# Module Descriptor 2014/15
School of Computer Science and Statistics.

<table>
<thead>
<tr>
<th>Module Code</th>
<th>CS7018</th>
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<tbody>
<tr>
<td>Module Name</td>
<td>Medical Imaging</td>
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<tr>
<td>Module Short Title</td>
<td>N/a</td>
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<tr>
<td>ECTS weighting</td>
<td>5</td>
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<tr>
<td>Semester/term taught</td>
<td>Semester 2</td>
</tr>
<tr>
<td>Contact Hours</td>
<td>16 hours. Lecture and laboratory based</td>
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### Module Personnel
Seán Cournane

### Learning Outcomes
When students have successfully completed this module they should have a broad understanding of the following topics:

- Medical Imaging Technologies
- The use of ICT and Informatics in the Medical Imaging area.
- What makes a good image and how can diagnostic medical information be maximised through manipulation.
- The impact of digital technologies on the future direction of medical imaging

### Module Learning Aims
The Medical Imaging Module provides the student with an overview of current technology available in any major hospital diagnostic imaging department. The module focuses on the issues pertinent to viewing medical images optimally, in both softcopy and hardcopy format. The move towards totally digital imaging departments and Electronic Patient Records is also covered, focusing on the imaging technology, standards and IT healthcare issues that arise as a result of these moves. The role of health informatics personnel in this area is also developed.

### Module Content
Specific topics addressed in this module include:

- Intro to Analogue / Digital Signals and Signal Analysis Techniques
- Medical Image Characteristics
- Common Image Processing Techniques
- ICT utilisation in Physiological Measurement
- Introduction to Medical Imaging Technologies
- Medical Image Compression
- PACS and their role in EPR Systems
- 3D Imaging in the Medical Imaging Area
- Imaging in Radiotherapy

### Recommended Reading List

### Module Pre Requisite

### Module Co Requisite

### Assessment Details
Assessment is based on an individual report of between 1,500 and 2,000 words

### Module approval date
N/a

### Approved By
N/a

### Academic
N/a
<table>
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<th>Start Year</th>
<th>Academic Year of Data</th>
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<td></td>
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