Medical Physics and Biomedical Engineering

Information Processing in Medical Imaging (MPHY0025)

**Description**

This module provides an essential introduction to theory and practice for information processing methods in medical imaging and computing. In particular it focuses on image registration and modern machine learning methods, which are two of the key computational tools used in real-world medical imaging and image analysis applications. This module assumes a good prior knowledge of basic linear algebra (e.g. matrix arithmetic), calculus, and probability theory, and competent programming skills in Python or Matlab.

Basic knowledge and experience in Python is necessary for the second part of the lab-sessions and the coursework. However, students with prior experience in MATLAB or other programming languages may be acceptable given an introductory Python tutorial outside of the module.

A video description can be found at the UCL Media Central.

**Key information**

- **Year**: 2019/20
- **Credit value**: 15 (150 study hours)
- **Delivery**: PGT L7, Campus-based
- **Reading List**: [View on UCL website](https://www.ucl.ac.uk)
- **Tutor**: Dr Jamie McClelland
- **Term**: Term 2
- **Timetable**: [View on UCL website](https://www.ucl.ac.uk)

**Assessment**

- Written examination (main exam period): 50%
- Coursework: 50%

**Find out more**

For more information about the department, programmes, relevant open days and to browse other modules, visit [ucl.ac.uk](https://www.ucl.ac.uk)

**Disclaimer**: All information correct as of August 2019. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.
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