CHIR916

Diagnostic Imaging 1

S1 Day 2015

Dept of Chiropractic

Contents

General Information

Unit convenor and teaching staff
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Credit points
4

Prerequisites
Admission to MChiro and (CHIR311 or CHIR316 or (CHIR602 and CHIR603 and CHIR604 and CHIR605 and CHIR606 and CHIR607))

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:

Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
Recognise normal radiographic appearance of the spine, extremities, chest and abdomen.
Execute a thorough assessment of the radiographic image and differentiate abnormal radiographic appearances.
Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.
Implement and explain principles of radiography as applicable to chiropractic practice.
Interpret normal CT and MR appearances in the spine and differentiate specific

abnormalities.

General Assessment Information

All tutorials in this unit are compulsory. A minimum of 80% of radiographic interpretation and radiographic positioning tutorials must be attended for successful completion of this unit.

Submission of assignments will be through ilearn unless otherwise indicated.

Late submission of assignments will result in a grade deduction of 10% per day late. Submissions handed in more than 1 week after the due date will not be assessed.

Extensions to assessment due dates may be granted under extenuating circumstances. Application for extensions must be made under the disruption to studies policy (http://students.mq.edu.au/student_admin/exams/disruption_to_studies/), applied for through www.ask.mq.edu.au within 5 days of the disruption and prior to the submission date of the assignment.

Resubmission of work or resitting of exams will not be considered under usual circumstances. If resubmission or resitting is considered, a grade of 50% will be the maximum achievable.

If a practical exam, slide exam or theory exam is missed a supplementary exam will only be considered under the disruption to studies policy (http://students.mq.edu.au/student_admin/exams/disruption_to_studies/), applied for through www.ask.mq.edu.au within 5 days of the disruption.

Assessment Tasks

Name	Weighting	Due
On-going Assessment	5%	On-going
Assignment	15%	22 April 2015 5pm
Slide Exam	10%	27 March 2015 8-10am
Practical Exam	10%	During week 13
Slide Exam	20%	29 May 2015 8-10am
Final Exam	40%	Exam Period

On-going Assessment

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

On-line quizzes to be performed prior to the radiographic interpretation tutorial each week. These will be available on ilearn and are timed.

On successful completion you will be able to:

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise normal radiographic appearance of the spine, extremities, chest and abdomen.
- Execute a thorough assessment of the radiographic image and differentiate abnormal radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.
- Interpret normal CT and MR appearances in the spine and differentiate specific abnormalities.

Assignment

Due: **22 April 2015 5pm**
Weighting: **15%**

Assignment will be available and submitted through ilearn. More information regarding this will be posted early in semester.

On successful completion you will be able to:

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise normal radiographic appearance of the spine, extremities, chest and abdomen.
- Implement and explain principles of radiography as applicable to chiropractic practice.

Slide Exam

Due: **27 March 2015 8-10am**
Weighting: **10%**

In-lecture slide exam for radiographic interpretation covering normal radiographic anatomy, congenital disorders and dysplasias and trauma

On successful completion you will be able to:

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise normal radiographic appearance of the spine, extremities, chest and abdomen.
- Execute a thorough assessment of the radiographic image and differentiate abnormal

radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.

Practical Exam

Due: **During week 13**
Weighting: **10%**

Radiographic positioning practical exam

On successful completion you will be able to:
- Implement and explain principles of radiography as applicable to chiropractic practice.

Slide Exam

Due: **29 May 2015 8-10am**
Weighting: **20%**

Radiographic interpretation slide exam 2 covering arthridities, endocrine and metabolic disorders, tumours, infections, vascular and growth disorders, chest and abdomen and spinal CT and MR imaging

On successful completion you will be able to:
- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise normal radiographic appearance of the spine, extremities, chest and abdomen.
- Execute a thorough assessment of the radiographic image and differentiate abnormal radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.
- Interpret normal CT and MR appearances in the spine and differentiate 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:

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise normal radiographic appearance of the spine, extremities, chest and abdomen.
- Execute a thorough assessment of the radiographic image and differentiate abnormal radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.
- Implement and explain principles of radiography as applicable to chiropractic practice.
- Interpret normal CT and MR appearances in the spine and differentiate 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

Resources:

Required Texts:

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

Required Manuals:

Radiographic Positioning Manual, 2015

Radiographic Interpretation Tutorial Manual, 2015

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

Please see the ilearn page for the weekly schedule

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/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your

student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

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 - 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

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Execute a thorough assessment of the radiographic image and differentiate abnormal

radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.
- Implement and explain principles of radiography as applicable to chiropractic practice.

Assessment tasks

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

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

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise normal radiographic appearance of the spine, extremities, chest and abdomen.
- Execute a thorough assessment of the radiographic image and differentiate abnormal radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.
- Implement and explain principles of radiography as applicable to chiropractic practice.
- Interpret normal CT and MR appearances in the spine and differentiate specific abnormalities.

Assessment tasks

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

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise normal radiographic appearance of the spine, extremities, chest and abdomen.
- Execute a thorough assessment of the radiographic image and differentiate abnormal radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.
- Implement and explain principles of radiography as applicable to chiropractic practice.
- Interpret normal CT and MR appearances in the spine and differentiate specific abnormalities.

Assessment tasks

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

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.

Assessment tasks

- On-going Assessment
- Assignment
- 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 outcomes

- Execute a thorough assessment of the radiographic image and differentiate abnormal radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.
- Implement and explain principles of radiography as applicable to chiropractic practice.

Assessment tasks

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

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of

connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcome

- Implement and explain principles of radiography as applicable to chiropractic practice.

Assessment tasks

- Assignment
- Practical Exam
- Final Exam