



CHIR874

Neuromusculoskeletal Diagnosis 2

S2 Day 2018

Dept of Chiropractic

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Disclaimer

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General Information

Unit convenor and teaching staff

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Credit points

4

Prerequisites

CHIR873

Corequisites

Co-badged status

Unit description

This unit builds on the neurology and orthopaedics taught in CHIR873. This unit is continuous with CHIR873, with the two units together covering the full spectrum of clinically relevant neurological and orthopaedic conditions for chiropractic students. Students continue to develop competency in the complete neurological and orthopaedic examination and, especially in this unit, develop their skills in tailoring the examination to the patient and developing a differential diagnosis based on the patient's signs and symptoms at 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.

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 highly developed competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.

Perform the clinical neuromusculoskeletal history taking and examination with highly developed competency

Show a highly developed 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.

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. Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings. Show great competency in practical sessions in which the knowledge acquired in texts and lectures is applied to a group situation. They should be able to reason, question, and communicate their understanding of the content to their fellow students and tutors as they complete tasks set in the practicals.

General Assessment Information

6. Assessment

Task Assessment	Weighting	Due Date	Linked Learning Outcomes
Neurology OSCE I	15%	Week 5	1, 2, 3, 4, 6
Orthopaedics OSCE I	10%	Week 6	1, 2, 3, 4, 6
Orthopaedics Assignment	10%	Week 10	5
Orthopaedics OSCE II	10%	Week 12	1, 2, 3, 4, 6
Neurology OSCE II	15%	Week 13	1, 2, 3, 4, 6
One Final theory exam	40% (20% Neurology, 20% Orthopaedics)	TBA	1, 3, 4

1. **OSCE's:** These will assess your competency in performing the neurological and orthopaedic examinations.
2. **Orthopaedics Assignment:** Students are to work in groups of maximum five students to produce a systematic literature review of a specific intervention for a musculoskeletal (MSK) condition.
3. **Neurological Screening:** Students are required to complete 5 full neurological screenings. Manuals will be marked for completeness. These completed screenings are required for accreditation.

4. **Final examination:** This will cover the content of the two 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.

Examinations

The University Examination period in for Semester 2 is from the 12 November – 30 November, 2018. 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) 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.

Returning Assessment Tasks

1. Neurology and Orthopaedics OSCE: The results of OSCE I and OSCE II for each strand will be immediate and during the exam.
2. Written feedback on the systematic literature review assignment will be provided to students prior to the final exam.
3. Examination: Papers will not be returned. Marks will be released on iLearn, and incorporated into the final unit grade.

Extensions and Penalties

NOTE: Supplementary examinations may not follow the same format as the original examination. For example, a student who misses the final written exam due to illness may submit a disruption to studies form. If the convener chooses to grant a supplementary exam, the format of that exam could be different. **If you are unable to attend the supplementary exam, the subsequent supplementary, should you qualify for one, will be a VIVA.**

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:

Grade	Percentile Range
Fail	<50%
Pass	50 – 64%
Credit	65 - 74%
Distinction	75 - 84%
High Distinction	85 - 100%

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Neurology OSCE I</u>	15%	No	Week 5
<u>Orthopaedics OSCE I</u>	10%	No	Week 6
<u>Neurology OSCE II</u>	15%	No	Week 13
<u>Orthopaedics OSCE II</u>	10%	No	Week 12
<u>Orthopaedics Assignment</u>	10%	No	10
<u>Final Theory Exam</u>	40%	No	Examination Period

Neurology OSCE I

Due: **Week 5**

Weighting: **15%**

OSCE

On successful completion you will be able to:

- Demonstrate a highly developed competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Perform the clinical neuromusculoskeletal history taking and examination with highly developed competency
- Show a highly developed 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.
- 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.
- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Show great competency in practical sessions in which the knowledge acquired in texts and lectures is applied to a group situation. They should be able to reason, question, and communicate their understanding of the content to their fellow students and tutors as they complete tasks set in the practicals.

Orthopaedics OSCE I

Due: **Week 6**

Weighting: **10%**

OSCE

On successful completion you will be able to:

- Demonstrate a highly developed competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Perform the clinical neuromusculoskeletal history taking and examination with highly developed competency
- Show a highly developed 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.

- 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.
- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Show great competency in practical sessions in which the knowledge acquired in texts and lectures is applied to a group situation. They should be able to reason, question, and communicate their understanding of the content to their fellow students and tutors as they complete tasks set in the practicals.

Neurology OSCE II

Due: **Week 13**

Weighting: **15%**

OSCE

On successful completion you will be able to:

- Demonstrate a highly developed competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Perform the clinical neuromusculoskeletal history taking and examination with highly developed competency
- Show a highly developed 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.
- 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.
- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Show great competency in practical sessions in which the knowledge acquired in texts and lectures is applied to a group situation. They should be able to reason, question, and communicate their understanding of the content to their fellow students and tutors as they complete tasks set in the practicals.

Orthopaedics OSCE II

Due: **Week 12**

Weighting: **10%**

OSCE

On successful completion you will be able to:

- Demonstrate a highly developed competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Perform the clinical neuromusculoskeletal history taking and examination with highly developed competency
- Show a highly developed 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.
- 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.
- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Show great competency in practical sessions in which the knowledge acquired in texts and lectures is applied to a group situation. They should be able to reason, question, and communicate their understanding of the content to their fellow students and tutors as they complete tasks set in the practicals.

Orthopaedics Assignment

Due: **10**

Weighting: **10%**

Group work on systematic literature review

On successful completion you will be able to:

- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

Final Theory Exam

Due: **Examination Period**

Weighting: **40%**

Final examination: includes multiple choice, and short answer questions based on clinical case studies.

On successful completion you will be able to:

- Demonstrate a highly developed competency in integrating and applying

neuromusculoskeletal anatomy, physiology and pathology.

- Show a highly developed 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.
- 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.

Delivery and Resources

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 Class times & locations	2 × 2 hour lectures per week, weeks 1 – 12 Monday 3pm - 5pm (9WW, 102) Wednesday 10am-12pm (14 SCO- 100)	1 × 2 hour lectures per week, weeks 1 – 12 Tuesday 8-10am (9WW, 102)	6 hours per week (Weeks 1-12)
Tutorials Class times & locations	1 × 2 hour tutorial class per week, weeks 2 – 12 Thursday 9am-11am or 11am-1pm (E5A 330)	1 × 2 hour tutorial class per week, weeks 2 – 13 Wednesday 2-4pm, 4-6pm, (choose one) in building E5A 320 North lab	4 hours per week, weeks 2-13
Other	1- 2 hours per week revision, self-directed learning	1 - 2 hours per week revision, self-instructional learning and readings from the text	4 hours per week

Further details on class time and locations for this unit can be found at:

<https://timetables.mq.edu.au/2017/>

Tutorials

You must attend the tutorial class in which you enrolled. Students must not exchange their class time. In special circumstances, you may request a specific change. These requests are to be submitted to the strand convener.

Attendance Requirements

If you miss your assigned tutorial in any week, you may request attendance at an alternative session, through email request and appropriate documentation to the unit convenor. This allowance may be used on a maximum of 2 occasions. **If you have missed more than 2 tutorials without giving a reason to the unit convenor for the strand, you will be called in to discuss your progress.**

Unit Web Page

You can log in to ilearn learning system using the link below:

<http://ilearn.mq.edu.au>

All lectures materials will be posted on ECHO Live Streaming on iLearn, which will be a single link that includes the lecture Powerpoint, additional material like videos, and the recorded lecture. Interactive materials e.g. lecture quizzes and polls will also be available at this site. Note that the lecture will be live streamed as well as recorded.

4. Required and recommended resources

Strand 1: Orthopaedics

All lecture notes will be posted on ilearn for CHIR 874.

Required Texts:

1. **Magee, D.J.** (2014). Orthopaedic Physical Assessment. 6th Edition. W.D Saunders, Philadelphia

Recommended Texts:

1. **Souza, T.A.** (2009) Differential Diagnosis for the Chiropractor, Aspen Publications.
1. **Brokner, P., Khan, K.** (2011) Brokner & Khan's Clinical Sports Medicine. 4th Ed: McGraw-Hill Book Company Australia.
2. **Evans, R.C.** (2008) Illustrated Orthopaedic Physical Assessment: Mosby.

Strand 2: Neurology

Required:

1. Blumenfeld H (2010) *Neuroanatomy through Clinical Cases*. 2nd ed. Sinauer Associates Inc, Massachusetts. Distributed by Palgrave Macmillan, Victoria, Australia.
2. HLTH874 - 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
- McCance KL, Huether SE, Brashers VL & Rote NS (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

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
5. Large stem ear buds
6. Disposable tongue depressors
7. Tomahawk reflex hammer
8. Cotton wool

Unit Schedule

NEUROLOGY TIMETABLE

WEEK NUMBER	Tuesday: LECTURE SCHEDULE W5A T1	Wednesday: TUTORIAL E5A room 320 North
W1 – Mon July 30	31 July (SW) <ul style="list-style-type: none"> • Introduction to the course • Examination of peripheral nerves 	NONE
W2 – Mon 6 August	7 August (SW) <ul style="list-style-type: none"> • Abnormal movement, Co-ordination and gait disturbances (SW) 	8 August <ul style="list-style-type: none"> • Feedback assignment and OSCE • Neuroexam: peripheral nerve testing, and deep tendon reflexes, case studies
W3 – Mon 13 August	14 August (SW) <ul style="list-style-type: none"> • Headaches 	15 August <ul style="list-style-type: none"> • Neuroexam: gait & co-ordination, case studies
W4 – Mon 20 August	21 August (SW) <ul style="list-style-type: none"> • Headaches continued 	22 August <ul style="list-style-type: none"> • Case Studies • Neuroscreen introduction
W5 – Mon 27 August	28 August (AN) <ul style="list-style-type: none"> • Neurological Differential Diagnosis Part 1 	29 August <ul style="list-style-type: none"> • OSCE I
W6 – Mon 3 September	4 September (AN) <ul style="list-style-type: none"> • Neurological Differential Diagnosis Part 2 	5 September <ul style="list-style-type: none"> • Feedback on OSCE • case studies/neuroscreen
W7 – Mon 10 September	11 September (AN) <ul style="list-style-type: none"> • Neurological Differential Diagnosis Part 3 	12 September <ul style="list-style-type: none"> • Problem solving – adapting the examination to the specific needs of the patient: The comatose patient • Case studies/neuroscreen
17 Sep – 1 Oct	MID SEMESTER BREAK	

W8 – Tuesday 2 October	2 October <ul style="list-style-type: none"> The Paediatric Neuroexamination (SW) 	3 October <ul style="list-style-type: none"> The paediatric neurological examination
W9 - Monday 8 October	9 October (AN) <ul style="list-style-type: none"> Sensorimotor Control Part 1 	10 October <ul style="list-style-type: none"> Case studies/neuroscreen
W10– Mon 15 October	16 October (AN) <ul style="list-style-type: none"> Sensorimotor Control Part 2 	17 October <ul style="list-style-type: none"> Case studies/ neuroscreen
W11 – Mon October 22	23 October (AN) <ul style="list-style-type: none"> Diagnosis and Management of Central Pain Syndrome Part 1 	24 October <ul style="list-style-type: none"> Case studies/ neuroscreen
W12 – Mon 29 October	30 October (AN) <ul style="list-style-type: none"> Diagnosis and Management of Central Pain Syndrome Part 2 	31 October <ul style="list-style-type: none"> Revision of the neurological exam
W13 – Mon 5 November	6 November <ul style="list-style-type: none"> None 	7 November <ul style="list-style-type: none"> OSCE II

Orthopaedics Timetable

Week	Lecture 1	Lecture 2	Tutorial 1
Week 1	Introduction to Neuromusculoskeletal Diagnosis II and the classification of neck pain	Neck Pain due to Serious Pathology	No Tutorial
Week 2	Grade III Neck Pain	Grades I-II Neck Pain	Orthopaedic Physical Examination of the Cervical Spine - Part I

Week 3	Whiplash and Associated Disorders	Thoracic Outlet Syndrome	Orthopaedic Physical Examination of the Cervical Spine - Part II
Week 4	Orthopaedic Examination of the Paediatric Patient	Causes of TMJ pain and dysfunction	Orthopaedic Physical Examination of the Cervical Spine - Part III and Examination of the TMJ
Week 5	Conditions of the thoracic spine and rib cage	Scoliosis and Scheuermann's Disease	Physical Examination and Orthopaedic Special Tests for Thoracic Outlet Syndrome and the Thoracic Spine and Ribs
Week 6	Cervical & other neural causes of shoulder pain	Rotator cuff disorders of the shoulder	OSCE I
Week 7	Myofascial causes of shoulder pain & impingement	Labral & instability disorders of the shoulder	Orthopaedic Physical Examination of the Shoulder - Part I
MIDSEMESTER BREAK, 17 – 28 SEPTEMBER 2018			

Week 8	Public Holiday	Myofascial & neural causes of elbow pain	Orthopaedic Physical Examination of the Shoulder - Part II
Week 9	Joint and osteological causes of elbow pain	Myofascial & neural causes of wrist pain	Orthopaedic Physical Examination of the Elbow - Part I
Week 10	Joint instability and osteological causes of wrist pain	Conditions of the wrist	Orthopaedic Physical Examination of the Wrist Part I
Week 11	Conditions of the fingers and thumb	Tissue Healing and Repair	Orthopaedic Physical Examination of the Wrist - Part II and the Hand and Fingers
Week 12	Review Lecture	No Lecture	OSCE II

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/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/study/getting-started/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

- Show a highly developed 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.
- 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.
- Show great competency in practical sessions in which the knowledge acquired in texts and lectures is applied to a group situation. They should be able to reason, question, and communicate their understanding of the content to their fellow students and tutors as they complete tasks set in the practicals.

Assessment tasks

- Neurology OSCE I
- Orthopaedics OSCE I
- Neurology OSCE II
- Orthopaedics OSCE II
- Final 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

- Demonstrate a highly developed competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Perform the clinical neuromusculoskeletal history taking and examination with highly developed competency
- Show a highly developed 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.
- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

Assessment tasks

- Neurology OSCE I
- Orthopaedics OSCE I
- Neurology OSCE II
- Orthopaedics OSCE II
- Orthopaedics Assignment
- Final 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

- Demonstrate a highly developed competency in integrating and applying neuromusculoskeletal anatomy, physiology and pathology.
- Show a highly developed 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.
- 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.

- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings
- Show great competency in practical sessions in which the knowledge acquired in texts and lectures is applied to a group situation. They should be able to reason, question, and communicate their understanding of the content to their fellow students and tutors as they complete tasks set in the practicals.

Assessment tasks

- Neurology OSCE I
- Orthopaedics OSCE I
- Neurology OSCE II
- Orthopaedics OSCE II
- Orthopaedics Assignment
- Final 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

- Show a highly developed 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.
- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

Assessment tasks

- Neurology OSCE I
- Orthopaedics OSCE I
- Neurology OSCE II
- Orthopaedics OSCE II
- Orthopaedics Assignment
- Final 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

- Show a highly developed 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.
- 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.
- Show a highly developed ability to acquire knowledge to evaluate conditions, research these cases further using appropriate reference material and communicate findings

Assessment tasks

- Neurology OSCE I
- Orthopaedics OSCE I
- Neurology OSCE II
- Orthopaedics OSCE II
- Orthopaedics Assignment
- Final 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

- Show a highly developed 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.
- Show a highly developed ability to acquire knowledge to evaluate conditions, research

these cases further using appropriate reference material and communicate findings

- Show great competency in practical sessions in which the knowledge acquired in texts and lectures is applied to a group situation. They should be able to reason, question, and communicate their understanding of the content to their fellow students and tutors as they complete tasks set in the practicals.

Assessment tasks

- Neurology OSCE I
- Orthopaedics OSCE I
- Neurology OSCE II
- Orthopaedics OSCE II
- Final Theory Exam