



Faculty of Medicine
School of Medical Sciences

ANAT 3131

FUNCTIONAL ANATOMY OF
HEAD, NECK AND BACK

Semester 2, 2017

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

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

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

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Course Information

Course Code / Name	ANAT3131 Functional Anatomy of Head, Neck and Back
Units of Credit	6 UOC
Assumed Knowledge, Prerequisites or Co-requisites	ANAT2111 or ANAT1551 or ANAT1521 or a minimum of a credit in ANAT2511
Hours per Week	5HPW: 2h lecture, 2h laboratory practical & 1h tutorial or online activities
Number of Weeks	12 weeks
Commencement Date	Week 1, MON the 24 th July

Summary of Course Structure (for details see 'Course Schedule')

Component	HPW	Time	Day	Location
Lectures				
Lecture 1	1	2-3pm	Monday	Wallace Wurth, WW LG03
Lecture 2	1	3-4pm	Monday	Wallace Wurth, WW LG03
Laboratory classes	2			
Lab – Option 1		1-3pm	Wednesday	Wallace Wurth, 101E (Dissect) (K-C27-101E)
Lab – Option 2		3-5pm	Wednesday	Wallace Wurth, 101E (Dissect) (K-C27-101E)
Tutorials OR online studies	1	12-1pm	Friday	Wallace Wurth, G06-07
TOTAL	5			
Special Details	<ul style="list-style-type: none"> • There will be two practical spot tests (in weeks 7 and 13) • Laboratory coat and enclosed leather shoes are required for the practicals • Access to Moodle using electronic devices during practicals/tutorials is required 			

Course Details

Course Description

The course aims to provide a detailed understanding of the anatomy of the head, neck and vertebral column and the principles underpinning function including an understanding of the functional aspects of the cranial nerves, and relevant muscle and joint movement.

Lectures focus on the anatomy of the head and neck (the arrangement of structures, innervation and function, functional anatomy of cranial nerves and basics of trunk movements. This is correlated to clinical case applications and surface anatomy.

Laboratory classes involve the study of prosected and plastinated specimens, models, medical images and surface anatomy. Practical focus of tutorials and online tools is on the anatomy of the structures of the head, neck and vertebral column using the applications of clinical and nerve lesion cases and muscle conditioning.

Course Aims

1. provide students with an understanding of the anatomy of the head, neck and vertebral column;
2. develop students understanding of the functional principles underpinning joint movements and muscle actions of the head, neck and vertebral column;
3. develop students understanding of the anatomy of the cranial nerves and their function, and the anatomical principles underlying cranial nerve lesions;
4. develop students understanding of the ways in which structure and function of muscle and joints relates to human movement;
5. provide students with an understanding of the anatomical basis for the functioning of the head & neck.

Student Learning Outcomes

1. demonstrate a thorough knowledge of the functional anatomy of the head, neck and vertebral column;
2. apply anatomical knowledge in evaluating movement of the axial skeleton;
3. appreciate the link between functional anatomy and biomechanics of movement;
4. demonstrate a detailed knowledge of the anatomy of the cranial nerves and anatomical principles underlying cranial nerve lesions;
5. demonstrate sound knowledge of the surface/living and radiological anatomy of the head, neck and vertebral column;
6. demonstrate practical lab skills in anatomy and an appreciation of the ethics of working with human remains;
7. demonstrate a capacity to engage in independent and reflective learning;
8. apply multi-dimensional learning to the living human being in a state of health, injury and disease.

Major Topics

This unit will cover detailed functional and applied anatomy of the head, neck and vertebral column, including cranial nerves, cervical plexus and major arteries and veins, lymphatic drainage, skull, major viscera, oral and nasal cavities and orbits, clinical and functional aspects of the neck and head joints and movements

Graduate Attributes developed in this course

Science Graduate Attributes	Level of Focus 0 = NO FOCUS 1 = MINIMAL 2 = MINOR 3 = MAJOR	Activities / Assessment
Skills involved in scholarly enquiry	3	a) demonstrate a thorough knowledge of the functional anatomy of the head, neck and vertebral column; b) apply anatomical knowledge in evaluating movement of the axial skeleton; c) demonstrate a detailed knowledge of the anatomy of the cranial nerves and anatomical principles underlying cranial nerve lesions; d) demonstrate a capacity to engage in independent and reflective learning; e) apply multi-dimensional learning to the living human being in a state of health, injury and disease.
In-depth engagement with the relevant disciplinary knowledge	3	a) demonstrate a thorough knowledge of the functional anatomy of the head, neck and vertebral column; b) apply anatomical knowledge in evaluating movement of the axial skeleton; c) appreciate the link between functional anatomy and biomechanics of movement; d) demonstrate a detailed knowledge of the anatomy of the cranial nerves and anatomical principles underlying cranial nerve lesions; e) demonstrate sound knowledge of the surface/living and radiological anatomy of the head, neck and vertebral column.
Capacity for analytical and critical thinking and for creative problem-solving	3	a) appreciate the link between functional anatomy and biomechanics of movement; b) demonstrate a detailed knowledge of the anatomy of the cranial nerves and anatomical principles underlying cranial nerve lesions; c) demonstrate a capacity to engage in independent and reflective learning; d) apply multi-dimensional learning to the living human being in a state of health, injury, disease.
Ability to engage in independent and reflective learning	3	f) appreciate the link between functional anatomy and biomechanics of movement; g) demonstrate a detailed knowledge of the anatomy of the cranial nerves and anatomical principles underlying cranial nerve lesions; h) demonstrate sound knowledge of the surface/living and radiological anatomy of the head, neck and vertebral column; i) demonstrate practical lab skills in anatomy and an appreciation of the ethics of working with human remains; j) demonstrate a capacity to engage in independent and reflective learning; k) apply multi-dimensional learning to the living human being in a state of health, injury and disease.
Information literacy: the skills to appropriately locate, evaluate and use relevant information	2	a) demonstrate a detailed knowledge of the anatomy of the cranial nerves and anatomical principles underlying cranial nerve lesions; b) demonstrate sound knowledge of the surface/living and radiological anatomy of the head, neck and vertebral column; c) demonstrate a capacity to engage in independent and reflective learning; d) apply multi-dimensional learning to the living human being in a state of health, injury and disease.

Capacity for enterprise, initiative and creativity	2	<ul style="list-style-type: none"> a) apply anatomical knowledge in evaluating movement of the axial skeleton; b) appreciate the link between functional anatomy and biomechanics of movement; c) demonstrate a detailed knowledge of the anatomy of the cranial nerves and anatomical principles underlying cranial nerve lesions; d) demonstrate sound knowledge of the surface/living and radiological anatomy of the head, neck and vertebral column; e) demonstrate practical lab skills in anatomy and an appreciation of the ethics of working with human remains; f) demonstrate a capacity to engage in independent and reflective learning; g) apply multi-dimensional learning to the living human being in a state of health, injury and disease.
Appreciation of, and respect for, diversity	1	<ul style="list-style-type: none"> a) demonstrate a capacity to engage in independent and reflective learning; b) apply multi-dimensional learning to the living human being in a state of health, injury and disease.
Capacity to contribute to, and work within, the international community	1	<ul style="list-style-type: none"> a) appreciate the link between functional anatomy and biomechanics of movement; b) demonstrate a capacity to engage in independent and reflective learning; c) apply multi-dimensional learning to the living human being in a state of health, injury and disease.
Skills required for collaborative and multi-disciplinary work	2	<ul style="list-style-type: none"> d) demonstrate practical lab skills in anatomy and an appreciation of the ethics of working with human remains; e) demonstrate a capacity to engage in independent and reflective learning; f) apply multi-dimensional learning to the living human being in a state of health, injury and disease.
Appreciation of, and a responsiveness to, change	1	<ul style="list-style-type: none"> a) demonstrate practical lab skills in anatomy and an appreciation of the ethics of working with human remains; b) demonstrate a capacity to engage in independent and reflective learning; c) apply multi-dimensional learning to the living human being in a state of health, injury and disease.
Respect for ethical practice and social responsibility	2	<ul style="list-style-type: none"> a) demonstrate practical lab skills in anatomy and an appreciation of the ethics of working with human remains.
Skills of effective communication	2	<ul style="list-style-type: none"> a) apply anatomical knowledge in evaluating movement of the axial skeleton; b) demonstrate practical lab skills in anatomy and an appreciation of the ethics of working with human remains; c) apply multi-dimensional learning to the living human being in a state of health, injury and disease.

Rationale and Strategies Underpinning the Course

Teaching Strategies

Student interaction and engagement with the content of the course underpins all learning activities. Students are initially introduced to the anatomical region in the form of lectures incorporating multimedia-learning tools. With this knowledge in hand, students engage in learning activities during the laboratory sessions and tutorial activities 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 wonderful and fascinating environment for discovery and students are given every opportunity to explore the cadaveric specimens, participate in active discussions and find answers for themselves. Learning activities during tutorials and practicals emphasise and encourage self-directed learning.

Rationale for learning and teaching in this course

Lectures are used to present relatively large amounts of information within a given time on specific topics throughout the course. Lectures provide a preliminary overview of the region that is being studied. They will focus on:

- a) arrangement and anatomy of the structures in the head and neck;
- b) arrangement of the musculoskeletal elements that underpins the movement of the joints in the head, neck and vertebral column;
- c) functional anatomy of the cranial nerves;
- d) aspects relevant to clinical situations as well as surface and radiological anatomy.

Laboratory sessions complement the lectures. The purpose of the practical components is to give students first-hand experience of the content covered. The laboratory sessions allow student to explore the anatomy of the regions including the functional mechanism of joints and the factors that stabilise it. Access to the anatomy laboratory is an awesome privilege and an essential part of reinforcing learning with first-hand exploration of human specimens. These sessions are conducted in small groups and involve active learning by studying human bones, prosected and plastinated specimens, models and radiographs. It is the student's responsibility to make sure that all the aims and activities for that laboratory class is fully understood at the end of the session.

Tutorials provide a more informal learning environment than a lecture. Sessions are structured to encourage student participation in activities and discussions designed to enhance learning while working in teams and individually. The student will benefit most with some preparation prior to attending the session is done. The focus of the tutorials in this course will be to apply the principles of functional and clinical anatomy of head, neck and vertebral column. These tutorials will be supported with video and other online resources.

Independent studies

There is insufficient time in the lectures, tutorials and practicals to develop a deep understanding of the concepts covered in this course. In order to achieve the learning outcomes that will be assessed, the student will need to study the material presented in the course regularly. Additional reading beyond the lecture materials is encouraged for efficient learn learning. Relevant additional resources, including textbook chapters, will be cited in lecture and practical sessions that encourage understanding and deep learning.

Assessments

These tasks have been chosen as tools to enhance and guide your learning as well as a way of measuring performance, and are therefore a central teaching strategy in this course.

Feedback

This is a challenging course. The course conveners will endeavor 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, Quizzes, and adaptive tutorials are designed to give you continuous feedback on your progress. Answers to these will also be discussed immediately following the assessment. In addition, the virtual adaptive anatomy tutorials 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.

ANAT3131 Course Schedule

Week	Date	Time	Venue	Activity
1 24/07 - 30/07	Mon, 24 Jul	2-3 pm	WW LG03	Lecture: Introduction
	Mon, 24 Jul	3-4 pm	WW LG03	Lecture: Vertebral column and Back 1
	Wed, 26 Jul	1-3 pm or 3-5pm	WW, 101E	Lab 1: Vertebral column and Back 1
	Fri, 28 Jul	12-1 pm	WW, G06-07	<i>Tutorial 1</i>
2 31/07 - 06/08	Mon, 31 Jul	2-3 pm	WW LG03	Lecture: Vertebral column and Back 2
	Mon, 31 Jul	3-4 pm	WW LG03	Lecture: Vertebral column and Back 3
	Wed, 2 Aug	1-3 pm or 3-5pm	WW, 101E	Lab 2: Vertebral column and Back 2
	Fri, 4 Aug	12-1 pm	WW, G06-07	<i>Tutorial 2</i>
3 07/08 - 13/08	Mon, 7 Aug	2-3 pm	WW LG03	Lecture: Skull
	Mon, 7 Aug	3-4 pm	WW LG03	Lecture: Face
	Wed, 9 Aug	1-3 pm or 3-5pm	WW, 101E	Lab 3: Skull and Face
	Fri, 11 Aug	12-1 pm	WW, G06-07	<i>Tutorial 3</i>
4 14/08 - 20/08	Mon, 14 Aug	2-3 pm	WW LG03	Lecture: Mastication 1
	Mon, 14 Aug	3-4 pm	WW LG03	Lecture: Mastication 2
	Wed, 16 Aug	1-3 pm or 3-5pm	WW, 101E	Lab 4: Mastication
	Fri, 18 Aug	12-1 pm	WW, G06-07	<i>Tutorial 4</i>
5 21/08 - 27/08	Mon, 21 Aug	2-3 pm	WW LG03	Lecture: Neck region 1
	Mon, 21 Aug	3-4 pm	WW LG03	Lecture: Neck region 2
	Wed, 23 Aug	1-3 pm or 3-5pm	WW, 101E	Lab 5: Neck
	Fri, 25 Aug	12-1 pm	WW, G06-07	<i>Tutorial 5</i>
6 28/08 - 03/09	Mon, 28 Aug	2-3 pm	WW LG03	Lecture: Neurovasculature 1
	Mon, 28 Aug	3-4 pm	WW LG03	Lecture: Neurovasculature 2
	Wed, 30 Aug	1-3 pm or 3-5pm	WW, 101E	Lab 6: Neurovasculature
	Fri, 1 Sep	12 - 3 pm (TBC)	WW, 101E	Revision for Spot Test 1
7 04/09 - 10/09	Mon, 4 Sep	2-3 pm	WW LG03	Lecture: Orbital region 1
	Mon, 4 Sep	3-4 pm	WW LG03	Lecture: Orbital region 2
	Wed, 6 Sep	2-4 pm (TBC)	WW, 101E	SPOT TEST 1
	Fri, 8 Sep	12-1 pm	WW, G06-07	<i>Tutorial 6</i>
8 11/09 - 17/09	Mon, 11 Sep	2-3 pm	WW LG03	Lecture: Nose, paranasal sinuses
	Mon, 11 Sep	3-4 pm	WW LG03	Lecture: Ear
	Wed, 13 Sep	1-3 pm or 3-5pm	WW, 101E	Lab 7: Orbit, eye and orbital region
	Fri, 15 Sep	12-1 pm	WW, G06-07	<i>Tutorial 7</i>
	Mon, 18 Sep	2-3 pm	WW LG03	Lecture: Oral region 1

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9 18/09 - 24/09	Mon, 18 Sep	3-4 pm	WW LG03	Lecture: Oral region 2
	Wed, 20 Sep	1-3 pm or 3-5pm	WW, 101E	Lab 8: Nose and Ear
	Fri, 22 Sep	12-1 pm	WW, G06-07	<i>Tutorial 8</i>
25 Sep – 1 Oct: MID-SESSION BREAK				
10 02/10 - 08/10	Mon, 2 Oct Public Holiday			
	Wed, 4 Oct	1-3 pm or 3-5pm	WW, 101E	Lab 9: Oral region
	Fri, 6 Oct	10-12 or 12-2pm	WW, G06-07	<i>Tutorial 9</i>
11 09/10 - 15/10	Mon, 09 Oct	2-3 pm	WW LG03	Lecture: Pharynx
	Mon, 09 Oct	3-4 pm	WW LG03	Lecture: Larynx
	Wed, 11 Oct	1-3 pm or 3-5pm	WW, 101E	Lab 10: Pharynx and Larynx
	Fri, 13 Oct	12-1 pm	WW, G06-07	<i>Tutorial 10</i>
12 16/10 - 22/10	Mon, 17 Oct	2-3 pm	WW LG03	Lecture: Cranial nerves 1
	Mon, 17 Oct	3-4 pm	WW LG03	Lecture: Cranial nerves 2
	Wed, 19 Oct	1-3 pm or 3-5pm	WW, 101E	Lab 11: Cranial nerves
	Thu, 20 Oct	12-1 pm	WW, G06-07	<i>Tutorial 11</i>
13 23/10 - 29/10	Mon, 23 Oct	2-5 pm (<i>TBC</i>)	WW, 101EW	Revision for Spot Test 2
	Wed, 25 Oct	2-4 pm (<i>TBC</i>)	WW, 101E	SPOT TEST 2
	Fri, 27 Oct	12-1 pm	WW, G06-07	<i>TBC</i>
EXAMINATION PERIOD				

Assessment Tasks and Feedback

Task	Knowledge & abilities assessed	% of total mark	Date of		Feedback		
			Release	Submission	WHO	WHEN	HOW
Spot Test 1	This is a lab-based assessment on identification of structures and related theory and application questions. This test is aligned with course aims 1-5 and student learning outcomes 1-8.	20	Week 7	Week 7	Course convenor	Week 7	Marks & informal online comments as well as in person by appointment
Spot Test 2	This is a lab-based assessment on identification of structures and related theory and application questions. This test is aligned with course aims 1-5 and student learning outcomes 1-8.	20	Week 13	Week 13	Course convenor	Week 13	Marks & informal online comments as well as in person by appointment
Continuous assessment	Regular short lab/tutorial-based and/or online multiple choice quizzes, adaptive tutorials & team-based problem solving tasks to assess students' comfort with the anatomy of the areas covered. Quizzes & adaptive tutorials are based on the course aims 1-5 and student learning outcomes 1-8.	20	weekly MCQ-based quizzes; PBL tasks and adaptive tutorials; research-focused team based project (topics released in W2)	Quizzes; Problem-solving tasks and Adaptive tutorials – weekly Team project – throughout semester with deadlines <i>TBA via Moodle</i>	Course convenor & peers	Immediate and at the completion of the Project	Marks & informal peer-reviewed comments in the class; Convenor informal feedback on Moodle
Final examination	This examination is based on the entire content of the course. It will encompass the course aims and student learning outcomes specified above.	40	Examination period	Examination period	Course convenor	As per timetable	Students receive their individual marks and a summary of the marks of the cohort. Students may discuss their performance in person by appointment

Failure to complete an assessment

Failure to sit a test or exam without lodgment of an application for Special Consideration with Student Central will lead to automatic failure of the test. An absence from a test or exam must be supported by a medical certificate or other document that clearly indicates you were unable to be present. That certificate should be dated the same day as the examination.

See [medsciences.med.unsw.edu.au/students/undergraduate/advice-students#Special Consideration](http://medsciences.med.unsw.edu.au/students/undergraduate/advice-students#Special%20Consideration)

Resources, Support and Equipment

Text Books	<ul style="list-style-type: none"> Clinically oriented anatomy; 7th Ed; Moore K.L., Dalley A.F. & Agur A.M.R; Lippincott Williams & Wilkins 2014 Gray's Anatomy for students; Drake, R.L., Vogl, W. & Mitchell, A.W.M.; Elsevier /Churchill Livingstone: Philadelphia London 2009 – available online <p>Books are available from the bookshop & the UNSW library.</p>
Course Manual	A course manual will be made available to the students in print and online
Software	<ul style="list-style-type: none"> Acland's Video Atlas of Human Anatomy (aclandanatomy.com) by Wolters Kluwer, Lippincott Williams & Wilkins) free access is available via UNSW Library
Additional Readings	<ul style="list-style-type: none"> Color atlas of anatomy. A photographic study of the human body. 7th ed. Rothen J.W., Yokochi C., Lutjen-Drecoll E.; Lippincott Williams & Wilkins; 2011 Atlas of human anatomy. 5th ed. Netter F.H.; Saunders Elsevier; 2010 Human anatomy. Color atlas and textbook. 5th ed; Gosling J.A. et al; Mosby Elsevier, 2008
Study Spaces	<ul style="list-style-type: none"> Library can be used for on-campus studies Anatomy museum (ground floor of Wallace Wurth East; swipe card entry) provides specimens, Anatomy software and Internet access Wallace Wurth East G16/G17 (swipe card entry) computers with a variety of anatomical software including Virtual Adaptive Anatomy Tutorials Museum of Human Disease medalsciences.med.unsw.edu.au/students/disciplines/anatomy
Moodle	Information about the course and a number of electronic study resources can be accessed via the UNSW Moodle learning management system. You can also access the system via MYUNSW. Support materials are located at student.unsw.edu.au/moodle-support . Lecture notes, access to your grades, course documents and learning activities can be found on Moodle. Communication with the tutors and your groups and teams can also be done there.
Library	library.unsw.edu.au The Library has a collection of anatomical models available for studies
Echo360	Echo 360 provides digital audio-visual recordings of lectures that can be accessed via streaming media over the web or as a podcast. Links are provided via Moodle.
Additional materials	medalsciences.med.unsw.edu.au/students/undergraduate/learning-resources
Equipment Required	Laboratory coat and enclosed shoes are required to be worn in the laboratory during practical classes. Disposable gloves will be provided.

Course Evaluation and Development

Annual review of the course is done via student evaluation and feedback using the UNSW myExperience process. Anonymous student feedback surveys during lectures/tutorials are also obtained during the course. This helps to address difficulties and issues as they arise. Student feedback is taken seriously and continual improvements of the course. Regular continued feedback will also be obtained from all academic staff teaching in the course.

Comments or Changes Resulting from Reviews

- 2012** This course has been created to meet the demands of UNSW Graduate Outcomes for corresponding Programs and based on the previous feedback from students in relation to the similar course.
- 2013** This course was offered for the first time after a major review, so there were no previous evaluations available.
- 2014**
1. Course content: minor revision and improved flow of the topics.
 2. Assessment: MCQ-based quizzes were introduced at the beginning of each practical ('help braking information load'); quiz themes included not only current but also previous topics ('helps understanding and remembering'); the majority of students were in favor of Spot Test 2 placed in Week 13.
 3. Adaptive tutorials have been introduced to support blended learning.
 4. The laboratory manual was revised for: (a) typos; (b) improved layout and clarity; (c) to include diagrams; (d) avoid fill in spaces.
 5. Practice Exercises have been created for each week as were regarded helpful for self-assessment and independent learning.
 6. Informal feedback on weekly quizzes and frequently asked questions has been introduced online on weekly basis as students found it very effective.
- 2015**
1. Database of MCQ has been created to support weekly quizzes; questions have been revised to improve clarity and to avoid mis-interpretation.
 2. Adaptive tutorials introduced in 2014 have been upgraded ('bugs').
 3. New adaptive tutorials are in the process of development due to a high demand; students regard them as an efficient tool to learn.
 4. The laboratory manual was improved in layout and clarity, included more diagrams and more space for note taking.
 5. Weekly Practice Exercises have been improved in content.
 6. Weekly online videos & lists of suggested reading (peer-reviewed clinically-relevant scientific publications) have been updated.
 7. Online informal feedback on weekly quizzes and frequently asked questions will be continued as it was highly regarded by students.
 8. Spot Tests and Final Examination paper will be updated to reflect an improved content.
 9. A mid-semester informal feedback from students will be conducted as it was instrumental in immediate improvements in the course for current students.
 10. This course will continue using a team of lecturers (highly regarded by students; 'giving a different perspective').
 11. Campus-based PBL-style tutorials are introduced to allow more even distribution of work load, to enhance collaborative learning, peer feedback and to fully utilize resources available on campus.
- 2016**
1. Adaptive tutorials have been revised; new adaptive tutorials introduced.
 2. Course Manual was improved (details and layout) according to feedback.
 3. Tutorials content was improved in clarity and focus.
 4. Research-focused team based assessment is introduced as suggested by the external review.
- 2017**
1. New adaptive tutorials have been revised.
 2. Assessment structure has been adjusted for more even distribution of load with emphasis on learning continuously throughout the entire semester building up steadily towards the final exam with plenty of ongoing feedback.
 3. Tutorials – content was improved aiming for active learning practices.
 4. Research-focused team based assessment structure has been updated.

Ethical behaviour and human remains

In this course, you will be required to study human anatomical (prosected = professionally dissected) specimens. Each year, people donate their bodies to UNSW so that you and your colleagues can learn about the human body directly from their remains. These are precious materials provided through the extraordinary generosity of the public (our donors and their families). This is a special privilege afforded very few people. By law, responsibility to the donor and their family members, and as a matter of good ethical practice you must treat all human remains with great respect and care (see below). See medalsciences.med.unsw.edu.au/students/undergraduate/advice-students#Practicals

Prior to attending the practical classes you should remind yourself the following rules on the handling and use of anatomical specimens:

1. In this course, you will be required to study human anatomical specimens. By law, responsibility to the donor and their living family members, and as a matter of good ethical practice, you must treat all human remains with great care, showing them the respect you would afford a living person. Any inappropriate handling will result in exclusion from the class and possible suspension from the course.
2. You must show respect for your tutor and colleagues.
3. Students must bring and wear a laboratory coat for all laboratory classes and must wear closed toe shoes. Moreover, you must wear disposable gloves when handling wet specimens, and at no times are you allowed to eat or drink in the dissecting room. Failure to comply with these rules will result in you being asked to leave the dissection room. These are occupational health and safety requirements of the School of Medical Sciences. First aid kits are also provided in the dissection room in the event of an injury during a laboratory class.
4. The solution that most of the human remains are stored in is a mild disinfectant and poses no danger to students when handled correctly. Thus, the floral smell is the disinfectant, and has nothing to do with decomposition of the bodies: they are preserved in formalin and do not decompose under laboratory conditions. They can, however, dry out/discolour through regular use and exposure to air.
5. Due to the delicate nature of the human brain, these specimens are stored in formalin. This chemical emits a strong odour; harmless, unless ingested or exposed to in high concentrations over long periods of time. Please do not spend too long handling such specimens as you might find the fumes cause discomfort. If they do, simply excuse yourself from the class (inform your tutor) and quietly leave the cubicle or laboratory for some fresh air.
6. Some students feel uncomfortable, even physically sick the first time (or few times) they study prosected human remains. This is a common reaction among students and is nothing to be ashamed about. If you feel discomfort when handling remains, simply stand back and observe and communicate with other students in your group while they handle remains. If you feel sick, simply excuse yourself from the class (inform your tutor) and quietly leave the cubicle or laboratory for some fresh air.
7. When handling these materials please be very careful. Always wear gloves, use instruments such as forceps and probes to touch structures, and keep handling to a minimum. Do not move remains from one bench to another. If they need to be moved, ask your tutor to do it.
8. When you have been handling wet specimens always remove your gloves before handling models. Moreover, always wash your hands with soap at the basins in the dissection room when a class has finished (i.e. before leaving the dissection room). Make a habit of practicing good hygiene to look after yourself and others (classmates, other students and your family).
9. Anatomical models must also be treated with great care. Proper handling is essential: do not pick up a cranium by placing your fingers in the orbits, as this will lead to breakage of delicate bones. Instead, pick it up by placing one hand across the braincase, just behind the orbits, and the other hand beneath its base.

Medicine Teaching
Laboratory



UNSW
THE UNIVERSITY OF NEW SOUTH WALES

Gross Anatomy Practical
Classes for Medical and
Science Students

DOC:PHSL-SRA-S&H-01rev1.1

**Student Risk
Assessment**

Hazards	Risks	Controls
Physical Cold temperature (16°C) Sharp bone/plastic	Cold Penetrating wound of foot	<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 • Have appropriate immunisation • Do not eat, drink or smoke in the Dissecting Room • 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 in the laboratory
Biological Fungi, bacteria (tetanus), hepatitis B and C	Infection	
Chemical Formaldehyde Methanol 2-phenoxyethanol	Corrosive/ Flammable Irritant/toxic Irritant	

Personal Protective Equipment required

 Closed in Footwear	 Lab. Coat	 Gloves	
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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 provided and dry your hands with the 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 (HREC09372).

Declaration

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

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

Student number: