CHIR8401

Diagnostic Imaging 1

Session 1, Weekday attendance, North Ryde 2021

Department of Chiropractic

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Disclaimer

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Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to timetable viewer. To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff Lecturer, Convener Hazel Jenkins hazel.jenkins@mq.edu.au Contact via Email 17WW 347 By appointment
Credit points 10
Prerequisites Admission to MChiroprac and (CHIR3106 or CHIR316) or (CHIR6110 or CHIR602) and (CHIR6111 or CHIR603) and (CHIR6302 or CHIR604) and (CHIR6303 or CHIR605) and (CHIR6410 or CHIR606) and (CHIR6510 or CHIR608)
Corequisites
Co-badged status
Unit description This unit develops radiographic interpretation skills of the spine, skeleton, chest and abdomen. Routine radiographic positioning of the spine and extremities is also taught. 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:

ULO1: Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.

ULO2: Recognise the range of normal radiographic appearances of the spine, extremities, chest and abdomen, including anatomical and positional variances.

ULO3: Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.

ULO4: Implement and explain principles of radiography as applicable to chiropractic practice.

ULO5: Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.

ULO6: Interpret normal CT and MR appearances in the spine and differentiate specific abnormalities.

General Assessment Information

TUTORIALS

Tutorial attendance and active participation is expected at a minimum of 80% tutorials in both radiographic interpretation (8 out of 10 tutorials) and radiographic positioning (7 out of 9 tutorials) to demonstrate a serious attempt at completing this unit.

QUIZZES

Quizzes will be available through ilearn unless otherwise indicated.

It is expected that the academic integrity policy be followed at all times. Breaches of the academic integrity policy may result in disciplinary procedures for the involved student.

All quizzes should be attempted. Quizzes will open each week on Wednesday at 8am (starting week 1) and close the following Tuesday at 2pm. Quizzes will not be reopened after they are closed for any reason. If submission is affected by technical difficulties, you can send your answers to the unit convener (hazel.jenkins@mq.edu.au) PRIOR to the closing time of the quiz for manual grading.

SLIDE EXAMS

If a slide exam is missed a supplementary exam will only be considered under the Special Consideration policy (https://students.mq.edu.au/study/my-study-program/special-consideration), applied for through www.ask.mq.edu.au within 5 days of the assessment.

If you attend and complete an examination you are declaring that you are fit to sit that assessment and Special Consideration will not normally be granted.

THEORY EXAMINATIONS

The University Examination period for Semester 1, 2021 is from June 7th to June 25th 2021.

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.

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.

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 Special Consideration. Information about unavoidable disruption and the Special Consideration process is available at https://students.mq.edu.au/study/my-study-program/special-consideration, applied for through www.ask.mq.edu.au within 5 days of the disruption

If you receive special consideration for the final exam, a supplementary exam will be scheduled in the interval between the 28th June to 26th July. By making a special consideration application for the final exam you are declaring yourself available for a resit during the supplementary examination period and will not be eligible for a second special consideration approval based on pre-existing commitments. Please ensure you are familiar with the policy prior to submitting an application. You can check the supplementary exam information page on FSE101 in iLearn (bit.ly/FSESupp) for dates, and approved applicants will receive an individual notification one week prior to the exam with the exact date and time of their supplementary examination. If you are approved for Special Consideration and granted a supplementary exam, only your supplementary exam result will be counted towards your final grade.

If you attend and complete an examination you are declaring that you are fit to sit that assessment and Special Consideration will not normally be granted.

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 Accessibility Support.

Assessment Tasks

Name	Weighting	Hurdle	Due
Weekly quizzes	20%	No	Weekly, starting Tuesday 2nd March
Tutorial attendance and participation	0%	Yes	Weekly tutorials
Radiographic positioning competency assessments	0%	Yes	During SGTA_2 in weeks 5, 9 , and 13
Slide exam 1	15%	No	Tuesday 30th March, 8-10am
Slide exam 2	15%	No	Friday 28th May, 8-10am
Final theory exam	50%	No	Exam period

Weekly quizzes

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 6 hours
Due: **Weekly, starting Tuesday 2nd March**
Weighting: **20%**

On-line quizzes to assess core content prior to tutorials each week. These will be available on ilearn. Quizzes may include multiple choice and short answer questions. All quizzes should be attempted.

On successful completion you will be able to:

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise the range of normal radiographic appearances of the spine, extremities, chest and abdomen, including anatomical and positional variances.
- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Implement and explain principles of radiography as applicable to chiropractic practice.
- 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.

Tutorial attendance and participation

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 22 hours
Due: **Weekly tutorials**
Weighting: **0%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

Tutorial attendance and active participation is expected at a minimum of 80% of tutorials to demonstrate a serious attempt at completing this unit.

On successful completion you will be able to:

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise the range of normal radiographic appearances of the spine, extremities, chest and abdomen, including anatomical and positional variances.
- Execute a thorough assessment of the radiographic image and differentiate and describe

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

Radiographic positioning competency assessments

Assessment Type [1]: Clinical performance evaluation
Indicative Time on Task [2]: 1 hours
Due: **During SGTA_2 in weeks 5, 9 , and 13**
Weighting: **0%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

Three radiographic positioning competency assessments will be performed during the semester. This is a competency based assessment with no marks awarded. Students must demonstrate three competent techniques to pass the unit.

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

Slide exam 1

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 1 hours
Due: **Tuesday 30th March, 8-10am**
Weighting: **15%**

Radiographic interpretation slide exam 1. The exam format and examination schedule will be released during the 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 the range of normal radiographic appearances of the spine, extremities, chest and abdomen, including anatomical and positional variances.

- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Synthesise radiological and clinical findings to determine a differential diagnosis for a radiographic image using a categorical approach.

Slide exam 2

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 1 hours
Due: **Friday 28th May, 8-10am**
Weighting: **15%**

Radiographic interpretation slide exam 2. The exam format and examination schedule will be released during the 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 the range of normal radiographic appearances of the spine, extremities, chest and abdomen, including anatomical and positional variances.
- Execute a thorough assessment of the radiographic image and differentiate and describe 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 theory exam

Assessment Type [1]: Examination
Indicative Time on Task [2]: 2 hours
Due: **Exam period**
Weighting: **50%**

Exam period final theory exam

On successful completion you will be able to:

- Explain radiographic terms and distinguish possible reasons for variance in image appearance and imaging faults.
- Recognise the range of normal radiographic appearances of the spine, extremities, chest and abdomen, including anatomical and positional variances.
- Execute a thorough assessment of the radiographic image and differentiate and describe abnormal radiographic appearances.
- Implement and explain principles of radiography as applicable to chiropractic practice.
- 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.

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Assumed knowledge:

To successfully undertake this unit it is assumed that you have a good understanding of radiographic physics and normal radiographic anatomy as covered in HLTH3140 and CHIR3610 or CHIR6410

Online Modules:

Weekly online lecture modules will be available on ilearn, starting week1. The theory presented in the online modules will be needed for the following weekly quizzes and tutorials. Please ensure that you stay up to date with all online material.

Tutorial Times:

SGTA_3 Online Lecture Discussion: 2 hour tutorial on Tuesday 8-10am (starting week 2) or Friday 8-10am (starting week 1),14 S.C.O Ave Mason Theatre

SGTA_2 Radiographic Positioning Skills (x1): 1 hour tutorial on Tuesday afternoon, starting week 2, 11 Wally's Walk 340

SGTA_1 Radiographic Interpretation Skills (x1): 1 hour tutorial on Tuesday afternoon, starting week 2, 11 Wally's Walk 350 (RADLAB)

Technology:

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

Resources:

Recommended Text:

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

Required Manuals:

Radiographic Positioning Manual, 2021 (available electronically on ilearn)

Radiographic Library:

The radiographic library (RADLAB) houses over 1000 xray and digital access will be provided through ilearn. It is exepcted that the RADLAB is utilised for your revision for 1-2hrs per week.

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. A couple of useful websites are:

Radiopaedia: https://radiopaedia.org/

Learning Radiology: http://www.learningradiology.com/

Unit Schedule

For a detailed weekly schedule, please see ilearn

Radiographic Interpretation Topics:

Image assessment and categorisation

Alignment anomalies

Congenital anomalies

Trauma

Arthritis

Infection

Tumours

Endocrine, Nutrition, and Metabolic disorders

Vascular and Growth disorders

Spinal CT and MRI assessment and normal anatomy

Radiographic Positioning Topics:

Image acquisition

Radiographic image critique

Routine imaging of the spine

Routine imaging of the lower extremity

Routine imaging of the upper extremity

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy

Students seeking more policy resources can visit Student Policies (https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) 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 or if you are a Global MBA

student contact globalmba.support@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 help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

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

If you are a Global MBA student contact globalmba.support@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.

Changes from Previous Offering

The delivery of content has changed in 2021 to incorporate online lecture modules. In previous offerings 2 x 2hr weekly lectures were used to deliver theory content. In 2021, theory content will be delivered using online lecture modules and 1 x 2hr discussion tutorial.

Changes since First Published

Date	Description
19/02/2021	Resources were changed to remove the radiographic interpretation manual as this is now being delivered as a component of the online modules