Edinburgh Imaging
www.ed.ac.uk/edinburgh-imaging

Image Interpretation and Evaluation

Semester 2 / January **20 Credits**

Each Course is composed of Modules & Activities.

Modules:

Image Interpretation	IMSc	
Thoracic radiography	IMSc	MIAA
Abdominal – pelvic imaging	IMSc	MIAA
Musculoskeletal Imaging	IMSc	MIAA
Neuroimaging	IMSc	MIAA

Each Module is composed of Lectures, Reading Lists, MCQ self-assessments, & Discussion Boards.

These Modules are taught on the following Programmes, or are incorporated into blended Courses which teach students enrolled outwith the Edinburgh Imaging Academy:

- IMSc - Imaging programme
- MIAA - Medical Imaging and Anatomy - course for MSc Human Anatomy & Dip / Cert Anatomical Sciences

Edinburgh Imaging
www.ed.ac.uk/edinburgh-imaging

Image Interpretation and Evaluation

Image Interpretation:
- Human and technical factors

Thoracic radiography:
- Chest radiograph practicalities
- Non-pulmonary pathologies
- Pulmonary pathology

Abdominal – pelvic imaging:
- Abdominal radiograph 1
- Abdominal radiograph 2
- Abdominal radiograph 3: Colitis

Musculoskeletal Imaging:
- Bone Imaging

Neuroimaging:
- CT head – acute pathology

Edinburgh Imaging
www.ed.ac.uk/edinburgh-imaging

Image Interpretation and Evaluation

Image Interpretation

Lecture 1
Title: Human and technical factors
Description:
Author(s): Dr Andrew Farrall
Learning Objectives
On completion of this lecture, you should be able to:
- List stages in the imaging pathway
- Define perception and analysis in the context of image interpretation
- State Garland's three objectives
- Discuss the sequelae of Garland's three objectives
- List factors which influence interpretation error rates
- Describe solutions to causes of interpretation error

Thoracic radiography

Lecture 1
Title: Chest radiograph practicalities
Description: Patient positioning & technical factors which influence interpretation
Author(s): Dr. Andrew Walker, Dr. AJ Farrall
Learning Objectives
- State basic chest radiograph principles
- Describe chest radiography acquisition
- List common chest radiograph views
- Discuss chest radiograph quality
- State key anatomy which can be assessed
- Explain the silhouette sign

Lecture 2
Title: Non-pulmonary pathologies
Description: Chest radiograph areas to review which are not the lungs; relevant associated pathologies & findings
Author(s): Dr. Andrew Walker, Dr. AJ Farrall
Learning Objectives
- State what regions other than the lungs require review
- Describe specific findings of common pathologies
- Explain common causes of the pathologies reviewed
- Identify lines and tubes common on chest radiography

Edinburgh Imaging
www.ed.ac.uk/edinburgh-imaging

Lecture 3
Title: Pulmonary pathology
Description: Chest radiograph pathologies & findings which opacify the lungs
Author(s): Dr. Andrew Walker, Dr. AJ Farrall
Learning Objectives
- List common causes of pulmonary opacification
- Use specific findings to locate lesions in the lungs
- State the different findings of consolidation versus collapse
- List the stages & findings of pulmonary oedema
- Explain common causes of the pathologies reviewed

Abdominal – pelvic imaging

Lecture 1
Title: Abdominal radiograph 1
Description: Technique, approach to interpretation, bones, calcifications and viscera
Author(s): Dr. Michael Jackson, Dr. Andrew Walker
Editor(s): Dr Andrew Farrall
Learning Objectives
- State indications for, and limitations of, the abdominal radiograph
- Describe a systematic approach to abdominal radiograph review
- Identify common & important pathologies on abdominal radiograph review
- Relate the above specifically to the “bones, stones and mass” approach to the abdominal radiograph

Lecture 2
Title: Abdominal radiograph 2
Description: Technique, approach to interpretation, gas & bowel
Author(s): Dr. Michael Jackson, Dr. Andrew Walker
Editor(s): Dr. Andrew Farrall
Learning Objectives
- State indications for, and limitations of, the abdominal radiograph
- Describe a systematic approach to abdominal radiograph review
- Identify common & important pathologies on abdominal radiograph review
- Relate the above specifically to the “gas” approach to the abdominal radiograph

Lecture 3
Title: Abdominal radiograph 3: Colitis
Description: Abdominal radiographic findings in colitis, plus complimentary imaging modalities
Author(s): Dr. Michael Jackson, Dr. Andrew Walker
Editor(s): Dr. Andrew Farrall
Learning Objectives
- List causes of colitis
- Describe plain radiograph findings in colitis
- Recognise findings of toxic colitis
- Discuss complimentary imaging techniques in colitis

Edinburgh Imaging
www.ed.ac.uk/edinburgh-imaging

Musculoskeletal Imaging

Lecture 1
Title: Bone Imaging
Description: Basic interpretation and description of bone radiographs
Author(s): Dr. Laura Cormack
Editor(s): Dr Andrew Farrall
Learning Objectives

- Describe radiographic projection for bone imaging
- State why orthogonal views are important
- State why non-orthogonal views are important
- Relate key bone features to radiographic appearances
- Use appropriate descriptive radiologic terminology
- List common bone pathologies identifiable and findings on bone imaging
- Use appropriate descriptive terminology to describe bone pathology

Neuroimaging

Lecture 1
Title: CT head – acute pathology
Description: History, terminology & orientation
Author(s): Dr Ana Casado
Editor(s): Dr Andrew Farrall
Learning Objectives

- Recognize trauma situations where CT head scanning is appropriate
- List reasons why CT is more appropriate than other techniques
- Identify & describe CT imaging findings expected in cases of trauma situations