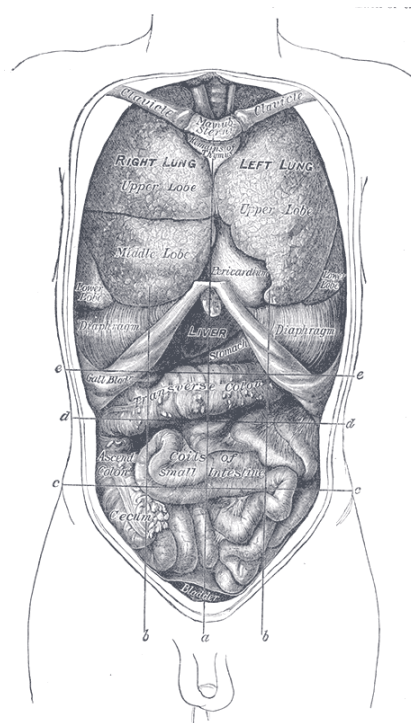


Name:.....

Faculty of Medicine
School of Medical Sciences

ANAT3121

VISCERAL ANATOMY



COURSE OUTLINE

SESSION 2, 2017

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

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

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

Staff Contact Details

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Students wishing to see the course coordinators should make an appointment via email as our offices are not readily accessible. We will organize to meet you in a convenient location elsewhere in the building.

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 which lay in place the framework to understand the functions of the respiratory, cardiovascular, gastrointestinal, urinary, reproductive (male and female), lymphatic and autonomic nervous systems.

Course Summary

ANAT3121 (Visceral Anatomy) aims to provide students with a comprehensive understanding of the viscera in the thorax and abdomen from both a regional and systemic anatomy perspective.

This course will focus on the gross anatomical organisation and function of the autonomic nervous, lymphatic, respiratory, cardiovascular, gastrointestinal, urinary, and the reproductive systems. Students will have the opportunity to study these systems via prosected wet and plastinated cadaveric specimens, models and bones. The course incorporates topographical, radiological and cross-sectional anatomy of the respective regions through the study of medical imaging and cadaveric sections. Relevant clinical and functional anatomy is discussed as applicable in lectures and practical sessions, with a special focus at tutorial sessions designed for application of content via clinical scenarios.

In 2015, the course was revised as a part of revision of all Level 3 Anatomy courses e.g. ANAT3121, ANAT3131, and ANAT3141. This allowed redistribution anatomy content between the three courses with minimal overlap. This course now focusses on visceral anatomy located in the thorax and abdomino-pelvic cavities.

The practical sessions are based on fundamental and conceptual content covered during the lectures. This means that the students must attend lectures and complete the relevant readings before the respective practical classes. The tutorial sessions further expand on the concepts covered by applying these to medical imaging, and clinical and functional scenarios.

The following changes have been made to the course for 2017:

- The course delivery has been restructured so that the weekly format is now three lectures/tutorials and one three-hour practical.
- Tutorials to develop problem solving skills relevant to clinical and imaging applications have been introduced.
- The online activities and assessments have been revised.

Course Aims

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

ANAT 3121 will develop those attributes that the Faculty of Science has identified as important for a Science Graduate to attain. These include; skills, qualities, understanding and attitudes that promote lifelong learning that students should acquire during their university experience.

Graduate Attributes

- A. Research, inquiry and analytical thinking abilities
- B. The capability and motivation for intellectual development
- C. Ethical, social and professional understanding
- D. Effective communication
- E. Teamwork, collaborative and management skills
- F. Information Literacy – the skills to locate, evaluate and use relevant information.

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.
- The ability to apply the knowledge of cross sectional anatomy to the understanding of the CT scans and MRI.
- The ability to interpret normal radiographs of the thorax and abdomen.
- The capacity to apply the multi-dimensional learning to the living human being in the state of health, injury and disease process.
- The capacity to engage in independent learning and reflection of learning for future scholarly activities.

Course Structure and attendance:

It is strongly recommended that students attend all lectures as they provide the basis for the practical and subsequent classes. In order to satisfy the requirements of the course you are expected to have **at least 80% attendance** and failure to do this without good reason may result in a fail.

All sessions run from 9 am to 12 noon on Wednesdays and Fridays.

Lectures/ Tutorials	Lab sessions
Wallace Wurth LG03	Anatomy lab WW101

Teaching Rationale and Strategies

Lectures

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 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.

Laboratory/Practical classes

The laboratory classes complement the lectures, and involve active learning in a small group situation. This is the best resource for the learning of Anatomy and will give you a window into the wonder of the human body. You will be required to study dry bones, models, wet and plastinated prosected specimens.

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 in inquiry and take an active participation in the learning process.

There is an inclusion of the surface and palpatory anatomy in each practical, aiming to develop an ability to apply anatomical knowledge to the living human body. Surface anatomy is examinable via photographs during practical exams and via questions in written theory exams.

Tutorials

These are aimed to be interactive sessions focussing on clinical anatomy and solving of clinical problems and include medical imaging and cross-sectional anatomy.

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.

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.

Students are expected to check 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.

Assessment

The assessment for this course will have theory and practical components and is shown in the table below.

Lab quiz	10%
Assignment	15%
Mid-semester assessment	20%
End of session assessment	
Theory written paper	40%
Spot 2	15%

- At the beginning of each lab, there will be a short (usually 5 MCQs) quiz. The highest 5 scoring quizzes will contribute to the **lab quiz mark**.
- The **assignment task** will be distributed in week 2 of the course. Deadlines for this task will be posted on Moodle.
- The **mid-session assessment** will consist of **Spot Test 1** in the anatomy lab and a **computer-based MCQ Test**
- The **Spot Test 2** will be scheduled during the examination period
- The **theory written paper** is scheduled during the exam period and will consist of 50 MCQs and 3 short answer questions (80 marks in total), and will cover the content of the *entire course*
- Pass mark for this course is **50%**.

Spot Tests

Spot tests assess your ability to identify and correctly name structures in human anatomical specimens, models and medical imaging. They also assess your ability to answer questions in relation to the gross anatomy of these structures and apply the cadaveric knowledge to clinical situations and the living human body.

- There will be 10-15 stations in which you will have to identify 4-5 labelled structures. There may be theory questions attached to these.
- Spot test 1 (and the accompanying online MCQ assessment) will cover all parts up to and including week 5.
- Spot test 2 will cover portions from week 7 to the end of the course.

Final Theory Examination

This will be held during the examination period (from 03/11/2017 till 20/11/2017)

- Time: 2 hours (120 minutes)
- Consists of material learnt within weeks **1–13** in this course.

Student Resources

The student in this course is expected to have a textbook and an atlas of their personal choice/preference. You may bring your books with you to the lab classes, for quick reference as long as you are responsible for their safety.

Textbook

Moore, KL, Dalley AF, Agur AM. *Clinically Oriented Anatomy*, 7th edition, Lippincott 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, 8th edition **or**

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

Agur, AMR & Lee, MJ. *Grant's Atlas of Anatomy*, Lippincott Williams & Wilkins, 13th edition; **or**

Abrahams PH, Boon JM and Spratt 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* 9th edition, Pearson Benjamin cunnings.

Martini FH, *Fundamentals of Anatomy and Physiology*, 10th edition, Pearson Benjamin cunnings.

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

Library Resources


Glossary & Spelling: Correct spelling of terms and concept is important in any discipline

See [Learning Resources](#) on the SoMS website Student pages.

- Library Subject Guide for Anatomy SUBJECTGUIDES.LIBRARY.UNSW.EDU.AU/MEDICINE/ANATOMY
- Primal Pictures: 3D interactive anatomy database

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

Anatomy lab student risk assessment

<p>Medicine Teaching Laboratory</p> <p>Student Risk Assessment</p>	 <p>UNSW THE UNIVERSITY OF NEW SOUTH WALES</p>	<p>Gross Anatomy Practical Classes for Medical and Science Students</p> <p>DOC:PHSL-SRA-S&H-01rev1.1</p>
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Hazards	Risks	Controls
<p>Physical</p> <ul style="list-style-type: none"> Cold temperature (16oC) Sharp bone/plastic <p>Biological</p> <p>Fungi, bacteria (tetanus), hepatitis B and C</p> <p>Chemical</p> <ul style="list-style-type: none"> Formaldehyde Methanol 2-phenoxyethanol 	<p>Cold</p> <p>Penetrating wound of foot</p> <p>Infection</p> <p>Corrosive/ Flammable Irritant/toxic Irritant</p>	<ul style="list-style-type: none"> Wear laboratory coat over appropriate warm clothing Wear enclosed shoes with full coverage of the dorsum of the foot Have appropriate immunisation Do not eat, drink or smoke in the Dissecting Room Do not place anything (e.g. pens, pencils) into your mouth Use disposable gloves when handling wet specimens and do not cross-contaminate models or bones with wet specimens Always wash hands with liquid soap and dry thoroughly with disposable paper towel before leaving Low concentrations of chemicals used Chemicals used in well ventilated area Safety Data Sheets for chemicals available in the laboratory

Personal Protective Equipment required

 <p>Closed in Footwear</p>	 <p>Lab. Coat</p>	 <p>Gloves</p>
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Emergency Procedures

In the event of an alarm sounding, stop the practical class and wait for confirmation to evacuate from demonstrators. Then wash your hands and pack up your bags. Follow the instructions of the demonstrators regarding exits and assembly points.

Clean up and waste disposal

- Cover wet specimens with the towels provided. Make sure that towels do not hang over the edge of the table, because this allows fluid to drip onto the floor. Fluids on the floor are a major safety hazard and should be reported to staff immediately.
- Replace stools under the tables in your cubicle.
- Remove your gloves and dispose in the biowaste bins provided.
- Wash your hands and instruments thoroughly with the soap provided and dry your hands with the paper towel.
- Remove your laboratory coat when you leave the dissecting room.

Ethics Approval

This type of practical has been previously considered and approved by the UNSW Human Research Ethics Advisory Panel (HREC09372).

Declaration

I have read and understand the safety requirements for this practical class and I will observe these requirements.
 Signature:.....Date:.....
 Student number:

ANAT-SRA-Med&SciStudent relates to RA-MED-06. Date for review: 1/2/2018

Ethical Behaviour and human remains

The learning in this course is centred around study of prosected (professionally dissected) human anatomical specimens which have been preserved and prepared from remains of people who have donated their bodies to UNSW so that you and your peers can study the human body. This is an extraordinary generous act of these donors and their families and is a special privilege. Treating these remains with the utmost care and respect is mandatory and our responsibility. It is good ethical practice and is mandated by law.

Administrative help

Staff in SoMS student administration are available to help with problems with enrolment and scheduling and should be the first point of contact for administrative problems.

Ph: 9385 2464, email: SOMSequiries@unsw.edu.au

ANAT 3121 TIMETABLE 2017

Week	Day	Date	Activity (ALL SESSIONS ARE FROM 9AM-12PM)
1	Wednesday	26/7	L1. Introduction to the course; Principles of autonomic nervous system L2. The walls of the thorax, muscles and mechanics of respiration L3. The breast and mediastinum
	Friday	28/7	P1. The thoracic walls, muscles and mechanics of respiration, mediastinum & breast
2	Wednesday	02/8	L4. The pericardium and heart L5. The lower respiratory tract
	Friday	04/8	P2. The pericardium and heart
3	Wednesday	09/8	L5. The blood vessels, lymphatics and nerve supply of thoracic viscera T1: Clinical cases
	Friday	11/8	P3. The lower respiratory tract, and neurovascular supply and lymphatic drainage of the thorax
4	Wednesday	16/8	L6. The abdominal wall L7. The inguinal canal and hernias L8. Disposition of peritoneum
	Friday	18/8	P4. The abdominal wall, inguinal canal and peritoneum
5	Wednesday	23/8	L9. The oesophagus, stomach & duodenum T2: Cross-sectional anatomy and imaging of the thorax
	Friday	25/8	P5. The oesophagus, stomach and duodenum
	Wednesday	30/8	Revision
	Friday	1/9	MID-SESSION ASSESSMENT (Spot test 1 and online MCQ test)
7	Wednesday	06/9	L10. The liver, gallbladder, pancreas and biliary tree L11. The coeliac trunk and spleen T3. Clinical Cases
	Friday	08/9	P6. The coeliac trunk and associated foregut organs
8	Wednesday	13/9	L12. The small and large intestines L13. The mesenteric vessels and portal system T4. Clinical cases
	Friday	15/9	P7. The intestines and their vascular supply and drainage
9	Wednesday	20/9	L14. The suprarenal glands, kidneys and ureters L15. Review of the neurovascular supply of the abdomen T5. Clinical cases
	Friday	22/9	P8. The suprarenal glands, kidneys and ureters; neurovascular supply and lymphatic drainage of the abdomen
MID SESSION RECESS: 23.09.2017-02.10.2017			
10	Wednesday	4/10	L16. The bony pelvis and pelvic diaphragm; Introduction to the perineum L17. The urinary bladder and urethra T6. Clinical cases
	Friday	6/10	P9. Bony pelvis and pelvic diaphragm
11	Wednesday	11/10	L18. Rectum and anal canal L19. The male pelvis T7. Clinical cases
	Friday	13/10	P10. The male pelvis
12	Wednesday	18/10	L20. The female pelvis L21. Perineum L22. The neurovascular supply and lymphatic drainage of the pelvis
	Friday	20/10	P11. The female pelvis; the male and female perineum
13	Wednesday	25/10	T8. Clinical Cases 8 & cross-sectional anatomy and imaging of abdomen and pelvis
	Friday	27/10	P12. Pelvic blood vessels, lymphatics & nerves; Revision