CHIR916

Diagnostic Imaging 1

S1 Day 2014

Chiropractic

Contents

General Information

Unit convenor and teaching staff
Tutor
Farouk Badawi
farouk.badawi@mq.edu.au
Contact via farouk.badawi@mq.edu.au

Unit Convenor
Hazel Jenkins
hazel.jenkins@mq.edu.au
Contact via hazel.jenkins@mq.edu.au
C5C 347
Tuesday 9am-1pm

Lecturer/Tutor
Christopher Jolliffe
christopher.jolliffe@mq.edu.au
Contact via christopher.jolliffe@mq.edu.au

Credit points
4

Prerequisites
Admission to MChiroprac

Corequisites

Co-badged status

Unit description
This unit develops differential diagnostic skills for radiological pathologies of the spine, skeleton, chest and abdomen and instructs in radiographic positioning of the extremities. This unit forms part of a suite of units in radiological science that leads to eligibility for licensure to own and operate x-ray equipment.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
To be able to recognise normal radiographic appearance of the spine (including axial views), extremities, chest and abdomen.
To be able to thoroughly assess the radiographic image and to be able to describe specific radiographic appearances.
To be able to determine a differential diagnosis for a radiographic image using a categorical approach. To be able to describe the differentiating clinical findings, pathogenesis and radiological features.
To demonstrate competency in radiographic positioning and radiography as applicable to chiropractic practice.
To be able to read and interpret normal CT and MRI appearances in the spine and be able to describe specific abnormalities.

Assessment Tasks

Name	Weighting	Due
On-going Assessment	5%	On-going
Assignment	15%	30 April 2014
Practical Exam	5%	In tutorial week 5
Practical Exam	5%	In Tutorial Week 12
Slide Exam	15%	In tutorial Week 6
Slide Exam	15%	During Week 13
Final Exam	40%	Exam Period

On-going Assessment

Due: **On-going**
Weighting: **5%**

In tutorial on-line quizzes (radiographic interpretation)

On successful completion you will be able to:

- To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
- To be able to thoroughly assess the radiographic image and to be able to describe

specific radiographic appearances.

- To be able to determine a differential diagnosis for a radiographic image using a categorical approach. To be able to describe the differentiating clinical findings, pathogenesis and radiological features.
- To be able to read and interpret normal CT and MRI appearances in the spine and be able to describe specific abnormalities.

Assignment

Due: **30 April 2014**
Weighting: **15%**

Assignment

On successful completion you will be able to:

- To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
- To be able to recognise normal radiographic appearance of the spine (including axial views), extremities, chest and abdomen.
- To demonstrate competency in radiographic positioning and radiography as applicable to chiropractic practice.

Practical Exam

Due: **In tutorial week 5**
Weighting: **5%**

In-tutorial exam for radiographic positioning

On successful completion you will be able to:

- To demonstrate competency in radiographic positioning and radiography as applicable to chiropractic practice.

Practical Exam

Due: **In Tutorial Week 12**
Weighting: **5%**

Radiographic positioning practical exam 2

On successful completion you will be able to:

- To demonstrate competency in radiographic positioning and radiography as applicable to chiropractic practice.

Slide Exam

Due: **In tutorial Week 6**
Weighting: **15%**

In-tutorial slide exam for radiographic interpretation

On successful completion you will be able to:

- To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
- To be able to recognise normal radiographic appearance of the spine (including axial views), extremities, chest and abdomen.
- To be able to thoroughly assess the radiographic image and to be able to describe specific radiographic appearances.
- To be able to determine a differential diagnosis for a radiographic image using a categorical approach. To be able to describe the differentiating clinical findings, pathogenesis and radiological features.

Slide Exam

Due: **During Week 13**
Weighting: **15%**

Radiographic interpretation slide exam 2

On successful completion you will be able to:

- To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
- To be able to recognise normal radiographic appearance of the spine (including axial views), extremities, chest and abdomen.
- To be able to thoroughly assess the radiographic image and to be able to describe specific radiographic appearances.
- To be able to determine a differential diagnosis for a radiographic image using a categorical approach. To be able to describe the differentiating clinical findings, pathogenesis and radiological features.
- To be able to read and interpret normal CT and MRI appearances in the spine and be able to describe specific abnormalities.

Final Exam

Due: **Exam Period**

Weighting: **40%**

Exam period final theory exam for radiographic interpretation and positioning

On successful completion you will be able to:

- To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
- To be able to recognise normal radiographic appearance of the spine (including axial views), extremities, chest and abdomen.
- To be able to thoroughly assess the radiographic image and to be able to describe specific radiographic appearances.
- To be able to determine a differential diagnosis for a radiographic image using a categorical approach. To be able to describe the differentiating clinical findings, pathogenesis and radiological features.
- To demonstrate competency in radiographic positioning and radiography as applicable to chiropractic practice.
- To be able to read and interpret normal CT and MRI appearances in the spine and be able to describe specific abnormalities.

Delivery and Resources

Lecture and Tutorial Times:

Lecture 1: Tuesday 8-9am C5CT2 (Forum)

Lecture 2: Friday 8-10am E7BT5

Lecture 3: Friday 12-1pm E7BT5

Radiographic Positioning Tutorials (x1): Monday 1-2pm, 2-3pm, Thursday 2-3pm, 3-4pm E5A 340

Radiographic Interpretation Tutorials (x1): Thursday 1-2pm, 2-3pm, 3-4pm, 4-5pm E5A 350 (RADLAB)

Technology:

Audiovisual: all lectures will be recorded and available on ECHO

iLearn: all lecture, tutorial, assignment and on-going assessment material will be available. Due to the large number of pictures within these presentations download times can be slow

Changes since the last offering of this unit:

The distribution of work offered between CHIR916 and CHIR917 has changed to allow for increased revision and consolidation of the fundamentals of radiographic positioning.

Resources:

Required Texts:

Yochum, T & Rowe, L; 2005; Essentials of Skeletal Radiology Vol I & II (3rd Ed); Lippincott, William & Wilkins; Baltimore

Required Manual

Radiographic Positioning Manual, 2014

Radiographic Library:

The radiographic library (RADLAB) houses over 1000 xray and is available for your use in E5A 350 whenever classes are not occurring within the room. It is exepcted that the RADLAB is utilised for your revision for 1-2hrs per week. It is expected that the RADLAB is kept clean and tidy and that the xrays are re-catalogued correctly at the end of your study session. Failure to do this may lead to lack of further access to the RADLAB.

iLearn:

iLearn will be used to post all information regarding the course. This includes all course materials and information about assessments.

Internet:

Google images is a great resource for sourcing specific xrays. There are many websites available with extensive xray libraries and this is also a valuable revision tool.

Unit Schedule

Weekly Schedule:

Week	Tuesday 8am Lecture	Friday 8am Lecture	Friday 12pm Lecture	Radiographic Interpretation Tutorial	Radiographic Positioning Tutorial
1 (3/3)	Spine and Hip Positioning	Introduction	Cervical Spine Normal Anatomy	No Tutorial	No Tutorial
2 (10/3)	Cervical Spine Normal Anatomy	Congenital	Week 2 Tutorial Material	Introduction and cervical spine normal anatomy	Cervical and Thoracic
3 (17/3)	Lower Limb Positioning	Trauma	Week 3 Tutorial Material	Congenital and cervical spine normal anatomy	Lumbar and Hip
4 (24/3)	Thoracic Spine Normal Anatomy	Arthritis	Week 4 Tutorial Material	Trauma and thoracic spine normal anatomy	Femur and Knee
5 (31/3)	Lumbar Spine Normal Anatomy	Review	Week 5 Tutorial Material	Arthritis and lumbar spine normal anatomy	Practical Exam 1

6 (7/4)	Lower Limb Normal Anatomy	Blood	Critiquing and correcting imaging faults	Slide Exam 1	Lower Leg and Ankle
7 (28/4) Assignment due 30/4	Upper Limb Positioning	Tumours	Week 7 Tutorial Material	Blood and lower limb normal anatomy	Foot and Toes
8 (5/5)	Upper Limb Normal Anatomy	Infection	Week 8 Tutorial Material	Tumours	Shoulder girdle
9 (12/5)	Imaging protocols and procedures	Endocrine/ Metabolic	Week 9 Tutorial Material	Infection and upper limb normal anatomy	Humerus and Elbow
10 (19/5)	Chest and Abdomen Normal Anatomy	Soft Tissue	Week 10 Tutorial Material	Endocrine/Metabolic and chest and abdomen normal anatomy	Forearm and Wrist
11 (26/5)	Axial Normal Anatomy	Spinal CT and MRI	Week 11 Tutorial Material	Soft Tissue and axial normal anatomy	Hand and Fingers
12 (2/6)	Revision	Revision	Week 12 Tutorial Material	Revision	Practical Exam 2
13 (9/6)	No Lecture	No Lecture	No Lecture	Slide Exam 2	No Tutorial

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy http://mq.edu.au/policy/docs/grading/policy.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the Learning and Teaching Category of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://informatics.mq.edu.au/help/.

When using the University's IT, you must adhere to the Acceptable Use Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
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Assessment tasks

- On-going Assessment
- Assignment
- Practical Exam
- Practical Exam
- Slide Exam
- Slide Exam
- Final Exam

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
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- To be able to thoroughly assess the radiographic image and to be able to describe specific radiographic appearances.
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Assessment tasks

- On-going Assessment
- Assignment
- Practical Exam
- Practical Exam
- Slide Exam
- Slide Exam
- Final Exam

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- To be able to understand, describe and use radiographic terms and understand possible reasons for variance in image appearance and imaging faults.
- To be able to determine a differential diagnosis for a radiographic image using a categorical approach. To be able to describe the differentiating clinical findings, pathogenesis and radiological features.

Assessment tasks

- Slide Exam
- Slide Exam
- Final Exam

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcome

- To demonstrate competency in radiographic positioning and radiography as applicable to chiropractic practice.

Assessment tasks

- Assignment
- Practical Exam
- Practical Exam

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- To be able to determine a differential diagnosis for a radiographic image using a categorical approach. To be able to describe the differentiating clinical findings, pathogenesis and radiological features.
- To demonstrate competency in radiographic positioning and radiography as applicable to chiropractic practice.

Assessment tasks

- Practical Exam
- Practical Exam
- Slide Exam
- Slide Exam
- Final Exam