CHIR113
Chiropractic Sciences 1
S1 Day 2015
Dept 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.
General Information

Unit convenor and teaching staff
Unit Convenor
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C5C 367
Tuesdays 10-12

Lecturer (physics)
Rich Mildren
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E6B 2.606
By appointment

Rich Mildren
rich.mildren@mq.edu.au

Credit points
3

Prerequisites
Admission to BChiroSc

Corequisites
HLTH108 or HLTH107

Co-badged status

Unit description
This unit offers an introduction to the philosophy, art and science of chiropractic. History and founding principles are discussed. The concepts and role of philosophy and critical thinking are presented. Chiropractic terminology is introduced while a basic level of psychomotor skills are developed through motion palpation, muscle assessment and soft tissue techniques. Fundamental physics and biomechanics which support chiropractic techniques are taught.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at https://students.mq.edu.au/important-dates
Learning Outcomes

1. Develop psychomotor skills in patient assessment and therapeutic intervention
2. Understand principles related to patient assessment and therapeutic intervention
3. Demonstration of ethical handling of patients
4. Demonstrate practical use of anatomical knowledge
5. Explain relevance of Chiropractic history and principles
6. Demonstrate library, research, and critical thinking abilities
8. Capacity to use quantitative calculations to analyse elastic behaviour of solids, fluid pressure, and fluid flow.
9. Develop safe and competent laboratory skills in handling equipment and making measurements.
10. Understand basic properties of solids, liquids, and gases, including atomic theory, elasticity, and fluid statistic and dynamics, as applied to physiological problems

General Assessment Information

It is important to understand that late principle assignment submissions will NOT be accepted.

Regarding the final practical assessment: if you are experiencing a situation that may negatively impact your practical performance, it is best to postpone the final practical assessment. We cannot determine how you might have performed if you were not disadvantaged. We assess all students under the same assessment conditions.

Examination(s)

The University Examination period for the first Half Year 2015 (9 June-26 June). 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](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 of Study. Information about unavoidable disruption and the special consideration process is available at Policy Central: [http://www.mq.edu.au/policy/](http://www.mq.edu.au/policy/)

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

https://unitguides.mq.edu.au/unit_offerings/46281/unit_guide/print
Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot Test X2</td>
<td>10%</td>
<td>Weeks 5 &amp; 8</td>
</tr>
<tr>
<td>Principles Essay</td>
<td>20%</td>
<td>2 April</td>
</tr>
<tr>
<td>Physics</td>
<td>10%</td>
<td>week 5-7</td>
</tr>
<tr>
<td>Practical Examination</td>
<td>30%</td>
<td>week 13</td>
</tr>
<tr>
<td>Theory exam</td>
<td>30%</td>
<td>Exam Period</td>
</tr>
</tbody>
</table>

Spot Test X2
Due: **Weeks 5 & 8**
Weighting: **10%**

Short practical assessment held during normal practical time in the 5th & 8th week

This Assessment Task relates to the following Learning Outcomes:

- Develop psychomotor skills in patient assessment and therapeutic intervention
- Understand principles related to patient assessment and therapeutic intervention
- Demonstration of ethical handling of patients
- Demonstrate practical use of anatomical knowledge

Principles Essay
Due: **2 April**
Weighting: **20%**

This will be a scientific essay paper relating to the Chiropractic profession.

This Assessment Task relates to the following Learning Outcomes:

- Explain relevance of Chiropractic history and principles
- Demonstrate library, research, and critical thinking abilities

Physics
Due: **week 5-7**
Weighting: **10%**
Physics Assignment: Will involve practical application of physics and will be due by week 7. Physics Practical: Occur during Physics laboratory sessions. Attendance is essential for all sessions

This Assessment Task relates to the following Learning Outcomes:

- Analyse and report quantitative data using graphs, tables, and verbal explanations.
- Capacity to use quantitative calculations to analyse elastic behaviour of solids, fluid pressure, and fluid flow.
- Develop safe and competent laboratory skills in handling equipment and making measurements
- Understand basic properties of solids, liquids, and gases, including atomic theory, elasticity, and fluid statistic and dynamics, as applied to physiological problems

Practical Examination
Due: week 13
Weighting: 30%

Occurring week 13 and will consist of performing procedures as taught in the unit.

This Assessment Task relates to the following Learning Outcomes:

- Develop psychomotor skills in patient assessment and therapeutic intervention
- Understand principles related to patient assessment and therapeutic intervention
- Demonstration of ethical handling of patients
- Demonstrate practical use of anatomical knowledge

Theory exam
Due: Exam Period
Weighting: 30%

These will cover the discipline specific content of the entire semester. Question format will be mixed and may include Multiple Choice, True and False, and short answer questions. Chiropractic and Physics will be written at the same exam time.

(Physics -25% of final exam, Principles and Skills 75%)

This Assessment Task relates to the following Learning Outcomes:

- Understand principles related to patient assessment and therapeutic intervention
- Demonstration of ethical handling of patients
Demonstrate practical use of anatomical knowledge
• Explain relevance of Chiropractic history and principles
• Demonstrate library, research, and critical thinking abilities
• Analyse and report quantitative data using graphs, tables, and verbal explanations.
• Capacity to use quantitative calculations to analyse elastic behaviour of solids, fluid pressure, and fluid flow.
• Develop safe and competent laboratory skills in handling equipment and making measurements
• Understand basic properties of solids, liquids, and gases, including atomic theory, elasticity, and fluid statistic and dynamics, as applied to physiological problems

Delivery and Resources

Technology Used and Required: iLearn, Echo360, Practical Audio/Visual Equipment, and Electronic Lectern

Delivery mode
Will be comprised of a combination of face-to-face lectures, pre-recorded lectures, self-directed learning, and hands-on tutorials/practicals:

• 2 one hour lectures per week; 1 one hour lecture on Thursday and 1 one hour lecture on Friday
• 2 two hour tutorial/practicals per week, weeks 1-13 (except where indicated)
• 2-3 hours per week self- instructional learning

Class times and locations:
Chiropractic
Thursday 8-9 am; for location see timetable
Lecture 1:
Friday 8-9 am: for location see timetable
Lecture 2:
Tutorials 1 & 2: Monday 13-15, or 15-17: for location see timetable
Friday 13-15, or 15-17: for location see timetable
Tutorial 3: See below

Physics
Weeks 5 – 7 inclusive will involve Physics lectures and Laboratory sessions. Please note
the following –

Lectures: are held at their usual times and locations.

Monday Tutorial 1: will continue as chiropractic practicals.

Friday Tutorial 2: will be replaced by Tutorial 3; Physics Laboratory sessions held in E7A 114, that is, the North-Eastern corner of E7A on the ground floor.

Tutorial 3: Thursday 10-12, 12-2pm, 3-5pm, and 5-7pm

You must wear appropriate clothing for the laboratory including covered footwear.

Required and recommended resources

- Prescribed texts
- Prescribed Unit Materials
  Ø Palpation Manual (Course notes)
  Ø Physics Lab Manual
- Recommended READING
  Ø Oatis C. *Kinesiology: the mechanics & pathomechanics of human movement* 2 ed. LWW


Note: no changes have been made to this unit.

Returning Assessment Tasks and Feedback
1. Spot Test: Results will be posted on iLearn within a week of completion, and feedback will be given in class.

2. Chiropractic Assignment: Will be returned by Week 13 and results will be posted on iLearn.

3. Practical Examination (OSCE): Results will be used for summative purposes. Marks will not be posted.

4. Written Examination: Papers will not be returned. Marks will be incorporated into the final unit grade.

### Unit Schedule

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TUTORIAL 1</th>
<th>LECTURE 1</th>
<th>LECTURE 2</th>
<th>TUTORIAL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MON</td>
<td>THUR</td>
<td>FRI</td>
<td>FRI</td>
</tr>
<tr>
<td>Week 1</td>
<td>No tutorial</td>
<td>Introduction/Assignment CTR</td>
<td>Searching for Information CTR</td>
<td>Lab Introduction/Group formation/Group discussion</td>
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<tr>
<td>23-27/2</td>
<td></td>
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<tr>
<td>Week 2</td>
<td>Group formations Introductions/ WHS/ tables Terminology</td>
<td>Doctor/Patient Encounter/Posture CTR</td>
<td>Ranges of Motion/Palpation Principles CTR</td>
<td>Surface Anatomy/postural analysis</td>
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<tr>
<td>2-6/3</td>
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<tr>
<td>Week 3</td>
<td>Posture/AROM</td>
<td>Sacroiliac Anatomy and biomechanics CTR</td>
<td>Principles of Chiropractic palpation CTR</td>
<td>Introduction to palpation/layer/etc.</td>
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<tr>
<td>9-13/3</td>
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<tr>
<td>Week 4</td>
<td>Pelvic Surface Anatomy Spot test</td>
<td>Early History of Chiropractic (DD) CTR</td>
<td>Early Challenges for Chiropractic CTR</td>
<td>Weight bearing SI Motion Palpation</td>
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<tr>
<td>16-20/3</td>
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<td></td>
</tr>
<tr>
<td>Spot Test</td>
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<tr>
<td>Week 5</td>
<td>SI Palp</td>
<td>Physics – atoms and matter</td>
<td>Physics – elasticity of solids such as bone</td>
<td>Physics Prac (Thursday) No Chiro lab</td>
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<tr>
<td>23-27/3</td>
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<tr>
<td>Week 6</td>
<td>SI Palp</td>
<td>Physics – stress/strain relationship, fractures No Lecture Public Holiday</td>
<td>Physics Prac (Thursday) No Chiro lab</td>
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<tr>
<td>30/3-3/4</td>
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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


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/](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](mailto: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/](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 Enquiry Service**

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

**Equity 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.

**IT 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**

**Discipline Specific Knowledge and Skills**

Our graduates will take with them the intellectual development, depth and breadth of knowledge,
scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

**Learning outcomes**

- Develop psychomotor skills in patient assessment and therapeutic intervention
- Understand principles related to patient assessment and therapeutic intervention
- Demonstrate practical use of anatomical knowledge

**Assessment tasks**

- Spot Test X2
- Principles Essay
- Physics
- Practical Examination
- Theory exam

**Problem Solving and Research Capability**

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

**Learning outcomes**

- Understand principles related to patient assessment and therapeutic intervention
- Explain relevance of Chiropractic history and principles
- Demonstrate library, research, and critical thinking abilities
- Analyse and report quantitative data using graphs, tables, and verbal explanations.
- Capacity to use quantitative calculations to analyse elastic behaviour of solids, fluid pressure, and fluid flow.
- Understand basic properties of solids, liquids, and gases, including atomic theory, elasticity, and fluid statistic and dynamics, as applied to physiological problems

**Assessment tasks**

- Principles Essay
Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- Understand principles related to patient assessment and therapeutic intervention
- Explain relevance of Chiropractic history and principles
- Understand basic properties of solids, liquids, and gases, including atomic theory, elasticity, and fluid statistic and dynamics, as applied to physiological problems

Assessment tasks

- Principles Essay
- Practical Examination

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Develop psychomotor skills in patient assessment and therapeutic intervention
- Demonstration of ethical handling of patients
- Demonstrate practical use of anatomical knowledge
- Explain relevance of Chiropractic history and principles
- Analyse and report quantitative data using graphs, tables, and verbal explanations.
- Understand basic properties of solids, liquids, and gases, including atomic theory, elasticity, and fluid statistic and dynamics, as applied to physiological problems

Assessment tasks

- Spot Test X2
- Principles Essay
- Practical Examination
Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- Develop psychomotor skills in patient assessment and therapeutic intervention
- Demonstration of ethical handling of patients

Assessment tasks

- Spot Test X2
- Practical Examination

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Understand principles related to patient assessment and therapeutic intervention
- Develop safe and competent laboratory skills in handling equipment and making measurements

Assessment tasks

- Practical Examination
- Theory exam

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally.
and socially.

This graduate capability is supported by:

**Learning outcomes**

- Explain relevance of Chiropractic history and principles
- Demonstrate library, research, and critical thinking abilities

**Assessment task**

- Principles Essay

**Critical, Analytical and Integrative Thinking**

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

**Learning outcomes**

- Understand principles related to patient assessment and therapeutic intervention
- Explain relevance of Chiropractic history and principles
- Demonstrate library, research, and critical thinking abilities
- Analyse and report quantitative data using graphs, tables, and verbal explanations.
- Capacity to use quantitative calculations to analyse elastic behaviour of solids, fluid pressure, and fluid flow.
- Understand basic properties of solids, liquids, and gases, including atomic theory, elasticity, and fluid statistic and dynamics, as applied to physiological problems

**Assessment tasks**

- Principles Essay
- Physics
- Practical Examination
- Theory exam

**Socially and Environmentally Active and Responsible**

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.
This graduate capability is supported by:

**Learning outcomes**

- Demonstration of ethical handling of patients
- Develop safe and competent laboratory skills in handling equipment and making measurements

**Assessment tasks**

- Physics
- Practical Examination

**CCEA Attendance Requirements**

You are to attend the tutorial in which you are enrolled. Permission to attend an alternative tutorial requires permission from the unit’s convener. CCEA requires 85% attendance. Failing to meet this minimum attendance will have a negative impact on your grade.

**Passing requirements and Grade Standards**

**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.

IMPORTANT NOTE: There are 3 components of this unit; 1) theoretical chiropractic knowledge, 2) practical chiropractic skills, and 3) physics. It is necessary to meet the passing level for each of these components in order to pass the unit. The passing standard for each component is 60% of the available raw marks. **Raw marks will be translated into a Standard Numerical Grade according to the table below.**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>A minimum of 60% in each of assessment PLUS a minimum 60% total raw mark.</td>
</tr>
<tr>
<td>Credit</td>
<td>A minimum of 60% in each of assessment; PLUS a minimum 70% total raw mark</td>
</tr>
<tr>
<td>Distinction</td>
<td>A minimum of 60% in each of assessment; PLUS a minimum 80% total raw mark</td>
</tr>
<tr>
<td>High Distinction</td>
<td>A minimum of 60% in each of assessment tasks; PLUS a minimum 85% total raw mark</td>
</tr>
</tbody>
</table>

**Changes since First Published**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23/02/2015</td>
<td>Hello Hazel, I have added additional information about the Physics Lecturer (contact details). (Staff details) I added a section on the final exam process (dates, etc). (General assignment information) I’ve added information about feedback policies. (Delivery and resources) Thank you, Curtis</td>
</tr>
<tr>
<td>20/02/2015</td>
<td>No changes</td>
</tr>
</tbody>
</table>

https://unitguides.mq.edu.au/unit_offerings/46281/unit_guide/print