



# CHIR2104

## Chiropractic Sciences 4

Session 2, Weekday attendance, North Ryde 2021

*Department of Chiropractic*

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#### Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

#### Session 2 Learning and Teaching Update

The decision has been made to conduct study online for the remainder of Session 2 for all units WITHOUT mandatory on-campus learning activities. Exams for Session 2 will also be online where possible to do so.

This is due to the extension of the lockdown orders and to provide certainty around arrangements for the remainder of Session 2. We hope to return to campus beyond Session 2 as soon as it is safe and appropriate to do so.

Some classes/teaching activities cannot be moved online and must be taught on campus. You should already know if you are in one of these classes/teaching activities and your unit convenor will provide you with more information via iLearn. If you want to confirm, see the list of [units with mandatory on-campus classes/teaching activities](#).

Visit the [MQ COVID-19 information page](#) for more detail.

## General Information

Unit convenor and teaching staff

Tutor

Laura Montgomery

[laura.montgomery@mq.edu.au](mailto:laura.montgomery@mq.edu.au)

By appointment

Tutor

Stephen Sharp

[stephen.sharp@mq.edu.au](mailto:stephen.sharp@mq.edu.au)

By appointment

Tutor

David McNaughton

[david.mcnaughton@mq.edu.au](mailto:david.mcnaughton@mq.edu.au)

By appointment

Tutor

Annie Young

[annie.young@mq.edu.au](mailto:annie.young@mq.edu.au)

By appointment

Tutor

Simon Paul Vella

[simonpaul.vella@mq.edu.au](mailto:simonpaul.vella@mq.edu.au)

By appointment

Patty Hodgson

[patricia.hodgson@mq.edu.au](mailto:patricia.hodgson@mq.edu.au)

Michael Swain

[michael.swain@mq.edu.au](mailto:michael.swain@mq.edu.au)

Credit points

10

Prerequisites

Admission to BChiroSc and (CHIR1101 or CHIR113) and (CHIR1102 or CHIR114) and (CHIR2103 or CHIR213)

Corequisites

Co-badged status

### Unit description

This unit builds upon introductory principles in biomechanics as well as clinically relevant concepts in applied anatomy. The focus of this unit will be the biomechanics of the thorax and the upper extremity. Clinical application of biomechanical concepts will relate to the skills of patient observation, joint range of motion assessment, tissue palpation, and muscle testing. Clinical reasoning skills will be developed whereby you will learn to reconcile pathomechanics with clinical findings for musculoskeletal injuries. The concept of diagnostic test accuracy will be introduced and explored. Chiropractic psychomotor skills will be developed. Chiropractic techniques and joint manipulation skills for the thoracic spine and upper extremity will be introduced and developed.

## Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

## Learning Outcomes

On successful completion of this unit, you will be able to:

**ULO1:** Describe clinical biomechanics (kinematics and kinetics) of the upper extremity and thorax of the human body.

**ULO2:** Demonstrate respect and empathy for patients while performing physical assessment techniques for the thoracic region and upper extremities: palpation, joint range of motion and muscle testing.

**ULO3:** Perform chiropractic techniques and joint manipulation skills on the thoracic spine, ribs and lower extremity

**ULO4:** Demonstrate basic clinical reasoning by applying knowledge of thoracic and upper extremity pathomechanics to interpret information derived from a physical assessment and the application of chiropractic techniques.

**ULO5:** Apply epidemiological knowledge and biostatistical skills to quantify and interpret information pertaining to diagnostic test accuracy

## General Assessment Information

### COVID-19

This unit involves some / at least one essential on-campus learning activities/activity which will be delivered in accordance with a COVID Safe plan. You will be expected to attend relevant on-campus activities unless the Public Health Order and/or University advice changes. The assessment due dates in this unit guide are correct as of 12th July 2021. Assessment due dates may change should future Public Health Order and/or University advice affect on-campus activities.

## Overall

An aggregated total score (50/100 for all assessments) is required to complete the unit satisfactorily. Students are strongly encouraged to complete all assessment tasks and actively participate in tutorial classes.

## Tutorials

Ongoing opportunities for feedback will be incorporated into tutorial classes. Tutors will provide verbal feedback in tutorial classes. Tutorial notes will contain sections for students to record feedback on psychomotor performance. Weekly in-tutorial quizzes will be marked at the end of each class and made available to students. The final mark for the in-tutorial quiz component will be calculated using marks from all tutorial quizzes. If a student is unable to complete the in-tutorial quiz due to absence they may apply for special consideration (attendance). If approved, the remedy will be 'attendance requirement waived' and the absent quiz will be removed from the denominator of the aggregated in-tutorial quiz assessment mark. Students will submit videos of their chiropractic technique work via an online skills portfolio (via iLearn > media gallery). Written feedback on technique performance will be provided on a subset of videos. All practical assessments will be competency-based with detailed descriptors of competency published on iLearn and made available to students before the assessment. A student may request individualised verbal feedback within 2-weeks of completing a chiropractic skills assessment (OSCE).

## Assignment

Specific details of the Assignment will be provided on the unit's iLearn page. The assignment must be submitted by the due date.

Extension to the due date may be granted under extenuating circumstances. Application for extensions must be made under the Special Consideration Policy, applied for through [ask.mq.edu.au](mailto:ask.mq.edu.au) within 5 days of the disruption and before the submission date of the assignment. Resubmission of assignments will not be considered under usual circumstances. Late submissions will receive a 5% per day penalty including weekends and public holidays. If you submit the assessment task 10 days or more beyond the due date, without an approved extension, you will be awarded a maximum of 50% of the overall assessment marks.

## Examination

The University Examination period for the Second Half Year of 2021 starts in November.

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. You are expected to ensure that you are available until the end of the teaching semester that is the final day of the official examination period.

The raw marks resulting from the assessment of your work will be used as an initial indicator of the quality of your learning and understanding. Note that the mark ranges mentioned for different grades in the Macquarie University Undergraduate Handbook are not the raw marks. To obtain a grade you must satisfy the qualitative definition of that grade. Once your grade has been determined, you are allocated a mark in the appropriate range indicating your approximate position amongst students assigned that grade.

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 the 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. Information about the Special Consideration process is available 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 Wellbeing and Support Services.

Supplementary examination: If you receive special consideration for the final exam, a supplementary exam will be scheduled in the Faculty's supplementary exam period. 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 before applying. Approved applicants will receive an individual notification one week before the exam with the exact date and time of their supplementary examination. The supplementary exam may be in a different format to the original exam (e.g. oral examination) and you will be notified of this when you are granted a supplementary exam.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>In-tutorial quizzes</u>	10%	No	Ongoing weeks 2 to 11
<u>Physical assessment and chiropractic technique videos</u>	10%	No	10th of September
<u>Research assignment</u>	20%	No	1st of October
<u>Chiropractic skills assessment (OSCE)</u>	20%	No	Week 12
<u>Final examination</u>	40%	No	Session 2 Examination Period

## In-tutorial quizzes

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

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

Due: **Ongoing weeks 2 to 11**

Weighting: **10%**

It is recommended that students participate in at least 80% of the chiropractic skills tutorials. This includes participation in the weekly (10 weeks) case study discussions. Students are required to complete weekly in-tutorial quizzes assessing knowledge and skills developed through the tutorial practical work and the case studies presented in the tutorials.

On successful completion you will be able to:

- Describe clinical biomechanics (kinematics and kinetics) of the upper extremity and thorax of the human body.
- Demonstrate respect and empathy for patients while performing physical assessment techniques for the thoracic region and upper extremities: palpation, joint range of motion and muscle testing.
- Demonstrate basic clinical reasoning by applying knowledge of thoracic and upper extremity pathomechanics to interpret information derived from a physical assessment and the application of chiropractic techniques.

## Physical assessment and chiropractic technique videos

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

Indicative Time on Task <sup>2</sup>: 12 hours

Due: **10th of September**

Weighting: **10%**

Students will maintain a video portfolio that demonstrates their ability to perform physical assessments and chiropractic techniques taught in this unit. Accompanying videos of procedures will be a brief critical appraisal statement that reflects on students' aptitude within the chiropractic skills competency framework. Only a subset of procedures will be evaluated by tutors to formulate the mark for this assessment.

On successful completion you will be able to:

- Demonstrate respect and empathy for patients while performing physical assessment

techniques for the thoracic region and upper extremities: palpation, joint range of motion and muscle testing.

- Perform chiropractic techniques and joint manipulation skills on the thoracic spine, ribs and lower extremity

## Research assignment

Assessment Type <sup>1</sup>: Quantitative analysis task

Indicative Time on Task <sup>2</sup>: 12 hours

Due: **1st of October**

Weighting: **20%**

In this assessment, students will analyse a data set obtained from a simulated observational study. Students will report on the diagnostic test accuracy for a musculoskeletal condition.

On successful completion you will be able to:

- Apply epidemiological knowledge and biostatistical skills to quantify and interpret information pertaining to diagnostic test accuracy

## Chiropractic skills assessment (OSCE)

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

Indicative Time on Task <sup>2</sup>: 12 hours

Due: **Week 12**

Weighting: **20%**

Students will be assessed on their competency in performing chiropractic skills. Students will demonstrate a series of chiropractic procedures taught in this unit.

On successful completion you will be able to:

- Demonstrate respect and empathy for patients while performing physical assessment techniques for the thoracic region and upper extremities: palpation, joint range of motion and muscle testing.
- Perform chiropractic techniques and joint manipulation skills on the thoracic spine, ribs and lower extremity

## Final examination

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

Indicative Time on Task <sup>2</sup>: 12 hours

Due: **Session 2 Examination Period**

Weighting: **40%**

This written test will assess all theoretical material for the unit. It will include multiple-choice questions

On successful completion you will be able to:

- Describe clinical biomechanics (kinematics and kinetics) of the upper extremity and thorax of the human body.
- Demonstrate basic clinical reasoning by applying knowledge of thoracic and upper extremity pathomechanics to interpret information derived from a physical assessment and the application of chiropractic techniques.
- Apply epidemiological knowledge and biostatistical skills to quantify and interpret information pertaining to diagnostic test accuracy

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<sup>1</sup> If you need help with your assignment, please contact:

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

<sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

## Delivery and Resources

Delivery mode

1. One 2-hour online lecture per week, weeks 1-12.
2. Twenty 2-hour tutorials per student, weeks 2-11.
3. Approximately 2-hours per week of self-instructional learning, readings from the text and exercises on weekly topics

Class times and locations

Lecture times: 2-hours each week starting from week 1. Available online via the unit's iLearn page

Tutorials: Two by 2-hours each week, starting from week 2. Tutorial classes will be in the 11WW Chiropractic Labs, see the timetable for details <https://timetables.mq.edu.au/2021/>

You are advised to bring a mobile device with video capacity to classes. Tutorial group allocations will be finalised in Week 1. Students must attend their allocated class. Participation in tutorial classes is highly recommended.

## Resources

### Required

Oatis, C. A. (2016). Kinesiology: the mechanics and pathomechanics of human movement (Third edition). Philadelphia: Wolters Kluwer.

Available at Macquarie University Library Level 1 / Level 2 QP303 .O38 2016

Lecture and Tutorial notes [Available Online]: <https://ilearn.mq.edu.au/login/MQ/>

### Recommended

Neumann D.A. (2016). Kinesiology of the musculoskeletal system Foundations for rehabilitation (Third edition). Elsevier.

Esposito, S., Philipson, S. (2005). Spinal adjustment technique the chiropractic art (First edition).

Kendall, F.P. (2010). Muscles: testing and function with posture and pain (Fifth edition). Lippincott Williams & Wilkins.

Magee D.J. (2013). Orthopedic physical assessment (Sixth edition). W.D Saunders.

### Further reading

Comparative Kinesiology of the Human Body: Normal and Pathological Conditions, edited by Salih Angin, and Ibrahim Simsek, Elsevier Science & Technology, 2020. ProQuest Ebook Central, <https://ebookcentral-proquest-com.simsrad.net.ocs.mq.edu.au/lib/mqu/detail.action?docID=6142620>.

Phillip, et al. Assessment and Treatment of Muscle Imbalance: The Janda Approach, Human Kinetics, 2009. <http://ebookcentral.proquest.com/lib/mqu/detail.action?docID=3011791>.

### Useful web-resources:

<http://www.mq.edu.au/library> (Macquarie University library site; list and links to many databases and Journals)

<http://www.dita.org.au/> (DiTA is the Diagnostic Test Accuracy database)

<http://www.pedro.org.au/> (Physiotherapy Evidence Database)

Unit web page

The URL of the CHIR2104 iLearn site is: <https://ilearn.mq.edu.au/>

You will be asked for a username and password. Your username is your student MQID. Your MQID and password have been mailed to you by the University. If you have lost them go to the student portal: <http://students.mq.edu.au/home/>

## Policies and Procedures

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

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

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

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

## Student Code of Conduct

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

## Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.mq.edu.au](https://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

## Learning Skills

Learning Skills ([mq.edu.au/learningskills](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module](#)

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

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

## Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

## Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/).

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

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Unit information based on version 2021.02 of the [Handbook](#)