



Faculty of Medicine  
School of Medical Sciences

# ANAT 3131

FUNCTIONAL ANATOMY OF  
HEAD, NECK AND BACK

Term 2, 2019

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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](http://medicallsciences.med.unsw.edu.au) )

# 1. Course Staff

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## 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 via student portal <http://unsw.to/webforms>.

# 2. Course Information

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|                                                          |                                                                             |
|----------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Course Code / Name</b>                                | <b>ANAT3131 Functional Anatomy of the Head, Neck and Back</b>               |
| <b>Units of Credit</b>                                   | 6 UOC                                                                       |
| <b>Assumed Knowledge, Prerequisites or Co-requisites</b> | ANAT2111 or ANAT1521 or ANAT2511                                            |
| <b>Hours per Week</b>                                    | 7HPW: 2h seminar, 3h laboratory practical, 2h tutorial or online activities |
| <b>Number of Weeks</b>                                   | 10 weeks                                                                    |
| <b>Commencement Date</b>                                 | Week 1, MON the 3 <sup>rd</sup> June                                        |

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

| Component              | HPW                                                                                                                                                                                                                                                                                 | Time     | Day                | Location                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------------------------|
| <b>Seminar</b>         |                                                                                                                                                                                                                                                                                     |          |                    |                            |
| Seminar 1              | 1                                                                                                                                                                                                                                                                                   | 9-10am   | Monday (W1, W3-11) | Mathews, 103               |
| Seminar 2              | 1                                                                                                                                                                                                                                                                                   | 10-11am  | Monday (W1, W3-11) | Mathews, 103               |
| <b>Laboratory</b>      | 3                                                                                                                                                                                                                                                                                   | 11am-2pm | Monday (W1, W3-11) | D26, Level 1, Anatomy Labs |
| <b>Tutorial</b>        | 2                                                                                                                                                                                                                                                                                   | 2-4pm    | Wednesday (W1-10)  | Mathews, 312               |
| <b>TOTAL</b>           | 7                                                                                                                                                                                                                                                                                   |          |                    |                            |
| <b>Special Details</b> | <ul style="list-style-type: none"> <li>Laboratory coat and enclosed leather shoes are required for the laboratory classes</li> <li>Access to Moodle using electronic devices during labs/tutorials is required</li> <li>Complete online Anatomy Ethics Task before Lab 1</li> </ul> |          |                    |                            |

## 3. Course Details

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### 3.1. Course Description and Aims

You will develop comprehensive knowledge of head, neck and back regions of the human body, including, where relevant, its musculoskeletal, visceral and neurovasculature components. The learning activities in this course aim to develop an understanding of the normal anatomy that can be applied to clinically-relevant scenarios and medical imaging using problem-solving skills.

This course will enable you developing a three-dimensional appreciation for the organisation of these regions of the body. You will be provided with opportunities to apply your anatomical knowledge to explain functional and clinical applications to relevant viscera, neurovascular structures, muscles, joints and trunk movements. Where relevant, medical imaging will be discussed.

### 3.2. Student Learning Outcomes (SLO)

On successful completion of this course you will be able to:

1. demonstrate a thorough knowledge of the functional anatomy of the head, neck and back, including the musculoskeletal framework, viscera, neurovasculature and lymphatics.
2. identify the anatomy underpinning clinical and functional presentations related to the head, neck and back.
3. correlate normal anatomy with clinical imaging and cross-sectional anatomy.

### 3.3. Graduate Attributes (GA) developed in this course

UNSW aspires to develop graduates who are rigorous scholars, capable of leadership and professional practice in a global community. UNSW programs aspire to graduate:

1. **Scholars** capable of independent and collaborative enquiry, rigorous in their analysis, critique and reflection, and able to innovate by applying their knowledge and skills to the solution of novel as well as routine problems (SLO 1, 2, 3);
2. **Entrepreneurial leaders** capable of initiating and embracing innovation and change, as well as engaging and enabling others to contribute to change (SLO 2, 3);
3. **Professionals** capable of ethical, self-directed practice and independent lifelong learning (SLO 1,2,3);
4. **Global citizens** who are culturally adept and capable of respecting diversity and acting in a socially just and responsible way (SLO 2, 3).

## 4. Strategies and Approaches to Learning

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### 4.1. Teaching Strategies

Students are initially introduced to the anatomical region in the form of seminars incorporating multimedia-learning tools. With this knowledge in hand, students engage in learning activities during the laboratory sessions and tutorial activities where the tutors provide assistance, guidance and encouragement for 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 and team-based learning.

## 4.2. Rationale for learning and teaching activities in this course

**Face-to-face seminars** focus on major concepts and 'difficult' topics in the anatomy of the head and neck such as an arrangement of structures, innervation and function, functional anatomy of cranial nerves. Seminars are used to present major concepts, in particular the content that maybe challenging, within a given time on specific topics throughout the course. They provide a preliminary overview of the region that is being studied and focus on:

- arrangement and anatomy of the structures in the head and neck;
- arrangement of the musculoskeletal elements that underpins the movement of the joints in the head, neck and vertebral column;
- functional anatomy of the cranial nerves;
- 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 hands-on exploration in small groups on prosected and plastinated specimens, models, and medical images with support from tutors. 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. Tutors will provide guidance and support for students to make sure that all the aims and activities for that laboratory class are fully understood at the end of the session.

**Face-to-face tutorials** amalgamate the theoretical and practical components and provide correlation with applications such as clinical and functional cases, and medical imaging. Tutorials provide an informal engaging team-based learning environment. Sessions are structured to encourage student participation in activities and discussions designed to enhance learning while working in teams and individually applying a problem-based approach. The students will benefit most with some preparation prior to attending the session. The focus of the tutorials in this course will be to apply the principles of functional and clinical anatomy of head, neck and back.

**Independent studies** facilitate achievement of the learning outcomes for the course by developing further the concepts covered in face-to-face sessions. Additional reading beyond the lecture materials is encouraged for efficient learning. Relevant additional resources, including textbook chapters, research articles and case reports will be cited and/or provided in Moodle and will be discussed in online forums, virtual anatomy adaptive tutorials and formative self-assessment tasks, will be provided to encourage understanding and deep learning.

## 4.3. Rationale for assessment and feedback in this course

Assessments (see page 9 for details) 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.

### **Final examination (35%)**

This is a 2-hour written paper held during the examination period. It includes MCQ-type and Short Answer questions. It will test understanding of functional anatomy of the body regions studied with the emphasis on demonstrating the ability to apply acquired knowledge to explaining normal functioning as well as relevant clinically-oriented scenarios. Typically, this paper consists of a combination of multiple choice questions (MCQ) and short answer questions. **Feedback:** individual student and overall cohort performance.

### **Spot tests (30%)**

These tests are based on the laboratory component and assess the ability to correctly identify anatomical structures on cadaveric specimens, models, medical images and cross-sections as well as to answer a few relevant short theory questions. Typically, there are several stations, each of which includes multiple identifications and may include relevant theory questions. To maximise the impact of

assessment for learning and reduce pressure towards the end of the term, the spot tests are conducted in two parts. Part 1 (15%) will assess the content of the first five weeks, i.e. week 1 throughout to week 6, inclusive (note that week 2 has a public holiday). Part 2 (15%) will assess the content of the last five weeks (weeks 7 throughout to week 11). **Feedback:** individual student and cohort marks; summary feedback on areas that had lower performance will be provided.

#### **Continuous assessment (10%)**

It includes the individual MCQ-based weekly quizzes. Quizzes will assess understanding of major concepts for a given week and ability to correlate structure/function relationships underpinning clinical and functional presentations related to the regions studied. Quizzes will be conducted online via Moodle platform and provide a gradual build up of major concepts required by the course outcomes as well as help enhancing students' confidence in performing MCQ type questions for the Final examination. **Feedback:** students will receive marks online immediately. Students will also receive average cohort marks and a brief summary of common mistakes and areas for improvement.

#### **Team Assessment (25%)**

Students will work in small **teams of 5-7 students** researching allocated topics and **applying their knowledge to solve problems** presented in tutorials. The assessment is designed to develop skills involved in critical analysis of relevant scientific literature. Teams will be assessed on disciplinary knowledge by their instructor and peers. **Feedback:** students will receive individual marks that are based on (a) team assessment performance where a team receives the same mark; and (b) individual marks based on peer assessment; students will also receive written justification of marks and detailed feedback.

#### **Feedback**

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. Learning activities and assessment in this course are designed to give you continuous feedback on your progress. Answers to these will also be discussed immediately following the assessment. Students are encouraged to contact course conveners for individual feedback and troubleshooting, like wise, course conveners actively contact students in regards to individual performance and offer help where appropriate.

#### **4.4. Expectations of students**

**Attendance** at seminars, laboratory classes and tutorials is important and highly encouraged for satisfactory completion of the course and achieving the learning outcomes. It is expected that all students attend at least 80% of all practical and laboratory classes. Attendance of the laboratory classes and tutorials will be recorded in the class roll at the start of each class. If absent from a laboratory/tutorial component, students are encouraged to notify the course convenor as soon as possible. When missing an **assessment item** (i.e. missing a tutorial), students are required to submit an **online application via myUNSW for special consideration** and provide an evidence of a cause of absence such as medical certificates or other documentation. We expect students engage in **independent studies** using relevant additional readings and online activities provided on Moodle. Team-based assessments will involve working in small groups inside and outside of the 'class', which will be facilitated via online activities, including social networks and discussion forums.

## 5. ANAT3131 Schedule and Structure – T2, 2019

| Week          | Date                                                                                                | Time     | Venue        | Activity                                           |
|---------------|-----------------------------------------------------------------------------------------------------|----------|--------------|----------------------------------------------------|
| <b>0</b>      | <b>Independent Moodle activities:</b> Orientation to Anatomy Module (compulsory) and video lectures |          |              |                                                    |
| <b>1</b>      | 27/05 - 31/05                                                                                       |          |              |                                                    |
|               | Mon                                                                                                 | 9-10am   | Math 103     | <b>Seminar 01:</b> Introduction, Vertebral Column  |
|               | Mon                                                                                                 | 10-11am  | Math 103     | <b>Seminar 02:</b> Back                            |
|               | Mon                                                                                                 | 11am-2pm | Anat Lab D26 | <b>Lab 1: Vertebral Column and Back</b>            |
|               | Wed                                                                                                 | 2-4pm    | Math 312     | <i>Tutorial 1</i>                                  |
| <b>2</b>      | Monday is Public Holiday (Queen's Birthday)                                                         |          |              |                                                    |
| 10/06 - 14/06 | Wed                                                                                                 | 2-4pm    | Math 312     | <i>Tutorial 2</i>                                  |
| <b>3</b>      | Mon                                                                                                 | 9-10am   | Math 103     | <b>Seminar 03:</b> Introduction to Cranial Nerves  |
|               | Mon                                                                                                 | 10-11am  | Math 103     | <b>Seminar 04:</b> Skull and Face                  |
|               | Mon                                                                                                 | 11am-2pm | Anat Lab D26 | <b>Lab 2: Skull and Face</b>                       |
|               | Wed                                                                                                 | 2-4pm    | Math 312     | <i>Tutorial 3</i>                                  |
| <b>4</b>      | 17/06 - 21/06                                                                                       |          |              |                                                    |
|               | Mon                                                                                                 | 9-10am   | Math 103     | <b>Seminar 05:</b> Mastication 1                   |
|               | Mon                                                                                                 | 10-11am  | Math 103     | <b>Seminar 06:</b> Mastication 2                   |
|               | Mon                                                                                                 | 11am-2pm | Anat Lab D26 | <b>Lab 3: Mastication</b>                          |
|               | Wed                                                                                                 | 2-4pm    | Math 312     | <i>Tutorial 4: TEAM ASSESSMENT</i>                 |
| <b>5</b>      | 24/06 - 28/06                                                                                       |          |              |                                                    |
|               | Mon                                                                                                 | 9-10am   | Math 103     | <b>Seminar 07:</b> Oral region 1                   |
|               | Mon                                                                                                 | 10-11am  | Math 103     | <b>Seminar 08:</b> Oral region 2                   |
|               | Mon                                                                                                 | 11am-2pm | Anat Lab D26 | <b>Lab 4: Oral region</b>                          |
|               | Wed                                                                                                 | 2-4pm    | Math 312     | <i>Tutorial 5</i>                                  |
| <b>6</b>      | 01/07 - 05/07                                                                                       |          |              |                                                    |
|               | Mon                                                                                                 | 9-10am   | Math 103     | <b>Seminar 09:</b> Orbital region 1                |
|               | Mon                                                                                                 | 10-11am  | Math 103     | <b>Seminar 10:</b> Orbital region 2                |
|               | Mon                                                                                                 | 11am-2pm | Anat Lab D26 | <b>Lab 5: Orbital region &amp; REVISION (TBC*)</b> |
|               | Wed                                                                                                 | 2-4pm    | Math 312     | <i>Tutorial 6</i>                                  |
| <b>7</b>      | 08/07 - 12/07                                                                                       |          |              |                                                    |
|               | Mon                                                                                                 | 9-10am   | Math 103     | <b>Seminar 11:</b> Nasal region                    |
|               | Mon                                                                                                 | 10-11am  | Math 103     | <b>Seminar 12:</b> Ear                             |
|               | Mon                                                                                                 | 11am-2pm | Anat Lab D26 | <b>Lab 6: Nasal region and Ear &amp; REVISION</b>  |
|               | Wed                                                                                                 | 2-4pm    | <b>TBC*</b>  | <i>Tutorial 7 Part 1 of Spot tests (TBC*)</i>      |
| <b>8</b>      | 15/07 - 19/07                                                                                       |          |              |                                                    |
|               | Mon                                                                                                 | 9-10am   | Math 103     | <b>Seminar 13:</b> Neck region 1                   |
|               | Mon                                                                                                 | 10-11am  | Math 103     | <b>Seminar 14:</b> Neck region 2                   |
|               | Mon                                                                                                 | 11am-2pm | Anat Lab D26 | <b>Lab 7: Neck</b>                                 |
|               | Wed                                                                                                 | 2-4pm    | Math 312     | <i>Tutorial 8</i>                                  |
| <b>9</b>      | 22/07 - 26/07                                                                                       |          |              |                                                    |
|               | Mon                                                                                                 | 9-10am   | Math 103     | <b>Seminar 15:</b> Neurovasculature 1              |
|               | Mon                                                                                                 | 10-11am  | Math 103     | <b>Seminar 16:</b> Neurovasculature 2              |
|               | Mon                                                                                                 | 11am-2pm | Anat Lab D26 | <b>Lab 8: Neurovasculature</b>                     |
|               | Wed                                                                                                 | 2-4pm    | Math 312     | <i>Tutorial 9</i>                                  |
| 29/07 - 02/08 |                                                                                                     |          |              |                                                    |

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|                                                                              |     |          |              |                                            |
|------------------------------------------------------------------------------|-----|----------|--------------|--------------------------------------------|
| <b>10</b><br>05/08 - 09/08                                                   | Mon | 9-10am   | Math 103     | <b>Seminar 17:</b> Larynx                  |
|                                                                              | Mon | 10-11am  | Math 103     | <b>Seminar 18:</b> Pharynx                 |
|                                                                              | Mon | 11am-2pm | Anat Lab D26 | <b>Lab 9: Larynx and Pharynx</b>           |
|                                                                              | Wed | 2-4pm    | Math 312     | <i>Tutorial 10: TEAM ASSESSMENT</i>        |
| <b>11</b><br>12/08 - 16/08                                                   | Mon | 9-10am   | Math 103     | <b>Seminar 19:</b> Cranial nerves 1        |
|                                                                              | Mon | 10-11am  | Math 103     | <b>Seminar 20:</b> Cranial nerves 2        |
|                                                                              | Mon | 11am-2pm | Anat Lab D26 | <b>Lab 10: Cranial nerves and REVISION</b> |
| <b>EXAMINATION PERIOD 16-31/08/19: Part 2 of Spot tests &amp; FINAL EXAM</b> |     |          |              |                                            |

Supplementary exams dates: 09/09/2019-13/09/2019

\***TBC** = To Be Confirmed via Moodle announcement and student email once the details are confirmed with the Anatomy Laboratory

## 6. Assessment

### 6.1. Assessment tasks

| Task                         | Knowledge & abilities assessed                                                                                                                                                                                               | % of total mark | Date of                                                                                                 |                                                   | Feedback                 |                                                            |                                                                                                                                          |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                                                                              |                 | Release                                                                                                 | Submission                                        | WHO                      | WHEN                                                       | HOW                                                                                                                                      |
| <b>Spot Tests</b>            | This is a lab-based assessment on identification of structures and related theory. This test is aligned with course aims and student learning outcomes.<br>SLO 1,2 & GA 1,2                                                  | <b>30</b>       |                                                                                                         |                                                   | course convenors         |                                                            | individual and cohort marks; informal feedback via Moodle; individual - via appointments                                                 |
| <i>part 1</i>                | content studied in weeks 1 throughout to week 6 inclusive                                                                                                                                                                    | 15              | Week 7 TBC*                                                                                             | Week 7                                            |                          | Week 8                                                     |                                                                                                                                          |
| <i>part 2</i>                | content studied in weeks 7 throughout to week 11 incl.                                                                                                                                                                       | 15              | examination period                                                                                      | examination period                                |                          | as per timetable                                           |                                                                                                                                          |
| <b>Continuous assessment</b> | Regular (weekly) online individual MCQ quizzes that are aligned with course aims and student learning outcomes.<br>SLO 1,2,3 & GA 1,2,3,4                                                                                    | <b>10</b>       | weekly                                                                                                  | weekly                                            | course convenors & peers | immediate                                                  | individual marks; peer-reviews and tutor-guided discussions; informal Moodle feedback                                                    |
| <b>Team assessment</b>       | Team-based weekly quizzes and two application assessments will be offered during tutorial times aiming on demonstration of deep understanding of content studied aligned with the course outcomes.<br>SLO 1,2,3 & GA 1,2,3,4 | <b>25</b>       | (A) team-based Quiz<br><br>(B) two team-based ass-ts: details in weeks 3 & 9; presented in weeks 4 & 10 | (A) weekly<br><br>(B) weeks 5 and 11, accordingly | course convenors         | immediate<br><br>ass-mt 1: week 6<br><br>ass-mt 2: week 11 | individual marks based on team assessment performance where a team receives the same mark; and individual marks based on peer assessment |
| <b>Final exam</b>            | This examination is based on the entire content of the course.<br>SLO 1,2,3 & GA 1,2,3,4                                                                                                                                     | <b>35</b>       | examination period                                                                                      | examination period                                | course convenors         | as per timetable                                           | individual marks and may discuss their performance in person by appointment                                                              |

\*TBC = To Be Confirmed via Moodle announcement and student email once the details are confirmed with the Anatomy Laboratory

### 6.2. Assessment Criteria and Standards

Detailed criteria, standards and submission procedure for team-based application assessments will be posted in Moodle in the 'TEAM-BASED ASSESSMENT' folder. The criteria will be discussed at length during tutorials. MCQ-based quizzes will be marked with immediate feedback and possibilities to appeal the results based on the justification written by teams. The spot tests will be marked based on the correct identification of structures as specified in the Laboratory Manual. Trial spot tests and revision sessions will be arranged throughout the term to familiarize students with the spot test format, criteria and standards expected. The format of the final examination will be discussed early on at the course, and the MCQ-type questions will be practiced on weekly basis. The short answer questions will be practiced during weekly tutorials in a format of the applied questions, where students will be able to familiarise themselves with criteria and standards as well as being able to apply those for formative feedback to their peers. Further information can be found at:

UNSW grading system: <https://student.unsw.edu.au/grades>

UNSW assessment policy: <https://student.unsw.edu.au/assessment>

### 6.3. 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: <https://student.unsw.edu.au/special-consideration>

**Supplementary** tests and examinations will be conducted during the formal supplementary examination period of TERM 2 (09/09/2019-13/09/2019). Students should be careful if booking their holidays when supplementary examinations are required.

## 7. Resources, Support and Equipment

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Text Books</b>            | <ul style="list-style-type: none"> <li>Clinically oriented anatomy. 8<sup>th</sup> Edition, Moore K.L., Dalley A.F. &amp; Agur A. M. R., Lippincott Williams &amp; Wilkins, 2017. Available from UNSW bookshop and library.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Course Manual</b>         | <ul style="list-style-type: none"> <li>A course manual will be made available to the students in print and online.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Software</b>              | <ul style="list-style-type: none"> <li>Acland's Video Atlas of Human Anatomy (<a href="http://aclandanatomy.com">aclandanatomy.com</a>) by Wolters Kluwer, Lippincott Williams &amp; Wilkins) free access is available via UNSW Library</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Recommended Resources</b> | <ul style="list-style-type: none"> <li>Gray's Anatomy for students. Drake, R.L., Vogl, W. &amp; Mitchell, A.W.M., Elsevier /Churchill Livingstone: Philadelphia PA, 2015 – also available online.</li> <li>Color Atlas of Anatomy. A photographic study of the human body. 7<sup>th</sup> Edition, Rohen J.W., Yokochi C., Lutjen-Drecoll E., Lippincott Williams &amp; Wilkins, 2011.</li> <li>Atlas of Human Anatomy. 5<sup>th</sup> Edition. Netter F.H., Saunders Elsevier, 2010.</li> <li>Human Anatomy. Color atlas and textbook. 5<sup>th</sup> Edition, Gosling J.A. et al; Mosby Elsevier, 2008.</li> </ul>                                                                       |
| <b>Study Spaces</b>          | <ul style="list-style-type: none"> <li>Library can be used for on-campus studies, it has a collection of anatomical models, see: <a href="http://library.unsw.edu.au">library.unsw.edu.au</a></li> <li>Anatomy museum (ground floor of Wallace Wurth East; swipe card entry) provides specimens, software and Internet access.</li> <li>Wallace Wurth East G06/G07 (swipe card entry) computers with a variety of anatomical software including Virtual Adaptive Anatomy Tutorials.</li> <li>Museum of Human Disease.</li> <li><a href="http://medicallsciences.med.unsw.edu.au/students/disciplines/anatomy">medicallsciences.med.unsw.edu.au/students/disciplines/anatomy</a></li> </ul> |
| <b>Moodle</b>                | 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 <a href="http://student.unsw.edu.au/moodle-support">student.unsw.edu.au/moodle-support</a> . Lecture notes, 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.                                                                                                                                                                                                   |
| <b>Lecture Recordings+</b>   | Lecture Recordings+ 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Additional materials</b>  | <a href="http://medicallsciences.med.unsw.edu.au/students/undergraduate/learning-resources">medicallsciences.med.unsw.edu.au/students/undergraduate/learning-resources</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Equipment Required</b>    | Laboratory coat and enclosed shoes are required to be worn in the laboratory during practical classes. Disposable gloves will be provided.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## 8. Course Evaluation and Development

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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. In **2019**, the course content was revised according to the 10-week schedule and to improve the clarity and the flow of the topics; adaptive tutorials have been upgraded; assessment structure has been revised and simplified in its arrangement to allow for even distribution of working load throughout the term, building up steadily towards the final exam and spot tests, with plenty of ongoing individual and group feedback from course convenors and peers as well as self-evaluation.

## 9. Academic Integrity and Plagiarism

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**Referencing** is a way of acknowledging the sources of information that you use to research your assignments. Not referencing other people's work can constitute plagiarism. Further information about referencing styles can be located at <https://student.unsw.edu.au/referencing> **Academic integrity** is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage.<sup>1</sup> At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work. Further information about academic integrity and **plagiarism** can be located at:

- The *Current Students* site <https://student.unsw.edu.au/plagiarism>, and
- The *ELISE* training site <https://subjectguides.library.unsw.edu.au/elise>

The *Conduct and Integrity Unit* provides further resources to assist you to understand your conduct obligations as a student: <https://student.unsw.edu.au/conduct>.

## 10. Ethical behaviour and human remains

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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 [medsciences.med.unsw.edu.au/students/undergraduate/advice-students#Practicals](https://medsciences.med.unsw.edu.au/students/undergraduate/advice-students#Practicals)

The University operates the Bequeathal Program under the Code of Practice noted below, which all students are required to adhere to.

### Code of Practice:

The University recognises the magnitude of the contribution made by those who donate their bodies for the teaching of anatomy and it is committed to treating the human remains entrusted to its care with the utmost respect and professionalism. In keeping with this commitment, the University requires its employees and students to uphold all legal, public health, and ethical standards associated with the handling of bodies and human tissue samples. Any activity which undermines its ability to meet UNSW's legislative obligations, or which devalues the contribution made by those who donate their bodies for the purposes of the teaching of anatomy to students will be in breach of this policy and subject to further action.

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<sup>1</sup> International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

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  
SYDNEY

Gross Anatomy Practical  
Classes for Medical and  
Science Students

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

### Student Risk Assessment

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

### Personal Protective Equipment required

|                                                                                                          |                                                                                                 |                                                                                              |  |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--|
| <br>Closed in Footwear | <br>Lab. Coat | <br>Gloves |  |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--|

### 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 (HC180115).

### Declaration

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

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

Student number: .....