



# ANAT1002

## Anatomy of Limbs and Back

Session 2, Special circumstances, North Ryde 2021

*Department of Chiropractic*

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#### **Disclaimer**

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

#### **Session 2 Learning and Teaching Update**

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

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

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

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

## General Information

Unit convenor and teaching staff

Unit Convenor

Irina Dedova

[irina.dedova@mq.edu.au](mailto:irina.dedova@mq.edu.au)

Contact via [irina.dedova@mq.edu.au](mailto:irina.dedova@mq.edu.au)

Room 351, 17 Wally's Walk, Macquarie University

please email Irina to set up an appointment

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.

**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.

**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.

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

## General Assessment Information

### Online Quiz (cumulative 10% towards the final mark)

There will be three online Quizzes: Quiz 1 - conducted in Week 4; Quiz 2 - in Week 10 and Quiz 3 - in Week 12. Each Quiz typically consists of 7 - 10 questions (multiple choice, matching, T&F, identifications) on the topics of Upper Limb (Quiz 1), Lower Limb (Quiz 2) and Back (Quiz 3). Only ONE attempt will be allowed at each question and ONE attempt for the whole quiz. The Quiz will become available at the end of the allocated week (e.g. Quiz 1 opens on Fri/Sat of Week 4) and will stay open for one week for you to complete in your own time (i.e. Quiz 1 will close on Fri/Sat of Week 5). Late attempts are not allowed. Feedback will be provided once the quiz has closed. The value of Quizzes 1 and 2 is 4% (each), and the value of Quiz 3 is 2% towards the final mark. The schedule of quizzes is included into the timetable, which can be found on iLearn. ULO assessed: 1-6. Supplementary quizzes can only be granted based on the approved special consideration application (<https://students.mq.edu.au/study/my-study-program/special-consideration>).

### Practical Examinations 1 and 2 (cumulative 50% towards the final mark)

The Practical Exam 1 (conducted in Week 6) and Practical Exam 2 (conducted in Week 13), focus on practical identifications of anatomical structures. Therefore, typically these tests are held in the usual location of the scheduled practical laboratory classes (i.e. in the anatomy laboratory for face-to-face mode of delivery), unless advised otherwise. Students will be warned of any changes in the timetable or location/mode of these tests. Each spot test assesses the ability to identify correctly anatomical structures on human remains, bones, models, medical images, and surface anatomy photographs. Additionally, relevant theory questions can be included. Typically, there are around 15-20 stations with several identifications in each. The value of Practical Exam 1 is 20% and of Practical Exam 2 - 30% towards the final mark for the unit. ULO assessed: 1-6. Students must attend the class they are enrolled in, unless permission has been granted by the unit convenor. 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](http://www.ask.mq.edu.au)).

### Final Theory Exam (40% towards the final mark)

This exam 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. 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 or space provided in the examination paper). Short answer questions are typically based on problems, concepts, real life scenarios and clinical cases discussed at lectures, tutorials and laboratory practical classes. The content of this examination is aligned with the learning outcomes for the unit (ULO 1-6) and all the learning and teaching activities that students participate in throughout the entire semester. There will be no identification tasks in the final theory examination. Special Consideration procedures are applied as described above (<https://students.mq.edu.au/study/my-study-program/special-consideration>).

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Online Quiz 1 - Upper Limb</a>	4%	No	Week 4
<a href="#">Online Quiz 2 - Lower Limb</a>	4%	No	Week 10
<a href="#">Online Quiz 3 - Back</a>	2%	No	Week 12
<a href="#">Practical Exam 1</a>	20%	No	Week 6
<a href="#">Practical Exam 2</a>	30%	No	Week 13
<a href="#">Final Theory Exam</a>	40%	No	Examination Period

### Online Quiz 1 - Upper Limb

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

Indicative Time on Task <sup>2</sup>: 4 hours

Due: **Week 4**

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.

- 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.
- 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.

## Online Quiz 2 - Lower Limb

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

Indicative Time on Task <sup>2</sup>: 4 hours

Due: **Week 10**

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.
- 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.
- 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.

## Online Quiz 3 - Back

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

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

Due: **Week 12**

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.
- 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.
- 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.

## Practical Exam 1

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

Indicative Time on Task <sup>2</sup>: 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.
- Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.
- 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.

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

## Practical Exam 2

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

Indicative Time on Task <sup>2</sup>: 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.
- Identify bony landmarks of the limbs and back and identify major structures on selected radiographs, CT and MRI images.
- 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.
- Communicate and demonstrate an appreciation and respect for those who have bequeathed their bodies to research.

## Final Theory Exam

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

Indicative Time on Task <sup>2</sup>: 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.
- 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.
- 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.

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

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

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

## Delivery and Resources

This unit involves some / at least one essential on-campus learning activities/ activity which will be delivered in accordance with a COVID Safe plan.

You will be expected to attend relevant on-campus activities **UNLESS** the Public Health Order and/or University advice changes.

**A typical weekly schedule includes:**

- 1 x 2hour and 1 x 1hour of online synchronous lectures; zoom link will be provided in iLearn; ECHO360 recordings will be available
- 1 x 1hour tutorial (face to face and/or online)
- 1 x 2hour laboratory practical class (face to face for on-campus delivery)
- online formative quizzes and learning activities (to be completed in own study time via iLearn)

It is a condition of passing the unit that students must actively participate in a minimum of **80% of the practical classes and tutorials** for the semester. Special Consideration procedures are as described above.



Please refer to iLearn for any changes to weekly activities formats due to COVID.

**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

**ANAT1002, S2, 2021**, Learning activities and timetable (please refer to iLearn for the latest version)

Week	Start Date	Lectures (synchronous, online)	Practical LAB (F2F)	Tutorial TUT (F2F or online)	Quiz
		L1 & L2: TUE 11am-1pm & L3: THUR 8-9am	2h LAB: TUE or WED (as per enrolment)	1h TUT: FRI (as per enrolment)	
1	26/07	Introduction; Commemoration; UL Overview; Shoulder	<i>NO F2F LAB</i>  <b>Online module:</b> <i>Osteology</i>	<i>NO F2F TUT</i>  <b>Online module:</b> <i>Arm</i>	<i>Formative quiz</i>
2	02/08	Elbow, Forearm, Wrist	<b>LAB 1:</b> Shoulder, Arm	<b>TUT 1:</b> Shoulder/Arm	<i>Formative quiz</i>
3	09/08	Hand, UL Neuro-vasculature 1 & 2	<b>LAB 2:</b> Elbow, Forearm, Wrist	<b>TUT 2:</b> Elbow/Forearm	<i>Formative quiz</i>
4	16/08	UL Revision; Surface Anatomy; Embryology	<b>LAB 3:</b> Hand, UL Neurovasculature	<b>TUT 3:</b> Wrist/Han	<b>QUIZ 1 (4%)</b>  <i>open: 20/08</i>  <i>close: 27/08</i>

## Unit guide ANAT1002 Anatomy of Limbs and Back

5	23/08	UL Revision; LL Overview	<b>LAB 4:</b> Revision	<b>TUT 4:</b> UL neurovasc.	<i>Formative quiz</i>
6	30/08	Gluteal region; Hip; Thigh	<b>PRAC EXAM 1</b> <b>(20%)</b>	<i>NO F2F TUT</i>	<i>Formative quiz</i>
7	06/09	Knee; Leg; Intro to Foot	<b>LAB 5:</b> Gluteal, Hip, Thigh	<b>TUT 5:</b> Hip/Thigh	<i>Formative quiz</i>
RECESS: 13/09 – 26/09					
8	27/09	Ankle; Foot; LL Neurovasculature 1	<b>LAB 6:</b> Knee, Leg	<b>TUT 6:</b> Knee/Leg	<i>Formative quiz</i>
9	04/10	LL Neurovasculature 2; Embryology; Surface Anatomy	<i>NO F2F LAB</i> <i>online activities</i>	<i>NO F2F TUT</i> <i>online activities</i>	<i>Formative quiz</i>
10	11/10	Back 1	<b>LAB 7:</b> Ankle, Foot, LL Neurovasculature	<b>TUT 7:</b> Ankle, Foot, LL Neurovasculature	<b>QUIZ 2 (4%)</b> <i>open: 15/10</i> <i>close: 22/10</i>
11	18/10	Back 2; Trunk Wall	<b>LAB 8:</b> Back 1, Revision	<b>TUT 8:</b> Back 1	<i>Formative quiz</i>
12	25/10	LL & Back Revision; Embryology	<b>LAB 9:</b> Back 2, Revision	<b>TUT 9:</b> Back 2	<b>QUIZ 3 (2%)</b> <i>open: 29/10</i> <i>close: 05/11</i>
13	01/11	<i>NO LECTURE</i> <i>online activities</i>	<b>PRAC EXAM 2</b> <b>(30%)</b>	<i>NO F2F TUT</i> <i>online activities</i>	

**Public Holidays:** Monday, 4<sup>th</sup> October (Labour Day); **EXAMS:** 08/11 – 28/11/2021.

**Formative quiz:** these quizzes are provided as a learning tool for students to learn and to practice for summative assessments (Quiz 1, 2 & 3) and as a form of a continuous informal feedback; marks will be provided but they do NOT contribute to the assessment marks.

Where applicable, *late submissions will receive a 5% per day penalty including weekends and public holidays. If you submit the assessment task 10 days or more beyond the due date, without an approved extension, you will be awarded a maximum of 50% of the overall assessment*

marks.

## Policies and Procedures

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

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

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

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

## Student Code of Conduct

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

## Results

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

## Student Support

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

## Learning Skills

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

- [Getting help with your assignment](#)
- [Workshops](#)

- [StudyWise](#)
- [Academic Integrity Module](#)

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

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

## Student Services and Support

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

## Student Enquiries

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

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

## IT Help

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

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

## Changes since First Published

Date	Description
12/07/2021	Added as advised: This unit involves some / at least one essential on-campus learning activities/activity which will be delivered in accordance with a COVID Safe plan. You will be expected to attend relevant on-campus activities unless the Public Health Order and/or University advice changes.