



CHIR873

Neuromusculoskeletal Diagnosis 1

S1 Day 2016

Dept of Chiropractic

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Disclaimer

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General Information

Unit convenor and teaching staff

Unit Convenor

Stephney Whillier

stephney.whillier@mq.edu.au

Contact via 9850 9387

C5C 362

as requested via email

co-convenor

Ben Brown

benjamin.brown@mq.edu.au

Contact via 9850 6383

C5C 341

As requested via email

Matthew Fernandez

matthew.fernandez@mq.edu.au

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 introduces you to common neurological and orthopaedic conditions. A variety of teaching methods are employed, from didactic lectures based on current evidence that are 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. You will develop competency in neurological and orthopaedic examination and in developing a differential diagnosis based on the patient's signs and symptoms at clinical presentation. The knowledge and skills acquired during this unit are fundamental for diagnostic competence in chiropractic practice.

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:

Demonstrate a sound competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.

Perform the clinical neuromusculoskeletal history taking and examination competently

Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.

Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin

Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

Participate in practical sessions in which the knowledge acquired in texts and lectures is applied in a group situation. They should be able to reason, question and communicate your understandings to each other and your tutors as they complete tasks set in the practicals

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

General Assessment Information

Attendance Requirements

A minimum of 80% attendance at tutorial classes is required in order to successfully complete this unit.

You must attend the class in which you are enrolled. You must not exchange your class time. In special circumstances, you may apply for requests regarding changes. These requests are to be submitted to the unit convener.

Examinations

The Semester 1 University Examination period is from: 14th of June – 1st of July, 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:

<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 disruption to studies. Information about the disruption to studies process is available at

http://students.mq.edu.au/student_admin/exams/disruption_to_studies/

In particular, pay attention to the following information on the Disruption to Studies site:

The [disruption to studies policy](#) applies only to serious and unavoidable disruptions that arise after a study period has commenced.

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.

Supplementary exams may also be in a different format to the exam set in the normal examination period e.g. oral examination.

Returning Assessment Task

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1. Online quizzes will be automatically marked and returned for students to monitor their progress
2. The journal article review will be returned in the first tutorial of semester 2, and feedback will be given.
3. OSCE: Scoring sheets will be returned to students for feedback purposes.
4. 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.

Grades

Achievement of grades will be based on the following criteria:

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. In addition a fail grade will be awarded in the event of inadequate tutorial attendance by the candidate, reflecting failure to complete the unit satisfactorily.

Sometimes it helps to 'translate' these descriptions into numbers. So, what we expect from you in this unit, in order for you to attain a specific grade, is outlined below:

NOTE: Each strand of the unit must have an overall passing grade

Assessment Tasks

Name	Weighting	Hurdle	Due
1	10%	No	continuous
2. Neurology Case Study	10%	No	Week 11, 23 May, by 5pm
3	20%	No	weeks 6 & 7
4	20%	No	Week 12 and 13
5	40%	No	TBA

1

Due: **continuous**

Weighting: **10%**

Ten quizzes will be made available to students at the start of the semester which will be due at the end of the semester. The quiz questions will be based on readings relating to diagnostic

studies and will help students understand the accuracy statistics of the testing procedures taught in the unit and the research methods used to determine these statistics.

On successful completion you will be able to:

- Demonstrate a sound competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

2. Neurology Case Study

Due: **Week 11, 23 May, by 5pm**

Weighting: **10%**

Case study write-up. You may take any neurological topic. Write up a case study on a specific condition, under the following titles:

1. Chief complaint: patient's age, sex and presenting symptoms
2. History of the present illness
3. Relevant family history, social and environmental history
4. Relevant medications
5. List of possible diagnoses from the patient history – explain why this list was chosen
6. Results of the neurological exam tailored to the patient history – detail what was done and why it was done, as well as the results of the examination
7. List of possible diagnoses from the neurological exam – explain why this list was chosen
8. Further blood and radiological tests – explain your choices
9. Final diagnosis – explain how and why this was reached
10. Chiropractic management of the final diagnosis – explain why this management will help, and say whether this is substantiated in the present literature.

Any one specific topic can only be done by a **maximum of 3 students**. Therefore each student must send in 3 possible topics they wish to do to the co-ordinator of Neurology, and topics will be assigned on a first come first served basis. This is necessary as the case study you choose will also be the case study you will adopt for the neuroscreens you will be doing in CHIR874.

The write-up should reflect your knowledge of the neuroanatomy, neurophysiology and

neuropathology of the condition, as well as an understanding of the role of the chiropractor in the management of the condition. This requires a literature search, and all references must be cited in the text and in a reference list.

Please refer to the rubric at the end of the manual to guide you in how the task will be assessed.

The references: referencing is Vancouver style: please print out information at:

<http://www.lib.monash.edu.au/tutorials/citing/vancouver.html> and follow it to the letter.

The review must be submitted electronically to 'Turn-it-In' via the iLearn website.

Maximum Length: 4 pages

Font size, margin size, font type, line spacing – don't care, but don't be ridiculous.

On successful completion you will be able to:

- Demonstrate a sound competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin
- Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

3

Due: **weeks 6 & 7**

Weighting: **20%**

OSCE: This will assess your competency in performing the neurological and orthopaedic examinations.

On successful completion you will be able to:

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Show an ability to draw on their theoretical knowledge in order to tailor the physical

examination to the clinical presentation of the patient and from this develop a differential diagnosis.

- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin
- Participate in practical sessions in which the knowledge acquired in texts and lectures is applied in a group situation. They should be able to reason, question and communicate your understandings to each other and your tutors as they complete tasks set in the practicals
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care. In this regard, they should develop a commitment to remain informed and up-to-date in their profession

4

Due: **Week 12 and 13**

Weighting: **20%**

OSCE: This will assess your competency in performing the neurological and orthopaedic examinations

On successful completion you will be able to:

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin
- Participate in practical sessions in which the knowledge acquired in texts and lectures is applied in a group situation. They should be able to reason, question and communicate your understandings to each other and your tutors as they complete tasks set in the practicals
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care. In this regard, they should develop a commitment to remain informed and up-to-date in their profession

5

Due: **TBA**

Weighting: **40%**

FINAL EXAMINATION: This will cover the content of each of the strands 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 3 hour written exam with multiple choice questions, short answer questions and case studies.

On successful completion you will be able to:

- Demonstrate a sound competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

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:

	Strand 1 - Orthopaedics	Strand 2 – Neurology	Total
Lectures	1-2 × 2 hour lectures per week Lecture 1: Monday 3pm-5pm (E7B T4), weeks 1-12 Lecture 2: Wednesday 9am–11am (E7B T5), weeks 3-11	1-2 × 2 hour lectures per week Lecture 1: Tuesday 9am-11 am, E7B T5, weeks 1-12 Lecture 2: Wednesday 9am–11am (E7B T5), weeks 1, 2, 12	6 hours per week, weeks 1-12
Tutorials	1 × 2 hour tutorial class per week, weeks 2 – 12 Thursday 9-11am or 11am-1pm (E5A 330 South Lab)	1 × 2 hour tutorial class per week, weeks 2 – 13 Wednesday 2-4, 4-6 (choose one) in (E5A 320 North Lab)	4 hours per week, weeks 2-13
Other	1-2 hours per week revision, self-instructional learning and readings	1 - 2 hours per week revision, self instructional learning and readings from the text	2 - 4 hours per week

Further details on class time and locations for this unit can be found by following the link below:

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 or audiovisual** (where available) recordings of the lectures.

Required and recommended resources

Strand 1: Orthopaedics

Notes are summarised under 'Lectures' on iLearn for CHIR 873

Required:

1. Magee D.J. (2013). Orthopaedic Physical Assessment. 6th Edition. W.D Saunders, Philadelphia

Recommended Reading

1. **Brokner P, Khan, K.** (2011) Brokner & Khan's Clinical Sports Medicine. 4th Ed. McGraw-Hill Book Company Australia.
2. **Souza TA.** (1997) Differential Diagnosis for the Chiropractor. Aspen Publications.
3. **Hammer W.** 3rd Ed. Functional Soft Tissue Examination & Treatment by Manual Methods. Jones and Barlett, Sudbury Massachusetts.
4. **Evans RC.** (2008) Illustrated Orthopaedic Physical Assessment. Mosby.

NOTE: Weekly tutorial case reports, questionnaires, and readings will be made available through iLearn.

Students will be required to complete weekly quizzes based on peer-reviewed journal articles that will be made available on iLearn.

Strand 2: Neurology

Required:

1. Blumenfeld H (2010) *Neuroanatomy through Clinical Cases*. 2nd ed. Sinauer Associates Inc, Massachusetts. Distributed by Palgrave Macmillan, Victoria, Australia.
1. CHIR873 - Neurology *Tutorial Course Manual* – available at Co-op bookshop. Macquarie University Printery.

Recommended:

- Gates P (2010) *Clinical Neurology A Primer*. Churchill Livingstone Elsevier, Sydney, Australia
- Krebs C et al (2012) *Neuroscience* in Lippincott's Illustrated Reviews (Harvey RA Ed) LWW, USA
- Kandel ER et al (2000) *Principles of Neural Science, 4th ed.* McGraw-Hill, New York.
- Jull, GA et al (2008) *Whiplash, headache, and neck pain: Research-based directions for physical therapies*, 1st ed. Churchill Livingstone: Elsevier, Edinburgh.
- Olesen J et al (2006) *The Headaches 3rd ed.* LWW, PA.
- Souza TA (2005) *Differential diagnosis and management for the chiropractor 3rd ed.* Jones & Bartlett Pub, Massachusetts.
- Purves D et al (2012) *Neuroscience 5th ed.* Sinauer Inc, USA
- McCance KL et al (2010) *Pathophysiology, The biologic basis for disease in adults and children* Mosby, Elsevier, Canada
- Bickley LS (2009) *Bate's Guide to Physical Examination and History Taking 10th ed.* Wolters Kluwer/Lippencott Williams & Wilkins, PA
- Kiernan, JA (2009) *Barr's The Human Nervous System An Anatomical Viewpoint 9th ed.* Wolters Kluwer/LWW, PA

- Haines, DE (2008) *Neuroanatomy: An Atlas of Structures, Sections, and Systems 7th ed.* Wolters Kluwer/LWW, PA
- Nolte, J (2009) *The Human Brain: An Introduction to its Functional Anatomy 6th ed.* Mosby/Elsevier, PA

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 128 and 512Hz tuning fork (Al weighted)
4. Neurotips (no sewing pins or pinwheels allowed strictly by OHS/Biosafety regulations)
5. Large stem ear buds
6. Disposable tongue depressors
7. Tomahawk reflex hammer
8. Cotton wool

Unit Schedule

The Neurology Timetable:

Start Date of wk	Lecture (Tuesday, 9 – 11 am)	Lecture (Wednesday, 9-11am)	Tutorial (Wednesday 2 - 4, 4 - 6 pm)
29 Feb	Introduction to Clinical Neurology Pain	Nerve Tension Tests	None
7 Mar	Pain	Nerve Tension Tests and Mobilisations	Nerve Tension Tests and Mobilisations
14 Mar	Altered cognition		Nerve Tension Tests and Mobilisations
21 Mar	Psychiatric disorders		Neurological History Taking The Neuroexam: mental status
28 Mar	Sleep disorders		Neuroexam: mental status

4 April	Eye Presentations		Neuroexam: cranial nerves
11 April – 23 April: Mid-semester Break			
25 April	Hearing and Balance Presentations		OSCE
2 May	Cerebrovascular Disease and Brain Neoplasms		Neuroexam: cranial nerves
9 May	Lesions of the Spinal Cord and Localisation of the Lesion		Neuroexam: motor
16 May	Lesions of the Spinal Cord and Localisation of the Lesion		Neuroexam: motor
23 May	Common Lesions of the NS		Neuroexam: sensory
29 May	Common Lesions of the NS	Common Lesions of the NS, Seizures	Neuroexam: sensory, examination of peripheral nerves
6 June			OSCE

Orthopaedics Timetable

WEEK	LECTURE 1	LECTURE 2	Tutorial
1	Introduction to Orthopaedics (B. Brown)	Neurology Lecture	No Tutorial
2	Lower Back Pain due to Serious pathology (B. Brown)	Neurology Lecture	Orthopaedic Assessment of the Lumbar Spine – Part I
3	Lower Back Pain with Associated Radiculopathy I (B. Brown)	Lower Back Pain with Associated Radiculopathy II (B. Brown)	Orthopaedic Assessment of the Lumbar Spine – Part II

4	Lumbar Spine Spondylosis and Stenosis (B.Brown)	Lumbar Spine Spondylolysis and Spondylolisthesis (B.Brown)	Orthopaedic assessment of Lumbar Spine Stability, and Generalised Hypermobility
5	Lumbar Instability and Hypermobility (B.Brown) [RECORDED LECTURE] *Easter Monday Public Holiday	Non-Specific Lower Back Pain (B.Brown)	Orthopaedic Assessment of the Sacroiliac Joint and Coccyx
6	Disorders of the sacroiliac Joint and Coccyx (B.Brown)	Leg Length Discrepancy (B.Brown)	OSCE 1
Mid Semester Break April 7th – April 17th, 2015			
7	Orthopaedic Assessment of the Older Patient (B.Brown) [RECORDED LECTURE] *Anzac Day Public Holiday	Soft tissue causes of hip pain (M.Pribicevic)	Orthopaedic Assessment of the Hip - Part I
8	Myofascial & neural causes of hip pain (M.Pribicevic)	Osteological Causes of Hip Pain (M.Pribicevic)	Orthopaedic Assessment of the Hip - Part II and Knee - Part I

9	Meniscal and cruciate ligament injuries (B.Brown)	Collateral injuries, rotatory instability and myofascial disorders of the knee (B.Brown)	Orthopaedic Assessment of the Knee – Part II
10	Patellofemoral and growth plate disorders of the knee (B.Brown)	Injuries of the lower leg and ankle (B.Brown)	Orthopaedic Assessment of the Foot and Ankle - Part I
11	Joint & ligament disorders of the ankle (B.Brown)	Disorders of the mid-foot, forefoot and toes (B.Brown)	Orthopaedic Assessment of the Foot and Ankle - Part II
12	Review Lecture (B.Brown)	Neurology Lecture	OSCE 2
13	No Lecture	No Lecture	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

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

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin
- Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Participate in practical sessions in which the knowledge acquired in texts and lectures is applied in a group situation. They should be able to reason, question and communicate your understandings to each other and your tutors as they complete tasks set in the practicals
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care. In this regard, they should develop a commitment to remain informed and up-to-date in their profession

Assessment tasks

- 2. Neurology Case Study
- 3
- 4

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

- Demonstrate a sound competency in integrating and applying neuromusculoskeletal

anatomy, physiology and pathology.

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin
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- Develop a respect and empathy for patients, and an ethical and professional attitude to health care. In this regard, they should develop a commitment to remain informed and up-to-date in their profession

Assessment tasks

- 1
- 2. Neurology Case Study
- 3
- 4
- 5

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

- Demonstrate a sound competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Perform the clinical neuromusculoskeletal history taking and examination competently
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-

musculoskeletal origin

- Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Participate in practical sessions in which the knowledge acquired in texts and lectures is applied in a group situation. They should be able to reason, question and communicate your understandings to each other and your tutors as they complete tasks set in the practicals

Assessment tasks

- 2. Neurology Case Study
- 3
- 4
- 5

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

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin
- Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Participate in practical sessions in which the knowledge acquired in texts and lectures is applied in a group situation. They should be able to reason, question and communicate your understandings to each other and your tutors as they complete tasks set in the practicals

Assessment tasks

- 2. Neurology Case Study

- 3
- 4

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

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin
- Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Participate in practical sessions in which the knowledge acquired in texts and lectures is applied in a group situation. They should be able to reason, question and communicate your understandings to each other and your tutors as they complete tasks set in the practicals
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care. In this regard, they should develop a commitment to remain informed and up-to-date in their profession

Assessment tasks

- 2. Neurology Case Study
- 3
- 4

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

- Perform the clinical neuromusculoskeletal history taking and examination competently
- Show an ability to draw on their theoretical knowledge in order to tailor the physical examination to the clinical presentation of the patient and from this develop a differential diagnosis.
- Develop strong clinical reasoning skills and the ability to diagnose conditions that are suitable or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin
- Use acquired knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Participate in practical sessions in which the knowledge acquired in texts and lectures is applied in a group situation. They should be able to reason, question and communicate your understandings to each other and your tutors as they complete tasks set in the practicals
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care. In this regard, they should develop a commitment to remain informed and up-to-date in their profession

Assessment tasks

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