Medical Imaging with Ionising Radiation (MPHY0016)

Description
The aim is for students to understand the theoretical background, mode of operation and practical application of systems designed to image either anatomy or physiological function using ionising radiation.

It will also introduce the student to the methods by which images can be processed and assessed, and to the basic principles of quality control.

Topics include interactions of radiation with matter especially with reference to biological tissue, radiation sources, radiation detectors including current state of the art and future perspectives, interactions between components of an imaging system and their effect on image quality and system performance, image analysis and assessment, quality control.

Key information

<table>
<thead>
<tr>
<th>Year</th>
<th>2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit value</td>
<td>15 (150 study hours)</td>
</tr>
<tr>
<td>Delivery</td>
<td>UG L6, Campus-based</td>
</tr>
<tr>
<td>Reading List</td>
<td><a href="#">View on UCL website</a></td>
</tr>
<tr>
<td>Tutor</td>
<td>Prof Sandro Olivo</td>
</tr>
<tr>
<td>Term</td>
<td>Term 2</td>
</tr>
<tr>
<td>Timetable</td>
<td><a href="#">View on UCL website</a></td>
</tr>
</tbody>
</table>

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](http://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 Imaging with Ionising Radiation (MPHY0016)

Description

The aim is for students to understand the theoretical background, mode of operation and practical application of systems designed to image either anatomy or physiological function using ionising radiation.

It will also introduce the student to the methods by which images can be processed and assessed, and to the basic principles of quality control.

Topics include interactions of radiation with matter especially with reference to biological tissue, radiation sources, radiation detectors including current state of the art and future perspectives, interactions between components of an imaging system and their effect on image quality and system performance, image analysis and assessment, quality control.

Key information

Year 2018/19
Credit value 15 (150 study hours)
Delivery PGT L7, Campus-based
Reading List View on UCL website
Tutor Prof Sandro Olivo
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 Imaging with Ionising Radiation (MPHY0016)

### Description

The aim is for students to understand the theoretical background, mode of operation and practical application of systems designed to image either anatomy or physiological function using ionising radiation.

It will also introduce the student to the methods by which images can be processed and assessed, and to the basic principles of quality control.

Topics include interactions of radiation with matter especially with reference to biological tissue, radiation sources, radiation detectors including current state of the art and future perspectives, interactions between components of an imaging system and their effect on image quality and system performance, image analysis and assessment, quality control.

### Key information

<table>
<thead>
<tr>
<th>Year</th>
<th>2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit value</td>
<td>15 (150 study hours)</td>
</tr>
<tr>
<td>Delivery</td>
<td>UGM L7, Campus-based</td>
</tr>
<tr>
<td>Reading List</td>
<td>View on UCL website</td>
</tr>
<tr>
<td>Tutor</td>
<td>Prof Sandro Olivo</td>
</tr>
<tr>
<td>Term</td>
<td>Term 2</td>
</tr>
<tr>
<td>Timetable</td>
<td>View on UCL website</td>
</tr>
</tbody>
</table>

### 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](http://ucl.ac.uk)