

Module Details	
Module Title	Cross Sectional Imaging 2
Module Code	RAD5503-B
Academic Year	2024/5
Credits	20
School	School of Allied Health Professions and Midwifery
FHEQ Level	FHEQ Level 5

Contact Hours	
Type	Hours
Directed Study	3
Independent Study	100
Seminars	6
Lectures	18
Clinical Placement	46
Placement	27 (of which 13.5 are virtual Simulated placement activities)

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 2

Module Aims
<p>The module will expand on the physical principles and technology that underpins the acquisition, production and presentation of images using cross-sectional imaging modalities (CT, MRI and US) introduced in Cross Sectional imaging 1. The module will also explore the concepts of error and risk and the importance of effective communication.</p>

Outline Syllabus

Physical principles of CT Technology.
 Physical principles of MRI Technology.
 Physical principles of US Technology.
 Routine QA tests.
 Radiation dosimetry (CT)
 Patient safety, communication of risks (radiation and otherwise), duty of candour, informed consent and capacity in adherence with the HCPC standards of conduct, performance and ethics.
 Human errors, incidents and governance for safe systems of work within cross-sectional imaging environments.
 Effective communication: importance of language (verbal and written), honesty and integrity and inclusivity.

Learning Outcomes

Outcome Number	Description
01	Describe and explain the physical principles that underpin the design and operation of cross-sectional imaging modalities and the impact of different parameter selection options.
02	Determine the acceptability of equipment operation through Quality Assurance, Quality Control and radiation dosimetry tests.
03	Evaluate the potential hazards and errors (system and human) that may occur within the cross-sectional imaging environment, their causes and how they might be addressed.
04	Explain the importance of effective verbal and written patient communication to determine patient informed consent.
05	Explain, determine and communicate ?risks? associated with cross-sectional imaging technologies to patients, carers, wider healthcare team and members of the public.

Learning, Teaching and Assessment Strategy

Keynote lectures will introduce key concepts relating to the physical principles and technology that underpin the acquisition, production and presentation of cross sectional images (CT, MRI and US). Face to face learning activities will include practical simulations and scenario activities supported by a simulation portfolio and will facilitate application of understanding and practical skill development. Facilitated peer discussions, scenario activities and lectures will explore the radiographer?s role and responsibilities in evaluating safe systems of work and communicating risk.

Clinical placements will allow students to apply theory to practice whilst assisting in diagnostic examinations across a range of modalities under supervision of qualified clinical staff.

Asynchronous directed learning activities will support the development of independent learning skills through reflection and self-assessment of understanding of the learning materials. The reading list and VLE materials will support further exploration of the module syllabus to provide learning extension for students.

A computer delivered MCQ examination will assess learning outcomes 1, 2 & 3.

Learning outcomes 2,4 & 5 will be assessed through the production of a patient information leaflet of digital media explaining the design, operation and risks of a cross-sectional imaging modality (CT, MRI, US). The assessment will provide student choice of information sharing medium, cross sectional modality and (if necessary) patient group and/or condition focus.

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Examination - MCQ	MCQ Examination	50%
Summative	Coursework - Written	Public information Leaflet or Digital Media (1000 words or less than 5 mins audio or video content)	50%
Formative	Examination - MCQ	VLE Delivered quiz	N/A
Formative	Coursework	Facilitated feedback session with peer led feedback on draft patient information assessment to support effective communication and the giving and receiving of feedback.	N/A

Reading List
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.

© University of Bradford 2024

<https://bradford.ac.uk>