



CHIR213

Chiropractic Sciences 3

S1 Day 2016

Dept of Chiropractic

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Disclaimer

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General Information

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Credit points

3

Prerequisites

Admission to BChiroSc and (CHIR113(P) or CHIR103(P)) and (CHIR114(P) or CHIR104(P))

Corequisites

Co-badged status

Unit description

This unit provides an introduction to the fundamental principles of biomechanics and kinesiology. The focus of this unit will be the kinesiology of lumbar spine, pelvis and the lower extremity. This unit builds upon concepts in clinical anatomy taught in HLTH109. Reference is made to clinical biomechanics as it relates to the skills of observation, range of motion assessment, palpation, and muscle testing. Concepts in clinical decision making will be introduced. Chiropractic techniques of the lumbar spine and lower 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:

Demonstrate specific knowledge and skills that include: a. Biomechanics of the lumbar spine and lower extremities and how it applies to chiropractic technique; b. Identify and palpate surface landmarks on the axial and appendicular regions of the body; c. Strength testing of the major muscle groups of the lower extremity and; d. Chiropractic extremity techniques and the application of adjustments

Analysis of the vectors associated with normal movement and connect the application of those vectors to aberrant joint motions

Assess the lower extremity via basic orthopaedics methods

Clinically interpret the findings of basic orthopaedic assessment of the lower extremity

Knowledge, application, interpretation and communication of basic research methods

Develop a respect and empathy for patients, and an ethical and professional attitude to health care

General Assessment Information

Attendance Requirements

Tutorial class attendance will be recorded and a minimum of 80% attendance at chiropractic tutorial and physics practical classes is required in order to successfully complete this unit. Students must attend the class in which you enrolled. Students must not exchange their class time. In special circumstances, students may apply for requests regarding changes. These requests are to be submitted to the unit convener.

Examinations

The University Examination period for the First Half Year 2016 is from Tuesday 14th June 2016 to Friday 1st July 2016.

Students are expected to present themselves 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.

<https://iexams.mq.edu.au/timetable>

The only exception to not sitting an examination at the designated time is because of

documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Disruption to Studies. As a result of a Disruption to Studies process being granted (deemed serious and unavoidable) a Supplementary Examination must be scheduled after the conclusion of the official examination period. The format of the Supplementary Exam may change. (Individual Divisions may wish to signal when the Division's Supplementary exams are normally scheduled.)

Serious and unavoidable disruption: The University classifies a disruption as **serious and unavoidable** if it:

- could not have reasonably been anticipated, avoided or guarded against by the student; and
- was beyond the student's control; and
- caused substantial disruption to the student's capacity for effective study and/or completion of required work; and
- occurred during an event critical study period and was at least three (3) consecutive days duration, and/or
- prevented completion of a final examination.

Students with a pre-existing disability/health condition or prolonged adverse circumstances may be eligible for ongoing assistance and support. Such support is governed by other policies and may be sought and coordinated through [Campus Wellbeing and Support Services](#).

If a supplementary examination is granted as a result of the disruption to studies process the examination will be scheduled after the conclusion of the official examination period. (Individual Faculties may wish to signal when the Faculty Supplementary exams are normally scheduled.)

If you are granted a supplementary exam via the Disruption to Studies process, you will have to write a supplementary exam in the supplementary exam period. In this scenario, only your supplementary exam mark will count towards your final exam mark, irrespective of whether or not you attended the final exam in the normal examination period. The submission of a Disruption to Studies form should not be used as a 'just in case' strategy.

Students 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.

Returning Assessment Tasks

1. Research assignment: A modified version of the assessment rubric will be returned to students with general feedback comments. This will be available on the units iLearn page

2. Physics laboratory assessment: Workbooks will be returned to students with performance

comments

3. Chiropractic technique Objective Structured Clinical Examination (OSCE): Papers (and marks) will not be returned. Marks will be incorporated into the final unit grade. Feedback will be provided on request outside of the examination period.

a. Feedback on Chiropractic Assessments (FoCA's) will be incorporated in the unit to provide progress feedback in preparation to the OSCE.

4. Final Examination: Papers (and marks) will not be returned. Feedback will be provided on request outside the examination period. Marks will be incorporated into the final unit grade.

Extensions and penalties

Extensions to assessments and assignments are at the discretion of the unit convener. It is the responsibility of the student to prove to the unit convener that there has been unavoidable disruption. Marks will be deducted for late submissions in the absence of an approved extension. For the Research Assignment marks will be deducted at the rate of 10% of the available marks per day.

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. 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	
Incomplete	Failure to meet any of the assessment tasks
Fail	<50% and/or Failure to meet attendance or any of the assessment requirements
Pass	50 – 64%
Credit	65 - 74%
Distinction	75 - 84%
High Distinction	85 - 100%

Assessment Tasks

Name	Weighting	Due
<u>Research assignment</u>	20%	29th April 2016
<u>Physics laboratory assessment</u>	10%	24th March 2016
<u>OSCE</u>	20%	7th June 2016
<u>Final Exam</u>	50%	Session 1 Examination Period

Research assignment

Due: **29th April 2016**

Weighting: **20%**

This is a research assignment which will be submitted electronically via *turnitin*. The objective of this assignment is to further develop student's research skills. It will take the form of a structured review of the literature. In 1500 to 2500 words candidates must report the prevalence of a specified musculoskeletal condition. All assignments will be published with the author's name, for peer review, on the unit's iLearn page. Further details on this assignment can be found on the unit's iLearn page.

On successful completion you will be able to:

- Analysis of the vectors associated with normal movement and connect the application of

those vectors to aberrant joint motions

- Knowledge, application, interpretation and communication of basic research methods

Physics laboratory assessment

Due: **24th March 2016**

Weighting: **10%**

This will be based on student's laboratory participation and the level to which they achieve the aims/objectives of laboratory based tasks. The student's laboratory workbook will be reviewed as part of this assessment.

On successful completion you will be able to:

- Analysis of the vectors associated with normal movement and connect the application of those vectors to aberrant joint motions
- Knowledge, application, interpretation and communication of basic research methods

OSCE

Due: **7th June 2016**

Weighting: **20%**

Students will be assessed on their competency in performing chiropractic techniques. Peer review will be a component of this assessment. Students will demonstrate a series of chiropractic procedures taught in this unit.

On successful completion you will be able to:

- Demonstrate specific knowledge and skills that include: a. Biomechanics of the lumbar spine and lower extremities and how it applies to chiropractic technique; b. Identify and palpate surface landmarks on the axial and appendicular regions of the body; c. Strength testing of the major muscle groups of the lower extremity and; d. Chiropractic extremity techniques and the application of adjustments
- Assess the lower extremity via basic orthopaedics methods
- Clinically interpret the findings of basic orthopaedic assessment of the lower extremity
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care

Final Exam

Due: **Session 1 Examination Period**

Weighting: **50%**

This will cover the content of all material for the semester. It will test students' knowledge of the theory, and the ability to connect that knowledge to discipline specific situations. It will consist of

a two (2) hour written exam.

On successful completion you will be able to:

- Demonstrate specific knowledge and skills that include: a. Biomechanics of the lumbar spine and lower extremities and how it applies to chiropractic technique; b. Identify and palpate surface landmarks on the axial and appendicular regions of the body; c. Strength testing of the major muscle groups of the lower extremity and; d. Chiropractic extremity techniques and the application of adjustments
- Analysis of the vectors associated with normal movement and connect the application of those vectors to aberrant joint motions
- Clinically interpret the findings of basic orthopaedic assessment of the lower extremity
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care

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:

Name	Day	Start	Finish	Location
Lecture 1/01	Tuesday	11:00am	1:00pm	E7B T4 Theatre
Tutorial 1/01	Tuesday	2:00pm	4:00pm	E5A 320 Chiro. South Lab
Tutorial 1/02	Tuesday	4:00pm	6:00pm	E5A 320 Chiro. South Lab
Tutorial 2/01	Thursday	1:00pm	3:00pm	E5A 320 Chiro. North Lab
Tutorial 2/02	Thursday	3:00pm	5:00pm	E5A 320 Chiro. North Lab
Tutorial 3/01	Friday	11:00am	1:00pm	E7B 114 Physics Lab
Tutorial 3/02	Friday	2:00pm	4:00pm	E7B 114 Physics Lab
Tutorial 3/03	Friday	4:00pm	6:00pm	E7B 114 Physics Lab

Further details on class time and locations for this unit can be found at: [Timetables@Macquarie Website](mailto:Timetables@Macquarie)

Lectures

An interactive style of lecturing will be adopted. Candidates are expected to participate fully and interact where possible. Practical demonstration of concepts will occur at physics lectures. Attendance at all lectures is strongly recommended.

Tutorials/Practicals

Candidates must attend the tutorial/practical class in which they are enrolled. Candidates must not exchange their class time. In special circumstances, candidates may request a specific change. These requests are to be submitted to the unit convener.

Students must wear closed-top shoes while attending physics practicals. No thongs or open-toed sandals will be permitted.

Candidates are expected to participate fully and interactively in laboratories and tutorials. Lecture materials and tutorial outlines should be reviewed prior to practicals in order to best participate. Additionally, it is recommended that candidates practice the techniques acquired in this unit by implementing them under supervision in the University scheduled practice sessions.

Attendance_Requirements

If a candidate misses an assigned tutorial in any week, they may request attendance at an alternative session, through written request and appropriate documentation to the unit convener.

Tutorial class attendance will be recorded and **a minimum of 80% attendance at chiropractic tutorial and physics practical classes is required in order to successfully complete this unit.**

Unit Web Page

You can log onto iLearn at <https://ilearn.mq.edu.au/login/MQ/>

All lecture PowerPoint graphics will be posted on the unit web page, and there is also a link to iLectures for **audio and video (where available)** recordings of the lectures.

Required and recommended resources

Required:

1. [Oatis, Carol A. Kinesiology: The Mechanics and Pathomechanics of Human Movement 2nd ed. Baltimore : Lippincott Williams & Wilkins, 2009.](#)
2. [Hewitt, PG. Conceptual Physics 11th edition. Addison-Wesley/Pearson, 2010.](#)
3. Lecture and Tutorial notes [Available Online]: <https://ilearn.mq.edu.au/login/MQ/>

Recommended:

- Neumann D.A. Kinesiology of the musculoskeletal system Foundations for rehabilitation, Elsevier 2010.
- Manual of Spinal Technique, Esposito & Philipson - 1st Ed. March 2005.
- Kendall, Et Al. Muscles: Testing and Function with Posture and Pain (CDrom). Lippincott Williams & Wilkins, 2010.
- Magee D.J. Orthopaedic Physical Assessment. 5th Edition. W.D Saunders, 2008.
- Haneline M.T. & Meeker W.C. Public Health for Chiropractors. Jones and Bartlett, 2011.

Unit Schedule

Chiropractic Sciences 3 Timetable:

Lecture location - E7B T4

Lecture time - Tuesday 11am - 1pm

WEEK	LECTURE SCHEDULE	TUTORIAL SCHEDULE	TUTORIAL SCHEDULE
NUMBER	TUESDAY	TUESDAY	THURSDAY
W1	Introduction to Chiropractic Sciences 3 Introduction to biomechanical analysis Structure and Function of the Lumbar spine Mike Swain	No tutorial	No tutorial
W2	Conceptual Physics 1 Andrei Zvyagin	Lumbar spine observation, palpation and active movements	Physics Lab
W3	Conceptual Physics 2 Andrei Zvyagin	Lumbar spine passive movements, motion palpation and BLR setup	Physics Lab
W4	Conceptual Physics 3 Andrei Zvyagin	Lumbar spine motion palpation BLR setup and techniques Case 1	Physics Lab
W5	Structure and Function of the Lumbar Spine/Pelvis Mike Swain	SIJ motion palpation, BLR setup and sacral rocking Case 2	Revision FoCA#1 Peer Review
W6	Hip: Structure and Function Mike Swain	Hip observation, palpation, active/passive movements and functional assessment Case 3	Motion palpation of the hip joint and chiropractic techniques Peer Review
11 April - 22 April 2016	MID-SEMESTER BREAK		
W7	Hip: Mechanics and Pathomechanics Mike Swain	Hip resisted assessment and soft tissue techniques Case 4	Hip joint chiropractic techniques Peer Review

W8	Knee: Structure and Function Mike Swain	Knee observation, palpation, active and resisted assessment Case 5	Knee motion palpation and chiropractic technique Peer Review
W9	Knee: Mechanics and Pathomechanics Mike Swain	Patella motion palpation and soft-tissue release techniques Case 6	Knee chiropractic techniques Peer Review
W10	Ankle/Foot: Structure and Function Mike Swain	Ankle observation, palpation, active and resisted movements Ankle/Foot AROM Case 7	FoCA #2 Ankle motion palpation and chiropractic techniques Peer Review
W11	Ankle/Foot: Mechanics and Pathomechanics Mike Swain	Ankle/Foot passive movements and soft tissue techniques Case 8	Foot motion palpation and chiropractic techniques Peer Review
W12	Biomechanics of normal gait Unit summary Mike Swain	Foot and toes chiropractic techniques	Revision Unit summary Peer Review
W13		OSCE	

Learning and Teaching Activities

Lecture

An educational talk

Tutorial

A period of instruction given in small groups where chiropractic skills will be developed

Practical

A period of instruction given in small groups where concepts as they relate to physics will be explored

Assignment

A written literature review where students will research one topic in chiropractic

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

New Assessment Policy in effect from Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy_2016.html. For more information visit http://students.mq.edu.au/events/2016/07/19/new_assessment_policy_in_place_from_session_2/

Assessment Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/grading/policy.html>

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

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit ask.mq.edu.au.

Student Support

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

Learning Skills

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

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

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

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

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

Graduate Capabilities

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

- Demonstrate specific knowledge and skills that include: a. Biomechanics of the lumbar spine and lower extremities and how it applies to chiropractic technique; b. Identify and palpate surface landmarks on the axial and appendicular regions of the body; c. Strength testing of the major muscle groups of the lower extremity and; d. Chiropractic extremity techniques and the application of adjustments
- Analysis of the vectors associated with normal movement and connect the application of those vectors to aberrant joint motions
- Assess the lower extremity via basic orthopaedics methods
- Knowledge, application, interpretation and communication of basic research methods

Assessment tasks

- Research assignment
- Physics laboratory assessment
- Final Exam

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

- Clinically interpret the findings of basic orthopaedic assessment of the lower extremity
- Knowledge, application, interpretation and communication of basic research methods
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care

Assessment task

- Final 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

- Demonstrate specific knowledge and skills that include: a. Biomechanics of the lumbar spine and lower extremities and how it applies to chiropractic technique; b. Identify and palpate surface landmarks on the axial and appendicular regions of the body; c. Strength testing of the major muscle groups of the lower extremity and; d. Chiropractic extremity techniques and the application of adjustments
- Knowledge, application, interpretation and communication of basic research methods
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care

Assessment task

- Research assignment

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

- Demonstrate specific knowledge and skills that include: a. Biomechanics of the lumbar spine and lower extremities and how it applies to chiropractic technique; b. Identify and palpate surface landmarks on the axial and appendicular regions of the body; c. Strength testing of the major muscle groups of the lower extremity and; d. Chiropractic extremity techniques and the application of adjustments
- Analysis of the vectors associated with normal movement and connect the application of those vectors to aberrant joint motions
- Assess the lower extremity via basic orthopaedics methods
- Knowledge, application, interpretation and communication of basic research methods

Assessment tasks

- Research assignment
- Physics laboratory assessment
- OSCE
- Final Exam

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

- Analysis of the vectors associated with normal movement and connect the application of those vectors to aberrant joint motions
- Assess the lower extremity via basic orthopaedics methods
- Clinically interpret the findings of basic orthopaedic assessment of the lower extremity
- Knowledge, application, interpretation and communication of basic research methods
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care

Assessment tasks

- Research assignment
- Physics laboratory assessment

- OSCE
- Final 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

- Assess the lower extremity via basic orthopaedics methods
- Clinically interpret the findings of basic orthopaedic assessment of the lower extremity
- Knowledge, application, interpretation and communication of basic research methods
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care

Assessment tasks

- Research assignment
- Physics laboratory assessment
- OSCE
- Final Exam

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

- Analysis of the vectors associated with normal movement and connect the application of those vectors to aberrant joint motions
- Assess the lower extremity via basic orthopaedics methods
- Clinically interpret the findings of basic orthopaedic assessment of the lower extremity
- Knowledge, application, interpretation and communication of basic research methods

Assessment tasks

- Research assignment
- Physics laboratory assessment
- OSCE
- Final Exam

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

- Knowledge, application, interpretation and communication of basic research methods
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care

Assessment task

- OSCE

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

- Knowledge, application, interpretation and communication of basic research methods
- Develop a respect and empathy for patients, and an ethical and professional attitude to health care

Assessment task

- OSCE