



Faculty of Medicine

School of Medical Sciences

Department of Anatomy

ANAT3121

VISCERAL ANATOMY

SESSION 2, 2014

CONTENTS

	Page
Index	03
About ANAT3121, Visceral Anatomy, 2014	04-29
Staff contact details	04
Course details	04
Summary of the Course	04-05
Aims of the course	05
Learning outcomes	05-06
Graduate attributes	06-07
Rationale for the inclusion of content and teaching approach	07
Teaching strategies	08-09
Study methods Course details: time, lectures and labs/tutorials/demonstrations	09-10
Lectures and laboratory times and location	10
Moodle	10
Assessment	10-15
Academic honesty and plagiarism	16-17
Expected resources for students: text books, Recommended atlas, Reference books, other resources	17-19
Course Evaluation and development (CATEI)	19
Other important information for the students	20-26
Conduct of students	20
Student support services	20-21
Administrative matters and Administrative staff	21-22
Official communication	23
Health and safety (OHS) rules	23
Lost property	23
Grievances	24
Health and safety Rules for Students in Dissecting Room	25-26
Course schedule 2014	27-29
ANAT3121 Course Notes and Workbook (including Glossary of anatomical terms)	30-...

INDEX

NUMBER	TOPICS WITH TEXT ONLY.
1.	Principles of organisation of the Autonomic nervous system
2.	<i>Appendix 1: The Lymphatic system</i>
3.	Thorax, Mediastinum and Pleura
4.	Lower Respiratory Tract: Trachea, Bronchi and Lungs
5.	The Pericardium and Heart
6.	Cross sectional Anatomy of Thorax
7.	Blood vessels, Lymphatics and Nerve supply of the thoracic viscera;
8.	<i>Appendix 2: Clinical consideration</i>
9.	<i>Appendix 3: Surface Anatomy of the Neck and Thorax</i>
10.	Abdominal wall and Inguinal canal
11.	The Peritoneum
12.	Oesophagus, Stomach and Coeliac Trunk
13.	Duodenum, Pancreas and Spleen
14.	Small and Large Intestines and Mesenteric vessels
15.	Liver, Gall Bladder and Biliary Tree
16.	Blood vessels, lymphatics and nerves of the abdomen and pelvis
17.	Suprarenal gland, kidneys and Ureter
18.	Urinary Bladder and urethra
19.	Pelvis and Perineum
20.	<i>Appendix 4: Surface Anatomy of abdomen & pelvis</i>
21.	Female reproductive system
22.	Male Reproductive system
23.	Blood vessels, lymphatics and nerves of the pelvis and perineum
24.	<i>Review of Autonomic nervous system</i>
25.	<i>Appendix 5: Clinical problems</i>
26.	<i>Appendix 6: Glossary of Anatomical Terms</i>

ABOUT ANAT3121, VISCERAL ANATOMY, 2014

Staff Contact Details:

Course Convener and Lecturer

Dr. P. Pandey
Room 214, Wallace Wurth Building
T: 9385 2483
email: p.pandey@unsw.edu.au

I am available for consultation and discussion, by prior appointment via e-mail. In the event, when you cannot attend to your appointment please ensure that you cancel it.

Co-Course Convener and Lecturer

Prof. K. Ashwell
Room 447, Wallace Wurth Building
T: 9385 2482
Email: k.ashwell@unsw.EDU.AU

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 was reviewed in 2013:

The course was revised as a part of revision of all level three Anatomy courses e.g. ANAT3121, ANAT3131, and ANAT3141. This allowed redistribution of body part content between the three courses.

The revised course modified the body parts to be covered and it

only deals with gross anatomy and clinical relevance of the:

- i) thoracic and abdominal walls,
- ii) pelvic floor and perineum,
- iii) thoracic, abdominal and pelvic viscera,
- iv) autonomic and enteric nervous system,
- v) lymphatic system.

The changes included:

- The course content even though remains a systemic approach but it is regionally oriented and broadly includes the systemic anatomy of: the thorax, abdomen and pelvis & perineum.
- The respiratory system begins with trachea. The upper respiratory tract including the nose, nasal cavity, larynx and phonation and the accompanying gross anatomy has been deleted from the course and students must rely on their previous knowledge from the prerequisite courses.
- The gastrointestinal system begins with Esophagus and the gross anatomy of oral cavity, salivary glands and pharynx is deleted from the course and students must rely on their previous knowledge from the prerequisite courses.
- The orientation of the laboratory/practical classes will be more in *demonstration* method (unless otherwise stated). **This means that the students must attend their lectures and read up before the laboratory classes for their preview of the topic and be involved in more practical work in the “Practical Class”.**
- **Clinical Problems included will be discussed on line and will be examinable. This is intended to be a part of the web-based online activity of 1 hour per week.**

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 in the regions of thorax, abdomen and pelvis & perineum.

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 the common clinical conditions.
- An ability to apply the knowledge of cross sectional anatomy to understanding of the radiographs and CT scans and MRI.

Graduate attributes:

- A capacity to apply the multi-dimensional learning to the living human being in the state of health, injury and disease process.
- A capacity to engage in independent learning and reflection of learning for future scholarly activities of post graduation.

“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> .

A PDF version of graduate capabilities of UNSW graduate can be seen on <http://teaching.unsw.edu.au/graduate-capabilities> .

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.

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. The skills involved in scholarly inquiry & 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. 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. The capacity for analytical and critical thinking and creative problem solving; An appreciation of and respect for diversity; and A respect for ethical practice and social responsibility.
4. **Communication:** 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***
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. The ability to engage in independent and reflective learning; and 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.

Rationale for the inclusion of content and teaching approach:

John Biggs (1999, 2003) suggests that real learning occurs when students actively construct meaning and knowledge as they engage in appropriate learning activities. He asserts the key elements of course design - learning outcomes, learning activities and assessment tasks - must be aligned with each other.

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 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 the 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 Moodle, it is advisable for the 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. Considering that most practical classes will be without a prior tutorial, students must attend the lectures to enhance their learning in the Laboratories.

Laboratory/Practical 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 roll call 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. You should not change your tutorial group on your own.
- 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 (not only covered!) at the end of each laboratory class.**
- There is an inclusion of the surface and palpatory anatomy (*see appendix*), with an aim to develop an ability to apply the 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 will 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.
- **Concept Mapping:** “ Knowledge in Graphs” or knowledge simplified via a diagram that shows links between concepts. Quote: Mind Mapping® is a popular related technique, invented (and copyrighted) by [Tony Buzan](#) in the UK. He describes mind maps as: *"a mind map consists of a central word or concept, around the central word you draw the 5 to 10 main ideas that relate to that word. You then take each of those child words and again draw the 5 to 10 main ideas that relate to each of those words."* http://users.edte.utwente.nl/lanzing/cm_home.htm. Concept maps can be used to organise your learning and knowledge as well as to summarise your knowledge.
- **E-learning:** Every student **must** participate and submit their contribution to solving clinical problems on the Moodle. This involves application of your knowledge of gross anatomy in analysing the clinical problem and answering the questions.
- Students **should** access a **textbook** and a **colour atlas** of anatomy.
- Remember the prior existing knowledge from your prerequisite courses is very important. You are expected to use this knowledge and build on to create the new knowledge.
- To get the best benefit out of your lectures and laboratory classes **try** to read up relevant notes prior to each lecture and laboratory class.
- Try and learn for the meaning 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.
- I like to foster a collaborative learning atmosphere and peer learning. You must actively take part in the discussion on the

Moodle by answering the questions and follow-ups. “*Peers are the best resources a student has!*”.

- Remember, “**best way to learn is to teach someone!**”
- Be consistent with your studies, use right approaches to study and approach the course convener if you have any problem.

Time: Session 2, 2014

Lectures: Monday: 9 - 10 am (WWLG03)

Wks 1 – 9 & 11 - 13

Wednesday: 1 - 2 pm (WWLG02 & BIOMED F)

Wks 1 – 8 WWLG02

Wks 9 & 11 BIOMED F

Wks 12 - 13 WWLG02

**Labs/tutorials/
Demonstration**

Monday: 11-1 pm (Room WW101W)

Wks 1 – 9 & 11 - 13 AND

Thursday: 3-5 pm (Room WW101E)

Wks 1 – 9 & 11 - 13

No classes in week 10.

*Please note that both laboratory sessions 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.

Moodle :

This course uses **Moodle** for lecture notes, accessory lecture notes (wherever applicable), assessment, announcements and discussions. More information regarding instructions and requirements will appear on **Moodle** under announcements and a pop-up message will appear when you log on to **Moodle**. Be advised that **Moodle** 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 is advised not to 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. They also assess your ability to answer questions in relation to the gross anatomy of these structures and apply the cadaveric knowledge to the clinical situations and living human body.

Spot Test I **20% on Monday 08/09/2014; 11-1am**

Spot Test II **20% during the examination period**

On-line Assessment **10% (TBA: during session)**

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 convener, Co-Course convener 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 (see below).

Spot Tests:

Spot tests (viz. Spot test 1 and spot test 2) contribute to the practical component and are worth 40 % of your assessment. The practical component is designed to assess the ability of the student to identify and name correctly significant structures in human anatomical specimens, models and radiographs and answer related relevant questions.

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 refer to the prescribed textbook for your factual information of the topic. The atlas does help 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 of Tut/Lab classes.

Spot Test Instructions: (subject to change); you may be aware of the layout of the spot test but this information will help you to acquaint yourself with the specifics in this course.

1. 12 questions, usually with a few rest seats when/where provided.
2. Each question consists of 4 - 5 identification; 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 right question every time you move.
7. Always name specifically the first structure the pin passes through or indicates.
8. Do not touch the specimens or the flags.
9. It is the requirement of OHS 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 case you have accidentally 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 (From **07/11/2014** till **25/11/2014**)
- 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 outline and direction.
- The final theory examination consists of **two** parts:
 1. **Part A: 2 essay questions 40% (25 minutes each)**
 2. **Part B: 40 multiple choice questions 60% (1 hour and 10 minutes)**

Supplementary examination:

Re-examination by supplementary examination in any component for reasons of inability to appear due to misadventure or illness will be considered as the first attempt by the student. Whereas supplementary examination 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, which teach the course or in some cases with the Head of Teaching in the Department.

Supplementary examination:

Regarding 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.” (unquote).

Please note:

- **If a supplementary examination is approved, (by the examination committee), you will be given only one opportunity to sit the supplementary examination.**
- **Remember it is the student’s responsibility to**

contact the course authority in regards to the test/s.

- **Also remember it is the students responsibility to be familiar with the rules governing the conduct of examinations.**
- **Note the supplementary examinations are not a choice that students can make.**
- **If a student is approved to be eligible to be reexamined, only one chance will be granted to appear for the supplementary examination.**

Supplementary examination in the course is scheduled for Thursday the 27th November 2014. 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:

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. how to apply, the supporting documentation, Medical Certificate, etc.) are available at

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

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 spread out over a period of time for the ease of spreading the load and a student would further disadvantage one's health, trying to appear in all the assessments at once.

For further details and updates on special consideration

Academic Honesty & Plagiarism:

refer to your class notes and workbook as well as the relevant websites on myUNSW A-Z guide.

Note: The supplementary examination for ANAT3121 in 2014 will be organised within the week period (26th November – 24th December) prior to the Christmas of 2014. Tentative date: Wednesday the 26th November 2014

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

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.

Presently 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.*

Expected resources for the students

The 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*, 7th edition, Williams & Wilkins **or**

Drake, RL, Vogl W and Mitchell AWM, *Gray's Anatomy for Students*, 3rd edition, 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, 7th Edition.

Reference books:

Dean D and Herbener TE, "*Cross Sectional Human Anatomy: Including images from the National Library of Medicine's Visible Human Project*", 2007, Lippincott Williams & Wilkins.

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, *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 Ms Carmen Robinson in the BSB student office, Room G27, Biosciences Building. Some of you may already own this CD 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 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://medicalsciences.med.unsw.edu.au/SOMSWeb.nsf/page/Science+Current+Students/>. You may use anatomical abbreviations given in this glossary.

Anatomy Museum is relocated in **Room G09, 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.

3-D Real Human Atlas: Skilfully dissected specimens have been mounted in glass bottles in the Anatomy Museum **Room G09**. 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 and 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 donators 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

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

development (CATEI)

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.

Conduct of students:

Other important information for 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 *Health and Safety Rules for Students in the Dissecting Room* 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.
- Please be aware if you have missed more than **two** lectures and/or Lab classes, your Lecturer and the Laboratory Demonstrator will alert you.
- 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.

<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 the Arcade

Student support services:

Union shop (?). Thin disposable gloves can be bought in bulk from supermarkets; **bring at least two pairs for each lab. The mobile phones must be switched off during the lectures and laboratory classes.**

- Supplementary rules and conduct for students in the Department of Anatomy are listed under *Health and Safety Rules for Students in the Dissecting Room*.

SEADU: Student equity and disability unit at UNSW provides advice, support and a range of other services to the students in need. 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. The information regarding the services is available at their office: Ground Floor, Goodsell Building (Map ref F20), or Phone: (02) 9385 4734 or visit their website: www.studentequity.unsw.edu.au

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 surgeries or medical appointments during your lecture or lab times, as these will disrupt your own learning.

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).

E-mails are the official communication for each student. Students must use their z e-mail addresses for official communication. *When corresponding with the university, please ensure you use your student email account and include your Student ID.*

Students are expected to use the discussion part of the Moodle 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:

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

Ms. Marie Kwok

Position: Administrative Officer (Anatomy)

Location: Administrative Wing, level 2, room 255, Wallace Wurth Building

T: 9385 1722

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.

Ms. Carmen Robinson

Position: Student Advisor, SOMS

Location: BSB Student Office, Room G27, Biosciences Building (Mon, Tue and Wed);

Location: Administrative Wing, level 2, room 255, Wallace Wurth Building , (Thu and Fri)

T: 9385 2464

Ms Robinson is responsible for general administration and student support within the School of Medical Sciences. Ms Robinson also will assist in sale and delivery of CD-ROMs to students.

[The BSB Office opening hours are: Monday, Wednesday, Thursday and Friday 9am-12.30pm, 1.30pm-4.30pm, Tuesday 9.45am-4.30pm](#)

Mr. Ryan Ling

Position: Student administrative Officer, SOMS

Location: BSB Student Office, Room G27, Biosciences Building; (Thu and Fri)

Location: Administrative Wing, level 2, room 255, Wallace Wurth Building (Mon, Tue and Wed)

T: 93858301

Mr. Ling is responsible for general administration and student support within the School of Medical Sciences.

Mr. Vincent Strack

Position: Manager Dissecting Room & GASU

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.

Mr. Glenn Wilcher

Position: First aid officer, Dissecting Room and fire warden for level 1 Wallace Wurth Building

Location: Level 1, Room 101 Wallace Wurth Building

Mr. Wilcher is the appointed as a first aid officer in the dissecting room and provides first aid support for all Anatomy staff and students.

Blathnaid Farrell

Position: H&S Coordinator

Location: Administrative Wing, level 2, room 255, Wallace Wurth Building

T: 9385 9750

<http://medicallsciences.med.unsw.edu.au/students/health-safety>

Official communication

Students in the 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.

Health & Safety (H & S) Rules:

H & 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/students/health-safety>

Quote: "UNSW aims to provide a physically safe, healthy and secure learning and working environment for all students. The lecturers are responsible for your safety during dedicated teaching time. In return you are expected to behave with respect toward them and your fellow students; you are expected to follow instructions from lecturers. If you are concerned about your health or safety during a lecture or practical class please tell a lecturer immediately."

There are 2 PDF documents: H&S for Anatomy practical and H&S for lectures held in Wallace Wurth G2-G4, that may be of particular interest to you. In addition the document, Rules for Anatomy students is included in this manual.

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 Convener. 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. P. Pandey

Room 214, level 2

Wallace Wurth Building

T: 9385 2483

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

Last edited:

10/06/2014

Dr. P. Pandey

Course – Convener and Lecturer in-charge

ANAT3121

Health and Safety Rules for Students in the Dissecting Room

There are some rules that are enforced for the safety of the staff and students, while others are concerned with the need for care and respect of the prosection material.

General courtesy

- Students are required to attend **each lecture and the assigned tutorial/laboratory class** unless given special permission. Provision of an appropriate medical certificate to the course authority will be required for any Special Consideration.
- 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 permitted** to take visitors into the Dissection Room.

Health and Safety Rules

A detailed risk assessment for student activities in the Dissecting Room is located on the notice board at the front entrance (near 1st floor lifts).

When in the Dissecting Room, you are required to:

- **always put on your laboratory coat** when you enter the lab. If you have forgotten to bring your lab coat, purchase a disposable coat from the ground floor in WW building or the Union shops on campus. Lab coats must not be worn in the hall or anywhere outside the laboratories.
- **wear covered shoes with enclosed heels**, never thongs or sandals.
- **wear latex or vinyl gloves** when touching wet specimens (gloves are available from the Union Shop near CLB theatres).
- **never eat or drink.**
- **never put anything in your mouth.** For example, pens or pencils that you may have picked up from the table.
- **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.
- **report all accidents** or incidents immediately to a staff member for assessment without exception. Injuries involving sharps or needle-stick will require a blood test as soon as possible.

At the end of your laboratory class:

- **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 bio waste 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.

Preservative solution

There are 3 main chemicals used as preservation fluids in the Dissecting Room:

phenoxyethanol (2% in solution); **methylated spirits** (10%) and **formalin** (5%)

The safety data sheets (SDSs) for these chemicals are located by the lab First Aid Kit and also on the notice board outside the lab. Women of reproductive years, and especially those who know they are pregnant, should note that all of these are suspected human reproductive and developmental toxins and therefore may pose a

hazard to the unborn child. In addition, formalin (**formaldehyde** solution) is a human carcinogen. Avoid these chemicals coming into contact with your eyes and skin and they should not be ingested.

Most anatomy specimens are stored in 2% phenoxyethanol, which is classified as relatively non-toxic. You should always wear gloves when handling specimens and must avoid ingestion of this chemical and contact with your skin or eyes. 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 and a combination of air extraction and conditioning continuously changes the air in the Dissecting Room.

First Aid

If assistance is needed during office hours you may approach **Room 101** staff for **First Aid. All incidents must be reported.** The First Aid Kit is located on the left wall near the Dissecting Room entrance door. A second First Aid Kit in the east wing on the ledge opposite cubicle E4.

Emergency evacuation

In the case of a fire or other emergency the evacuation alarm will sound. When it sounds for the first time this indicates that everyone should get prepared in case it is necessary to evacuate. When it sounds for the second time, an announcement will be made over the speaker system - **follow these instructions.** Staff will be on hand to supervise any evacuation and the emergency exit is at the south end of the lab, do **not use the lifts.** The evacuation assembly area is the landscaped space immediately to the east of the Chancellery and adjacent to the Clancy Auditorium. **Do not assemble anywhere else** and do not leave this area until instructed.

Additional Safety Information

If additional safety information is required you can ask the course convener or the Anatomy Dissection Laboratory Manager (Mr. Vincent Strack). The latest safety information is always available from the SOMS HS Webpage. <http://medicallsciences.med.unsw.edu.au/SOMSWeb.nsf/page/Health+and+Safety>

Care and respect of prosected material

You are learning from human material prepared from people who have generously donated their bodies for the benefit of science. Skilled staff members have dissected the specimens to allow you, the student, to see anatomical structures in fine detail. 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. **Great care** should always be exercised when handling specimens, in order to preserve their delicate structure.

Some specific points:

- **Always use only blunt forceps** to handle specimens and **probes** to point to structures, i.e. **never pull** at any parts of the specimen.
- 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.
- Photography and video recording are **not permitted** in the Dissecting Room 101, or the Anatomy Museum 105.

Ken Ashwell 30th January 2012

Due for review: 17th August 2014

Lectures & Practical Laboratory Time Table 2014

Lectures: Monday: 9 - 10 am (WWLG03)

Wks 1 – 9 & 11 - 13

Wednesday: 1 - 2 pm (WWLG02 & BIOMED F)

Wks 1 – 8 WWLG02

Wk 9 BIOMED F

Wks 11 - 13 WWLG02

Laboratory: Weeks 1-9 & 11-13

Monday: WW101W

11-1pm AND

Thursday: WW101E

3-5pm

Week	Date	Lecture & Practical/Lab	Suggested Teaching/ Learning
1	28/7	Lect 1. The Principles and Organisation of the Autonomic nervous system Lab 1. Autonomic nervous system	Class notes for lecture and lab 1
	30/7	Lect 2. The Thorax, mediastinum and pleura	Class notes for lecture and lab 2
	31/7	Lab 2. The Thorax, mediastinum and pleura	
2	04/8	Lect 3. Lower respiratory tract: Trachea, Bronchi and Lungs Lab 3. Lower respiratory tract: Trachea, Bronchi and Lungs	Class notes for lecture and lab 3
	06/8	Lect 4. The Pericardium & Heart	Class notes for lecture and lab 4
	07/8	Lab 4. The Pericardium & Heart	
3	11/8	Lect 5. Cross Sectional anatomy of Thorax Lab 5. Cross Sectional anatomy of Thorax	Class notes for lecture and lab 5
	13/8	Lect 6. The Blood vessels, Lymphatics and Nerve Supply of the Thoracic viscera;	Class notes for lecture and lab 6
	14/8	Lab 6. The Blood vessels, lymphatics and Nerve Supply of Thoracic viscera	
4	18/8	Lect 7. Abdominal wall, Inguinal canal Lab 7. Abdominal wall, Inguinal canal	Class notes for lecture and lab 7
	20/8	Lect 8. The Peritoneum	Class notes for lecture and lab 8

	21/8	Lab 8. The Peritoneum	
5	25/8	Lect 9. The Oesophagus, Stomach and Coeliac trunk Lab 9. The Oesophagus, Stomach and Coeliac trunk	Class notes for lecture and lab 9
	27/8	Lect 10. The duodenum, Pancreas & Spleen	Class notes for lecture and lab 10
	28/8	Lab 10. The duodenum, Pancreas & Spleen	
6	01/9	Lect 11. The Small & Large Intestine & Mesenteric Vessels Lab 11. The Small & Large Intestine & Mesenteric Vessels	Class notes for lecture and lab 11
	03/9	Lect 12. Troubleshooting in lecture	Class notes for lecture and lab 1-10 and 12
	04/9	Lab 12. Revision	
7	08/9	No Lecture! Spot Test 1; 20%; Labs 1 – 10 / Weeks 1 - 5 (inclusive); (Room WW101W: 11-1pm)	
	10/9	Lect 13. The Liver, Gall bladder & Biliary Tree	Class notes for lecture and lab 13
	11/9	Lab 13. The Liver, Gall bladder & Biliary Tree	
8	15/9	Lect 14. Blood Vessels, Lymphatics & Nerves of the Abdomen Lab 14. Blood Vessels, Lymphatics & Nerves of the Abdomen	Class notes for lecture and lab 14
	17/9	Lect 15. The Suprarenal glands, Kidneys & Ureters	Class notes for lecture and lab 15
	18/9	Lab 15. The Suprarenal glands, Kidneys & Ureters	
9	22/9	Lect 16. The Urinary Bladder, Prostate & Urethra Lab 16. The Urinary Bladder, Prostate & Urethra	Class notes for lecture and lab 16
	24/9	Lect 17. Pelvis and Perineum	Class notes for lecture and lab 17
	25/9	Lab 17. Pelvis and Perineum	
MIDSESSION RECESS: 27/9 – 06/10			
10	07/10 - 10/10	NO CLASSES THIS WEEK	
11	13/10	Lect 18. Female Reproductive System	Class notes for lecture and

		Lab 18. Female Reproductive System	lab 18
	15/10	Lect 19. Male Reproductive System	Class notes for lecture and lab 19
	16/10	Lab 19. Male Reproductive System	
12	20/10	Lect 20. Blood Vessels, Lymphatics & Nerves of the Pelvis; Lab 20. Blood Vessels, Lymphatics & Nerves of the Pelvis;	Class notes for lecture and lab 20
	22/10	Lect 21. Review of Autonomic Nervous System	Class notes for lecture and lab 21
	23/10	Lab 21. Review of Autonomic Nervous System	
13	27/10	Lect 22. Radiology; Cross sectional Anatomy of Abdomen and Pelvis Lab 22. Revision	Class notes for lecture and lab 11-23
	29/10	Lect 23. Troubleshooting in lecture	Appendix notes on surface anatomy.
	30/10	Lab 23. Surface Anatomy Video and Radiographs	

Student vacation: 1st November – 6th November
Examination period: 7th November – 25th November

SPOT TEST 2, 20%: (Material learnt from Lab 11 to Lab 23)

FINAL THEORY EXAMINATION 50%: (Material learnt from Wk 1 - Wk 13)

Do not book your holidays if you have not completed your assessment tasks or have failed a component.

**SUPPLEMENTARY EXAMINATIONS (if and when applicable):
WEDNESDAY THE 26th NOVEMBER (Timetable and venues will be announced closer to the event).**