

| Module Details | |
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| Module Title | Anatomy and Medical Imaging |
| Module Code | CLS4014-B |
| Academic Year | 2023/4 |
| Credits | 20 |
| School | School of Pharmacy and Medical Sciences |
| FHEQ Level | FHEQ Level 4 |

| Contact Hours | |
|--------------------------------|-------|
| Type | Hours |
| Lectures | 24 |
| Practical Classes or Workshops | 26 |
| Directed Study | 150 |

| Availability | |
|--------------|--|
| Occurrence | Location / Period |
| BDA | University of Bradford / Academic Year |

| Module Aims |
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| <p>To introduce students to the anatomical framework of the body, the major surface landmarks, organs and systems; their basic functions and major pathologies;</p> <p>To provide an understanding of the scientific principles underpinning medical imaging and diagnostic tools, and current therapeutic uses (i.e., in radiology and nuclear medicine);</p> |

| Outline Syllabus |
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| <p>The module will introduce students to the surface anatomy and landmarks of the human body, the major organ systems and structures, and the basic functions of these structures.</p> <p>Students will be introduced to a range of imaging modalities used in healthcare for diagnostic and therapeutic purposes, including the history of these imaging techniques and possible areas of future advancement. This will include (but may not be limited to) X-ray, CT, MRI, angiography, ultrasound (including Doppler); nuclear isotope imaging, ECG, PET and EEG.</p> |

| Learning Outcomes | |
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| Outcome Number | Description |
| LO1 | Identify and describe the function (in basic terms) of the major anatomical organs and landmarks of the following regions of the body: back; thorax; abdomen; pelvis and perineum; lower limb; upper limb; and head and neck |
| LO2 | Utilise visual examination to identify surface structure and landmarks, correlating these to major anatomical organs and systems, and appreciate basic functions and major pathologies. |
| LO3 | Demonstrate an understanding of the principles and applications of different modalities of medical imaging (both diagnostic and therapeutic), and discuss the evolution and advancements in medical imaging for diagnostic and therapeutic purposes. |
| LO4 | Understand the importance of, and demonstrate numerical competence in diagnostic and therapeutic applications of medical physics and imaging for healthcare practitioners |
| LO5 | Apply social, behavioural, medical and clinical scientific knowledge, methods and principles to research and practice. |

| Learning, Teaching and Assessment Strategy |
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| <p>The knowledge and understanding required for this module will be delivered in research-informed lectures, supported with workshops and hands-on laboratory practicals which will allow students to explore the basic concepts in more depth. Simulations, videos, and other online resources will be used to support both self-directed learning and taught lecture material.</p> <p>Workshops and laboratory sessions will allow students to engage with physical materials, including (where possible) anatomical models and basic medical diagnostic equipment.</p> <p>Problem Based Learning (PBL) will be utilised to explore some clinical case studies which help explore and integrate topics and techniques learnt within the module.</p> <p>Students will be expected to further enhance their understanding and apply their knowledge during self-directed study, in preparation for tutorials, workshops and laboratory classes, and also assessments.</p> <p>Application of the module anatomy and medical imaging content will be assessed by formative multiple choice questions (end of semester 1 and end of semester 2 as appropriate) to allow students to assess their knowledge and identify any areas of weakness, in preparation for the summative assessment.</p> <p>A summative multiple choice exam examinations will take place at the end of semester 1 (50%) and semester 2 (50%), based on the anatomy and medical imaging content.</p> |

| Mode of Assessment | | | |
|--------------------|---------------------------|--|-----------|
| Type | Method | Description | Weighting |
| Summative | Examination - Closed Book | Computer-based multiple choice exam (semester 1) | 50% |
| Summative | Examination - Closed Book | Computer-based multiple choice exam (semester 2) | 50% |

| Reading List |
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| To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html |

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

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