



CHIR917

Diagnostic Imaging 2

S2 Day 2016

Dept of Chiropractic

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Disclaimer

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General Information

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| Credit points 4 |
| Prerequisites CHIR916 |
| Corequisites |
| Co-badged status |
| Unit description This unit builds on the principles and concepts developed in CHIR916. It develops further differential diagnostic skills for radiographic pathologies of the spine, skeleton, chest and abdomen and further instructs in radiographic positioning of the spine and extremities. This unit forms part of a suite of units in radiographic 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:

Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.

Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.

Demonstrate knowledge of the appropriate use of imaging in chiropractic practice and critique ethical considerations related to imaging use

Construct narrative radiographic reports for use in clinical chiropractic practice.

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

Demonstrate the ability to modify radiographic technique appropriately to different clinical presentations

General Assessment Information

TUTORIALS

Students are strongly encouraged to attend and actively participate in all tutorials in this unit.

Tutorials have been designed to align with learning outcomes and assessment tasks within this unit.

PRACTICAL AND SLIDE EXAMS

If a practical exam or slide 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.

Re-sitting of practical or slide exams 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. If a re-sit occurs, a VIVA (oral) format will be used.

THEORY EXAMINATIONS

The University Examination period in for Semester 2, 2016 is from November 14th to December 2nd 2016.

You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The timetable will be available in Draft form approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of the examinations.

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for disruption to studies. Information about unavoidable disruption and the disruption to studies process is available at 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

If a Supplementary Examination is granted the examination will be scheduled after the conclusion of the official examination period.

If you sit the theory exam but successfully apply for disruption from studies for that exam you will be required to sit a supplementary examination. This exam will take the format of short answer questions in a VIVA (oral) exam.

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester, that is the final day of the official examination period

Assessment Tasks

| Name | Weighting | Due |
|--|-----------|--------------------------|
| <u>On-going Assessment</u> | 10% | Weekly |
| <u>Slide Exam</u> | 15% | Friday 9/9/16 in lecture |
| <u>Tutorial Case Assessments</u> | 5% | Weekly |
| <u>Practical Exam</u> | 10% | Week 13 |

| Name | Weighting | Due |
|------------------------------------|-----------|---------------------------|
| <u>Slide Exam</u> | 15% | Friday 4/11/16 in lecture |
| <u>Theory Exam</u> | 45% | Exam Period |

On-going Assessment

Due: **Weekly**

Weighting: **10%**

On-line quizzes to be performed prior to the radiographic interpretation tutorial each week.

These will be available on ilearn. Quizzes may include radiographic image description and diagnosis, clinical implications and radiographic report writing. All quizzes should be attempted. Multiple choice and short answer components will be marked weekly. A random selection of 3 radiographic descriptions and 2 radiographic reports will be marked and incorporated to form your final assessment mark.

On successful completion you will be able to:

- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.
- Demonstrate knowledge of the appropriate use of imaging in chiropractic practice and critique ethical considerations related to imaging use
- Construct narrative radiographic reports for use in clinical chiropractic practice.

Slide Exam

Due: **Friday 9/9/16 in lecture**

Weighting: **15%**

Radiographic Interpretation Slide Exam 1: Exam on radiographic images from the spine, chest and abdomen. All previous material from CHIR916 is assumed knowledge.

On successful completion you will be able to:

- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.

Tutorial Case Assessments

Due: **Weekly**

Weighting: **5%**

In each tutorial cases will be used within a small group format. The group will work together to answer the case and a representative from the group will present the findings to a tutor. Each member of the group must present the group findings at least twice through the semester and will be assessed on their presentation. The best 2 marks per person will be averaged to determine their assessment score. Marks will be deducted for non-participation within group discussion or non-attendance.

On successful completion you will be able to:

- Implement and explain principles of radiography as applicable to chiropractic practice.
- Demonstrate the ability to modify radiographic technique appropriately to different clinical presentations

Practical Exam

Due: **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.
- Demonstrate the ability to modify radiographic technique appropriately to different clinical presentations

Slide Exam

Due: **Friday 4/11/16 in lecture**

Weighting: **15%**

Radiographic Interpretation Slide Exam 2: Exam on radiographic images from the extremities and a spinal narrative x-ray report. All previous material from CHIR916 is assumed knowledge.

On successful completion you will be able to:

- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.
- Construct narrative radiographic reports for use in clinical chiropractic practice.

Theory Exam

Due: **Exam Period**

Weighting: **45%**

Radiographic interpretation and positioning theory exam

On successful completion you will be able to:

- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.
- Demonstrate knowledge of the appropriate use of imaging in chiropractic practice and critique ethical considerations related to imaging use
- Construct narrative radiographic reports for use in clinical chiropractic practice.
- Implement and explain principles of radiography as applicable to chiropractic practice.
- Demonstrate the ability to modify radiographic technique appropriately to different clinical presentations

Delivery and Resources

Lecture and Tutorial Times:

Lecture 1: Wednesday 8-10am E7BT5

Lecture 2: Friday 8-10am E7BT2

Radiographic Positioning Tutorials (x1): Monday 1-2pm, 2-3pm, Thursday 1-2pm, 2-3pm 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, 2016 (same manual as CHIR916)

Radiographic Interpretation Tutorial Manual, 2016 (new manual for CHIR917)

Radiographic Library:

The radiographic library (RADLAB) houses over 1000 xrays and is available for your use in E5A

350 whenever classes are not occurring within the room. It is expected 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

| Week | Wednesday 8am Lecture | Friday 8am Lecture | Radiographic Interpretation Tutorial | Radiographic Positioning Tutorial |
|--------------------------------|--|-----------------------------------|--------------------------------------|-----------------------------------|
| 1 (1/8) | Arthritis | Positioning | No Tutorial | No Tutorial |
| 2 (8/8) | Arthritis/Endocrine (online) | Tumours | Arthritis | Cervical |
| 3 (15/8) | Tumours/Cervical Spine | Positioning | Tumours | Thoracic |
| 4 (22/8) | Cervical Spine | Thoracic Spine and Chest | Cervical Spine | Lumbar |
| 5 (29/8) | Lumbosacral Spine and Abdomen | Positioning | Thoracic Spine and Chest | Sacrum and Coccyx |
| 6 (5/9) | Lumbosacral Spine and Abdomen | Slide Exam 1 | Lumbosacral Spine and Abdomen | Hip and Pelvis |
| 7 (12/9) | Pelvis and Hip | Report Writing; Ethics of Imaging | Pelvis and Hip | Knee |
| 8 (3/10) Public Holiday Monday | Knee | Positioning | Knee | No Tutorial |
| 9 (10/10) | Ankle and Foot | Shoulder | Ankle and Foot | Foot and Ankle |
| 10 (17/10) | Positioning - Imaging protocols and procedures | Advanced Imaging | Shoulder | Shoulder |
| 11 (24/10) | Elbow | Advanced Imaging | Elbow | Elbow and Wrist |
| 12 (31/10) | Wrist and Hand | Slide Exam 2 | Wrist and Hand | Hand |
| 13 (7/11) | No Lecture | No lecture | No Tutorial | Practical Exam |

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

New Assessment Policy in effect from Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy_2016.html. For more information visit http://students.mq.edu.au/events/2016/07/19/new_assessment_policy_in_place_from_session_2/

Assessment Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/grading/policy.html>

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

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.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://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources 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

- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.
- Demonstrate knowledge of the appropriate use of imaging in chiropractic practice and critique ethical considerations related to imaging use
- Construct narrative radiographic reports for use in clinical chiropractic practice.
- Implement and explain principles of radiography as applicable to chiropractic practice.
- Demonstrate the ability to modify radiographic technique appropriately to different clinical presentations

Assessment tasks

- On-going Assessment
- Slide Exam
- Tutorial Case Assessments
- Practical Exam
- Slide Exam
- Theory 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

- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.
- Demonstrate knowledge of the appropriate use of imaging in chiropractic practice and critique ethical considerations related to imaging use
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Assessment tasks

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- Slide Exam
- Theory 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

- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.
- Demonstrate knowledge of the appropriate use of imaging in chiropractic practice and critique ethical considerations related to imaging use

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Assessment tasks

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- Slide Exam
- Tutorial Case Assessments
- Practical Exam
- Slide Exam
- Theory 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

- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.

Assessment tasks

- On-going Assessment
- Slide Exam
- Slide Exam
- Theory 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 and describe abnormal radiographic appearances.
- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.
- Demonstrate knowledge of the appropriate use of imaging in chiropractic practice and critique ethical considerations related to imaging use
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Assessment tasks

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- Practical Exam
- Slide Exam
- Theory 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 outcomes

- Synthesise radiographic and advanced imaging findings to aid diagnosis and inform patient management within chiropractic clinical practice.
- Demonstrate knowledge of the appropriate use of imaging in chiropractic practice and critique ethical considerations related to imaging use
- Construct narrative radiographic reports for use in clinical chiropractic practice.
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- Practical Exam
- Slide Exam
- Theory Exam

Disruption from Studies Policy

Serious and unavoidable disruption: The University classifies a disruption as **serious and unavoidable** if it:

- could not have reasonably been anticipated, avoided or guarded against by the student; and
- was beyond the student's control; and
- caused substantial disruption to the student's capacity for effective study and/or completion of required work; and
- occurred during an event critical study period and was at least three (3) consecutive days duration, and/or
- prevented completion of a final examination.

Students with a pre-existing disability/health condition or prolonged adverse circumstances may be eligible for ongoing assistance and support. Such support is governed by other policies and may be sought and coordinated through [Campus Wellbeing and Support Services](#).

If a supplementary examination is granted as a result of the disruption to studies process the examination will be scheduled after the conclusion of the official examination period. (Individual Faculties may wish to signal when the Faculty Supplementary exams are normally scheduled.)

If you are granted a supplementary exam via the Disruption to Studies process, you will have to write a supplementary exam in the supplementary exam period. In this scenario, only your supplementary exam mark will count towards your final exam mark, irrespective of whether or not you attended the final exam in the normal examination period. The submission of a Disruption to Studies form should not be used as a 'just in case' strategy.

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. You are expected to ensure that you are available until the end of the teaching semester that is the final day of the official examination period.

Grading

Achievement of grades will be based on the following criteria:

| Grade | |
|------------------------------|--------------------------------------|
| High Distinction (85-100) | A minimum of 85% total raw mark |
| Distinction (75-84) | A minimum mark of 75% total raw mark |
| Credit (65-74) | A minimum mark of 65% total raw mark |
| Pass (50-64) | A minimum mark of 50% total raw mark |
| Fail (< 50) | Less than 50% total raw mark |

What does each grade mean?

High Distinction: provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application.

Distinction: provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.

Credit: provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; plus communication of ideas fluently and clearly in terms of the conventions of the discipline.

Pass: provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; and communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes.

Fail: does not provide evidence of attainment of all learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; and incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.