



Australia's
Global
University

**Faculty of Medicine & Health
School of Medical Sciences**

ANAT2451

Functional Anatomy for Health and Exercise Science

COURSE OUTLINE

Term 1, 2021



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CRICOS Provider Code 00098G

ANAT2451: FUNCTIONAL ANATOMY FOR HEALTH AND EXERCISE SCIENCE

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*It is your responsibility to make sure that you read and sign the **Student Risk Assessment Form** included in this outline before you attend your first practical in the dissecting room. Keep the signed form in your practical manual and bring it to classes with you. It is not necessary to give it to your tutor or Course Convenor).*

Please read this outline in conjunction with the following pages on the [School of Medical Sciences website](#):

- [Advice for Students](#)
- [Learning Resources](#)

(or see "STUDENTS" tab at medicalsciences.med.unsw.edu.au)

Course Staff

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If you would like an appointment with the teaching staff, please arrange this via email.

Units of Credit, Course Prerequisites, and Hours of Study

This course is worth six units-of-credit (6 UOC). The prerequisites are either ANAT1551 (Introductory Anatomy for Health & Exercise Science) OR ANAT2111 (Introductory Anatomy).

This is a blended learning course (i.e., has both face-to-face and online learning activities) and consists of 8 hours per week of scheduled learning activities. These comprise a 2-hour seminar, two 2-hour practical laboratory classes, a 1-hour team-based learning session (tutorial), and at least 1 hour of an online activity each week.

Students are expected to attend all scheduled learning. Please note that for a 6 UOC course, UNSW recommends 150 hours of study and learning activities. The scheduled learning activities in this course consist of approximately 70 hours throughout the semester and students are expected to contribute the remaining number of hours in team learning activities, self-directed learning, and study.

What is Anatomy?

Anatomy is derived from the Greek words '*ana*' (meaning to *separate, apart from*), and '*temnein*' (meaning to *cut up, cut open*). Anatomy, therefore, is the study of body structure or morphology. Anatomy is one of the earliest of the medical sciences and has a colourful and prestigious recorded history that spans some 4000 years, with the earliest documents found in Egypt (the Edwin Smith Papyrus, dated 1600BC).

Many of the earliest known medical scientists and physicians were devoted to understanding anatomy including the Greek physician Hippocrates (460-377BC) who first discovered the tricuspid valve of the heart. This was around the same time that cadavers were first used in anatomical research by Herophilus and Erasistratus in Alexandria, Egypt (4BC) and when the Sushruta Samhita, an Ayurvedic medical text including detailed anatomy descriptions was compiled in India. But by far the most notable of the early anatomists was Galen (2AD) who also compiled much of the anatomical knowledge known to date into what is probably **the** first anatomy textbook that reigned unchallenged for almost 1500 years - most of this text was destroyed during the Dark Ages.

Anatomy really flourished around the 17th and 18th centuries largely due to the invention of the printing press that facilitated the exchange of ideas. Because anatomy was based on observations and drawings, the best anatomists were usually excellent artists (*au fait* with Latin) who attended dissections and published their drawings for money – these included, Michelangelo, Rembrandt and Da Vinci.

Today, anatomy is the bedrock of medicine and of an array of allied health disciplines. Anatomical research today is diverse and focuses on understanding anatomical function from that of a single cell through to the inter-relation of systems and function, biomechanics and movement, embryology, and development. This is done via techniques in cell and molecular biology, and dissection, as well as the use of clinical and radiological techniques.

The privilege of studying from cadaveric specimens is the cornerstone of this course and will provide you with an appreciation of anatomy of the musculoskeletal system and its adaption to function.

Course Aims and Student Learning Outcomes

This course is designed for students studying exercise physiology and focusses on providing an understanding of the anatomy of the back and limbs in relation to functional movement. Anatomical principles are studied in relation to the analysis and description of movement. The course includes study of the functional aspects of muscles, ligaments, joints, and relevant neurovascular structures. The learning activities include the study of prosected specimens, medical imaging, and surface anatomy. Engagement, particularly during anatomy practicals, will assist students with identifying the anatomical features of each of the bones, joints, and their related muscles. The content is taught using dissected human specimens, skeletal material and models, and students will be able to utilise their knowledge of human anatomy to participate in discussions of the functional and applied aspects of the musculoskeletal system.

On completion of this course students should:

1. *Be able to identify musculoskeletal anatomical structures of the back, upper and lower limbs.*
2. *Demonstrate understanding of the relationship between structure and function of the anatomical structures and neurovasculature of the back, upper limb, and lower limbs.*
3. *Be able to analyse the factors that contribute to mobility, stability and/or dislocations, and limit movement of each of the joints of the back, upper and lower limbs.*
4. *Be able to apply anatomical knowledge in evaluating functional movement of the limbs, muscle testing and in understanding the effect of peripheral nerve lesions.*
5. *Be able to demonstrate their ability to work in teams and assume accountability for their own learning.*

UNSW has developed lists of attributes that graduates - in particular those in science - should possess upon graduation – these are referred to as the '**Graduate Attributes**'. See medsciences.med.unsw.edu.au/students/undergraduate/advice-students#graduate

In addition to these, the Department of Exercise Physiology has identified the following **Graduate Attributes for Health and Exercise Science** students:

- develop a thorough understanding of the relationship between physical activity and health
- develop a broad range of communication skills and an ability to work as a member and a leader of a team
- develop advanced problem-solving skills and a capacity for critical thinking
- attain competencies in conducting a broad range of exercise-based clinical tests
- attain skills and detailed clinical knowledge relevant to cardiac, musculoskeletal, or neuromuscular rehabilitation

How the Course Relates to the Exercise Physiology Profession

This course provides students with an understanding of the application of functional anatomy and biomechanics to human movement. In their careers as exercise physiologists, graduating students will require a detailed knowledge of the joint movements and muscle actions involved in exercise activities, activities of daily living and workplace tasks. This course delivers the necessary theoretical background in functional anatomy, highlighting its close link with biomechanics, thus enhancing understanding of movement processes and injury risk.

How the Course Relates to the Exercise Physiology Program

ANAT2451 Functional Anatomy for Health and Exercise Science is a course offered to those students enrolled in the Exercise Physiology Program. It is undertaken in Term 1 of Stage 2. The course builds on the Stage 1 course Introductory Exercise Science (HESC1501) and Introductory Anatomy (ANAT2111/ANAT1551) and complements the Stage 2 course in biomechanics (BIOM2451). Your knowledge in functional anatomy will be directly applied in subsequent courses in the program; specifically, movement assessment and instruction (HESC2452) and the Stage 3 courses course of muscle and motor control (HESC3101), movement rehabilitation (HESC3532) and neuromuscular rehabilitation (HESC3592).

Course Structure and Attendance

It is strongly recommended that students watch the pre-recorded seminar covering the appropriate anatomical topic prior to their practical and tutorial sessions. These seminars provide the information necessary for students to effectively engage with and participate in subsequent practical and tutorial classes. In order to satisfy the requirements of the course you are expected to attend **at least 80% of practical and tutorial classes** and failure to do so (without good reason) may result in a fail.

| Seminars | Tutorials | Laboratory |
|--|--|---|
| Pre-recorded | Thursday | Tuesday AND Friday |
| It is strongly recommended you watch the appropriate seminar recording PRIOR to attending your practical and tutorial classes | 10am-11am OR 11am-12pm Biological Sciences G07 | 11am-1pm OR 3pm-5pm Biological Sciences Lab 7, Level 1 (Anatomy Lab) |

Teaching Rationale and Strategies

Student interaction and engagement with the content of the course underpins all learning activities. Students are initially introduced to anatomical regions in the form of seminars incorporating multimedia-learning tools. With this theoretical knowledge, students engage in practical learning activities during the laboratory sessions where the teacher/tutor guides the student and encourages them to actively participate in their learning.

Students are always encouraged to question, observe, and share knowledge and experiences that help their learning and that of their peers. The anatomy laboratory is a wonderful and fascinating environment for discovery, and students are given every opportunity to explore cadaveric specimens, participate in active discussions, and resolve queries for themselves.

Seminars – This approach is used to present relatively large amounts of information within a

given time on specific topics throughout the course. Seminars will be pre-recorded and available for students to watch at a time convenient for them. However, it is recommended that students watch the seminar prior to attending the practical and tutorial classes covering the same topic. Seminar notes will be available online (see below in the **Online Resources section**), so students should be able to think about and develop an understanding of the anatomical concepts as they are presented, rather than writing voluminous notes. However, there will be information and explanations presented in seminars in addition to those covered in the notes that students should take down if it helps them understand the material.

Laboratory practical sessions – The purpose of the practical sessions is to give students first-hand experience of the content covered. The anatomy laboratory is the best resource for learning anatomy and is a wonderful place of privilege, discovery and discussion. The laboratory sessions are small group sessions that allow students to explore prosected specimens of the musculoskeletal system. Although the tutor is present to oversee the activities in these sessions, these sessions are meant to be led by students working in groups of 3-4.

Tutorials – These sessions are designed for students to apply the concepts that they have learnt in the course and to develop team skills. In these sessions, students will work in small teams of 5-7. The class will be divided into teams within the first few weeks of the course and the teams will remain the same for the duration of the course. During tutorial time students will complete team activities that will contribute to their final assessment in this course. Individual contribution to the activities will be evaluated by the team and will contribute to a student's final grade in this course. Students will also be asked to complete an evaluation of each of the team members.

Virtual Anatomy Adaptive Tutorials (VAnAT) – The VAnAT will be made available to students periodically via a link in Moodle during this course. These are virtual tutorials based on high quality images of prosected specimens. The tutorials consist of a series of interactive questions, and students are expected to apply the content covered in lectures and laboratory sessions to answer these. VAnAT are also a useful resource to consolidate and revise course content. Sessions are structured to encourage student participation in activities and to enhance their learning. Students will benefit most if they complete these tutorials consistently. The tutorials focus on applying the principles of functional anatomy of the limbs.

Independent study – There is insufficient time in the lectures, tutorials and practicals for students to develop a deep understanding of the concepts covered in this course. To achieve the learning outcomes that will be assessed, students will need to revise the material presented in the course regularly and do additional reading beyond the lecture materials to learn effectively. Relevant additional resources, including textbook chapters, will be cited in lecture and practical sessions.

Recommended texts and other resources

See also [Learning Resources](#).

In addition to the **course manual**, you will need a textbook **AND** an atlas of human anatomy for this course.

Prescribed resources:

- One of the following textbooks:
 - Moore K.L., & Agur A. M. R., Dalley A.F. (2018) **Clinically Oriented Anatomy**. 8th ed. Lippincott Williams & Wilkins: Baltimore; or
 - Drake, R.L., Vogl, W. & Mitchell, A.W.M. (2019). **Gray's anatomy for students**. 4th ed. Philadelphia. London: Elsevier/Churchill Livingstone (available through the library).
- One of the following anatomical atlases:
 - Tank P.W. and Gest T.R. (2009) **Atlas of Anatomy**. Lippincott, Wilkins and Williams (*note: This comes as a bundle with Clinically Oriented Anatomy from the UNSW bookshop*); or
 - Abrahams, PH, Spratt, JD, Loukas M, and van Schoor A-N (2013) **McMinns & Abrahams' Clinical Atlas of Human Anatomy**. 7th ed. Philadelphia. [Elsevier Health Sciences](#).

Recommended resources:

- Hamill, J. & Knutzen, K.M. (2009). **Biomechanical Basis of Human Movement**, 3rd Edition, Lippincott, Williams & Wilkins. ISBN: 0781734053 (*Library call no. 612.76/177*)
- Neumann, D. A. (2016) **Kinesiology of the Musculoskeletal System: Foundation for Rehabilitation**. 3rd ed. Philadelphia. [Elsevier Sciences](#).

Online resources

- Virtual Anatomy Adaptive tutorials – accessed via the course Moodle site
- Anatomy videos – accessed via the course Moodle site
- Acland's anatomy videos – accessed via the UNSW Library (**strongly recommended**)
- Arnold's Glossary of Anatomical Terms -

See medicalsciences.med.unsw.edu.au/students/undergraduate/learning-resources. For general advice on studying and learning online, see the [Guide to Online Study](#) and [Transitioning to Online Learning](#).

Revision Facilities

1. The Anatomy Museum is located on the ground floor of the Wallace Wurth East. The museum contains a variety of bottled anatomical dissections. Please do not remove the museum jars from the shelves. The museum also contains computers loaded with anatomy software and internet access. Access to the museum is by swipe card and is restricted to anatomy students only, between 8.30 a.m. and 5.30 p.m. Monday to Friday. NO photography is allowed in the Anatomy Museum.
2. Rooms G06/G07 in Wallace Wurth East contain computers with a variety of anatomical software and can be used to access the Virtual Adaptive Anatomy Tutorials (VAnATs). Access to these rooms is by student swipe card only. Students may use the computers, **provided the rooms are not required for other classes**.

Assessment

- | | |
|--|-----|
| a. Continuous assessment quizzes | 10% |
| b. Spot tests (mid-semester and end-of-semester) | 35% |
| c. Theory exam | 30% |
| d. Team-based learning (TBL) assessment | 25% |

Continuous assessment

Description & feedback & process: This assessment task comprises weekly quizzes that cumulatively are worth 10% of the course mark. These quizzes are administered weekly during tutorials in weeks 2-5 and 7-10 via Moodle. They test practical and theoretical knowledge acquired in the course and application of this knowledge. Feedback is provided immediately in class and is also available online after the class. Students are required to bring an electronic device for this assessment (e.g., mobile phone, tablet, or computer). Continuous assessments are usually in the form of short tests consisting of multiple-choice questions (MCQ). They will be conducted at the beginning of the tutorial classes in weeks 2-5 and 7-10.

Links to learning outcomes: CLO 1, 2, 3, 4

Assessment weight: 10%

Spot tests

Description & feedback & process: This assessment task contains two parts that are worth 35% in total. The assessment is a practical spot test that assesses the knowledge and skills acquired during practical classes. Students are required to identify, and answer questions related to, anatomical structures on cadaveric specimens, anatomical models, radiographic images, and surface anatomy images. Results will be posted on Moodle and feedback will be provided via Moodle and in a tutorial session.

Spot tests assess your ability to identify, correctly name and answer questions related to, significant structures in prosected human specimens, models, and radiographs. Spot test 1 will cover information from seminars and practical sessions for the topics covering the upper limb. Spot test 2 will cover information from seminars and practical sessions for the topics covering the back and the lower limb.

Links to learning outcomes: CLO 1, 2

Assessment weight: 35%

Theory examination

Description & feedback & process: This assessment comprises of a 2-hour written examination conducted during the examination period. It is designed to assess students' practical and theoretical knowledge of course content and ability to apply concepts studied in the course to solve problems related to anatomy. The examination contains a combination of multiple choice and short answer questions that test anatomical knowledge and its application. Feedback process: Student's performance mark.

The purpose of this exam is to test a student's understanding of the concepts covered in the ENTIRE COURSE and to assess deeper learning (i.e., the ability to inter-relate information and concepts) and critical thinking. This is a single 2-hour paper written during the formal Term 1 examination period.

Links to learning outcomes: CLO 1, 2, 3, 4, 5

Assessment weight: 30%

Team Based Learning Assessment

Description & feedback & process: This assessment consists of a series of team tasks. During the first few weeks of the course the class will be divided into teams consisting of 5-7 students. Each team will have a mixture of abilities and backgrounds. The use of team-based learning is designed to improve the learning experience through peer-teaching in an interactive discussion facilitated by a tutor. Students will stay in the same teams for the duration of the course and will work together to complete team assessments. Team assessment will include three components:

- **Weekly team quizzes** that focus on clarification of the week's content. Weekly team quizzes are administered during weeks 2-5 and 7-10 and cumulatively contribute 5% towards the total course mark. Feedback to the quizzes is provided in class immediately.
- **Two team assignments** that focus on application of content and students' ability to integrate knowledge across different disciplines. The two team assessments are worth 15% of the total marks for the course, they require application of anatomical concepts learnt in the course. Students are required to demonstrate analytical and problem-solving skills as well as effective teamwork skills. Feedback is provided online via Moodle and in class.
- **Peer evaluation** that reflects on the contribution of team members to the overall success of the team. Peer evaluation assesses effective teamwork, critical thinking and reflective skills and is worth 5% of the total mark in the course. It is completed online in week 10 of the course. Feedback is provided via Moodle.

Links to learning outcomes: CLO 1,2,3,4,5

Assessment weights: 25%

Final and supplementary examinations

It is intended that the final exams for the School of Medical Sciences in Term 1, 2021 will be held between **Friday 30 April to Thursday 13 May 2021**. Supplementary exam period for Term 1, 2021 is **Mon 24 May to Fri 28 May 2021**. If you are eligible for the supplementary exams, you will be notified of the exact date and time as soon as possible after final exam marks have been resolved. Please note, supplementary and deferred examinations may have a significant oral component or be conducted entirely as oral exams.

Enrolment and administrative help

Staff in SoMS student administration are available to help with problems with enrolment and scheduling and should be the first point of contact for administrative problems. They can be contacted online via the UNSW Student Portal Web Forms: <http://unsw.to/webforms>

Attendance Requirements

For details on the Policy on Class Attendance and Absence see [Advice for Students](#) and the [Policy on Class Attendance and Absence](#).

Attendance at practical classes and tutorials is compulsory and must be recorded in the class roll at the start of each class. Arrival more than 15 minutes after the start of the class will be recorded as non-attendance. It is your responsibility to ensure that the demonstrator or tutor records your attendance, and no discussions will be entered into after the completion of the class. Satisfactory completion of the work set for each class is essential. It should be noted that non-attendance for other than documented medical or other serious reasons, or unsatisfactory performance for more than 1 practical class during the session, may result in an additional practical assessment exam or ineligibility to pass the course. Students who miss

practical classes due to illness or for other reasons must submit a copy of medical certificates or other documentation to the Course Convenor.

Practical Classes

The practical class is an opportunity for students to develop graduate attributes by behaving in an ethical, socially responsible, and professional manner within the class. Students must take due care with biological and hazardous material and make sure all equipment is left clean and functional. In the interests of safety, special attention should be paid to any precautionary measures recommended in the notes. If any accidents or incidents occur, they should be reported immediately to the demonstrator in charge of the class who will record the incident and recommend what (if any) further action is required.

For more details see [Advice for Students-Practical Classes](#) and the Dissecting Room Rules.

Student Support and Equitable Learning Services

Please see the [UNSW Student Life Hub](#) for information on the wide range of support services available to you. If you have a disability and require reasonable adjustments to your studies, please contact Equitable Learning Services; more information can be found on their website <https://student.unsw.edu.au/els>

Special Consideration

Please see [UNSW-Special Consideration](#) and [Student Advice-Special Consideration](#)

If you unavoidably miss any assessment, you must lodge an application with UNSW Student Central for special consideration. If your request for consideration is granted, an alternative assessment will be organised which may take the form of a supplementary exam.

Academic Integrity and Plagiarism

The University regards plagiarism as academic misconduct and imposes severe penalties. Evidence of plagiarism in submitted assignments, etc. will be thoroughly investigated and may be penalized by the award of a score of zero for the assessable work. Flagrant plagiarism will be directly referred to the Division of the Registrar for disciplinary action under UNSW rules. See student.unsw.edu.au/plagiarism. The School of Medical Sciences will not tolerate plagiarism or other forms of academic misconduct. **Academic misconduct includes, but is not limited to:**

- copying answers from another student during a quiz or a spot test.
- using textbooks, lecture or other materials during closed-book tests.
- sharing quiz password information with another student who is absent from class without express authorisation of teaching staff,
- asking a fellow student to sign an attendance roll for you when you are absent or signing an attendance sheet for an absent student.

The [UNSW Student Code](#) outlines the standard of conduct expected of students with respect to their academic integrity and plagiarism.

Feedback

This is a challenging course. The Course Convenor and other teaching staff will endeavour to make this course interesting, relevant and a rewarding learning experience for you. Problem based questions have been included at the end of each practical in your course manuals – you are encouraged to work through these to provide yourself with feedback on your progress

throughout the course.

During the practical sessions, you will also have an opportunity to try some practice spot-test-style questions. Answers for these will be provided as feedback to you on your progress. The continuous assessment MCQs are designed to give you continuous feedback on your progress. Answers to these will be discussed immediately following the assessment, during the tutorial. In addition, the Virtual Adaptive Anatomy Tutorials (V-AnATs) will be made available via a link in Moodle. These will provide you with immediate feedback and are to be used as a formative assessment tool.

Course Evaluation and Development

From the experience of the course authority and students' feedback in 2020, the following changes were made to this course:

1. Time spent in practical classes has been increased from 1x3hr to 2x2hrs.
2. Assessment tasks have been changed to make them more relevant to the profession of exercise physiology.

Student feedback is welcome and taken seriously. A [myExperience](#) survey will be used to formally gather student feedback. The feedback received is used to enhance the course.

There will also be opportunities for representatives from this course to meet with the Course Convenor at regular intervals during the course. This will provide you with an opportunity to discuss (via these reps) how the course is progressing and any issues that have arisen or difficulties in understanding concepts etc. As CATEIs are usually at the end of the course, this student representative panel is an opportunity for issues to be addressed, corrected, or amended while the course is still progressing so that it is rewarding and engaging for the current cohort of students.

Ethical Behaviour and Human Remains

A central form of learning in this course is to study prosected (i.e., professionally dissected) human anatomical specimens. These are prepared from the remains of people who have donated their bodies to UNSW so that students and their peers can study the human body. This is an extraordinarily generous act by these donors and their families and is a special and wonderful privilege. Treating these remains with the utmost care and respect is mandatory, and it is our responsibility to these donors and their families – it is also good ethical practice and is mandated by law.

A Note of the Preparation of Anatomical Material

In the **gross anatomy** practicals, you will have the privilege of working with dissected human specimens, as well as dried bones, models, and radiological images. The dissected specimens are obtained from cadavers, which have been generously bequeathed (donated) to the University, prior to death.

As soon as possible after death, the body is brought to the University where it undergoes a process known as embalming, which involves flushing the blood out of the arterial system and then infusing it with a colourless preserving solution known as formalin.

The specimens are then dissected to show specific anatomical features. Dissected specimens are stored in a preservative solution that does not contain formalin and when needed, the solution is placed on tables for class use. In some cases, dissected specimens are impregnated with a curable polymer in a process known as plastination, which produces dry, non-toxic specimens that have the texture of firm plastic.

Student Risk Assessment

| | | |
|------------------------------|---|--|
| Medicine Teaching Laboratory |  | <p>Gross Anatomy Practical Classes for Medical and Science Students</p> <p>Location: D26 Level 1 LAB08A/07 DOC:PHSL-SRA-S&H-01rev1.1</p> |
| Student Risk Assessment | | |

| Hazards | Risks | Controls |
|---|---|---|
| <p>Physical Cold temperature (16°C) Sharp bone/plastic</p> <p>Biological Fungi, bacteria (tetanus), hepatitis B and C</p> <p>Chemical Formaldehyde Methylated spirits 2-phenoxyethanol</p> | <p>Cold</p> <p>Penetrating wound of foot</p> <p>Infection</p> <p>Corrosive/Flammable Flammable Irritant</p> | <ul style="list-style-type: none"> Wear laboratory coat over appropriate warm clothing Wear enclosed shoes with full coverage of the dorsum of the foot Wear protective eyewear Have appropriate immunisation Do not eat, drink or smoke in the Anatomy Lab Do not place anything (e.g. pens, pencils) into your mouth Use disposable gloves when handling wet specimens and do not cross-contaminate models or bones with wet specimens Always wash hands with liquid soap and dry thoroughly with disposable paper towel before leaving Low concentrations of chemicals used Chemicals used in well ventilated area Safety Data Sheets for chemicals available |

Personal Protective Equipment required

| | | | |
|---|--|--|--|
|  <div style="background-color: blue; color: white; padding: 2px; width: 80%; margin: 0 auto;">Lab. Coat</div> |  <div style="background-color: blue; color: white; padding: 2px; width: 80%; margin: 0 auto;">Closed in footwear</div> |  <div style="background-color: blue; color: white; padding: 2px; width: 80%; margin: 0 auto;">Safety Glasses</div> |  <div style="background-color: blue; color: white; padding: 2px; width: 80%; margin: 0 auto;">Gloves</div> |
|---|--|--|--|

Emergency Procedures

In the event of an alarm sounding, stop the practical class and wait for confirmation to evacuate from demonstrators. Then wash your hands and pack up your bags. Follow the instructions of the demonstrators regarding exits and assembly points.

Clean up and Waste Disposal

- Cover wet specimens with the towels provided. Make sure that towels do not hang over the edge of the table, because this allows fluid to drip onto the floor. Fluids on the floor are a major safety hazard and should be reported to staff immediately.
- Replace stools under the tables in your cubicle.
- Remove your gloves and dispose in the biowaste bins provided.
- Wash your hands and instruments thoroughly with the soap and dry your hands with paper towel.
- Remove your laboratory coat when you leave the dissecting room.

Ethics Approval

This type of practical has been previously considered and approved by the UNSW Human Research Ethics Advisory Panel (HC180115).

Declaration

I have read and understand the safety requirements for this practical class, and I will observe these requirements.

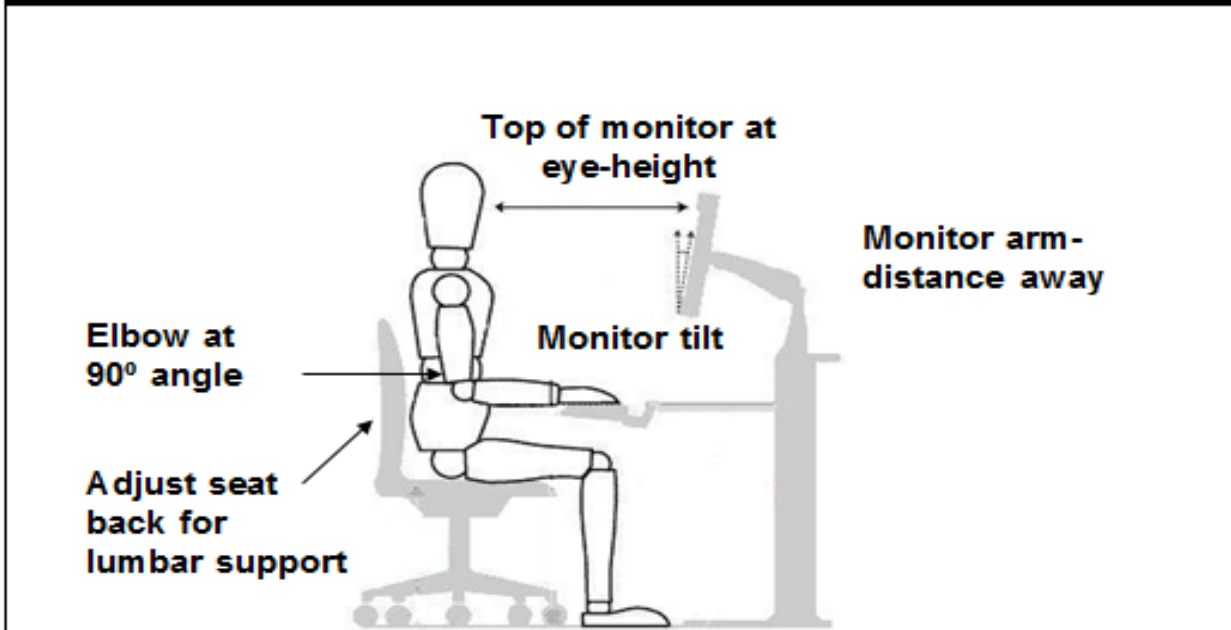
Signature:..... **Date:**.....

Student number:



| Hazards | Risks | Controls=6 |
|------------|-----------------------|--|
| Ergonomics | Musculoskeletal pain. | Correct workstation set-up. |
| Electrical | Electrical shock/fire | Check electrical equipment in good condition before use. All portable electrical equipment tested and tagged. |

Workstation set-up



Personal Protective Equipment

Not necessary in these practicals.

Emergency Procedures

In the event of an alarm, follow the instructions of the demonstrator. The initial sound is advising you to prepare for evacuation and during this time start packing up your things. The second sound gives instruction to leave. The Wallace Wurth assembly point is the lawn in front of the Chancellery. In the event of an injury, inform the demonstrator. First aiders and contact details are on display by the lifts. There is a first aid kit in the laboratory and the Wallace Wurth security office.

Clean up and waste disposal

No apparatus or chemicals used in these practicals.

Declaration

I have read and understand the safety requirements for these practical classes and I will observe these requirements.

Signature:.....Date:.....

Student Number:.....

CLASS SCHEDULE 2021

| WEEK | START | PRACTICALS | TBL TUTORIALS | SEMINARS | PRACTICALS | SELF-DIRECTED ACTIVITY |
|--------------------|--------|--|--|---|---|--|
| | | TUESDAYS | THURSDAYS | Pre-recorded: available on Moodle | FRIDAYS | |
| | | 11-1PM OR 3-5PM | 10-11AM OR 11-12PM | | 11-1PM OR 3-5PM | |
| | | Anatomy Lab 7 Biological Sciences | G07 Biological Sciences | | Anatomy Lab 7 Biological Sciences | |
| 1 | 15-Feb | Prac 1: Bones of the pectoral girdle, shoulder and arm | Introduction to ANAT2451 and team-based learning | Pectoral girdle, shoulder and arm | Prac 2: Joints, ligaments and muscles of the pectoral girdle, shoulder and arm | VAnAT: pectoral girdle, shoulder and arm |
| 2 | 22-Feb | Prac 3: Bones, joints and ligaments of the elbow and forearm | Quiz: pectoral girdle and shoulder Pectoral girdle and shoulder tutorial | Elbow and forearm | Prac 4: Muscles of the forearm | VAnAT: elbow and forearm |
| 3 | 1-Mar | Prac 5: Bones and joints of the wrist and hand | Quiz: forearm, wrist and hand Forearm wrist and hand tutorial | Wrist and hand | Prac 6: Muscles of the wrist and hand | VAnAT: wrist and hand |
| 4 | 8-Mar | Prac 7: Nerves and vessels of the upper limb, and upper limb revision | Quiz: nerves and vessels of the upper limb TBL assignment 1: Upper Limb | Upper limb vessels, nerves and nerve lesions | Prac 8: Back: Bones and joints of the vertebral column | VAnAT: neurovascular structures of the upper limb VAnAT: shoulder girdle to elbow (upper limb revision) |
| 5 | 15-Mar | Prac 9: Back: muscles of the back and abdomen | Quiz: Back (bones, joints and muscles) Back tutorial | Vertebral column, and muscles of the back and abdomen | Prac 10: Upper limb revision Spot Test 1 | Online activity: upper limb practice spot test VAnAT: vertebral column, and muscles of the back and abdomen |
| 6 | 22-Mar | Optional revision session | FLEXI WEEK | | | Seminar: pelvic girdle and gluteal region Online activity: Peer evaluation workshop |
| 7 | 29-Mar | Prac 11: Bones of the pelvis Spot test 1 feedback | Quiz: pelvis, gluteal region and thigh Hip and thigh tutorial | Hip and thigh | GOOD FRIDAY | VAnAT: gluteal region, hip joint and thigh |
| 8 | 5-Apr | Prac 12: Joints, ligaments and muscles of the pelvis and gluteal region | Quiz: knee and leg Knee and leg tutorial | Knee and leg | Prac 13: Bones, joints, ligaments, and muscles of the hip and thigh | VAnAT: knee and leg |
| 9 | 12-Apr | Prac 14: Bones of the knee, leg, ankle and foot | Quiz: ankle and foot TBL assignment 2: Lower limb and back | Ankle and foot | Prac 15: Ligaments and joints of the knee, leg, ankle, and foot | VAnAT: ankle and foot |
| 10 | 19-Apr | Prac 16: Muscles of the leg and foot, and lower limb revision | Quiz: vessels and nerves of the lower limb Ankle, foot and revision tutorial | Lower limb vessels, nerves and nerve lesions | Prac 17: Nerves and vessels of the lower limb, and lower limb revision | VAnAT: neurovascular structures of the lower limb Online assessment: peer evaluation |
| 11 | 26-Apr | Optional revision session | N/A | N/A | N/A | Online activity: lower limb and back practice spot test |
| Exam Period | | Assessments: Spot Test 2; 1x 2hr Theory exam | | | | |

