



Faculty of Medicine

School of Medical Sciences

Department of Anatomy

ANAT3121

VISCERAL ANATOMY

SESSION 2, 2011

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ABOUT ANAT3121, VISCERAL ANATOMY, 2011

Staff Contact Details:

Course Convenor and Lecturer

Prof. Ken Ashwell
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I am available for consultation and discussion by prior appointment via telephone or e-mail. If you cannot attend your appointment, please ensure that you cancel it.

Course details:

ANAT3121 Visceral Anatomy is a 6 UOC course for Science level III, Medical Science, and miscellaneous students. The course extends on teachings from the foundation made by its prerequisites: Introductory Anatomy ANAT2111 or Fundamentals of Anatomy ANAT2511 (a minimum of credit) or ANAT1521 or ANAT1551.

The course provides gross anatomical information regarding the viscera and associated musculoskeletal structure and to a lesser degree the function of the respiratory, cardiovascular, gastrointestinal, urinary, reproductive (male and female), lymphatic and autonomic nervous systems.

Summary of the Course:

ANAT3121 offers a combination of regional and systemic anatomy, according to the schedule of lectures (two per week) and tutorial/laboratory classes (two per week) given below.

This course will focus on gross anatomical study of: Autonomic nervous system, Lymphatic system, Respiratory system, Cardiovascular system, Gastrointestinal system, Urinary system, and Male and Female reproductive system. The student will learn these systems via the prosected wet and plastinated specimens; models and skeleton. The approach also includes topographical, radiological and cross sectional anatomy of the regions. Relevant clinical anatomy in appropriate details is discussed wherever applicable.

Course reviewed in 2009:

In 2009 the course was reviewed and some changes were implemented from the previous year. These include:

- Rules of assessment and you are advised to please read them and beware of the rules.
- The upper respiratory tract includes the nose, nasal cavity and the accompanying gross anatomy.
- The lymphatic system will include the lymphatic drainage of the whole body and therefore the axillary lymph nodes and

the lymphatic drainage of head neck face will be studied in addition to the lymphatic drainage of the thorax, abdomen and pelvis.

Aims of the Course

1. The **aim** of the course is to provide further information, knowledge and understanding of the Gross Anatomy of the organ systems of the human body.
2. In addition the course aims to provide anatomical basis for application to the clinical situations and conditions as well as to the day-to-day activities of an individual in health and disease.

Learning outcomes:

At the completion of the course the student should have:

- A sound knowledge of the gross anatomy of the visceral systems of the body, including the autonomic nervous system and the lymphatic system.
- An application of the knowledge of the living anatomy of the viscera to common clinical conditions.
- An ability to apply knowledge of cross-sectional anatomy to interpretation of radiographs, CT and MRI scans.
- A capacity to apply multi-dimensional learning to the living human being in the states of health, injury and disease.
- A capacity to engage in independent learning and reflection on learning for future scholarly activities after graduation.

Graduate attributes:

“Graduate attributes are the qualities, skills and understandings a university community agrees its students should develop during their time with the institution.” Bowden et al (2000), Generic capabilities of ATN universities.

In this course an attempt is made to include the following Science Graduate Attributes

<http://www2.science.unsw.edu.au/guide/slatig/sciga.html> .These are also aligned with the UNSW Graduate Attributes (number in brackets)

http://learningandteaching.unsw.edu.au/content/userDocs/grad_attributes.pdf . The students will be encouraged to develop the following Graduate Attributes by undertaking the selected activities and knowledge content. These attributes will be assessed within prescribed assessment tasks.

Full account of Graduate Attribute Policy can be viewed at

www.secretariat.unsw.edu.au/acboard/approved_policy/graduate_attributes.pdf

1. **Research, inquiry and analytical thinking abilities:** Technical competence and discipline specific knowledge. Ability to construct new concepts or create new understanding through the process of enquiry, critical analysis, problem solving, research. (Aligned with *UNSW graduate attribute number*: (1) The skills involved in scholarly inquiry & (10) An appreciation of and

responsiveness to change).

2. **Capability and motivation for intellectual development:** Capacity for creativity, critical evaluation and entrepreneurship. Ability to take responsibility for and demonstrate commitment to their own learning, motivated by curiosity and an appreciation of the value of learning. (Aligned with *UNSW graduate attribute number*: (2) An in depth engagement with relevant disciplinary knowledge in its disciplinary context).
3. **Ethical, Social and Professional Understanding:** Ability to critically reflect upon broad ethical principles and codes of conduct in order to behave consistently with a personal respect and commitment to ethical practice and social responsibility. Understanding of responsibility to contribute to the community. Respect and value social, multicultural, cultural and personal diversity. (Aligned with *UNSW graduate attribute number*: (3) The capacity for analytical and critical thinking and creative problem solving; (7) An appreciation of and respect for diversity; and (11) A respect for ethical practice and social responsibility).
4. **Communication** (Aligned with *UNSW graduate attribute number* 12: The skill of effective communication). Effective and appropriate communication in both professional (intra and inter disciplinary and social (local and international) contexts).
5. **Ability to engage in independent and reflective learning** (*UNSW graduate attribute number* 4)
6. **Teamwork, collaborative and management skills:** An ability to recognise opportunities and contribute positively to collaborative scientific research, and to perceive the potential value of ideas towards practical applications. Demonstrate a capacity for self-management, teamwork, leadership and decision-making based on open-mindedness, objectivity and reasoned analysis in order to achieve common goals and further the learning of themselves and others. (Aligned with *UNSW graduate attribute number*: (4) the ability to engage in independent and reflective learning; and (9) Skills required for collaborative and multidisciplinary work).
7. **Information literacy:** An ability to make appropriate and effective use of information and information technology relevant to their discipline. (Aligned with *UNSW graduate attribute number* (5) Information literacy).

Rationale for the inclusion of content and

The “**Class notes, Lecture notes and Workbook**” contains: relevant information about: the course, prescribed text book, atlas and other resources, assessment rules and schedule, lecture and practical timetable, appendices with relevant information

teaching approach:

and tutorial/lab class.

Under each tutorial/lab class:

- There are aims of the class, that provide an overview of the topic;
- Specific objectives for the lecture;
- Learning activities for identification in the labs; and
- Notes and hand drawn diagrams for use in lectures, labs and at all times for learning.
- The lecture notes are written and included for your guidance and convenience. These lecture notes are sufficient in the details required for this course.
- You **must** however consult a textbook and an atlas for a further clarification.

Teaching Strategies:

Lectures:

- *Please note that the lectures are designed to provide preliminary information and an overview of the topic and are a prerequisite for learning in the labs. Although there will be i-lecture recordings and lecture notes will be posted on BBL, it is advisable for students to attend both lectures for achieving better learning outcomes.*
- Lectures provide an overview of the topic and focus on the: location, structure, relationships to other structures in the vicinity, blood and nerve supply, lymphatic drainage, and functions of the viscera and structures.
- In addition they will address the clinical relevance and surface anatomy, as listed under the specific objectives.
- Cross-sectional anatomy of the region is one of the best ways to visualise the relationship of structures in the body. An attempt has been made to include a few of these for understanding the relationship of the viscera and structures.
- Students **must** have a prior permission from the course authority or there must be a valid and justified reason for not attending the lecture.

Laboratory classes:

- The laboratory classes complement the lectures, and involve active learning in a small group situation. You will be required to study: dry bones, models, wet and plastinated prosected specimens, cross-sectional images (where applicable) and radiographs.
- **Student must attend both laboratory classes, as they are the scheduled learning activities.** The tutors will be taking a rollcall in each lab and report anyone who is absent for more than two labs in the session.

- It is necessary for the students to know that each student is assigned a laboratory class group with a tutor. It is **compulsory** for the students to stay in their allocated laboratory group for the whole session.
- If you have any concerns about your group/tutor, you may approach your course convener and discuss the matter.
- In the laboratory classes, every student is required to be involved into the inquiry and take an active participation in their learning process.
- **It is the student's responsibility to make sure that all the Aims and Activities of a laboratory are fully understood at the end of each laboratory class.**
- Notes on surface and palpatory anatomy (*see appendix*) have been included, with an aim to developing an ability to apply anatomical knowledge to the living human body. Surface anatomy is examinable via photographs during practical examinations and via questions in written theory examinations.

Study methods:

- A useful suggestion to approach the study of this subject would be to apply the learning of facts and concepts to yourself and the learning of functions to the activities you perform in your daily life, and enjoy the learning! **Appendix on Surface Anatomy** is very helpful for this purpose.
- **Sketching:** Anatomy is a visual discipline. Each laboratory is accompanied by a set of sketch drawings, which demonstrate anatomical concepts or facts. An attempt will be made to label some of the drawings in the lectures. A good set of colour pencils will be useful to bring along in the lectures. Students are encouraged to complete the drawings on their own and sketch bones, muscles, organs – any sketch, no matter how crude or simple, will assist you to learn anatomy.
- Students **must** access a **textbook** and a **colour atlas** of anatomy.
- Remember that prior knowledge from your prerequisite courses is very important. You are expected to use this knowledge and build on it.
- To get the greatest benefit out of your lectures and laboratory classes read the relevant notes prior to each lecture and laboratory class.
- Focus on learning the meaning of the facts and thus develop an understanding rather than memorise for the sake of examination. Remember - learning in this subject goes beyond merely getting good grades or passing the examinations.
- Be consistent with your studies, use sound approaches to study and approach the course convener if you have any

problem.

Time: Session 2, 2011

Lectures: **Monday: 2 - 3 pm (Matthews Theatre D)**
Friday: 9 – 10 am (Biomedical Theatre F)
Wks 2 - 13

Labs/tutorials/
Demonstration **Monday: 3 - 5 pm (Room WW 101 E)**
Friday: 10 - 12 am (Room WW 101 E)
Wks 2 - 13

*Please note that both labs are **compulsory** and each student is required to attend them. Please attend the lab at your scheduled time and remain in your assigned lab group. You **must attain 80% of attendance** (see below in Conduct of Students).*

Absence for more than two labs for whatever reasons must be reported to the course authority as it may affect your legibility to attend the assessment/s.

Blackboard
(BBL):

This course uses **BBL** for lecture notes, accessory lecture notes (wherever applicable), assessment, announcements and discussions. More information regarding instructions and requirements will appear on **BBL** under announcements and a pop-up message will appear when you log on to **BBL**. Be advised that **BBL** discussion is strictly for education requirements related to this course. Students must not use this for personal or social discussions. I monitor this section for its proper use and it will be withdrawn if there is a misuse of this resource.

Assessment: Spot tests assess the ability of the student to identify and name correctly significant structures in human anatomical specimens, models and radiographs.

Spot Test I **20% on Monday 29th August 2-4 pm**
Spot Test II **30% during the examination period**
Final Examination **50% during the examination period**

NOTE:

Assessment pass mark for this course is **50%**. There are two components of this course:

- 1) The **practical component 50%** (contributed by spot test 1 and spot test 2 together) and
- 2) The **theory component 50%**.

Students are expected to pass **each component** (practical and

theory) with a minimum of **50% marks**. The students, who pass overall but fail in a component (e.g., the practical or final theory examination) **may** be re-examined in that component, depending on their attendance record, the nature and extent of the failure and performance in other components. This is discussed and decided by the Course Authority and the Assessment Committee. Students will be notified of their results as WC or WD if they are required to sit for a supplementary test.

Re-examination by supplementary examination/s in any component for reasons of failure will be on a pass/fail basis only. The supplementary examinations will have the similar level of difficulty but may not follow the same pattern as for the original examination. The course authority usually will discuss the patterns of examination with the other academics who teach the course, or in some cases with the Head of Teaching in the Department.

Remember it is the student's responsibility to contact the course authority with regard to absences from tests. Also remember it is the students responsibility to be familiar with the rules governing the conduct of examinations.

Supplementary examination in the course is scheduled for early December 2011. Please do not book your holidays and trips until the final results are disclosed.

University policy regarding releasing marks, privacy and student appeals can be found at the following site:

<https://my.unsw.edu.au/student/academiclife/assessment/AssessmentatUNSW.html>

(Instructions: click on "Results" which is up the top of this web page, and then "Finalisation of assessment results and appeals procedures" which is down the bottom of the next page.

Special consideration – Illness or misadventure:

Quote from the website:

“Sickness, misadventure, or other circumstance beyond your control may prevent you from completing a course requirement or attending or submitting assessable work for a course, or may significantly affect your performance in assessable work, e.g. formal end of session examination, class test, laboratory test, seminar presentation, etc.

You can apply for consideration for the affected assessments.

Note:

1. Depending on the circumstances, the University may take action to allow you to overcome the disadvantage, e.g. give you additional assessment or extend a deadline.

2. Merely submitting a request for Special Consideration does not automatically mean that you will be granted additional assessment, nor that you will be awarded an amended result. For example, if you have a poor record of attendance or performance throughout a session/year in a course you may be failed regardless of illness or other reason affecting a final examination in that course.

3. The University has a centralised procedure for Special Consideration applications. Many course authorities and Faculties have 'local' procedures that you will also need to follow.

4. It sometimes happens that a student may encounter a situation that is so significant or personal they do not want to use the Special Consideration procedures. In a case like this you may prefer to contact the University Health Service, the Counselling Service, an academic adviser in your program office or the Manager, Student Administration and Records. Remember that it is always important to let the University know if there is anything that may affect your ability to continue your studies.” (unquote).

Note:

If a student is so sick to attend the lectures and laboratory classes and appear for assessments, they should consult the Counselling service and/or the University Health services and follow the instructions. Remember - the assessments are distributed over the session to spread the load.

Spot Tests:

Spot tests contribute to 50 % of your assessment and assess the ability of the student to identify and name correctly significant structures in human anatomical specimens, models and radiographs.

The structures listed in the learning activities (regardless of whether they are in bold or un-bold, will be assessed for identification and the gross anatomical information regarding the structure and function is tested via theory questions within a question of the spot test.

You must read the lecture notes provided and the prescribed textbook for your factual knowledge of the topic. The atlas helps to make a visual picture with its application to the specimens and/or models.

Specific objectives listed under the heading of the lab/tutorial in the workbook/manual will help in outlining these topics.

Students who fail the first spot test should consult their tutor/course co-ordinator for advice as soon as possible and be prepared to alter their methods of study and techniques of preparation for Tut/Lab classes.

Spot Test Instructions: (subject to change)

1. 12 questions, usually with a few rest seats when/where provided.
2. Each question consists of 4 - 5 identifications; followed by 2 - 3 theory questions based on the laboratory class notes.
3. Bring 2 pens (in case 1 fails); answer sheets are provided.
4. About 3 min. is allowed per question/rest seat; a beeper indicates the time to move to the next question or a rest seat.
5. You will be instructed to put a circle around the question you are starting with, and to move to your left when the beeper sounds.
6. Make sure you are on the correct question every time you move.
7. Always name specifically the first structure through which the pin passes.
8. Do not touch the specimens or the flags.
9. It is an OHS requirement that **you must wear your lab coat and proper closed shoes** to the spot test.
10. **You must arrange to have a disposable lab coat for the day in the event that you have forgotten to bring one to the test.**
11. **Please switch off your mobile phone before you enter the dissecting room.**

Final theory Examination:

- During examination period
- Time: **2 hours** (120 minutes)
- Consists of material learnt within wks **1 – 13** in this course.
- Refer to the specific objectives of each topic for direction.
- The final theory examination consists of **two** parts:
 1. **Part A: 40 multiple choice questions 50%**
 2. **Part B: 2 essay questions 50% (25 minutes each)**

Supplementary examination:

Supplementary examination:

Additional assessment

<https://my.unsw.edu.au/student/atoz/SpecialConsideration.html>

Quote from the website:

“The time at which any additional assessment granted to you is held is determined by the course authority concerned. Consult the course information sheet for detailed information about the times and arrangements for the various additional assessment tasks in that course.

Most course authorities conduct supplementary examinations in

the period immediately after the formal end of session examination period. For example, for the end of Session 2, supplementary examinations are often held in the three-week period just prior to Christmas. In general, course authorities will provide only one opportunity for you to sit a supplementary examination except in exceptional circumstances. You need to ensure you will be available during this period to take any supplementary examination granted to you.

You should expect any additional assessment granted to you to be of the same degree of difficulty as the original assessment task which it replaces.”

Note:

The supplementary examination for ANAT3121 in 2011 will be organised within the first week of December 2011.

The concerned students will be required to consult the Course Authority for the details of times and location.

Academic Honesty & Plagiarism:

The students are reminded that cheating on someone else’s work during examination (practical or theory) is classified under academic dishonesty. The student link for Plagiarism and Academic Integrity is at

<http://www.lc.unsw.edu.au/plagiarism/link.html>. This website also has information on academic misconduct and it is advisable to be familiar with the University policies.

There are no assignments in this course, but the following is included here for your information:

Plagiarism is the presentation of the thoughts or work of another as one’s own.

Examples include:

- Direct duplication of the thoughts or work of another, including by copying work, or knowingly permitting it to be copied. This includes copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person’s assignment without appropriate acknowledgement;
- Paraphrasing another person’s work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- Piecing together sections of the work of others into a new whole;
- Presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and,

- Claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†
- Submitting an assessment item that has already been submitted for academic credit elsewhere may also be considered plagiarism.
- The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does not amount to plagiarism.
- Students are reminded of their Rights and Responsibilities in respect of plagiarism, as set out in the University Undergraduate and Postgraduate Handbooks, and are encouraged to seek advice from academic staff whenever necessary to ensure they avoid plagiarism in all its forms.
- The Learning Centre website is the central University online resource for staff and student information on plagiarism and academic honesty. Individual assistance if requested is available from The Learning Centre. It can be located at: www.lc.unsw.edu.au/plagiarism .The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students in:
- Correct referencing practices; paraphrasing, summarising, essay writing, and time management; appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.
- Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle

† *Adapted with kind permission from the University of Melbourne.*

Course Schedule, 2011

Suggested reading for each topic is provided but **remember** to consult the relevant topics in your Textbook and Atlas for further information. Pdf Lecture slides will be posted on BBL after every lecture and they are complementary to the notes in your workbook.

| Week | Date | Lecture & Practical/Lab | Suggested reading |
|------|------|--|-----------------------------------|
| 2 | 25/7 | Lect 1. The principles and organisation of the autonomic nervous system Lab 1. Autonomic nervous system | Class notes for lecture and lab 1 |
| 2 | 29/7 | Lect 2. The upper respiratory tract: Nose, nasal cavity, air sinuses, larynx & thyroid gland | Class notes for lecture and lab 2 |

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|---|------|--|-------------------------------------|
| | | Lab 2. Upper respiratory tract: Nose, nasal cavity, air sinusel, Larynx & thyroid gland | |
| 3 | 1/8 | Lect 3. The thorax, mediastinum and pleura | Class notes for lecture and lab 3 |
| | | Lab 3. The thorax, mediastinum and pleura | |
| 3 | 5/8 | Lect 4. Lower respiratory tract: Trachea, bronchi and lungs | Class notes for lecture and lab 4 |
| | | Lab 4. Lower respiratory tract: Trachea, bronchi and lungs | |
| 4 | 8/8 | Lect 5. The Pericardium & heart | Class notes for lecture and lab 5 |
| | | Lab 5. The Pericardium & heart | |
| 4 | 12/8 | Lect 6. The blood vessels, lymphatics and nerve supply of the thoracic viscera; Cross-sectional anatomy of neck and thorax | Class notes for lecture and lab 6 |
| | | Lab 6. The Blood vessels, lymphatics and Nerve Supply of Thoracic viscera; Cross Sectional anatomy of Neck and Thorax | |
| 5 | 15/8 | Lect 7. The mouth, tongue, palate and pharynx | Class notes for lecture and lab 7 |
| | | Lab 7. The mouth, tongue, palate and pharynx | |
| 5 | 19/8 | Lect 8. Abdominal wall, inguinal canal and peritoneum | Class notes for lecture and lab 8 |
| | | Lab 8. Abdominal wall, inguinal canal and peritoneum | |
| 6 | 22/8 | Lect 9. The oesophagus, stomach and coeliac trunk | Class notes for lecture and lab 9 |
| | | Lab 9. The oesophagus, stomach and coeliac trunk | |
| 6 | 26/8 | No lecture: revision in laboratory | Class notes for lecture and lab 1-9 |
| | | Lab 10. revision in laboratory | Class notes for lecture and lab 1-9 |
| 7 | 29/8 | No Lecture! Spot Test 1 20%; Labs 1 – 10 / Weeks 2 - 6 (inclusive); (Room 101 W: 1 - 4pm) | |
| 7 | 2/9 | Lect 11. The duodenum, pancreas & spleen | Class notes for lecture and lab 11 |
| | | Lab 11. The duodenum, pancreas & spleen | |
| | | Mid-session Recess 3/9 - 11/9 | |
| 8 | 12/9 | Lect 12. The small & large intestine & mesenteric vessels | Class notes for lecture and lab 12 |

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|----|-------|---|------------------------------------|
| | | Lab 12. The small & large intestine & mesenteric vessels | |
| 8 | 16/9 | Lect 13. The liver, gall bladder & biliary tree | Class notes for lecture and lab 13 |
| | | Lab 13. The liver, gall bladder & biliary tree | |
| 9 | 19/9 | Lect 14. Blood vessels, lymphatics & nerves of the abdomen | Class notes for lecture and lab 14 |
| | | Lab 14. Blood vessels, lymphatics & nerves of the abdomen | |
| 9 | 23/9 | Lect 15. The suprarenal glands, kidneys & ureters | Class notes for lecture and lab 15 |
| | | Lab 15. The suprarenal glands, kidneys & ureters | |
| 10 | 26/9 | Lect 16. The urinary bladder, prostate & urethra | Class notes for lecture and lab 16 |
| | | Lab 16. The urinary bladder, prostate & urethra | |
| 10 | 30/9 | Lect 17. Pelvis and perineum | Class notes for lecture and lab 17 |
| | | Lab 17. Pelvis and Perineum | |
| 11 | 3/10 | No lecture, no lab, Labour Day Holiday! | |
| 11 | 7/10 | Lect 18. Female reproductive system | Class notes for lecture and lab 18 |
| | | Lab 18. Female reproductive system | |
| 12 | 10/10 | Lect 19. Male reproductive system | Class notes for lecture and lab 19 |
| | | Lab 19. Male reproductive system | |
| 12 | 14/10 | Lect 20. Blood vessels, lymphatics & nerves of the pelvis | Class notes for lecture and lab 20 |
| | | Lab 20. Blood vessels, lymphatics & nerves of the pelvis | |
| 13 | 17/10 | Lect 21. Review of autonomic nervous system | Class notes for lecture and lab 21 |
| | | Lab 21. Review of autonomic nervous system | |
| 13 | 21/10 | Lect 22. Radiology; cross-sectional anatomy of abdomen and pelvis | |
| | | Lab 22. Surface anatomy video and radiographs | Appendix notes on surface anatomy. |

**SPOT TEST 2, 30% (Material learnt from Wk 7- Wk 13)
Labs 11- 22.**

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| <p>Room 101 W: During examination period A revision class will be held during study vacation. Supplementary test/s: 1st week of December 2011</p> |
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Expected resources for the students

Every student in this course is expected to have a textbook and an atlas of their personal choice/preference. You may bring your atlas with you to the lab classes, for quick reference, but be careful for its safety.

Text Book:

Moore, KL. *Clinically Oriented Anatomy*, 6th edition, Williams & Wilkins **or**
 Drake, RL, Vogl W and Mitchell AWM, *Gray's Anatomy for Students*, Elsevier Churchill Livingstone

Recommended Atlas:

Rohen, JW, Yokochi, C. & Lutjen-Drecoll. *Color Atlas of Anatomy*, Lippincott Williams & Wilkins, 7th Edition **or**

Netter, FH. *Atlas of Human Anatomy*, Novartis, 4th or 5th edition **or**

Agur, AMR & Lee, MJ. *Grant's Atlas of Anatomy*, Lippincott Williams & Wilkins, **or**

Abrahams PH, Boon JM and Sdpratt JD. *McMinn's Clinical Atlas of Human Anatomy*, Mosby Elsevier, 2008

Reference books:

Hull, Lippincott Williams and Wilkins, Colouring atlas of the human body.

Marieb, EN & Hoehn K, *Human Anatomy and Physiology* + CD 7th edition, Pearson Benjamin cunnings.

Martini FH, *Fundamentals of Anatomy and Physiology*, Pearson Benjamin cunnings.

Robert D. Acland, FRCS, Acland's Cross-Sectional Navigator, Lippincott Williams And Wilkins.

Other Resources:

Anatomy Images CD-ROM produced in Department of Anatomy is available to the students for purchasing at \$15 each from the SOMS administration office, Room MG14, Wallace Wurth Building. Some of you may already own this from your

previous Anatomy course. This CD-ROM contains images of the specimens, models etc. used in the dissecting room and have a command available for self-test. Students in the past have found it a very useful learning resource.

Glossary & Spelling: Correct spelling of terms and concept is important in any discipline – please learn to use the **Glossary** at the end of these notes. The M.A. Arnold Glossary is also available online at:

<http://medicallsciences.med.unsw.edu.au/SOMSWeb.nsf/page/Science+Current+Students/>. You may use anatomical abbreviations given in this glossary.

Anatomy Museum is located in Room 105, Wallace Wurth Building and is accessible using your student card as a swipe card. Please note that for access to the Anatomy Museum, your card must be encoded at the UNSW Security Office in the Red Centre after the start of the Session.

Skilfully dissected specimens have been mounted in glass bottles in the Anatomy Museum **Room 105**. In 2001, under the project “3-D Real Human Atlas”, extensively labelled and catalogued prosected human specimens were created as an additional resource to the variety of learning resources that have been made available to the students.

The main aim of the museum is to support student learning with the availability of bones, models, and excellent quality specimens for revision. In addition these provide flexibility to the students to study in their own time. It helps students to get involved in peer learning, discussions, self-directed learning and self-assessment.

Safety in the museum:

- Always handle museum specimens with care and respect. All specimens consist of generously donated human tissue and have been painstakingly dissected by the staff, many of whom have passed on, thus making them extremely precious and irreplaceable.
- The specimens are preserved in fixative solutions, which contain a variety of toxic compounds.
- Students are requested to be extremely careful around the jars and the display cabinets.
- For reasons of hygiene and OHS issues, never take food or drink into the museum.
- Do not move the specimens from their shelves. Never leave a museum specimen on the floor, or in any precarious position.
- If a specimen is leaking, turn it upside down to prevent further leakage, then immediately inform Mr Vincent Strack or anyone in the service area of the dissecting room or a member of academic staff.
- If a specimen is broken, do not attempt to wipe up the

spillage. You must immediately inform Mr Vincent Strack or anyone in the service area of the dissecting room or a member of academic staff.

- Remember that a lot of goodwill of the donors and work and time of the staff has been devoted to the museum for your benefit. Thus your cooperation in maintaining neatness and safety at all times is appreciated.

Library Resources:

Ms Kate Dunn, the Outreach librarian, University library, The UNSW has kindly provided following links and information for the students to use as additional resources.

·Primal Pictures <<http://info.library.unsw.edu.au/cgi-bin/local/access/access.cgi?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&MODE=ovid&PAGE=main&NEWS=n&DBC=y&D=ppen>> 3D interactive anatomy database
·Library Subject Guide for Anatomy
<http://subjectguides.library.unsw.edu.au/content.php?pid=8701&sid=56148>
<<http://subjectguides.library.unsw.edu.au/content.php?pid=8701&sid=56148>>

·The Library holds a variety of 3D anatomical models for students: They are housed in My Course Reserve, level 2.

Course evaluation and development (CATEI)

The student evaluative feedback on the course is gathered, using UNSW Course and Teaching Evaluation and Improvement (CATEI) Process. There will be **three** forms that the students will be requested to fill in towards the end of the semester. These questionnaires are available on-line as well as on paper. Depending on the availability of time the students will be advised in time and will be requested to provide feedback on the course (Form A) and the teachers (lecturer Form B) and tutor/demonstrator (Form C). Student feedback is taken seriously, and continual improvements are made to the course based in part on such feedback.

The course authority also seeks feedback and constructive comments from the teachers in the course.

Other important information for students

Conduct of students:

The University takes academic misconduct seriously. The information regarding this can be found at: <http://my.unsw.edu.au/student/academiclife/assessment/AcademicMisconductStudentMisconduct.html>

It is your civil responsibility to be aware of your conduct in regards to: mutual respect and respect for the donated materials, social, multicultural, cultural and personal diversity.

Dissecting Room.

- You may enter and view specimens in the Dissecting Room 101 **only** in the presence of your tutor and/or during your designated and or scheduled laboratory class hours. Please read the ***RULES for ANATOMY STUDENTS*** for your conduct in the lab classes.
- You are not allowed to take **any** visitors into the Dissection Room.
- Satisfactory attendance at lectures and tutorial/laboratory classes is mandatory.
- Every illness or misadventure should be supported by a relevant medical certificate and submitted to the Student Central within **3** working days of the event. The students who do not report and submit the medical certificate via the **Student Central, UNSW** within the required period limit, will not be considered.

Applications for Consideration.

Students who miss an assessment through illness or misadventure must submit an application for consideration within **three** working days to Student Central, UNSW. Full details for the application (e.g., Medical Certificate, etc.) are available at

<http://my.unsw.edu.au/student/academiclife/assessment/AssessmentatUNSW.html>

- **Laboratory coats must be worn in the Anatomy Laboratory. Closed shoes that cover the full front and back of the foot are a must to wear. You must wear gloves when handling wet specimens.** You must remember to bring your Lab coats but in case of emergency, cheap disposable lab coats can be purchased from some of the UNSW shops. Thin disposable gloves can be bought in bulk from supermarkets; **bring at least two pairs for each lab. Mobile phones must be switched off during the lectures and laboratory classes.**
- Every illness or misadventure should be supported by a relevant medical certificate and submitted to the Student Central within 3 working days of the event. The students who do not report and submit the medical certificate via the **Student Central, UNSW** will not be considered.
- Supplementary rules and conduct for students in the Department of Anatomy are listed under ***RULES for ANATOMY STUDENTS***.

Student support services:

Those students who have a disability or a medical condition that requires some adjustment in their teaching or learning and/or examination environment are encouraged to discuss their needs with the Course Convenor prior to, or at the commencement of their course. All these cases should also be reported with the

Equity Officer (Disability) at: (9385 4734) or

<http://www.studentequity.unsw.edu.au/disabil.html>

Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional examination and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made. As far as possible do not plan elective surgery or medical appointments during your lecture or lab times, as these will disrupt your own learning.

Information on designing courses and course outlines that take into account the needs of students with disabilities can be found at:

<http://www.studentequity.unsw.edu.au/disabil.html>

Administrative Matters:

Students are expected to attend both lectures and both tutorial/laboratory classes that they have enrolled into, each week.

Please do not change your groups without consulting with your course authority.

You must study the relevant notes before each lecture & tutorial/laboratory class. This makes the understanding in the lecture easier. Additional notes when applicable **may** be available on the course homepage on BBL.

Anatomy is a visual subject and hence to facilitate student learning the lecturer uses some relevant diagrams (these are included in your workbook).

Students are also expected to check the BBL regularly for announcements, tests and/or additional resources. You will get an e-mail notification of any new activity on BBL and it remains your responsibility to make yourself aware of the activity.

Students are encouraged to use the discussion part of the BBL for their questions related to their course material. You must attempt to answer questions for instant feedback on your learning. These questions can be answered/with corrections or suggestions by your peers and/or the course authority. Remember the content and quality of discussion is regularly monitored by the course authority.

Administrative staff:

Ms. Marie Kwok

Position: Administrative Officer (Anatomy)

Location: Administrative Wing, Room MG14, Ground floor
Wallace Wurth Building

Contact number: 9385 2480

Ms Kwok is responsible for the matters related to the administration of Department of Anatomy. She can assist in arranging interviews with academic staff within the Department as well as sale and delivery of CD-ROMs to students.

Ms. Carmen Robinson

Position: Student Advisor
Location: Administrative Wing, Room 217, Ground floor
Biosciences Building
Contact number: 9385 2464

Ms Robinson is responsible for general administration and student support within the School of Medical Sciences.

Mr. Vincent Strack

Position: Manager Dissecting Room
Location: Level 1 Room 101 Wallace Wurth Building
Mr Strack will not be in direct contact with the students but provides support for all Anatomy Museum related issues. Mr. Strack and his office staff can be contacted regarding lost property within the premises of the dissecting room and/or the Anatomy Museum.

Ms. Jennifer Heartley

Position: OH&S Co-ordinator for SOMS
Location: Administrative Wing, Room MG14, Ground floor
Wallace Wurth Building
Ms Heartley is in-charge of the OH&S issues within the Wallace Wurth Building.
Contact number: 9385 8288

Official
communication

Students in this course ANAT3121 are advised that e-mail is the official means by which the School of Medical Sciences at UNSW will communicate with you.

All email messages will be sent **only** to **your official UNSW email address** (e.g., z1234567@student.unsw.edu.au). If you do not wish to use this student address, you **must at your end** arrange for your official mail to be forwarded to your chosen address.

It is recommended that you check your mail at least once a day. Facilities for checking email are available in the School of Medical Sciences and in the University Library. The UNSW Library runs free email courses.

Students should make sure that their home address and telephone number(s) that are listed on the UNSW files are current and may wish to provide their alternate contact numbers (e.g. **mobile number**) for contact in case of need.

Occupational
Health and
Safety
(OHS) Rules:

OH&S enquiries and issues are taken seriously in School of Medical Sciences (SOMS) and you must not hesitate to approach any staff with your issue. The SOMS has general rules for ensuring safety of staff and students at:

<http://medicallsciences.med.unsw.edu.au/somsweb.nsf/page/Undergraduate%20Current%20Students>

'*Safety Summary for all Students and Supervisors*' is a pdf file, which can be downloaded and read from the above site. Please be informed that this site is currently being updated and will certainly be available by the beginning of TP1.

For more information on matters related to occupational and health safety policies of the UNSW visit the following web site.

http://www.hr.unsw.edu.au/ohswc/ohs/ohs_policies.html

NB. You must wear **laboratory coats** and **closed shoes** in the laboratory and bring **gloves** to all laboratory classes, especially for handling the wet and dry specimens during the Tutorial/Laboratory.

Lost Property:

You must be careful with your personal belongings at all times, it remains your responsibility. In case you have misplaced or left behind your personal items, Anatomy manual, textbook, etc. in the lab, you may check with the staff in Service Room inside the Anatomy Dissecting Room 101.

However there is no guarantee that you will find what you lost, so be careful to protect your possessions. When entering the dissecting room you must bring all your belongings inside the room.

Please hand in any found items to your tutor or the staff in the Service Room.

Grievances:

Grievance Procedure

For guidance regarding grievance matters visit the website:

www.gs.unsw.edu.au/policy/documents/studentcomplaintproc.pdf

If you have any problems or grievance about this course, you should try to resolve it first with the Course Organizer or Course Convenor. If the grievance cannot be resolved in this way, you should contact the Grievance officer or alternatively the Head of Department of Anatomy.

You are required to put an application in confidence with the grievance officer, stating the reason and concern.

The Grievance Officer of the School of Medical Sciences is currently:

Dr. Priti Pandey

Room G211, John Goodsell Bldg

Ph: 9385 2483

E-mail: p.pandey@unsw.edu.au

Acknowledgement

The original text notes that follow in this manual were received with thanks from Dr P. Pandey (2010). These notes have been revised, rewritten and amended.

Relevant hand-drawn diagrams are included as a relevant resource for visual learning in the subject.

A positive and constructive feedback on behalf of the readers will be very much appreciated for further and future improvements.

RULES for ANATOMY STUDENTS

1. Students are required to attend **each lecture & the assigned tutorial/laboratory class** unless given special permission. Provision of an appropriate medical certificate to the course authority will be required for Special Consideration.
2. You may **enter** and **view** specimens in the Dissecting Room 101 **only** in the presence of your tutor and/or during your designated tutorial/laboratory class hours. You are **not allowed** to take visitors into the Dissection Room.
3. Photography and video recording is **not permitted** in the Dissecting Room 101, or the Anatomy Museum 105.
4. **Protocol:** When in the Dissecting Room, you are requested to:
 - **never eat or drink;**
 - wear a laboratory **coat** before you enter the lab;
 - if you have forgotten to bring the lab coat for the day, the disposable lab coat can be bought from room MG14 in WW building or the Union shops on the campus.
 - wear covered **shoes**, not thongs;
 - wear latex or vinyl **gloves** when touching wet specimens (gloves are available from Union Shop near CLB theatres);
 - never put anything in your **mouth**, e.g., biros or pencils that you may have picked up from the table;
 - use blunt **forceps** only to handle specimens and **probes** to point to structures, and **never pull** at any parts of the specimen;
 - as far as possible, **avoid inhaling** preservative solutions for prolonged periods (if you feel in need of fresh air, ask permission to leave the laboratory for a few minutes);
5. **And** at the end of your laboratory:
 - **cover wet specimens** with the towels provided;
 - **replace stools** under the tables in your cubicle;
 - **wash your hands** and instruments.
6. Great **care** should always be exercised when handling specimens, in order to preserve their delicate structure. Much work has gone into the **prosection** of each specimen before it is ready for use in class.
7. You are learning from human material prepared from people who have generously donated their bodies for the benefit of science. Apart from caring for the specimens, it is important for all students learning Anatomy to have and show **utmost respect** for the specimens at all times, in the Dissecting Room, Room 101, and in the Anatomy Museum Room 105. It is **illegal** for any anatomical material to be removed from the premises of the Department of Anatomy for any purpose whatsoever (except of course, for the funeral). All anatomy specimens are micro chipped for identification and record keeping.
8. **Preservative solution.** Most anatomy specimens are stored in 2% phenoxyethanol, which is classified as non-toxic. You should always wear gloves when handling specimens. Detailed information about phenoxyethanol is posted on the Dissecting Room notice board. A few specimens (brain tissue, etc.) are stored in formaldehyde, which is toxic if ingested, and corrosive to the eye; it can also be absorbed through the skin. Formaldehyde is reported to cause allergic skin and respiratory effects. The potential for adverse health effects, however, is markedly reduced at the concentrations used for embalming and storage of specimens in the Dissecting Room, i.e., the “formalin” solution is less than 5% of a 37% solution of formaldehyde. The specimens provided for classes are without any formalin, moreover with air-conditioning the air in the dissecting room is continuously changed. Essentially, you should prevent any preservative solution from coming in direct contact with your eyes, skin or mouth. If assistance is needed during office hours you may approach **Room 101** for **First Aid**.
9. Revision Facilities are available in the Anatomy Museum Room 105. Please do not remove the museum jars from their shelves.

(Revised PP 2010 from BF: 11/02)