



# CHIR874

## Neuromusculoskeletal Diagnosis 2

S2 Day 2015

*Dept of Chiropractic*

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#### **Disclaimer**

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## General Information

Unit convenor and teaching staff

Unit Convenor

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C5C West Room 360

Please email me to arrange an appointment

Unit Convenor

Benjamin Brown

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C5C West Room 341

Please email me to arrange an appointment

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 or contraindicated in 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

**PLEASE NOTE: YOU MUST PASS EACH STRAND OF THIS UNIT IN ORDER TO PASS THE COURSE**

### 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 enrolled. You must not exchange their class time. In special circumstances, you may apply for requests regarding changes. These requests are to be submitted to the convener.

### Examinations

The University Examination period in for Semester 2 is from the 9-27 November, 2015. You are expected to present yourself for examination at the time and place designated in the University Examination timetable. The timetable will be available in 'draft' form approximately eight weeks before the commencement of the examinations and in 'final' form approximately four weeks before the commencement of the examinations.

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for 'Special Consideration'. You must apply for a 'Disruption of Studies' within 5 days after the scheduled exam. If you sit an exam and put in for disruption to studies you will not receive a grade for the exam that you attended. If you are granted a supplementary, the grade you received in the supplementary will be used toward your mark, irrespective of whether it is better or worse than the original grade.

If a supplementary examination is granted as a result of the 'Special Consideration' process the examination will be scheduled after the conclusion of the official examination period. (Individual Faculties may wish to signal when the Faculty's Supplementary exams are normally scheduled.) The supplementary does not need to be in the format of the original exam. If you miss the supplementary examination, and are considered eligible for a substitute supplementary, it will be in the form of a VIVA.

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 Task

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1. Neurology and Orthopaedics OSCE: The results of the OSCE I will be returned to students, shortly after the exam, for feedback purposes. The results of the OSCE II will **NOT** be released, however students may request feedback on their performance. Marks will be incorporated into the final unit grade.
2. 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.

## Assessment Tasks

Name	Weighting	Due
<a href="#"><u>Neurology Mini-quizzes</u></a>	10%	6/11/14
<a href="#"><u>Orthopedics Written Assignment</u></a>	10%	week 8
<a href="#"><u>Neurology OSCE I</u></a>	10%	Week 5
<a href="#"><u>Orthopaedics OSCE I</u></a>	10%	Week 6
<a href="#"><u>Neurology OSCE II</u></a>	10%	Week 13
<a href="#"><u>Orthopaedics OSCE II</u></a>	10%	Week 12
<a href="#"><u>Neurological Screenings</u></a>	0%	Week 13
<a href="#"><u>Final Examination</u></a>	40%	Exam period

### Neurology Mini-quizzes

Due: **6/11/14**

Weighting: **10%**

The 9 mini-quizzes are available online on iLearn. They are all available from the start of the semester, and students can choose when to do them, but all 9 must be completed by week 13, 6

November at 5pm. The quizzes are based on the readings and the tutorial work for each week and therefore are best done week by week at the same time as the tutorial work is done. However, the only deadline for all of them is the one given above. Quizzes can only be attempted once.

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

## Orthopedics Written Assignment

Due: **week 8**

Weighting: **10%**

1. 'Critique of a Diagnostic Test Accuracy Study'. This assignment will assess a student's ability to critically appraise high level evidence (Diagnostic test accuracy study) on a given topic.

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

## Neurology OSCE I

Due: **Week 5**

Weighting: **10%**

This assessment will assess your competency in performing the neurological examination.

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 or contraindicated in 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.

## Orthopaedics OSCE I

Due: **Week 6**

Weighting: **10%**

This assessment will assess your competency in performing the orthopaedics examination.

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 or contraindicated in 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.

## Neurology OSCE II

Due: **Week 13**

Weighting: **10%**

This assessment will assess your competency in performing the neurological examination.

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 or contraindicated in 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.

## Orthopaedics OSCE II

Due: **Week 12**

Weighting: **10%**

This assessment will assess your competency in performing the orthopaedics examination.

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 or contraindicated in 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.



## Neurological Screenings

Due: **Week 13**

Weighting: **0%**

Students are required to complete 5 full neurological screenings. Manuals will be marked for completeness

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 or contraindicated in 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.

## Final Examination

Due: **Exam period**

Weighting: **40%**

The final examination will cover the content of the two strands for the entire semester. It will test a student's 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 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 or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin.

## Delivery and Resources

	Strand 1 Orthopaedics	Strand 2 Neurology	Total
<b>Lectures</b>	2 × 2 hour lectures per week, weeks 1 – 12 Monday 3pm - 5pm (E7B T2)	1 × 2 hour lectures per week, weeks 1 – 12 Tuesday 8-10am (C5C Forum)	<b>6 hours per week (Weeks 1-12)</b>
<b>Class times &amp; locations</b>	Wednesday 10am-12pm (E7B T2)		
<b>Tutorials</b>	1 × 2 hour tutorial class per week, weeks 2 – 12	1 × 2 hour tutorial class per week, weeks 2 – 13 Wednesday 2-4pm, 4-6pm, (choose one) in building E5A 320N	<b>4 hours per week, weeks 2-13</b>
<b>Class times &amp; locations</b>	Thursday 9am-11am or 11am-1pm (E5A 330)		
<b>Other</b>	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	<b>2-4 hours per week</b>

### Required and recommended resources

#### Strand 1: Orthopaedics

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

#### Required Texts:

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

#### Recommended Texts:

1. **Souza, T.A.** (2009) Differential Diagnosis for the Chiropractor, Aspen Publications.
1. **Brukner, P., Khan, K.** (2011) Brukner & Khan's Clinical Sports Medicine. 4th Ed: McGraw-Hill Book Company Australia.

1. **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
- Beirman R and Engel R (2009) *An A-Z of Symptoms and Signs*. Palgrave Macmillan, Sydney, NSW
- 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
- Kluwer/Lippincott Williams & Wilkins, PA (Chapters 5 and 17)
- Kiernan, JA (2009) *Barr's The Human Nervous System An Anatomical Viewpoint*. 9th ed.
- Wolters Kluwer/Lippincott Williams & Wilkins, PA
- Haines, DE (2008) *Neuroanatomy: An Atlas of Structures, Sections, and Systems*. 7th ed. Wolters
- Kluwer/Lippincott Williams & Wilkins

- Nolte, J (2009) *The Human Brain: An Introduction to its Functional Anatomy*. 6th ed.
- Mosby/Elsevier, PA
- Preston DC and Shapiro BE (2007) *Neuroimaging in Neurology. An Interactive CD*. Saunders, an imprint of Elsevier Inc.

**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

**Websites:**

An excellent website is now available on our Macquarie University library website. Go to [Databases](#), choose the subject '[Chiropractic](#)' and click on 'Anatomy.tv' for **Wolterskluwer Ovid Primal Pictures Interactive Anatomy**

Evidence-based medicine databases (*from: Gates P (2010) Clinical Neurology, Elsevier, Australia*):

<http://cochrane.org/index.htm> <http://www.chi.unsw.edu.au/chiweb.nsf/pag/QuickClinica><http://www.cebm.net>

<http://www.ahrq.gov/>

<http://www.hcn.com.au/profiles/shared/component/use/>

[www.emedicine.com](http://www.emedicine.com)

## Unit Schedule

WEEK NUMBER	Tuesday: LECTURE SCHEDULE E7B T2	Wednesday: TUTORIAL E5A room 320 North
W1 – Mon 27 July	28 July (SW) Introduction to the course Headache	NONE
W2 – Mon 3 August	4 August (SW) Headache	5 August Feedback assignment and OSCE Neuroexam: revision peripheral nerve testing, and deep tendon reflexes, c/studies
W3 – Mon 10 August	11 August (SW) Abnormal movement, Co-ordination and gait disturbances (SW)	12 August Neuroexam: gait & co-ordination, case studies
W4 – Mon 17 August	18 August (SW) The Paediatric Neuroexamination	19 August Cervicogenic headache case studies/neuroexam sheet introduction
W5 – Mon 24 August	25 August (AN) Neurological Differential Diagnosis Part 1	26 August OSCE I
W6 – Mon 31 August	1 September (AN) Neurological Differential Diagnosis Part 2	2 September Feedback on OSCE Pain case studies/neuroexam

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W7 – Mon 7 September	8 September (AN) ANS Disorders	9 September Problem solving – adapting the examination to the specific needs of the patient: The comatose patient Case studies/neuroexam
14 – 25 September	MID SEMESTER BREAK	
W8 – Monday 28 September	29 September (AN) Sensorimotor Control Part 1	30 September The paediatric neurological examination Case studies
W9 - Tuesday 6 October	6 October (AN) Sensorimotor Control Part 2	7 October Case studies/neuroexam
W10– Mon 12 October	13 October (AN) Fibromyalgia/other Central Pain Disorders	14 October case studies/neuroexam
W11 – Mon October 19	20 October (AN) Fibromyalgia/other Central Pain Disorders	21 October Whiplash case studies/neuroexam
W12 – Mon 26 October	27 October (AN) Applying Neurology Through Clinical Cases	28 October Revision of the neurological exam
W13 – Mon 2 November	3 November None	4 November OSCE II

Week	Lecture 1	Lecture 2	Tutorial 1
Week 1	Introduction to Neuromusculoskeletal Diagnosis II and the classification of neck pain (B.Brown)	Neck Pain due to Serious Pathology (B.Brown)	No Tutorial
Week 2	Grade III Neck Pain (B.Brown)	Grades I-II Neck Pain (B.Brown)	Orthopaedic Physical Examination of the Cervical Spine - Part I
Week 3	Whiplash and Associated Disorders (B.Brown)	Thoracic Outlet Syndrome (B.Brown)	Orthopaedic Physical Examination of the Cervical Spine - Part II

Week 4	Orthopaedic Examination of the Paediatric Patient (B.Brown)	Causes of TMJ pain and dysfunction I (A.Khalmir)	Orthopaedic Physical Examination of the Cervical Spine - Part III and Examination of the TMJ
Week 5	Conditions of the thoracic spine and rib cage (B.Brown)	Causes of TMJ pain and dysfunction II (A.Khalmir)	Physical Examination and Orthopaedic Special Tests for Thoracic Outlet Syndrome and the Thoracic Spine and Ribs
Week 6	Scoliosis and Scheuermann's Disease (B.Brown)	Cervical & other neural causes of shoulder pain (B.Brown)	<b>OSCE I</b>

## 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](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

Assessment Policy <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy <http://mq.edu.au/policy/docs/grading/policy.html>

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

Grievance Management Policy [http://mq.edu.au/policy/docs/grievance\\_management/policy.html](http://mq.edu.au/policy/docs/grievance_management/policy.html)

Disruption to Studies Policy [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](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/](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](http://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](http://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](http://ask.mq.edu.au)

## IT Help

For help with University computer systems and technology, visit <http://informatics.mq.edu.au/help/>.

When using the University's IT, you must adhere to the [Acceptable Use 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 or contraindicated in 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
- Neurological Screenings
- Final Examination

## **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 Mini-quizzes
- Orthopedics Written Assignment
- Neurology OSCE I
- Orthopaedics OSCE I
- Neurology OSCE II
- Orthopaedics OSCE II
- Neurological Screenings
- Final Examination

## 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 or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin.
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### Assessment tasks

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## 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.
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## **Assessment tasks**

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## **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 or contraindicated in chiropractic care, including conditions of non-musculoskeletal origin.
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## Assessment tasks

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## 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 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

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