



# CHIR8511

## Clinical Neurology

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  
convenor  
Stephney Whillier  
[stephney.whillier@mq.edu.au](mailto:stephney.whillier@mq.edu.au)  
Contact via 9850 9387  
17WW 356  
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 covers a wide spectrum of clinically relevant neurological conditions for chiropractic students. Students will develop competency in neurological examination and in formulating a differential diagnosis based on the patient's clinical presentation. The knowledge and understanding constructed in this way also enables students to discuss and analyse pertinent case studies with the necessary depth required. The knowledge and skills acquired during this unit are fundamental for diagnostic competence in chiropractic practice. A variety of teaching methods are employed, from lectures based on current evidence that are also made available online, to tutorials that are underpinned by a social constructivist approach to building knowledge, using the discussion of case studies to develop diagnostic skill.

## 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:** Perform the clinical neuromusculoskeletal history taking and examination

competently

**ULO2:** Draw on acquired theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient, and from this develop a differential diagnosis and clinical management plan.

**ULO3:** Demonstrate well developed clinical reasoning skills and the ability to diagnose conditions that are suitable for chiropractic care, and identify conditions that are contraindicated for chiropractic care including conditions of non-musculoskeletal origin.

**ULO4:** Acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

**ULO5:** Develop a respect and empathy for patients, and an ethical and professional attitude to health care. In this regard, you should develop a commitment to remain informed and up-to-date in your profession

## General Assessment Information

### Assessment Tasks Description

1. **Weekly Quizzes: Eleven (11) quizzes:** 10 minute quizzes to be completed online in WEEKS 2 - 12 that will test **lecture** material of the previous week. See the schedule above for details on content that is covered by looking at the previous week's lecture content. The format will be multiple choice questions or fill in the missing word/s. Each quiz will open on Monday at 8am and close on Sunday at 11pm of that week. The first quiz will be posted on Monday of week 2. There will be absolutely no opportunity to submit a quiz after the closing time as answers are released at that point. If you have technical difficulties, email your answers to your convenor and they will be manually marked. If you email these after the closing time, they will not be marked. The quizzes will have a time limit of 10 minutes, and there will be only one submission per student. The resultant mark will be an **AVERAGE of the 11 quiz marks (please note, NOT best x of 11)**.
2. **OSCE:** These will assess your competency in performing the neurological examination. Details will be given on iLearn and in the tutorials nearer to the date
3. **Final examination:** This will cover the content for the entire semester. It tests your knowledge of the theory, and the ability to connect that knowledge to real life situations (e.g., case studies, clinical presentations). It will consist of a 2 hour written exam with multiple choice questions, short answer questions and case studies.

## Attendance Requirements

**You must attend and participate in at least 18 of the 21 weekly tutorial classes to pass this unit. Student roll will be taken.**

You must attend the class in which you are enrolled. You must not exchange your class time without consultation with the convenor. In special circumstances, if you are unable to attend your assigned tutorial in any week, you may request attendance at the alternative session on that day, through written request to the unit convener. This allowance may be used on a maximum of 2 occasions.

## Examinations

The Semester 1 University Examination period is from: 7 - 25 June, 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:

<http://www.timetables.mq.edu.au/exam>

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. The University's Special Consideration Policy can be found at: <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>. Information can also be found at <https://students.mq.edu.au/study/my-study-program/special-consideration>

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 special consideration, the examination will be scheduled after the conclusion of the official examination period.

If you receive [special consideration](#) for the final exam, a supplementary exam will be scheduled in the interval between the regular exam period and the start of the next session. 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](http://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.

**NOTE:** Supplementary exams may be in a different format to the exam set in the normal examination period.

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.

### Returning Assessment Tasks

1. Quizzes: automatic feedback is given when the quiz is closed
2. OSCEs: Students will receive feedback during the examination, and in the term I OSCE, further feedback will be given in the tutorial.
3. Examination: Papers will not be returned. Marks will be incorporated into the final unit grade.

### Extensions and penalties

Extensions to assignments are at the discretion of the unit convenor. It is your responsibility to prove to the convenor that there has been unavoidable disruption. Marks will be deducted for late submissions in the absence of an approved extension.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Final written examination</a>	40%	No	end of semester exam period
<a href="#">OSCE I</a>	20%	No	wednesday, week 7
<a href="#">weekly quizzes</a>	20%	No	weekly, weeks 2 - 12
<a href="#">OSCE II</a>	20%	No	Wednesday, week 13

## Final written examination

Assessment Type <sup>1</sup>: Examination

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **end of semester exam period**

Weighting: **40%**

The final exam tests your knowledge of the theory, and the ability to connect that knowledge to real life situations (e.g. case studies, clinical presentations). It will consist of a 2 hour written exam with multiple choice questions and case studies.

On successful completion you will be able to:

- Draw on acquired theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient, and from this develop a differential diagnosis and clinical management plan.
- Demonstrate well developed clinical reasoning skills and the ability to diagnose conditions that are suitable for chiropractic care, and identify conditions that are contraindicated for chiropractic care including conditions of non-musculoskeletal origin.
- Acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

## OSCE I

Assessment Type <sup>1</sup>: Clinical performance evaluation

Indicative Time on Task <sup>2</sup>: 10 hours

Due: **wednesday, week 7**

Weighting: **20%**

The OSCE will assess competency in performing the neurological examination.

On successful completion you will be able to:

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Draw on acquired theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient, and from this develop a differential diagnosis and clinical management plan.
- Demonstrate well developed clinical reasoning skills and the ability to diagnose conditions that are suitable for chiropractic care, and identify conditions that are contraindicated for chiropractic care including conditions of non-musculoskeletal origin.
- Acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Develop a respect and empathy for patients, and an ethical and professional attitude to

health care. In this regard, you should develop a commitment to remain informed and up-to-date in your profession

## weekly quizzes

Assessment Type <sup>1</sup>: Quiz/Test

Indicative Time on Task <sup>2</sup>: 10 hours

Due: **weekly, weeks 2 - 12**

Weighting: **20%**

students complete online weekly quizzes based on the previous week's lectures and case studies

On successful completion you will be able to:

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Demonstrate well developed clinical reasoning skills and the ability to diagnose conditions that are suitable for chiropractic care, and identify conditions that are contraindicated for chiropractic care including conditions of non-musculoskeletal origin.
- Acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

## OSCE II

Assessment Type <sup>1</sup>: Clinical performance evaluation

Indicative Time on Task <sup>2</sup>: 10 hours

Due: **Wednesday, week 13**

Weighting: **20%**

The OSCE will assess competency in performing the neurological examination and skill in differential diagnosis

On successful completion you will be able to:

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Draw on acquired theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient, and from this develop a differential diagnosis and clinical management plan.
- Demonstrate well developed clinical reasoning skills and the ability to diagnose conditions that are suitable for chiropractic care, and identify conditions that are contraindicated for chiropractic care including conditions of non-musculoskeletal origin.
- Acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Develop a respect and empathy for patients, and an ethical and professional attitude to

health care. In this regard, you should develop a commitment to remain informed and up-to-date in your profession

<sup>1</sup> 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.

<sup>2</sup> 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

### Delivery mode

This unit is characterised by a moderate degree of flexibility. It incorporates a variety of learning tools and media. It will comprise:

	ACTIVITY	Total
<b>Lectures</b>	<p>2 × 2 hour lectures per week online</p> <p><b>Lecture 1:</b> Monday 1-3pm, weeks 1-12</p> <p><b>Lecture 2:</b> Friday 1-3pm, weeks 1-12</p>	4 hours per week, weeks 1-12
<b>Tutorials</b>	<p>2 × 2 hour tutorial class per week, weeks 2 – 12</p> <p>Tutorial 1: Wednesday 2-4pm or 4-6pm (11WW 330 South Lab)</p> <p>Tutorial 2: Thursday 9-11am or 11 – 1 (11WW 330 South Lab)</p> <p>Note that you must attend one of the Wednesday, <b>and</b> one of the Thursday tutorials per week. This means you attend a total of two tutorials a week.</p>	4 hours per week, weeks 2-12
<b>Other</b>	Revision, self-instructional learning, preparation for tutorials and readings from the manual/text	2.5 hours per week

Please note that the venues are subject to change until just before the start of the semester. So, for further details on class time and locations for this unit follow the link below:

[http://students.mq.edu.au/student\\_admin/timetables](http://students.mq.edu.au/student_admin/timetables)



## Unit Web Page

You can log in to iLearn System via the link listed below:

<https://ilearn.mq.edu.au/login/MQ/>

All lecture materials will be posted on iLearn, and there is also a link to ECHO360 for **audio** recordings of the lectures.

## Required and recommended resources

### Required:

1. CHIR8511 – Clinical Neurology *Tutorial Course Manual 2021*– This has been uploaded to iLearn. Please be sure to either download, print and bind the manual, or have an iPad or laptop to access the manual during the tutorial.

### Recommended:

- Blumenfeld H (2010) *Neuroanatomy through Clinical Cases*. 2<sup>nd</sup> ed. Sinauer Associates Inc, Massachusetts. Distributed by Palgrave Macmillan, Victoria, Australia.
- Souza TA (2005) *Differential diagnosis and management for the chiropractor* 3<sup>rd</sup> ed. Jones & Bartlett Pub, Massachusetts.

### Required Diagnostic Equipment (Neurological Diagnosis Kit):

1. A diagnostic set with otoscope and ophthalmoscope (Welsh Allen series 97200-BI recommended - ~\$515)
2. A tailor's measuring tape
3. A 128Hz or 256Hz (vibration) **and also** a 512Hz (auditory) tuning fork
4. Neurotips
5. Long stem cotton tips
6. Disposable tongue depressors
7. Tomahawk reflex hammer
8. A number of tactile items e.g., key, coin etc
9. A compass:

### A note about textbooks:

Textbooks for this unit can be purchased online from Booktopia <https://www.booktopia.com.au/coop>.

The list of Macquarie University S1 2020 units and texts can be found on the [Booktopia website](#)

## Unit Schedule

### The Neurology Timetable:

Note that you must attend one of the Wednesday, **and** one of the Thursday tutorials.

Week	Start Date of week	Monday Lecture (1-3pm)	Wednesday Tutorial (2 – 4pm or 4 - 6 pm)	Thursday Tutorial (9-11am or 11 – 1pm)	Friday Lecture (1-3pm)
1	22 Feb	L1: Clinical Decision Framework. Mental Status Examination	None	None	L2: Cognitive Impairment
2	1 Mar	L3: Psychiatric Disorders	Clinical Decision Framework History Taking and the neuroexamination	Mental Status Examination	L4: Headaches
3	8 Mar	L5: Eye Presentations	Cranial nerves	cranial nerves	L6: Eye Presentations Continued
4	15 Mar	L7: Hearing and Balance Presentations	cranial nerves	cranial nerves	L8: Hearing and Balance Presentations Continued
5	22 Mar	L9: Clinical History and Examination of Motor and Sensory Systems	Motor testing	motor testing and DTRs	L10: Cerebrovascular Disease: cerebral and spinal cord stroke
6	29 March (Friday holiday)	L11: Chronic Pain I	Sensory testing	Sensory Testing	L12: Chronic pain II
Good Friday, 2 April – Sunday, 18 April: Mid-semester Break					
7	19 April	L13: Examination of the Peripheral Nerves	OSCE I	OSCE I Feedback Peripheral nerve testing	L14: Abnormal Movements, Gait and Co-ordination

8	26 April	L15: Neurodynamic Testing and Mobilisation Techniques	Gait & co-ordination	Neurodynamic Tests and Mobilisation techniques	L16: Neurodynamic Testing and Mobilisation Techniques Continued
9	3 May	L17: The Paediatric Neuroexamination	Neurodynamic Tests and Mobilisation techniques	The paediatric neurological examination	L18: Lesions of the spinal cord and localisation of the lesion
10	10 May	L19: Lesions of the spinal cord and localisation of the lesion continued	Introduction to the Neuroscreen	Neuroscreens	L20: Brain Neoplasms Seizures
11	17 May	L21-22: Common Lesions of the nervous system I	Neuroscreens	Neuroscreens	L21-22: Common lesions of the nervous system II
12	24 May	L21-22: Common lesions of the nervous system III	Neuroscreens	Neuroscreens	None
13	31 May	None	OSCE II		None

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](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 \(https://students.mq.edu.au/support/study/policies\)](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 \(https://policies.mq.edu.au\)](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](mailto: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](mailto: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/](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**

2021 is the first offering of CHIR8511. The material was previously split into CHIR8501 and CHIR8502, which were units that contained both clinical neurology and orthopaedics. Clinical neurology is now a standalone unit in semester 1, followed by CHIR8512 which is a standalone unit of orthopaedics.