tract, bladder, incontinence technology;
4. rehabilitation robotics and assistive technology:
manual wheelchair, robots;
5. rehabilitation engineering:
prosthetic leg, functional electrical stimulation;

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

Assessment
- Written examination (main exam period): 100%

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.