

Department of Anatomy & Histology  
University of Sydney

**ANAT3004  
CRANIAL & CERVICAL  
ANATOMY**

**COURSE BOOK  
SEMESTER 2, 2007**

**Editor – R. Arnold**

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**LAB COATS, GLOVES & CLOSED SHOES ARE ESSENTIAL FOR  
ALL ANATOMY TUTORIALS. STUDENTS NOT ADMITTED TO  
TUT ROOMS WITHOUT APPROPRIATE PROTECTIVE  
CLOTHING**

**NO PHOTOGRAPHY OR MOBILE PHONES IN ANY OF THE  
ANATOMY ROOMS OR MUSEUM**

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**WEEK 1 - SKULL, MENINGES**

**WEEK 2 - BLOOD VESSELS**

**WEEK 3 - LYMPHATICS**

**WEEK 4 - MUSCLES & TRIANGLES OF NECK, ACCESSORY NERVE**

**WEEK 5 – CRANIAL NERVES, SPINAL NERVES, SYMPATHETIC TRUNK**

**WEEK 6 - FACE & FACIAL NERVES. ORAL CAVITY**

**WEEK 7 - TEMPOROMANDIBULAR JOINT, MUSCLES OF MASTICATION**

**WEEK 8 - NOSE, PARANASAL SINUSES, PHARYNX, PTERYGOPAPATINE FOSSA**

**WEEK 9 - EYE & ORBIT**

**WEEK 10 - FREE**

**WEEK 11 - LARYNX, INFRAHYOID MUSCLES, THYROID**

**WEEK 12 - EAR**

**WEEK 13 REVISION**

**COURSE CO-ORDINATORS:**

Robin Arnold (Room S220, ext 13955), ra@anatomy.usyd.com.au),  
Laura Lindsay (Room N364), ext. 12508, laural@anatomy.usyd.edu.au

**LECTURES**

Monday 10am - Merriweather LT2 (room 136) (across City Rd) in Weeks 1 – 13 (23/7 – 22/10 inclusive)

Monday 3pm - Chemistry LT 1 in Weeks 1, 4, 5, 6, 8, 9

**TUTORIALS**

4 – 5pm in Tut rooms 405, 406, 407, 511, 512 Weeks 1, 4, 5, 6, 8, 9.

3 – 5 pm in Tut rooms 405, 406, 407, 511, 512 Weeks 2, 3, 7, 12, 11, 13

**APPLIED ANATOMY**

3 – 5 pm (venue later) Week 3. All students in week 3, after that alternative weeks

Group A 2 – 4pm- weeks 4, 6, 8, 11

Group B 3 – 5pm – Weeks 5, 7, 9, 12

**STUDENTS ARE ALLOCATED TO A PARTICULAR TUTORIAL GROUP & APPLIED ANATOMY SESSION BY THE TIMETABLING UNIT. GROUPS ARE NOT NEGOTIABLE**

No lecture, tutorials or Applied Anatomy in Week 10 (2/10 – 6/10)

**TABLE OF TOPICS**

**Week 1. 23/7 – 27/7**

L1 – Skull 1

L2 - Skull 2

Tutorial - Skull

No Applied Anatomy - free

**Week 2. 3/7 – 3/8**

L3 - Blood Vessels & Lymphatics of Head & Neck 1

Tutorial (2hours) – Skull (cont.) & arteries

No Applied Anatomy - free

**Week 3. 6/8 – 10/8**

L4 - Blood Vessels & Lymphatics of Head & Neck 2

Tutorial (2 hours) - SUMMATIVE QUIZ 1 WEEKS 1 – 2 (skull, arteries, veins)  
- Veins & Lymphatics (museum)

Applied Anatomy Special Lecture - Principles of Imaging Groups A & B\*\*

**Week 4 13/8 – 17/8**

L5 - Triangles & muscles of neck 1

L6 - Triangles & muscles of neck 2

Tutorial - Neck

Applied Anatomy – Group A Neck

**WEEK 5 20/8 - 24/8**

L7 - Cranial nerves & Sympathetic trunk 1  
L8 - Cranial nerves & Sympathetic trunk 2  
Tutorial - Cranial nerves  
Applied Anatomy - Group B Neck

**WEEK 6 27/8 - 31/9**

L 9 – Face & facial nerve  
L 10 – Oral cavity  
Tutorial - Face/ cranial nerves (cont.)  
Applied Anatomy – Group A Head

**WEEK 7 3/9 - 7/9**

L11 - TMJ  
Tutorial (2 hours) - SUMMATIVE QUIZ 2 WEEKS 3 – 4 (lymphatics, neck)  
- TMJ/ Oral Cavity  
Applied Anatomy – Group B Head

**WEEK 8 10/9 - 14/9**

L12 - Nose, sinuses, pharynx, pterygopalatine fossa & ganglion 1  
L13 - Nose, sinuses, pharynx, pterygopalatine fossa & ganglion 2  
Tutorial – Nose, etc.  
Applied Anatomy – Group A Sinus

**WEEK 9 17/9 - 21/9**

L 14 Eye 1  
L 15 - Eye 2  
Tutorial - Eye  
Applied Anatomy – Group B - Sinus

**MID SEMESTER BREAK 24/9 - 28/9**

**Week 10 1/10 – 5/10**

No classes - public holiday on Monday 2/10

**Week 11 8/10 – 12/10**

Lecture 16 - Larynx  
Tutorial (2 hours) - SUMMATIVE QUIZ 3 WEEKS 5 – 6 (cranial nerves, face, oral cavity)  
- Larynx,  
Applied Anatomy – Group A - Revision

**WEEK 12 15/10 – 19/10**

L17 - Ear  
Tutorial (2 hours) - SUMMATIVE QUIZ 4 WEEKS 7 & 8 (nose etc, eye)  
- Ear , Eye (cont.)  
Applied Anatomy – Group B – Revision

**Week 13 22/10 – 26/10**

L18 – Trial Theory Exam  
Tutorial (2 hours) SUMMATIVE QUIZ 5 WEEKS 11 – 12 (larynx, ear)  
Unstructured revision

No applied Anatomy – Trial Spot Test held in this time slot instead

**A. THE COURSE GUIDE**

Sections are listed under weeks. Each week contains:

**OBJECTIVES**

**LECTURE NOTES &/ OR DIAGRAMS**

This covers the theory material for the examination

**TUTORIAL GUIDE**

Notes provided list the structures to be viewed/learnt in each tutorial. This material will form the basis of the practical exam.

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**WILSON MUSEUM SPECIMENS**

Most tutorials include a number of museum specimens which have been chosen because the dissections do not include certain features or because the museum specimens show certain structures particularly well. Most of these specimens have Online images with labels & description. The password to access the Wilson Museum online will be made available during the first practical class.

The museum specimens are part of the course & you should look at them using the online images as a guide. IT IS ESSENTIAL THAT YOU DOWNLOAD A COPY OF THE IMAGES, ideally before you visit the museum. You will probably have to do some of the museum work outside of tutorial time. It is suggested that you use the free time during the Applied Anatomy sessions for this purpose.

YOU SHOULD AIM TO HAVE A PORTFOLIO OF ALL THE MUSEUM IMAGES BY THE END OF THE COURSE TO USE FOR REVISION & EXAM PREPARATION

Images of a small number of the specimens will be included in the **final practical exam**. These will almost all be Online images which you have seen before. There are one or two exceptions to this but these can be studied using notes & an atlas. It is clearly stated in the tutorial notes whether an image which is not online is examinable.

THE MUSEUM IS OPEN DURING WORKING HOURS (APPROX 8.30pm TO 5.00pm). If it is not open please ask the service room (or RA or LL) & we will unlock the museum for you.

## **B APPLIED ANATOMY**

These sessions will be held Tuesday afternoons & will include Medical Imaging, Museum activities & cross sectional & surface Anatomy. The high quality digitised medical images which you will use have been generously loaned by the Royal Prince Alfred Hospital Radiography Department & Dr Jim Raleigh, Staff Radiographer

The formal part of these sessions will consist of a talk/discussion session for approx half an hour. After this students should aim to spend the remainder of the time carrying out their own observations of the images or other activities.

Worksheets outlining the activities of the week will be given out before or at each session.

These will provide some information and will also include some questions which students should complete & get initialled by a tutor before leaving the Applied Anatomy session. Students should retain these initialled worksheets & hand them in at the end of the Semester for formal marking. You may do extra work out of session if you wish but INITIALLED ORIGINALS must be handed in for marking

## **PHOTOGRAPHY**

**It is regretted that anatomical specimens cannot be photographed by students UNDER ANY CIRCUMSTANCES.**

## **MOBILE PHONES**

**You may not use mobile phones in the tutorial rooms (if you have one with you it must be turned off & placed in your bag OUTSIDE THE TUTORIAL ROOM**

### **C. ASSESSMENT**

90 minute theory exam	45%
60 minute spot test	35%
Applied Anatomy	10%
Summative Quizzes	10% (best 5 quizzes out of the 6)

**THE THEORY EXAM** will consist of true-false & short answer questions.

#### **THE PRACTICAL EXAMINATION**

This will be a **SPOT TEST** consisting of labelled specimens, & some museum images & images from the Applied Anatomy sessions.

The practical exam will predominantly be identification only. However there may also be a few basic theory questions, eg. "identify this artery" followed by "name its two major branches". Practice for the exam is provided in the form of a trial spot test to be held in Week 13. This week has also been set aside for structured and informal revision.

**PRACTICAL WORK** assessment is based on

- satisfactory attendance and participation in Applied Anatomy sessions plus
- submission of completed worksheets plus any other material

A roll will be kept.

DEADLINE for submission of Applied Anatomy to be announced later (in plenty of time). Work should be submitted to Anatomy Office S 463, first floor Anderson Stuart building,. Students are urged to submit earlier if possible ( 9.30am – 1pm, 2.30pm – 4.30pm weekdays). Please fill out an Assessment Cover Sheet – available from stand in hallway outside office before you submit.

A late penalty of one mark per working day will apply.

#### **SUMMATIVE QUIZES**

There will be FIVE Summative Quizzes given throughout the course at the start of each tutorial in weeks 3, 7, 11, 12, & 13. Material covered in each quiz is given in the timetable. The answers to the questions will be marked in the class and then handed in to your tutor to record the marks.

Your mark will be an average of the best FOUR results

**If you miss a test it will not be possible to take it at another time. Your mark will be calculated from your best performances in 5 of these quizzes.**

### **D. COMMUNICATION WITH STUDENTS**

Updates of the information provided in the Course Book will be or **emailed** or put onto Web (OR on the departmental notice board outside Anatomy office S463). Students are urged to check all these VERY regularly ESPECIALLY email.

## **E. RECOMMENDED TEXTS AND COMPUTER MATERIALS**

### **1. BOOKS.**

There is no set text for this course. However it is recommended that you make a habit of looking at a *few different books* (there are many different titles in the Burkitt-Ford Library) to determine which one has the best presentation of each topic, or the one most suited to your approach.

- Cunningsams Anatomy Vol 2 head & neck
- MacKinnon and Morris *Oxford Textbook of Functional Anatomy* (V1 Musculoskeletal; V3 Head & Neck). Oxford University Press.
- *Gray's Anatomy*, published by Longman
- Moore, K.L. *Clinically Oriented Anatomy* (3<sup>rd</sup> or 4<sup>th</sup> Editions) Williams and Wilkins
- **ANATOMICAL ATLASES:**  
\*\*\*Colour Atlas of Anatomy, Rohen & Yokochi, Lutjen- Drecoll, Igaku-Shoin, NY  
HIGHLY RECOMMENDED. Many of the illustrations used in the lectures will come from this atlas

orπ

Grant's Atlas of Anatomy, Agur, AM, Williams and Wilkins, Baltimore

or

A Colour Atlas of Human Anatomy, McMinn & Hutchings

- **HISTORICAL (interest only)**

Richardson, Ruth

Death, dissection and the destitute. Routledge & Kegan, Paul, London, 1987,

Fisher Research. 393.0914 /1

Optional reading for those who find anatomy irresistible! This is an excellent historical overview of times before the first Anatomy Act in 1832 and how this Act influenced anatomy and social attitudes to dissection.

### **2. CD-ROMs**

There are two CD-ROMs available for use/borrow from Bosch library. The Netter CD (below) is installed on computers in the departmental tutorial rooms and in the Wilson Museum.

- Netter, F.H. *Interactive Atlas of Human Anatomy* Ciba-Geigy Corporation. Summit, New Jersey. (This is also available in hard copy and has the same images as the CD)

### **3. WEB SITES**

There are many excellent web sites. In particular:

**a) <http://www.anatomyatlases.org/AnatomicVariants/AnatomyHP.shtml>**

– This gives detailed descriptions & drawings of almost all variations of a particular structure which have been published plus good descriptions of the structure.

b) <http://oto.wustl.edu/bbears/tb-intro.htm>

**Microscopic Anatomy of the Temporal Bone, B.A. Bohne & G.W. Harding**

**Department of Otolayngology, Washington University School of Medicine, St Louis, MO (see Week 12 – Ear)**

