



Faculty of Medicine

School of Medical Sciences

PATH2201/PATH2202

Processes in Disease
(6 UOC)

SEMESTER II, 2011

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Course Staff

Dr B Kan (PATH2201 Convenor), Dr T Grassi (PATH2202 Convenor), Dr P Polly (PATH2201/2202 Co convenor), A/Prof G Velan (Head of Teaching in Pathology), Professor N Hawkins (Head of School), Professor R Kumar, Dr M Dziegielewski, A/Prof N Tedla, Dr S Van Es, and Dr C van Vliet.

For administrative and general problems related to your attendance, or the content and conduct of the course, students enrolled in PATH2201 should consult Dr Kan by email (b.kan@unsw.edu.au) copied to Dr Patsie Polly (patsie.polly@unsw.edu.au); similarly, students enrolled in PATH2202 should consult Dr Grassi (t.grassi.unsw.edu.au) by email, copied to Dr Patsie Polly (patsie.polly@unsw.edu.au). Students wishing to see their tutors or other members of staff should call in at the School office (Ground Floor, Wallace Wurth building) and make an appointment with the assistance of administrative staff. If students have difficulties of a personal nature, they should contact the School's Grievance Officer, Dr P. Pandey (p.pandey@unsw.edu.au) or Prof Nick Hawkins, the Head of School.

Should you feel that there are particular circumstances that have affected your performance in the course you should lodge an application for special consideration. Further information on the procedures involved can be found at Student Central (<https://my.unsw.edu.au/student/academiclife/StudentCentralKensington.html>)

Email Etiquette

All students in the course PATH2201/PATH2202 are advised that email is now the official means by which the School of Medical Sciences at UNSW will communicate with you. All email messages will be sent to your official UNSW email address (e.g., z1234567@student.unsw.edu.au) and, if you do not wish to use the University email system, you MUST arrange for your official mail to be forwarded to your chosen address. The University recommends that you check your mail at least every other day. Facilities for checking email are available in the School of Medical Sciences and the University library. Further information and assistance is available from IT Service Centre 9385-1333.

Course details

PATH2201 / PATH2202 are 6 UOC courses, which are available in Semester 2 only. These courses are prerequisites for Stage 3 courses offered by the Department of Pathology, and as such may be counted toward a minor in the discipline of Pathology (from 2012, a major in Pathology will be available. Please see the UNSW online handbook for details). They are suitable for students who plan a career in research, hospital based laboratory work, and professions in the health sciences.

Course aims

PATH2201 Processes in Disease / PATH2202 Processes in Disease for Health and Exercise Science have been developed to provide students with a broad understanding of the pathological basis of human disease, through study of the fundamental causes of disease at a macroscopic, microscopic and molecular level. The general purpose of the courses is to introduce the student to foundations of the scientific approach to the study of disease.

The aims of the course include:

1. To understand the pathological processes that underlie common human diseases;
2. To integrate and build on students' knowledge of anatomy (normal structure at a gross level), histology (normal structure at a microscopic level) and physiology (normal function), by comparing normal structure and function with abnormalities caused by disease.
3. To introduce students to the terminology of pathology, in order to facilitate communication in future health-related education, research or clinical practice.
4. To provide a basis for understanding and interpretation of clinical scenarios students may encounter in future practice.
5. To guide and improve students' ability to utilise appropriately the medical literature, facilitated by a scientific literacy workshop, a media assignment (see Assessment section) and the structure of tutorials.

Student learning outcomes

At the completion of this course, students should be able to:

1. Describe the causes, pathogenic mechanisms, macroscopic and microscopic appearances and clinical consequences of common diseases affecting humans.
2. Outline the causes, mechanisms and consequences of the following pathological processes:
 - a. Acute inflammation
 - b. Chronic inflammation and repair
 - c. Vascular diseases
 - d. Neoplasia

3. Apply knowledge of pathological processes to common examples of specific human diseases, which include:
 - a. Acute appendicitis
 - b. Pneumonia
 - c. Tuberculosis
 - d. Peptic ulcer disease
 - e. Atherosclerosis
 - f. Thromboembolus
 - g. Colorectal carcinoma
 - h. Breast carcinoma
4. Understand the roles of the public media and of scientific literature in medical/scientific research and education, and be able to utilize appropriately and cite scientific literature

These outcomes will be achieved through study of the common patterns of tissue responses to injury, which are often referred to as pathological processes. To understand these processes, students will draw on knowledge of normal anatomy, histology, biochemistry and physiology.

Learning outcomes 1-3 will be assessed via on-line progress assessment, and Tutorial Quizzes, group presentation, as well as an end of course examination (refer to Assessment section). Learning objective 4 is achieved through the Scientific Writing Literacy Workshop and assessed via the 'Media Assignment' (refer to Assessment section).

Graduate attributes

1. Information acquisition, evaluation and synthesis
2. Effective communication in both oral and written formats
3. Collaborative learning within peer groups
4. Research inquiry and reflective practice as a 'researcher'

Teaching Strategies

The courses employ a variety of teaching modes in order to facilitate your learning:

- 1) A **collaborative, team-based approach to learning**. It is anticipated that students will have an enhanced learning experience through the use of peer teaching and team quizzes. You are also encouraged to utilise your allocated teams as study groups.
- 2) **Lectures** introduce you to pathological processes, as well as specific examples of those processes affecting organs and tissues.
- 3) **Tutorials** centred on Team-Based learning activities, are designed to extend and amplify your understanding of lecture material, in an interactive format. You are encouraged to clarify any difficulties regarding the concepts discussed.

- 4) **PATH2201** Practical classes in the Museum of Human Diseases (Ground Floor, Samuels Building) are designed for you to apply knowledge of disease processes to macroscopic organs and tissues, and to correlate the changes with the clinical manifestations (PATH2201)
- 5) **PATH2201** Practical classes on histopathology, using computer-based virtual microscopy, to illustrate the microscopic appearances of the pathological processes described in lectures and Museum classes. This allows correlation between disease processes, changes in cells and tissues at the microscopic level, and the manifestations of disease (PATH2201).
- 6) **PATH2202** Clinicopathological correlation practical classes employ an integrated approach to learning about disease processes with reference to specific case studies, related macroscopic and relevant microscopic specimens. Rehabilitation issues that relate to the disease process will also be addressed (PATH2202).
- 7) **A 'Scientific Writing Literacy Workshop Series'** aimed at fostering student graduate attributes in writing communication in science.
- 8) Learning is supported via a Blackboard module (accessible via UNSW User ID and zPass at:
<https://lms-blackboard.telt.unsw.edu.au/webapps/portal/frameset.jsp>
Announcements, timetables, lecture slides, links to online progress assessments, science writing literacy skills focus guide and other resources will be made available during the course.
- 9) The PATH2201/PATH2202 Student Manual contains specific learning objectives for each lecture, tutorial, practical class and Museum study session, together with the course timetable and useful background information.

Please note that a prize will be awarded to the best performing team in PATH2201 and PATH2202 based on the tutorial and end of course examination marks.

Commonalities and differences between PATH2201 and PATH2202:

PATH2201 and PATH2202 have common lectures and weekly tutorials. The key difference between the courses is in the structure of the weekly Practical Sessions.

PATH2201 students attend alternating weekly Histopathology Sessions and Museum Sessions.

PATH2202 students attend a weekly Clinicopathological Correlation Session, which includes some Histology and Museum specimens, but with more emphasis on the clinical setting of the disease and the relevance to Exercise Physiology.

Assessment

Evaluation for the course is as follows:

- On-line progress assessment 5%
- Tutorial Quizzes 15%
- Practical Group Presentation 5%
- Media assignment 25%
- End of course examination (2 hours) 50%

On-line progress assessment (5%)

Students will complete one on-line assessment during the semester, which focuses on learning outcomes 1, 2 and 3. This is to be completed during the 4 weeks in which it is available (9am Monday 29 August 2011 to 4pm Friday 30 September 2011 – see integrated timetable). Students may attempt the assessment as often as they wish within the time allowed until they receive a satisfactory score (>90%). The aim of this “formative” assessment is to provide students with feedback on their progress, rather than to rank students. Students will receive 5% of the total mark for satisfactory completion of the assessment.

Tutorial quizzes (15%):

A Team-based Learning approach will form the basis on which tutorials are conducted. Students will be divided into teams/groups, and through individual and collaborative efforts, they will complete a series of quizzes. The mark awarded for each quiz will be a composite of the individual's mark and the team's mark. Tutors will provide feedback following each quiz, and facilitate discussion of the questions and answers.

The quizzes will deal with aspects of the main pathological processes addressed by this course.

Practical Group Presentation (5%):

In the practical sessions, students will be divided into groups. In these groups, students will:

- (i) Be allocated a pathological process, for example, vascular disease.
- (ii) Select two museum specimens showing changes illustrating the pathological process
- (iii) Explain how the pathological process produces the macroscopic changes
- (iv) Relate the changes to the clinical presentation
- (v) Give a 5-10 minute presentation to the class demonstrating the above findings.
- (vi) Produce a handout (maximum of one page) for each class member, containing a labeled diagram clearly showing the macroscopic changes, and a summary of the relevant information.

Media assignment (25%)

This assignment focuses on learning outcome 4, as well as the following graduate attributes: Information acquisition, evaluation and synthesis; Effective communication in both oral and written formats; Collaborative learning within peer groups; Research inquiry and reflective practice as a 'researcher'.

The Task

One of the advantages of studying Pathology – whether or not you intend to pursue a related career – is that you will be able to evaluate critically the ways in which disease is presented in the media.

In this assignment, you will need to choose a topic presented during the past year. The media release must discuss at least one of the following issues:

- 1) An outbreak, epidemic, or increased incidence of a disease;
- 2) The link between a disease and predisposing factors, such as genetic inheritance or environmental exposure (eg. Diet, pollution);
- 3) A new or controversial screening test, diagnostic tool or treatment.

From your chosen topic, clearly establish a relevant issue and develop a clearly focused research question.

The Purpose

One purpose of this assignment is to give you the opportunity to assume the role of a 'Researcher in Pathology'. This resulting report will demonstrate your:

- 1) Understanding of the topic;
- 2) Understanding of relevant aspects of the disease and underlying mechanisms;
- 3) Clarity of expression and whether the questions posed in the assignment are directly addressed;
- 4) Ability to access the current biomedical literature to gain further information and utilise this in support of an argument;
- 5) Understanding and correct use of references in the report and provision of an appropriate reference list.

The Assignment Structure and Format

You will then need to research the following questions:

Section 1: Basic disease information (you may use textbooks for this section) – This section should be approximately 500 words in length.

- 1.1 What is known about the aetiology of this disease (what causes it)?
- 1.2 What is known about the pathogenesis of this disease (what are the mechanisms and events involved in its development)?
- 1.3 How is this disease usually diagnosed?
- 1.4 How is this disease usually treated?

Section 2: Using current research you will need to select TWO relevant peer-reviewed journal articles and write an annotated bibliography for each. (These summaries should be approximately 300 words each). Please refer to additional materials available on Blackboard about the structure of an annotated bibliography.

Section 3: Evaluate the nature of the information presented in both the media release and the journal articles you have researched-This section should be approximately 400 words in length.

3.1 What are the strengths and weaknesses of each of these communication styles?

3.2 Why are these communication styles relevant?

3.3 How can you utilize this understanding to inform your ongoing academic research?

The due date is Friday 23 September 2011 (week 9) no later than 4:30pm. This assignment will be submitted electronically as a Word file via Blackboard, and will be subject to a check for plagiarism using Turnitin software. The cover sheet should clearly state:

- Your name;
- Your student number;
- Your tutor's name.

Late submission other than in *exceptional** circumstances: **late submissions will attract a penalty of 10% of the total mark per day or part thereof.** Keeping to a deadline is part of the assessment.

*You have missed at least 3.5 weeks of university during the period of the assignment AND you have documents to this effect AND you have notified the course co-convener (Dr Polly) in writing at least 2 weeks prior to submission that this was likely.

All assignments are to be written individually, although you are free to share resources with other students. The submission should be no more than 2,000 words. It may contain diagrams where relevant.

Assignments will be marked according to criteria presented within The Scientific Literacy Workshop. Please note that **the marking criteria can be found on Blackboard for PATH2201/PATH2202.**

End of course examination (50%)

Students will complete a two-hour written examination at the end of semester that will contribute 50% of their overall mark. This will comprise **five** short-answer / essay style questions, one of which will be based on the practical component of the course. Some questions may have two or three parts. The short answer questions vary in style, but are intended to provide you with the opportunity to demonstrate your understanding of the topic and your ability to integrate ideas. This assessment focuses on learning outcomes 1, 2 and 3, as well as the graduate attribute of effective written communication.

In order to sit the end of course exam, students must attend at least 80% of the Tutorials. Students of PATH2201 who do not meet this requirement must contact Dr Kan (b.kan@unsw.edu.au) in order to

discuss their eligibility to sit the exam. Students of PATH2202 who do not meet this requirement must contact Dr Grassi (t.grassi@unsw.edu.au) in order to discuss their eligibility to sit the exam.

Sample end of course examination

Question 1

A 40 year-old man develops recurrent epigastric pain, worse after meals. Endoscopy reveals that the man has a gastric ulcer and *Helicobacter pylori* infection.

- a) Describe the pathogenesis of this disease (10)
- b) Describe the morphological (macroscopic and microscopic) features of peptic ulcer disease (10)
- c) How would a pathologist have distinguished between a peptic ulcer and an ulcerated gastric adenocarcinoma? (5).

Question 2

A 60 year-old man suffers a fatal pulmonary embolus after hip replacement surgery.

- a) What risk factors might this man have had for pulmonary embolism? (10)
- b) Why might the embolus have been fatal? (5)
- c) What are the other possible outcomes of deep vein thrombosis? (10)

Question 3

A 15 year old boy fractures his humerus whilst playing rugby.

- a) Explain how, under normal circumstances, bone healing would occur (10)
- b) List 5 factors that could impair bone healing (5)
- c) What are the possible complications of a compound (open) fracture? (10)

Question 4

- a) Compare and contrast the histological appearance of a normal coronary artery with that of an atherosclerotic coronary artery (15)
- b) Compare and contrast the histological appearance of normal cardiac muscle with that of infarcted cardiac muscle (at various stages of infarction) (10)

Academic honesty and Plagiarism

What is Plagiarism?

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 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.†

For the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism.

Knowingly permitting your work to be copied by another student may also be considered to be plagiarism.

Note that an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism.

The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. These resources can be located via:

www.lc.unsw.edu.au/plagiarism

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, 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.

Individual assistance is available on request from The Learning Centre.

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.

The School of Medical Sciences will not tolerate plagiarism in submitted work. The University regards this as academic misconduct and imposes severe penalties. Evidence of plagiarism in submitted assignments, etc. will be thoroughly investigated and may be penalised by the award of a score of zero for the assessable work.

Flagrant plagiarism will be directly referred to the Division of the Registrar for disciplinary action under UNSW rules.

Please refer to the following: www.lc.unsw.edu.au/plagiarism

Appropriate citation of sources therefore includes surrounding any directly quoted text with quotation marks, or with block indentation for larger segments of directly-quoted text. The preferred format for citation of references is an author-date format with an alphabetically arranged bibliography at the end of the assignment. Note that merely citing textbooks or website URLs is unlikely to yield a bibliography of satisfactory standard. *The internet should be avoided as a primary source of information.* Inclusion of appropriate journal articles, both primary research publications and reviews, is usually expected.

Integrated Timetable 2011

PATH2201 Processes in Disease (Semester 2)

PATH2202 Processes in Disease for Health and Exercise Science (Semester 2)

NOTE

1. Changes to the timetable will be announced on Blackboard
2. Activity appears next to Time: L=Lecture; T=Tutorial; P=Practical; W=Workshop
3. The content for this course has a '12 weeks in 13' structure

Week	Date	Time	Location	Lecturer	Topic
2	Mon 25/7	2 L 3 L	Biomed D Biomed D	Polly/Kan/Grassi Hawkins	Introduction to the course; Pathology in context Concepts and Classification of disease
	Tue 26/7	1-5 W	Museum/ G2/G4	Kan/ Kan/Grassi	Path Museum and its use;using our website; tutorial and practical group allocation
3	Mon 1/8	2 L 3L	Biomed D Biomed D	Kumar Jones/Polly	Responses to Injury Science Writing Literacy I Workshop Media Assignment
	Tue 2/8	1-3 T 3 -5 P	see allocation Museum G2/G4 106/108	see allocation Van Es/Kan Kumar Grassi	Tutorial 1: Classification of Disease and Response to Injury Practical 1 PATH2201 Group A: Museum session I (Introduction to macroscopic specimens) Group B: Histopathology session I (Introduction to Histopathology and using virtual microscopy) Practical 1 PATH2202 Clinicopathological correlation (Introduction)
4	Mon 8/8	2 L 3 L	Biomed D Biomed D	Velan Velan	Acute Inflammation Appendicitis
	Tue 9/8	1-3 T 3-5 P	see allocation G2/G4 Museum 106/108	see allocation Kumar Van Es/Kan Grassi	Tutorial 2: Acute Inflammation I: Appendicitis Practical 2 PATH2201 Group A: Histopathology session I (Introduction to Histopathology and using virtual microscopy) Group B: Museum session I (Introduction to macroscopic specimens) Practical 2 PATH2202 Clinicopathological correlation II (Acute inflammation; Appendicitis)

5	Mon 15/8	2 L 3 L	Biomed D Biomed D	Kan Jones/ Polly	Pneumonia as an example of acute inflammation Science Writing Literacy II
	Tue 16/8	1-3 T 3-5 P	see allocation Museum G2/G4 106/108	see allocation Van Es/Kan Kumar Grassi	Tutorial 3: Acute Inflammation II Pneumonia; Quiz 1 Practical 3 PATH2201 Group A: Museum session II (Acute Inflammation) Group B: Histopathology session II (Acute Inflammation) Practical 3 PATH2202 Clinicopathological correlation III (Acute Inflammation)
6	Mon 22/8	2 L 3L	Biomed D Biomed D	Davenport Polly	Immune System ("acquired" defects) Chronic Inflammation I
	Tue 23/8	1-3 T 3-5 P	see allocation G2/G4 Museum 106/108	see allocation Kumar Van Es/Kan Grassi	Tutorial 4: Chronic Inflammation I Peptic Ulceration Practical 4 PATH2201 Group A: Histopathology session II (Acute Inflammation) Group B: Museum session II (Acute Inflammation) Practical 4 PATH2202 Clinicopathological correlation IV (Chronic Inflammation; peptic ulcer)
7	formative online assessment available Monday August 29, wk 1/4				
	Mon 29/8	2 L 3 L	Biomed D Biomed D	Polly Tedla	Chronic Inflammation II Healing and Repair
	Tue 30/8	1-3 T 3-5 P	see allocation Museum G2/G4 106/108	see allocation Van Es/van Vliet Kan Grassi	Tutorial 5: Chronic Inflammation: Tuberculosis Practical 5 PATH2201 Group A: Museum session III (Chronic Inflammation) Group B: Histopathology III (Chronic Inflammation) Practical 5 PATH2202 Clinicopathological correlation V (Chronic inflammation; tuberculosis)

Mid-semester Break 3/9/11 to 11 /9/11

8	formative online assessment available, wk 2/4				
	Mon 12/9	2 L 3 L 4 - 5 W	Biomed D Biomed D Biomed D	Dziegielewski Dziegielewski Jones/Polly	Thrombosis, embolism, infarction I Thrombosis, embolism, infarction II Workshop
	Tue 13/9	1-3 T 3-5 P	see allocation G2/G4 Museum 106/108	see allocation Kumar Van Es/van Vliet Grassi	Tutorial 6: Healing and repair Appendicectomy wound; Quiz 2 Practical 6 PATH2201 Group A: Histopathology III (Chronic Inflammation) Group B: Museum session III (Chronic Inflammation) Practical 6 PATH2202 Clinicopathological correlation VI
9	formative online assessment available, wk 3/4				
	Mon 19/9	2 L 3 L	Biomed D Biomed D	Kumar van vliet	Atherosclerosis Abnormal Growth
	Tue 20/9	1-3 T 3-5 P	see allocation Museum G2/G4 106/108	see allocation Van Es/van Vliet Kumar Grassi	Tutorial 7: Venous Thrombosis (Post-Operative Deep Vein Thrombosis/DVT) Practical 7 PATH2201 Group A: Museum session IV (Vascular Disease) Group B: Histopathology session IV (Vascular Disease) Practical 7 PATH2202 Clinicopathological correlation VII (Vascular disease; post-operative deep vein thrombosis/DVT)
Media Assignment due 4.30pm Friday September 23					
10	formative online assessment available, wk 4/4, to be removed 4pm Friday September 30				
	Mon 26/9	2 L 3 L	Biomed D Biomed D	Hawkins Hawkins	Neoplasia I Neoplasia II
	Tue 27/9	1-3 T 3-5 P	see allocation G2/G4 Museum 106/108	see allocation Kan Van Es/van Vliet Grassi	Tutorial 8: Atherosclerosis; peripheral vascular disease and Myocardial infarction; Quiz 3 Practical 8 PATH2201 Group A: Histopathology session IV (Vascular disease) Group B: Museum session IV (Vascular Disease) Practical 8 PATH2202 Clinicopathological correlation VIII (Peripheral Vascular disease; diabetes)

11	Mon 3/10	Public Holiday - Labor Day			
	Tue 4/10	1-3 T 3-5 P	see allocation Museum G2/G4 106/108	see allocation Van Es/van Vliet Kan Grassi	Tutorial 9: Disorders of Growth (Colonic masses) <u>Practical 9 PATH2201</u> Group A: Museum sessionV (disorders of growth) Group B: Histopathology V (disorders of growth) <u>Practical 9 PATH2202</u> Clinicopathological correlation IX (Disorders of growth; colon cancer)
12	Mon 10/10	2 L 3L	Biomed D Biomed D	Kan Dziegielewski	Examples of common malignant tumours I Examples of common malignant tumours II
	Tue 11/10	1-3 T 3-5 P	see allocation G2/G4 Museum 106/108	see allocation Kan Van Es/van Vliet Grassi	Tutorial 10: Disorders of Growth II (Breast Lumps); Quiz 4 <u>Practical 10 PATH2201</u> Group A: Histopathology V (disorders of growth) Group B: Museum sessionV (disorders of growth) <u>Practical 10 PATH2202</u> Clinicopathological correlation X (Disorders of growth; breast cancer)
13	Mon 17/10	2 L 3 L	Biomed D Biomed D	Kumar Jones/Polly	Diabetes 'Feedback'
	Tue 18/10	1-3 T 3-5 P	see allocation G2/G4 Museum 106/108	see allocation Kan Van Es/van Vliet Grassi	Tutorial 11: Revision/feedback <u>Practical 11 PATH2201</u> Group A/B: Histopathology session VI (Revision) Group A/B: Museum session VI (Revision) <u>Practical 11 PATH2201</u> Clinicopathological correlation XI

NB. Lectures may be subject to change

Resources for students

You are expected to acquire the following text: *Basic Pathology*, 8th Ed. V. Kumar, R. Cotran & S Robbins (2007). Saunders & Co.

Students wishing to study the molecular biology or clinical features of diseases in greater depth might consider the purchase of the following text: *Robbins and Cotran Pathologic Basis of Disease*. 8th edition. Ed. V. Kumar, A.K. Abbas & N. Fausto. (2009) Elsevier Saunders.

Additional learning resources

The PATH2201/PATH2202 Student Manuals clearly outline the learning objectives for each tutorial topic and practical class. Although these learning objectives may not all be covered within a particular class it is imperative that you address each of these issues during your own period of study and revision. Trial exam questions are included where appropriate, so that you can assess your own progress by answering the question pertaining to the relevant topic at the end of each week.

The Pathology Manual contains a large amount of valuable information that will facilitate your study. In particular you should become familiar with the Glossary of Terms and the Table of Reference Ranges in Pathology.

In addition, there are many resources available on the web, which vary from simple patient information brochures to on-line pathology courses to information on the latest research. Some general sites you may find useful are:

Centre for Disease Control (see especially 'health topics A-Z')

<http://www.cdc.gov/>

University of Utah (tutorials and images on many of the topics covered)

<http://library.med.utah.edu/WebPath/webpath.html>

Medline Plus ('health topics' index of diseases with information)

<http://www.nlm.nih.gov/medlineplus/healthtopics.html>

PATH2201/PATH2202 Blackboard Module

Students enrolled in PATH2201/PATH2202 will be able to access the timetable, lecture notes and related information via Blackboard.

PATH 2201/PATH2202 Student Manual

Guide to the practical classes

There are separate manuals for PATH2201 and PATH 2202, the difference being the Practical Guide component. This reflects the different practical classes attended by the two cohorts, where PATH2201 students attend alternating Histopathology and Museum sessions, while PATH2202 students attend Clinicopathological Correlative classes.

Practical classes, Museum study sessions and tutorials in Processes in Disease are aimed at amplifying and extending your understanding of the topics gleaned from attendance at lectures and reading of the recommended text, as well as correcting any misconceptions. Hence, adequate preparation and active participation are essential.

Practical classes will reinforce the clinicopathological correlations involved with each topic. They are intended to help you acquire the ability to recognize the macroscopic and microscopic features of pathology specimens and relate the pathology to clinical application. Macroscopic "pots" will be generally used in conjunction with projected microscopic slides, x-rays and other materials.

The Museum of Human Disease

The Donald Wilhelm Museum of Human Disease is located on the ground floor of the Samuels Building (Building F25). Originally located on the 5th floor of the Wallace Wurth Building, it was established by Professor Donald Wilhelm, the Foundation Professor of Pathology at this university. Thanks to his foresight, and to the tireless efforts of Dr G. Higgins (the Museum Curator until 2004), the Museum has been meticulously maintained and updated over the years to reflect the changing patterns of disease in our society. The Museum contains over 2,700 specimens (or "pots"), which display diseased human tissue at the macroscopic level, usually preserved in formalin. Specimens are obtained both from organs removed surgically and from tissue obtained at autopsy, where the natural history of disease is in full view. **Please take note that some specimens of diseases which have become rare, e.g. diphtheria, are over 60 years old, and are irreplaceable.** Each specimen is numbered and is accompanied by a clinical history (when known), a macroscopic description of the abnormalities displayed, and a histopathological description of changes at the microscopic level (where relevant). That information, specific to each of thirty areas (or "bays"), can be found in the Museum catalogues located in a bracket within each bay. All the specimens in the museum are arranged in one or other of two major groups. One group comprises collections of specimens according to pathological processes such as congenital, inflammation and healing, vascular, neoplasia etc. The second group comprises collections of specimens under organ systems, such as cardiovascular, central nervous, renal etc. As responsible adults, we expect you to maintain decorum in the Museum,

behave with care and respect for the integrity of the specimens, and help to keep the Museum tidy at all times. This means no eating or drinking in the Museum, and always returning specimens and catalogues to their allocated places. **Do not shake the pots!** This activity conveys no useful information, but often damages the specimens. If you discover that a specimen is leaking or broken, follow the instructions listed in the safety notice below. **Remember that the Museum is a precious learning resource, of which you are encouraged to make full use.**

Security in the museum

It is a crime under the Human Tissue Act to steal or mistreat material preserved in the Museum or practical class laboratories. Anyone who contravenes the Act will be prosecuted.

In order to protect the collection of specimens, access to the Museum is restricted for students in 3rd and 4th Year Medicine and PATH2201/PATH2202 during weekdays from 8 a.m. to approximately 8 p.m. The Museum is security locked, and can only be entered by using your student card to enable the doors to be opened. Mr Williamson and Ms Cato play a supervisory role during office hours. The Museum and practical class laboratories are under constant electronic surveillance.

Safety in the museum

- Always handle museum specimens with care and respect. All specimens consist of generously donated human tissue
- The specimens are preserved in fixative solutions which contain a variety of toxic compounds:

Chemical	Percentage Composition
Glycerol Saturated	1.6 (v/v)
Camphor in Ethanol	0.16 (v/v)
Sodium Acetate	0.08 (w/v)
Formalin Sodium	0.16 (v/v)
Dithionate	0.25 (w/v)

- For reasons of hygiene, never take food or drink into the museum.
- 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 Museum staff or a member of academic staff.
- If a specimen is broken, do not attempt to wipe up the spillage. Use the kitty litter provided in the central cupboards to absorb the fumes, then clear the area and immediately inform Museum staff or a member of academic staff.
- Remember that the museum is here for your benefit - your cooperation in maintaining neatness and safety at all times is appreciated.

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

http://www.ohs.unsw.edu.au/ohs_policies/index.html

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course convener prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (9385 4734 or <https://my.unsw.edu.au/student/atoz/Disability.html>). Issues to be discussed may include access to materials, note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.

Continual course improvement

Student evaluative feedback on the course is gathered each year using UNSW's Course and Teaching Evaluation and Improvement (CATEI) Process. Student feedback is taken seriously, and continual improvements are made to the course based in part on such feedback.

Administrative Matters

You may also meet the following members of the School support staff during the course of the year:

Ms Soo Han Chup

Position: Administrative Officer

Location: Rm G3, Wallace Wurth Building

Phone: 9385 2528

Ms Chup is responsible for the distribution of Pathology manuals and Images of Disease CD-ROMs to students, and will assist in arranging interviews with academic staff within the Department.

Ms Carmen Robinson

Position: Teaching Administrative Assistant/Student Advisor

Location: Room G27, Biosciences Building

Phone: 9385 2464

e-mail: Carmen.Robinson@unsw.edu.au

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

Ms Jessica Hu

Position: Web, TELT and Information Systems Administrator

Phone: 9385-9750

Email: jessica.hu@unsw.edu.au

Mr Derek Williamson

Position: Museum Manager

Location: Room G04 Ground Floor Samuels Building

Phone: 9385-2190

Mr Williamson provides support for all undergraduate teaching programs. He plays a major role in broadening the use of the Museum of Human Disease by supervising an integrated learning program for senior high school students and community interest groups. Mr Williamson co-ordinates a network of volunteers, who assist with the supervision of visitors from outside the University.