



ANAT1002

Anatomy of Limbs and Back

Session 1, In person-scheduled-weekday, North Ryde 2022

Department of Chiropractic

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General Information

Unit convenor and teaching staff

Unit Convenor

Irina Dedova

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room 2228, Level 2, 75 Talavera Rd (by appointment)

online consultations as announced in iLearn; personal - by appointment

Embryology component

Mirjana Strkalj

N/A; please contact Dr. Irina Dedova

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 are seven quizzes (weeks 2,3,4,5,8,9,11). Each Quiz typically consists of around 10 questions (multiple choice, matching, T/F) on the theory of the given week. Questions are drawn from a database organised by specific subtopics for each question in the quiz. Time allocated: around 1-1.5 min per each question. The Quiz closes automatically once the time allocated runs out. Unfinished attempts are automatically saved. You have 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 and will stay open for one week for you to complete it in your own time. Late attempts are not allowed (zero marks). Written feedback will be provided. The best FIVE marks out of SEVEN marks for the quizzes are counted towards the 20% of the final mark for the unit. The schedule of quizzes and their topics can be found in the timetable and iLearn.

Practical Examinations Practical examinations, the Prac Exam 1(Week 6) and Prac Exam 2 (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). However, due to COVID, this is a subject to change (prac exams may need to be conducted online depending on the COVID advice). Students will be advised via iLearn announcements of any changes in the timetable or location of these tests. Prac Exams assess students' ability to identify correctly anatomical structures on human remains, bones, models, medical images, and surface anatomy on real specimens and/or 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, and Prac Exam 2 examines the practical knowledge relevant to weeks 6 throughout to week 13. The value of Prac Exam 1 is 15% and of Prac Exam 2 is 20% 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 45% 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 to five) short answer questions (answers to be written in the answer booklet provided). Short answer questions are based on scenarios discussed in lectures and tutorials. 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. The confidence in the knowledge and the examination skills will be built consistently throughout participation in weekly quizzes (multiple choice questions) and tutorial discussions (problem solving and clinical cases). 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 Quizzes	20%	No	Weeks 2-5, 8, 9, 11
Practical Exam 1	15%	No	Week 6
Practical Exam 2	20%	No	Week 13
Final Theory Exam	45%	No	Examination period

Online Quizzes

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 12 hours

Due: **Weeks 2-5, 8, 9, 11**

Weighting: **20%**

7 x Online multiple choice quizzes throughout the session. Each quiz will focus on the recently covered material and utilise images of human remains, bones, x-rays, surface anatomy photographs.

The highest scoring 5 of the 7 quizzes will be counted towards the 20% for this assessment item.

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: 8 hours

Due: **Week 6**

Weighting: **15%**

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.

Practical Exam 2

Assessment Type ¹: Examination

Indicative Time on Task ²: 12 hours

Due: **Week 13**

Weighting: **20%**

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: 31 hours

Due: **Examination period**

Weighting: **45%**

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

1. Unit Schedule A typical weekly schedule includes:

- three 1-hour lectures (see timetable); lectures are delivered online via pre-recordings available from ECHO360 in iLearn.
- one 2-hour face-to-face laboratory as per enrolment; students will be using models, bones, images and human remains specimens; prior to attending the lab, students are advised to watch around 30min video demonstrations via Acland's Video Atlas software (available via MQU Library; this can be done any time before the lab); Unit Manual will be available via iLearn; students can print their own copy of the manual; to attend the lab, students are required to wear enclosed shoes, lab coat and face mask; students are permitted to attend the labs strictly as per enrolment.
- independent work (at least 4 hours); this include tasks outlined in the Unit Manual, online activities including revision, 'check your understanding' online tutorials, formative quizzes, labelling tasks, and optional resources.

2. Classes Please make your choice for practical and tutorial classes on E-student. You can only attend the classes according to your class registration. If you appear at another practical, you will be turned away. Under exceptional circumstances, practical times may be changed, but

ONLY if you have a written approval from the Unit Convenor. 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 and tutorial classes** for the semester.

3. Required Texts and Materials The unit iLearn website can be accessed through the ilearn.mq.edu.au. Unit Manual (includes Lab and Tut notes) is available in iLearn. You can print your own copy. All lecture and tutorial slides will be posted on iLearn. You will find a link to Echo recordings of the lectures on this website. You will also find a Leganto link on iLearn that will show you the library resources available to support your learning. Please note that there is a limit in the number of users that simultaneously can access the electronic textbooks. Therefore, it might be a good idea to purchase your own textbook - see a list of prescribed texts below (available via Booktopia). Later or earlier editions of the textbooks/atlasses are acceptable (you can discuss this with your tutors and/or convenor). Further readings can be found via the Leganto link.

- 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

Weekly unit schedule will be provided in iLearn.

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](#)
- [Assessment Procedure](#)
- [Complaints Resolution 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

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

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

The Writing Centre

[The Writing Centre](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Workshops](#)
- [Chat with a WriteWISE peer writing leader](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the 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

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)

Student Enquiries

Got a question? Ask us via [AskMQ](#), or contact [Service Connect](#).

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.

Changes from Previous Offering

In response to the COVID situation and based on student feedback, this unit has been digitally uplifted. Weekly online learning modules will assist you with revision and checking your understanding of the main learning outcomes for a given week. Formative quizzes and labelling tasks will provide endless opportunities to learn flexibly and to practice the format of the real assessments. All formative learning activities have immediate feedback that will help you learning efficiently. According to student feedback and to enhance student learning efficiency and wellbeing, the assessment structure for the unit has changed. The value of Quiz has increased from 10% to 20% and the number of quizzes increased from three to seven. This will facilitate breaking the content into smaller chunks and help focussing studying week-by-week rather than crumming material towards three quizzes two of which are held at the end of semester. Counting the best five of the seven marks allows a 'space for an error' and alleviates extra-pressure associated with high-value assessment items. The value of the practical examinations (which are considered by majority students as the most challenging aspect of the unit) has decreased to a combined 35% instead of 50%. This is representative of the unit LOs and supports a positive alignment of the assessment, learning activities and objectives in the unit. It also removes an excessive stress from the end of the semester when students required to achieve most of the marks allocated for continuous assessment. We value feedback from students and will be working together with you to ensure that we will provide the best possible learning experience. Should you have any concerns or suggestions, do not hesitate to email the unit convenor.