Description

Summary:
The purpose of this module is to describe the problems presented in orthopaedics from an engineering and materials perspective, and discuss available solutions and current research.

Aim:
1. To be familiar with orthopaedic treatments for various diseases;
2. To be able to describe the properties of bone and biomaterials;
3. To be able to describe in detail biocompatibility and tissue engineering (in the context of orthopaedics);
4. To understand in detail the problems associated with hip implants;
5. To have an understanding of biomechanical aspects of the hip and knee joints;
6. To be familiar with a number of lower limb orthotic devices and current research related to prosthetic limbs;
7. To be able to describe the purpose and principles of gait analysis;
8. To be familiar with medical device regulations associated with orthopaedic medical devices;
9. To be familiar with orthopaedic treatments for various diseases;

Key information

Year 2018/19
Credit value 15 (150 study hours)
Delivery PGT L7, Campus-based
Reading List View on UCL website
Tutor Dr Lynsey Duffell
Term Term 1
Timetable View on UCL website

Assessment

- Written examination (main exam period): 80%
- Coursework: 20%

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.
Materials and Engineering for Orthopaedic Medical Devices (MPHY0023)

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