Faculty of Medicine
School of Medical Sciences

ANAT2451

Functional Anatomy for Health and Exercise Science

COURSE OUTLINE

Term 1, 2020

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UNIVERSITY OF NEW SOUTH WALES
CRICOS Provider Code 00098G

ANAT2451: FUNCTIONAL ANATOMY FOR HEALTH AND EXERCISE SCIENCE

*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 prac in the dissecting room. Keep the signed form in your prac 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 and Hours of Study

This course is worth six units-of-credit (6 UOC).

This is a blended learning course (i.e. has both face-to-face and online learning activities) and consists of 7 hours per week of scheduled learning activities. These comprise two-hour seminar, three-hour practical laboratory class, one-hour team-based learning sessions, and at least one 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 where first used in anatomical research by Herophilos 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 where 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, 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 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 a study of prosected specimens, medical imaging and surface anatomy. Student engagement, particularly through the anatomy practicals, will equip them to be able to identify the anatomical features of each of the joints and their related muscles studied on dissected human specimens, bones and models, as well as apply these to discussions of 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 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 medicalsciences.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 attend all lectures as they provide the basis for the practical and subsequent 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. It is desirable that all students attend **at least 80% of seminars** and review recordings of 100% of seminars during their private study time. Please note that seminars are designed to be interactive and recording may not capture all activities and therefore cannot be viewed as substitute for attendance.

Seminars	Tutorials	Laboratory
Thursday*	**Thursday***	**Friday****
3pm-5pm Mathews theatre D	**1pm-2pm *OR* 2pm-3pm** Mathews 102	**12-3pm** Biological Sciences Lab 7, Level 1 (Anatomy Lab) **Classes will be held on **Tuesday in Week 11 to make up for the laboratory timetabled for Good Friday holiday**

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 knowledge in hand, students engage in learning activities during the laboratory sessions where the teacher/tutor guides the student and encourages each student 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 find answers for themselves.

Seminars – This approach is used to present relatively large amounts of information within a given time on specific topics throughout the course. Seminar notes will be available online (see below in **Online resources section**) prior to or after each lecture, so you 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 you should take down if they help you to understand the material.

The lecturer will also try to allow some time for interaction and activities in each lecture to provide you with an opportunity to clarify or reinforce the ideas that have been presented. You should take these opportunities to think about the information that has been presented and ask questions to enhance your understanding.

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 guide you through 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 you to apply the concepts that you have learnt in the course and to develop team skills. In these sessions, you will work in small teams of 5-7 students each. You will be divided into teams within the first few weeks of the course and will stay with your team for the duration of the course. During the tutorial time, you will complete team activities that will contribute to your final assessment in this course. Your contribution to the teamwork will be evaluated by their team mates and will contribute to your grade in this course. You will also be asked to complete evaluation of each of your 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 are a series of interactive questions based on applying the content covered in lectures and laboratory sessions, and are a useful resource in consolidating and revising course content. Sessions are structured to encourage student participation in these activities and to enhance your learning. You will benefit most if you do these tutorials consistently. The focus of these tutorials will be to apply the principles of functional anatomy of the limbs.

Independent study – There is insufficient time in the lectures, tutorials and practicals for you to develop a deep understanding of the concepts covered in this course. In order for you to achieve the learning outcomes that will be assessed, you will need to revise the material presented in the course regularly. You will also need to do additional reading beyond the lecture materials in order 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

Revision Facilities

1. 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 museum jars from shelves. The museum also contains computers loaded with Anatomy software and Internet access. Access to the museum is by swipe card and is restricted only to anatomy students, 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 this laboratory is by student swipe card only. Students may use them, **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 contains weekly quizzes that cumulatively are worth 10% of the course mark. These quizzes are administered weekly during tutorials in weeks 2-9 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 of 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 2-9.
Links to learning outcomes: CLO 1, 2, 3, 4
Assessment weights: 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 knowledge and skills acquired during practical classes. Students are required to identify 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 and correctly name significant structures in prosected human specimens, models and radiographs. In a spot test, students will usually have 3 minutes at each of 15 stations (rest spots maybe included, if necessary) to identify 5-6 labelled structures on the specimen (each station is worth 6 marks).
Spot test 1 will cover lectures and practical sessions for the topics covering back and upper limb. Spot test 2 will cover lectures and practical sessions for the topics covering lower limb.
Links to learning outcomes: CLO 1, 2
Assessment weights: 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 studies 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 your 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 one 2-hour paper written during the formal Term 1 examination period.
Links to learning outcomes: CLO 1, 2, 3, 4, 5
Assessment weights: 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 you will be divided into teams consisting of 5-7 students each. Each team will have a mixture of abilities and backgrounds. The use of team-based learning is designed to improve your 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 2-9 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. The 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 contribution of their team members to overall success of their 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, 2020 will be held between **Sat 2 May to Friday 15 May 2020**. Supplementary exam period for Term 1, 2020 is **Mon 25 May to Fri 29 May 2020**. 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 coordinator.

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 practical 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 further action is required.

For more details see Advice for Students-Practical Classes and the Dissecting Room Rules.

Equitable learning services and reasonable adjustments

If you have a disability and require reasonable adjustments, 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 convener 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 through 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 2019, the following changes were made to this course:

1. Practical class content has been revised to distribute it more evenly across the term.
2. Structure of practical classes has been revised to allow the teams to work together.
3. Seminars were revised to reduce content overlap.
4. The instructions for team-based assignment were revised to provide more clarity about team members' roles.
5. Assessment timeline was revised to allow more preparation time.

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 convener 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 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 to 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 you and your peers can study the human body. This is an extraordinary generous act of these donors and their families, and is a special and wonderful privilege. Treating these remains with the utmost care and great respect is mandatory and is our responsibility to these donors and their families – it is also a 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. These dissections 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, 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, which have the texture of firm plastic.

Student risk assessment

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

Hazards	Risks	Controls
Physical Cold temperature (16^{o}C) Sharp bone/plastic **Biological** Fungi, bacteria (tetanus), hepatitis B and C **Chemical** Formaldehyde Methylated spirits 2-phenoxyethanol	Cold Penetrating wound of foot Infection Corrosive/Flammable Flammable Irritant	• 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

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**:……

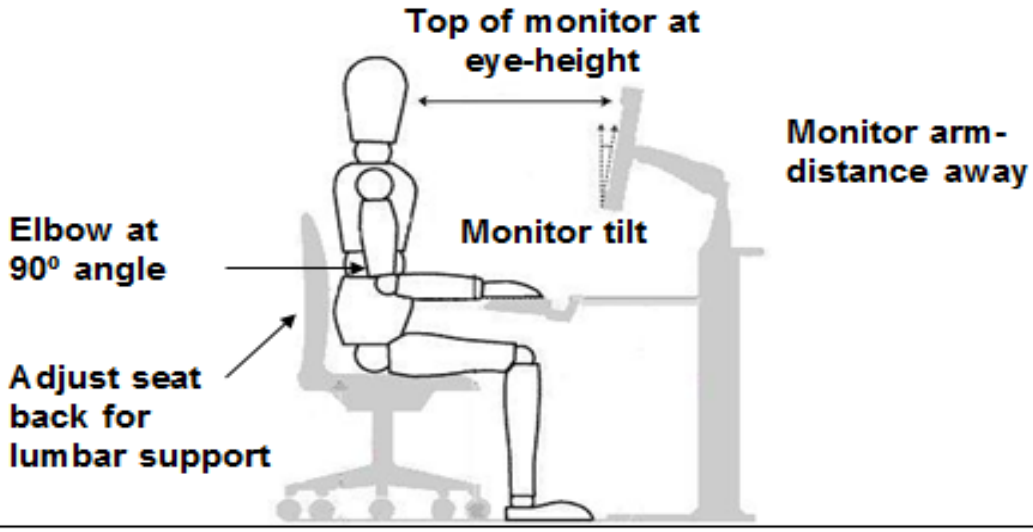
Student number: .....

ANAT-SRA-Med&SciStudent relates to RA-MED-06. Date for review: 01/02/2021

Science Teaching Laboratory Student Risk Assessment	UNSW SYDNEY	ANAT2451 – weeks 1-10 Seminars in CBL2; Tutorials in Quad GO34; Practicals in Wallace Wurth 101E

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 2020

ANAT 2451 TIMETABLE 2020						
WEEK		TUTORIALS THURSDAYS 1 PM-2 PM OR 2-3 PM Mathews 102	SEMINARS THURSDAYS 3PM-4 PM Mathews theatre D	 4-5 PM Mathews theatre D	PRACTICALS FRIDAYS (WED WK 11) 12-3 PM Lab 7, Lev 1, Biological Sci	Virtual Learning Tasks
1	Start Mon, 17/02	**TBL tutorial:** Introduction to ANAT 2451	Pectoral girdle	Shoulder and arm region	**Lab 1:** Pectoral girdle, shoulder, arm	**Online Activities:** Pectoral and scapular regions; Axilla
2	Start Mon, 24/02	**TBL tutorial:** Pectoral girdle, shoulder, arm	Elbow region	Forearm and wrist	**Lab 2:** Elbow and forearm	**Online Activities:** Forearm
3	Start Mon, 2/03	**TBL tutorial:** Elbow, forearm	Hand region	Upper limb vasculature	**Lab 3:** Wrist and hand	**Online Activities:** Wrist and hand
4	Start Mon, 9/03	**TBL tutorial:** Wrist and hand	Upper limb innervation (including brachial plexus)	UL nerve lesions	**Lab 4:** Upper Limb nerves & vessels **Revision - UL**	**Online Activities:** Upper limb Neurovasculature
5	Start Mon, 16/03	**TBL application assignment 1:** Upper limb	Back – Axial skeleton	Back – Trunk and back muscles	**Lab 5:** Axial Skeleton & Back	**Online Activities:** Back: Bones, Joints, Muscles
6	Start Mon, 23/03	**TBL tutorial:** Peer evaluation workshop	Pelvic girdle	Gluteal region	**Lab 6:** Pelvic girdle & gluteal region **SPOT TEST 1**	**Online Activities:** Pelvic girdle and gluteal regions
7	Start Mon, 30/03	**TBL tutorial:** Pelvic girdle, gluteal region	Hip region	Thigh region	**Lab 7:** Hip & thigh region	**Online Activities:** Hip and thigh regions
8	Start Mon, 6/04	**TBL tutorial:** Hip and thigh region	Knee region	Leg region	**EASTER FRIDAY HOLIDAY 10 APRIL**	**Online Activities:** Knee and beyond
9	Start Mon, 13/04	**TBL application assignment 2:** Lower limb and back	Ankle region	Foot region	**Lab 8:** Knee & leg region	**Peer evaluation**
10	Start Mon, 20/04	**TBL tutorial:** Knee and leg region	Lower limb vasculature	Lower limb Innervation and nerve lesions	**Lab 9:** Ankle & foot regions	Revision
11	Start Mon, 27/04	N/A	N/A	N/A	**Lab 10:** Lower limb Neurovasculature **Revision**	