

Radiography of the axial skeleton

Module Code:	RAD4003-C
Academic Year:	2018-19
Credit Rating:	30
School:	School of Allied Health Professions and Midwifery
Subject Area:	Radiography
FHEQ Level:	FHEQ Level 4

Pre-requisites:

Co-requisites:

Contact Hours

Type	Hours
Lectures	38
Demonstration	6
Clinical Placement	181
Tutorials	16
Directed Study	59

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Semester 2 (Feb - May)

Module Aims

Students will study the anatomy, physiology, common pathology and radiographic technique (including the role of computed tomography), including patient care, of the axial skeleton and chest and be introduced to the physical concepts of X-ray interactions and image optimisation.

Outline Syllabus

Macroscopic, microscopic and radiographic anatomy, physiology and pathology of the axial skeleton.

Radiographic technique and radiation protection for a comprehensive range of routine radiographic examinations of the axial skeleton. Introduction to the use of CT; clinical indications; image evaluation. Patient care and equality of service provision for a diverse population. Working as part of a health care team.

X-ray interactions; selecting exposure factors and the concept of image optimisation; introduction to image detectors; control of scatter, including grids. Appropriate use of automatic exposure devices.

Module Learning Outcomes

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

- 1 Describe normal anatomy, physiology and common pathologies of the axial skeleton
- 2 Differentiate normal radiographic appearances from common pathologies of the axial skeleton
- 3 Describe the radiographic technique for routine examinations of the axial skeleton and identify when CT would be a more appropriate examination
- 4 Explain how X-rays interact with matter; identify different methods of image acquisition and how scattered radiation can be controlled.
- 5 Recognise common clinical indicators for radiographic examinations of the axial skeleton
- 6 Gain informed consent for and perform appropriate routine radiographic examinations of the axial skeleton safely and effectively
- 7 Practice appropriate patient care and understand the need to ensure equality in service provision for a diverse population
- 8 Evaluate radiographic images of the axial skeleton using appropriate terminology
- 9 Select appropriate equipment and settings for radiographic examinations of the axial skeleton
- 10 Communicate effectively with clinical colleagues and members of the public.
- 11 Manage your time effectively

Learning, Teaching and Assessment Strategy

Students will achieve the module learning outcomes by following an integrated approach to learning which is undertaken through both academic study and placement learning.

Lectures: An integrated approach introduces the student to the more complex axial skeleton system and supporting physical principles and technology. Lectures using research informed teaching to deliver team based learning activities. Activities will explore the topics shown in the outline syllabus and provide students with opportunities for regular feedback on their progress towards achieving the module learning outcomes . Lectures are supported by tutorials using both the Picture Archiving and Communication System suite and the X-ray

suite. Image optimisation, a crucial part of this area of radiography, is studied giving students the opportunity to learn how to use appropriate equipment in the practice setting whilst gaining supervised clinical experience.

Achievement of learning outcomes 1,2,3,5 are assessed using a series of case reports in the personal development e-portfolio, LO 4 in a one hour closed book OSCE examination Portfolio. Learning outcomes 2,7, 8, 9, 10 and 11 are assessed by completion of the semester 2 clinical portfolio.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Summative	Computerised examination	Completion of answer book	1 hour	30%	No
Summative	Clinical Assessment	Semester 2 paper based clinical portfolio		30%	Yes
Summative	Clinical Assessment	Case Study Series in e portfolio		40%	No

Legacy Code (if applicable)

HR-4002T

Reading List

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