



# HLTH108

## Introduction to Anatomy

S1 Day 2017

*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

Goran Strkalj

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Credit points

3

Prerequisites

Corequisites

Co-badged status

Unit description

This is an introductory unit which presents the basic concepts in gross anatomy, histology and embryology. All systems of the human body are introduced and described at the microscopic and macroscopic levels. The unit also focuses on clinical and surface anatomy. Anatomical models, histology slides and medical imagery are used in the practical sessions and tutorials.

## 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:

Adopt and be able to use anatomical terminology: define and understand the anatomical position, anatomical planes, sections and directional terms.

Describe different levels of structural organisation of the human body.

Name and identify the four basic tissues and describe the major characteristics of each.

Describe the major developmental events that occur during the embryonic and fetal periods.

Describe and identify the microscopic and macroscopic anatomy of all systems of the human body and explain their function and integration: Integumentary, Skeletal, Muscular, Cardiovascular, Lymphatic, Nervous, Endocrine, Respiratory, Digestive, Urinary, Reproductive.

Apply the knowledge of anatomy within the clinical and research contexts.

## General Assessment Information

**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.***

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

***If you apply for Disruption to Study for your final examination, you must make yourself available for the week of July 24 – 28, 2017. If you are not available at that time, there is no guarantee an additional examination time will be offered. Specific examination dates and times will be determined at a later date.***

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Online Quizzes</a>	20%	No	Weeks 2, 4, 7, 8, 10 and 12..

Name	Weighting	Hurdle	Due
<a href="#">Practical test 1</a>	20%	No	Week 6
<a href="#">Practical test 2</a>	20%	No	Week 13
<a href="#">Final Examination</a>	40%	No	University Examination Period

## Online Quizzes

Due: **Weeks 2, 4, 7, 8, 10 and 12..**

Weighting: **20%**

Six on-line quizzes related to selected learning outcomes.

On successful completion you will be able to:

- Adopt and be able to use anatomical terminology: define and understand the anatomical position, anatomical planes, sections and directional terms.
- Describe different levels of structural organisation of the human body.
- Name and identify the four basic tissues and describe the major characteristics of each.
- Describe the major developmental events that occur during the embryonic and fetal periods.
- Describe and identify the microscopic and macroscopic anatomy of all systems of the human body and explain their function and integration: Integumentary, Skeletal, Muscular, Cardiovascular, Lymphatic, Nervous, Endocrine, Respiratory, Digestive, Urinary, Reproductive.
- Apply the knowledge of anatomy within the clinical and research contexts.

## Practical test 1

Due: **Week 6**

Weighting: **20%**

Practical test (related to models and histology slides used during the practicals and tutorials). Test one will cover weeks 1-6.

On successful completion you will be able to:

- Adopt and be able to use anatomical terminology: define and understand the anatomical position, anatomical planes, sections and directional terms.
- Describe different levels of structural organisation of the human body.
- Name and identify the four basic tissues and describe the major characteristics of each.
- Describe the major developmental events that occur during the embryonic and fetal

periods.

- Describe and identify the microscopic and macroscopic anatomy of all systems of the human body and explain their function and integration: Integumentary, Skeletal, Muscular, Cardiovascular, Lymphatic, Nervous, Endocrine, Respiratory, Digestive, Urinary, Reproductive.
- Apply the knowledge of anatomy within the clinical and research contexts.

## Practical test 2

Due: **Week 13**

Weighting: **20%**

Practical test (related to models and histology slides used during the practicals and tutorials). Test two will cover weeks 7-13.

On successful completion you will be able to:

- Adopt and be able to use anatomical terminology: define and understand the anatomical position, anatomical planes, sections and directional terms.
- Describe different levels of structural organisation of the human body.
- Name and identify the four basic tissues and describe the major characteristics of each.
- Describe the major developmental events that occur during the embryonic and fetal periods.
- Describe and identify the microscopic and macroscopic anatomy of all systems of the human body and explain their function and integration: Integumentary, Skeletal, Muscular, Cardiovascular, Lymphatic, Nervous, Endocrine, Respiratory, Digestive, Urinary, Reproductive.
- Apply the knowledge of anatomy within the clinical and research contexts.

## Final Examination

Due: **University Examination Period**

Weighting: **40%**

This will cover the content of the entire semester. Questions will include multiple choice questions, short answer questions and short essay questions. The final exam covers weeks 1-13.

On successful completion you will be able to:

- Adopt and be able to use anatomical terminology: define and understand the anatomical position, anatomical planes, sections and directional terms.
- Describe different levels of structural organisation of the human body.

- Name and identify the four basic tissues and describe the major characteristics of each.
- Describe the major developmental events that occur during the embryonic and fetal periods.
- Describe and identify the microscopic and macroscopic anatomy of all systems of the human body and explain their function and integration: Integumentary, Skeletal, Muscular, Cardiovascular, Lymphatic, Nervous, Endocrine, Respiratory, Digestive, Urinary, Reproductive.
- Apply the knowledge of anatomy within the clinical and research contexts.

## **Delivery and Resources**

### **Attendance**

This unit is characterized by a moderate degree of flexibility. It incorporates a variety of learning tools and media. It will comprise:

1. Three 1-hour lectures per week, weeks 1-13.
2. One 1-hour tutorial per week, weeks 2-13 (except where indicated) in university classrooms; discussions will be carried; histology slides, anatomy models and flow charts will be used.
3. One 2-hours laboratory practical per week 1-13 (except where indicated) in the anatomy laboratories; histology slides and anatomy models will be used.

Students must attend the practical classes (tutorials and lab practicals) in which they enrolled. They may not exchange their class time. In special circumstances, students may apply (with the appropriate documentation) in writing to the unit convener, for requests regarding changes. These requests are to be submitted to the unit convenor.

It is expected that you attend a minimum of 70% of practical and tutorial classes in order for it to be deemed that you have made a serious attempt of this unit. Attendance will be marked at the start of the practical and tutorial classes.

## **Required and Recommended Texts and/or Materials**

### **Core:**

Tortora GJ and Derrickson B. 2015. *Introduction to the Human Body*. 10<sup>th</sup> ed. Wiley.

*HLTH108 Introduction to Anatomy Laboratory Manual* - available at Co-op Shop bookshop.

### **Alternative textbook:**

Tortora GJ and Nielsen MT. 2014. *Principles of Human Anatomy*. 13<sup>th</sup> ed. Wiley.

**Recommended:**

More detailed anatomy textbooks:

Drake RL, Vogl AW and Mitchell AWM. 2015. *Gray's Anatomy for Students*. 3<sup>rd</sup> ed. Elsevier.

Moore KL and Dalley AF. 2014. *Clinically Oriented Anatomy* 7<sup>th</sup> ed. Lippincott Williams & Wilkins.

Atlases:

Abrahams PH, Spratt JD, Loukas M, van Schoor AN. 2013. *McMinn's Clinical Atlas of Human Anatomy*. 6<sup>th</sup> ed. Mosby/Saunders Elsevier.

Histology:

Mescher AL. 2013. *Junqueira's Basic Histology*. 13<sup>th</sup> ed. McGraw Hill.

## Unit Schedule

WEEK	LECTURE (Monday)	TUTORIAL (Monday/Tuesday)	LECTURE (Tuesday)	LABORATORY PRACTICAL (Wednesday/ Thursday/Friday)
1 27 February	Introduction	No tutorials	Cells Basic tissues Epithelium	Cell biology Epithelium
2 6 March	Connective tissue	Terminology and orientation	Axial skeleton Appendicular skeleton	Bones Connective tissue <b>(Quiz 1)</b>
3 13 March	Joints	Bones and joints	Bone tissue Muscle tissue	Joints Specialised connective tissue
4 20 March	Embryology	Embryology	Skeletal muscles	Skeletal muscles Muscle tissue <b>(Quiz 2)</b>
5 27 March	Skin	Muscles	Cardiovascular system	Blood vessels histology and anatomy Heart

6 3 April	Blood	Skin, heart and blood vessels	Revision	<b>Practical Test 1</b>
7 10 April	Lymphatic system	Blood, lymphatic system	Nervous tissue Brain	<b>Public holiday</b> <b>(Quiz 3)</b>
17 – 30 April	<b>Session 1</b> <b>recess</b>			
8 1 May	Brain and cranial nerves	Nervous system	Spinal cord and spinal nerves Autonomic nervous system	Nervous system histology and anatomy <b>(Quiz 4)</b>
9 8 May	Endocrine system	Endocrine system	Respiratory system	Respiratory system histology and anatomy
10 15 May	Digestive system	Respiratory system	Digestive system	Digestive system histology and anatomy <b>(Quiz 5)</b>
11 22 May	Somatic and special senses	Digestive system	Urinary system	Digestive system histology Urinary system anatomy
12 29 May	Somatic and special senses	Somatic and special senses	Reproductive system	Reproductive and Urinary systems histology Reproductive system anatomy <b>(Quiz 6)</b>
13 5 June	Surface anatomy	Urinary and reproductive systems	Revision	<b>Practical Test 2</b>

## 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](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

Assessment Policy [http://mq.edu.au/policy/docs/assessment/policy\\_2016.html](http://mq.edu.au/policy/docs/assessment/policy_2016.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](http://www.mq.edu.au/policy/docs/complaint_management/procedure.html)

Disruption to Studies Policy (in effect until Dec 4th, 2017): <http://www.mq.edu.au/policy/docs/disr>



[ption\\_studies/policy.html](#)

Special Consideration Policy (in effect from Dec 4th, 2017): <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>

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](http://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](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 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)

## 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.

## 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 outcome

- Apply the knowledge of anatomy within the clinical and research contexts.

#### Assessment tasks

- Online Quizzes
- Practical test 2
- Final 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 outcome

- Apply the knowledge of anatomy within the clinical and research contexts.

#### Assessment tasks

- Online Quizzes
- Practical test 1
- Practical test 2
- Final Examination

### 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

- Adopt and be able to use anatomical terminology: define and understand the anatomical position, anatomical planes, sections and directional terms.
- Describe different levels of structural organisation of the human body.
- Name and identify the four basic tissues and describe the major characteristics of each.
- Describe the major developmental events that occur during the embryonic and fetal periods.
- Describe and identify the microscopic and macroscopic anatomy of all systems of the human body and explain their function and integration: Integumentary, Skeletal, Muscular, Cardiovascular, Lymphatic, Nervous, Endocrine, Respiratory, Digestive, Urinary, Reproductive.

## Assessment tasks

- Online Quizzes
- Practical test 1
- Practical test 2
- Final Examination

## 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

- Adopt and be able to use anatomical terminology: define and understand the anatomical position, anatomical planes, sections and directional terms.
- Describe different levels of structural organisation of the human body.
- Name and identify the four basic tissues and describe the major characteristics of each.
- Describe the major developmental events that occur during the embryonic and fetal periods.
- Describe and identify the microscopic and macroscopic anatomy of all systems of the human body and explain their function and integration: Integumentary, Skeletal,

Muscular, Cardiovascular, Lymphatic, Nervous, Endocrine, Respiratory, Digestive, Urinary, Reproductive.

## **Assessment tasks**

- Online Quizzes
- Practical test 1
- Practical test 2
- Final Examination

## **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 outcome**

- Describe and identify the microscopic and macroscopic anatomy of all systems of the human body and explain their function and integration: Integumentary, Skeletal, Muscular, Cardiovascular, Lymphatic, Nervous, Endocrine, Respiratory, Digestive, Urinary, Reproductive.

## **Assessment tasks**

- Online Quizzes
- Practical test 1
- Practical test 2
- Final Examination

## **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 outcome**

- Apply the knowledge of anatomy within the clinical and research contexts.

## Assessment tasks

- Online Quizzes
- Final 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 outcome

- Adopt and be able to use anatomical terminology: define and understand the anatomical position, anatomical planes, sections and directional terms.

## Assessment tasks

- Online Quizzes
- Practical test 1
- Practical test 2
- Final 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 outcome

- Apply the knowledge of anatomy within the clinical and research contexts.

## Assessment tasks

- Online Quizzes
- Final Examination

## 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 outcome**

- Apply the knowledge of anatomy within the clinical and research contexts.

## **Assessment tasks**

- Online Quizzes
- Practical test 1
- Practical test 2
- Final Examination

## **Changes since First Published**

<b>Date</b>	<b>Description</b>
02/02/2017	One teaching resource (not available form the library this year) was deleted form the original version.