

Module Details	
Module Title:	Imaging Modalities in Practice
Module Code:	RAD5005-D
Academic Year:	2019-20
Credit Rating:	40
School:	School of Allied Health Professions and Midwifery
Subject Area:	Radiography
FHEQ Level:	FHEQ Level 5
Pre-requisites:	
Co-requisites:	

Contact Hours	
Type	Hours
Lectures	74
Seminar	24
Clinical Placement	244
Directed Study	58

Availability	
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

Learning Outcomes

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 1.1-1.2. In semester 2 students will be assessed on their clinical practice by a professional development e-portfolio to assess learning outcomes 1.3, 2.1, 2.2 and 2.3, and a paper based clinical portfolio to assess learning outcomes 3.1, 3.2 and 3.3.

Mode of Assessment

Type	Method	Description	Length	Weighting
Summative	Examination - closed book	Examination (semester 1)	2 hours	40%
Summative	Clinical Assessment	(Semester 2) e-portfolio to include a 2500 word reflective essay	-2500 words	30%
Summative	Clinical Assessment	Semester 2 paper based clinical portfolio.		30%

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.