

Imaging Modalities in Practice

Module Code:	RAD5005-D
Academic Year:	2018-19
Credit Rating:	40
School:	School of Allied Health Professions and Sport (not current)
Subject Area:	Radiography
FHEQ Level:	FHEQ Level 5
Module Leader:	Mr Stephen Boynes

Additional Tutors:

Mrs Beverley Foster, Mrs Elaine Wilkinson, Kayleigh Hackett, Mrs Gillian Clough, Mr Edward Cadogan, Brian Chaka

Pre-requisites:

Co-requisites:

Contact Hours

Type	Hours
Lectures	50
Seminar	24
Clinical Placement	268
Directed Study	58

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Academic Year (Sept - May)

Module Aims

This module will enable the student to develop knowledge of anatomy, physiology and pathology of the vascular, urinary, gastrointestinal, hepatobiliary, reproductive systems, skull, nervous and endocrine systems.

In addition it will prepare the student to contribute to the efficient and effective delivery of

imaging services in imaging modalities such as, computed tomography, ultrasound, magnetic resonance imaging, nuclear medicine, mammography and angiography.

Outline Syllabus

Macroscopic, and microscopic anatomy, physiology and pathology of the vascular, urinary, gastrointestinal, hepatobiliary, reproductive systems, skull, nervous and endocrine systems. Embryology. Homeostasis.

Normal, variant and abnormal anatomical appearances on a range of medical images.

Physical principles and technology of computed tomography, magnetic resonance imaging, ultrasound, radionuclide imaging, positron emission tomography, dual energy X-ray absorptiometry, mammography, and angiographic equipment.

Clinical applications and techniques commonly used in computed tomography, magnetic resonance imaging, ultrasound, radionuclide imaging, positron emission tomography, dual energy X-ray absorptiometry, mammography and angiography.

Overview of pharmacology, routine and emergency use of drugs during diagnostic procedures and associated patient care.

Concepts of informed consent and professional behaviour.

Patient care before, during and after a range of common examinations performed in the imaging modalities related to the module.

The contribution and complementary nature of the imaging modalities related to the module

Module Learning Outcomes

On successful completion of this module, students will be able to...

- 1.1 Differentiate normal, variant and abnormal anatomy and physiology on a range of medical images;
- 1.2 Explain clearly and succinctly the physical principles underpinning the imaging modalities within the scope of this module;
- 1.3 Explain the basic pharmacology of a range of drugs that may be used in the performance of imaging examinations in the modalities covered by the module.
- 2.1 Appreciate the role and contribution of different imaging modalities in the care pathway of the patient.
- 2.2 Prepare patients for a range of examinations routinely performed by the modalities covered by the module.
- 2.3 Care for the patient during a range of examinations routinely performed by the modalities covered in the module syllabus.
- 3.1 Display an attitude towards practice consistent with the NHS constitution and the Society and College of Radiographers Code of Professional Conduct.
- 3.2 Communicate effectively with patients and colleagues
- 3.3 Interpret and evaluate complex information from a range of sources

Learning, Teaching and Assessment Strategy

Students will receive lectures on the principles, technology and the clinical applications and techniques of different imaging modalities, mammography and angiography. Students will receive lectures based on a wide range of imaging research underpinning the principles, technology and the clinical applications and techniques of different imaging modalities, mammography and angiography. Students will also receive lectures and tutorials related to anatomy, physiology and pathology and image appearances related to the vascular, urinary, gastrointestinal, hepatobiliary, reproductive, nervous and endocrine systems and skull. Lectures on drugs commonly used in imaging the anatomical systems indicated. This learning will be complemented by learning on clinical placement where students will gain practical experience on the range of imaging modalities covered in the module. Students will assist the radiographers and care for patients undergoing a range of examinations in these modalities so as to meet the standards of proficiency required by the Health and Care Professions Council Standards of Proficiency. Integration of theory and practice will enable students to distinguish disease and trauma processes as they manifest on diagnostic images.

In semester 1 students will sit a 2 hour examination to assess achievement of learning outcomes 1.1-1.3. In semester 2 students will be assessed on their clinical practice by a professional development e-portfolio (learning outcomes 2.1, 2.5, 3.3) & a paper based clinical portfolio to assess learning outcomes 2.2, 2.3, 2.4, 3.1 & 3.2.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Summative	Examination - closed book	Examination (semester 1)	2 hours	40%	No
Summative	Clinical Assessment	Semester 2 paper based clinical portfolio.		30%	Yes
Summative	Clinical Assessment	(Semester 2) e-portfolio to include a 2500 word reflective essay	0-2500 words	30%	No

Legacy Code (if applicable)

Reading List

To view Reading List, please go to [rebus:list](#).