



ANAT1002

Anatomy of Limbs and Back

Session 1, Weekday attendance, North Ryde 2021

Department of Chiropractic

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Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff

Irina Dedova

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Credit points

10

Prerequisites

HLTH108 or ANAT1001

Corequisites

Co-badged status

Unit description

This unit builds on the basic anatomy taught in ANAT1001 (previously known as HLTH108) (Introduction to Anatomy). It focuses on the musculoskeletal anatomy of the upper and lower limbs and back. The unit utilises an integrated approach within which relevant gross and radiological anatomy as well as histology and embryology are investigated in detail. It is clinically oriented and focuses on surface and applied anatomy. The unit includes a significant practical component in which human remains, models, medical images, surface anatomy and clinical cases are studied. Students are expected to show an appreciation and respect for those who have bequeathed their bodies to science.

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 and identify the structural and functional features of the musculoskeletal components of the limbs and back and their anatomical relations.

ULO2: Describe and identify the arterial supply, venous and lymphatic drainage of the musculoskeletal components of the limbs and back.

ULO3: Demonstrate, where appropriate, on a living subject: a. musculoskeletal landmarks of the limbs and back b. the route of nerves and blood vessels of the limbs and back c. movements at joints d. muscle actions.

ULO4: Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.

ULO5: Apply acquired knowledge of the anatomy of the limbs and back to investigate clinical case studies.

ULO6: Communicate and demonstrate an appreciation and respect for those who have bequeathed their bodies to research.

General Assessment Information

Online Quizzes

There will be three online Quizzes: Quiz 1 conducted in Week 5; Quiz 2 - in Week 11 and Quiz 3 - in Week 13. Each Quiz typically consists of around 10 questions (multiple choice, matching, T&F) on the theory of the designated weeks, and you will be given around 12 mins to complete each quiz. You will only be allowed one attempt at each question and one attempt for the whole quiz. The Quiz will become available on the Friday evening of the allocated week (e.g. Quiz 1 opens on Fri of Week 5) and will stay open for one week for you to complete in your own time (i.e. Quiz 1 will close on Fri of Week 6, at 5pm). Late attempts will not be accepted. Feedback will be provided once the quiz has closed (i.e. for Quiz 1 feedback will be given in Week 7). Quiz 1 is based on the topics studied in weeks 1 throughout 5 (inclusive), i.e. it is based on the upper limb topics. Quiz 2 is based on the lower limb topics (weeks 6-10). Quiz 3 is based on the vertebral column and back content (weeks 11-12). The value of Quizzes 1 and 2 is 4% (each) towards the final grade, and Quiz 3 contributes 2%. The schedule of quizzes is included into the timetable, which can be found on iLearn.

Practical Examinations

Practical examinations, the Prac Exam 1 in Week 6 and Prac Exam 2 in Week 13, focus on practical identifications of anatomical structures. Therefore, typically these tests are held in the usual scheduled practical laboratory classes (i.e. in the wet laboratory). Students will be warned of any changes in the timetable or location of these tests. Each spot test assesses students' ability to identify correctly anatomical structures on human remains, bones, models, medical images, and surface anatomy photographs. Typically, there are around 15-20 stations with several identifications in each. Some relevant theoretical questions may also be included. The scope of Prac Exam 1 is on the practical knowledge achieved during the first five weeks of the semester (week 1 throughout to week 5, inclusive; i.e. gross anatomy of the upper limb), and Prac Exam 2 assesses the practical knowledge relevant to weeks 6 throughout to week 12 (gross anatomy of the back and lower limbs). The value of Prac Exam 1 is 20% and of Prac Exam 2 - 30% towards the final mark for the unit.

Students must attend the class they are enrolled in, unless permission has been granted by the Campus Well Being and Disability Services. 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 practical exam is missed a supplementary exam will only be considered under the Special Consideration policy (<https://students.mq.edu.au/>

study/my-study-program/special- consideration). Applications for special consideration should be submitted online within 5 days of the missed assessment (see: www.ask.mq.edu.au).

Final Theory Examination

This examination is held during the formal examination period, at the end of the semester. Its value is 40% towards the final mark. The examination is based on the entire content studied throughout the term covering gross anatomy of the limbs and back. The format of this paper comprises multiple choice and short answer questions, including clinical cases and problem-solving. A typical structure of the examination paper includes around 60-70 multiple choice questions (answers to be filled in the automated marking sheets) and several (e.g. three) short answer questions (answers to be written in the answer booklet provided). The content of this examination is aligned with the learning outcomes for the unit and all the learning and teaching activities that students participate in throughout the semester. There will be no identification tasks in the final theory examination. Special Consideration procedures are as described above.

Assessment Tasks

Name	Weighting	Hurdle	Due
Online Quiz 1 - Upper Limb	4%	No	Week 5
Practical Exam 1	20%	No	Week 6
Online Quiz 2 - Lower Limb	4%	No	Week 11
Online Quiz 3 - Back	2%	No	Week 13
Practical Exam 2	30%	No	Week 13
Final Theory Exam	40%	No	Examination Period

Online Quiz 1 - Upper Limb

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 4 hours

Due: **Week 5**

Weighting: **4%**

Multiple choice question online quiz focusing on the upper limb; utilising images of human remains, bones, x-rays, surface anatomy photographs.

On successful completion you will be able to:

- Describe and identify the structural and functional features of the musculoskeletal

components of the limbs and back and their anatomical relations.

- Describe and identify the arterial supply, venous and lymphatic drainage of the musculoskeletal components of the limbs and back.
- Demonstrate, where appropriate, on a living subject: a. musculoskeletal landmarks of the limbs and back b. the route of nerves and blood vessels of the limbs and back c. movements at joints d. muscle actions.
- Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.
- Apply acquired knowledge of the anatomy of the limbs and back to investigate clinical case studies.

Practical Exam 1

Assessment Type ¹: Examination

Indicative Time on Task ²: 12 hours

Due: **Week 6**

Weighting: **20%**

Spot test in the anatomy laboratory focusing on the upper limb; utilising human remains, bones, x-rays, surface anatomy photographs.

On successful completion you will be able to:

- Describe and identify the structural and functional features of the musculoskeletal components of the limbs and back and their anatomical relations.
- Describe and identify the arterial supply, venous and lymphatic drainage of the musculoskeletal components of the limbs and back.
- Demonstrate, where appropriate, on a living subject: a. musculoskeletal landmarks of the limbs and back b. the route of nerves and blood vessels of the limbs and back c. movements at joints d. muscle actions.
- Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.
- Communicate and demonstrate an appreciation and respect for those who have bequeathed their bodies to research.

Online Quiz 2 - Lower Limb

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 4 hours

Due: **Week 11**

Weighting: **4%**

Multiple choice question online quiz focusing on the lower limb; utilising images of human remains, bones, x-rays, surface anatomy photographs.

On successful completion you will be able to:

- Describe and identify the structural and functional features of the musculoskeletal components of the limbs and back and their anatomical relations.
- Describe and identify the arterial supply, venous and lymphatic drainage of the musculoskeletal components of the limbs and back.
- Demonstrate, where appropriate, on a living subject: a. musculoskeletal landmarks of the limbs and back b. the route of nerves and blood vessels of the limbs and back c. movements at joints d. muscle actions.
- Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.
- Apply acquired knowledge of the anatomy of the limbs and back to investigate clinical case studies.

Online Quiz 3 - Back

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 2 hours

Due: **Week 13**

Weighting: **2%**

Multiple choice question online quiz focusing on the back; utilising images of human remains, bones, x-rays, surface anatomy photographs.

On successful completion you will be able to:

- Describe and identify the structural and functional features of the musculoskeletal components of the limbs and back and their anatomical relations.
- Describe and identify the arterial supply, venous and lymphatic drainage of the musculoskeletal components of the limbs and back.
- Demonstrate, where appropriate, on a living subject: a. musculoskeletal landmarks of the

limbs and back b. the route of nerves and blood vessels of the limbs and back c. movements at joints d. muscle actions.

- Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.
- Apply acquired knowledge of the anatomy of the limbs and back to investigate clinical case studies.

Practical Exam 2

Assessment Type ¹: Examination

Indicative Time on Task ²: 20 hours

Due: **Week 13**

Weighting: **30%**

Spot test in the anatomy laboratory, focusing on the lower limb and back; utilising human remains, bones, x-rays, surface anatomy photographs.

On successful completion you will be able to:

- Describe and identify the structural and functional features of the musculoskeletal components of the limbs and back and their anatomical relations.
- Describe and identify the arterial supply, venous and lymphatic drainage of the musculoskeletal components of the limbs and back.
- Demonstrate, where appropriate, on a living subject: a. musculoskeletal landmarks of the limbs and back b. the route of nerves and blood vessels of the limbs and back c. movements at joints d. muscle actions.
- Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.
- Communicate and demonstrate an appreciation and respect for those who have bequeathed their bodies to research.

Final Theory Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 21 hours

Due: **Examination Period**

Weighting: **40%**

Theory exam covering the anatomy of the limbs and back. It consist of multiple choice questions,

short answer questions and includes clinical cases.

On successful completion you will be able to:

- Describe and identify the structural and functional features of the musculoskeletal components of the limbs and back and their anatomical relations.
- Describe and identify the arterial supply, venous and lymphatic drainage of the musculoskeletal components of the limbs and back.
- Demonstrate, where appropriate, on a living subject: a. musculoskeletal landmarks of the limbs and back b. the route of nerves and blood vessels of the limbs and back c. movements at joints d. muscle actions.
- Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.
- Apply acquired knowledge of the anatomy of the limbs and back to investigate clinical case studies.

¹ 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.

² 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

A typical weekly schedule includes:

- 1x3 hours of online lectures (ECHO360) - view via iLearn platform
- 1x1 hour tutorial (face to face and online)
- 1x1.5 hours practicals (face to face)

Participation in practical classes is a hurdle requirement for this unit. It is a condition of passing the unit that students must actively participate in a minimum of 80% of the practical classes for the semester.

Prescribed textbooks and learning materials:

- Unit Manual (laboratory and tutorial notes) are available in pdf format via iLearn platform
- Prescribed textbooks:
 - Vogl, Drake, & Mitchell (2019) Gray's Anatomy for Students. 4th Ed, Elsevier,

OR

- Moore, Dalley, & Agur (2017) Clinically Oriented Anatomy. 8th Ed, Wolters Kluwer
- Prescribed atlases:
 - Abrahams, Boon & Spratt (2009) McMinn's Clinical Atlas of Human Anatomy. 6th Ed, Mosby/Saunders Elsevier, **OR**
 - Rohen, Lutjen-Drecoll, & Yokochi (2015) A photographic Atlas. 8th Ed, Wolters Kluwer

Unit Schedule

Unit schedule will be provided on iLearn platform.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.s.mq.edu.au\)](https://policies.s.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 or if you are a Global MBA student contact 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) 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

If you are a Global MBA student contact 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/.

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.