ANAT2241

Histology: Basic and Systematic

Course Outline

Term 2, 2023

School of Biomedical Sciences

Faculty of Medicine & Health

Table of Contents

1. Staff

Position	Name	Email	Consultation times and locations	Contact Details
Course Convenor	Joyce El-Haddad	j.el-haddad@unsw.edu.au	By appointment	j.el-haddad@unsw.edu.au
Course Co-convenor	Dr Reza Shizari	r.shizari@unsw.edu.au	By appointment	r.shizari@unsw.edu.au

2. Course information

Units of credit: 6 UOC

Pre-requisite(s): BABS1201 (or DPST1051) AND 30 UOC

Teaching times and locations:

ACTIVITY	DAY/TIME	MODE
Lecture	Monday: 14:00-16:00 Tuesday: 17:00-18:00	Teams
Laboratory	Thursday 10:00-13:00	Teams
Tutorial	Friday 13:00-16:00 (week 4 and 9)	TBD
Midterm and End term assessment	Friday 13:00-16:00 (week 5 and 10)	Mathews Theatre A (K-D23-201)

https://timetable.unsw.edu.au/2023/ANAT2241.html

2.1 Course summary

Introduction to the microscopic anatomy of the human body based on the study of virtual histological images. Topics for study include: the basic tissues (epithelium, connective tissue, muscle and nervous tissue), and cardiovascular, respiratory, integumentary, digestive, immune, endocrine, urinary, male and female reproductive and genital systems.

2.2 Course aims

The aim of the course is to introduce you to the microscopic anatomy of the human body based on the study of virtual histological images. Topics for study include: the basic tissues (epithelium, connective tissue, muscle and nervous tissue), and cardiovascular, respiratory, integumentary, digestive, immune, endocrine, urinary, male and female reproductive and genital systems.

2.3 Course learning outcomes (CLO)

At the successful completion of this course you (the student) should be able to:

1. Demonstrate the appropriate use of histological terminology and an understanding of the basic histological tissues.
2. Demonstrate an understanding of the microscopic structure and function of the basic tissues, namely epithelium, connective tissue, muscle and nervous tissue.

3. Demonstrate an understanding of the microscopic structure and function of the following human body systems and their components: cardiovascular, respiratory, integumentary, immune, gastro-intestinal, endocrine, urinary, and male and female reproductive systems.
4. Demonstrate an understanding of the interdependence of body systems from histological structure.

2.4 Relationship between course learning outcomes and assessment

Course Learning Outcome (CLO)	LO Statement	Related Tasks & Assessment
CLO 1	Demonstrate the appropriate use of histological terminology and an understanding of the basic histological tissues.	Continuous assessment Mid term Assessment End term assessment Final Theory Exam
CLO 2	Demonstrate an understanding of the microscopic structure and function of the basic tissues, namely epithelium, connective tissue, muscle and nervous tissue.	Continuous assessment Mid term Assessment End term assessment Final Theory Exam
CLO 3	Demonstrate an understanding of the microscopic structure and function of the following human body systems and their components: cardiovascular, respiratory, integumentary, immune, gastro-intestinal, endocrine, urinary, and male and female reproductive systems.	Continuous assessment Mid term Assessment End term assessment Final Theory Exam
CLO 4	Demonstrate an understanding of the interdependence of body systems from histological structure.	Continuous assessment Final Theory Exam

3. Strategies and approaches to learning

3.1 Learning and teaching activities

Student learning and engagement with the content of the course underpins all learning activities.

Seminars

The seminars are designed to provide conceptual information and an overview of the content that will be the focus of the week's laboratory. It is advisable that students attend all seminars to achieve better learning outcomes and academic success. All seminars will be streamed live (with a few exceptions to accommodate for public holidays) and recorded and posted on ECHO360. It should be noted that while it is expected that the seminars will be recorded, please note that this cannot be guaranteed as we may encounter technical issues. In some cases, there is pre-class work (some of which is online) to assist in preparation for tutorials or labs, and/or post-class work to help consolidate content covered.

Laboratory/Practical classes

The laboratory classes complement the seminars and involve active learning in an online setting. There is much research to indicate that this is the best method for the learning of anatomy and these sessions will give you a window into the wonder of the human body. In the online laboratory sessions, you will look at histological slides related to each seminar topic per week. Every student is required to be involved in inquiry and take an active participation in the learning process. It is strongly advised that students come well prepared to make the best use of their time in the laboratory.

Self-directed learning activities

The purpose of these weekly activities is to help students interact with the content covered. During these activities students will identify the anatomical structures and their features. Students are also required to read the chapters as indicated by convenors where necessary from the prescribed textbook.

You are encouraged to use the online discussion forums for questions and discussion related to the course content. Please engage in this discussion by answering and commenting on questions and queries from your peers. Teaching staff will respond to unanswered questions on TEAMS or via email.

3.2 Expectations of students

You are reminded that UNSW recommends that a 6 units-of-credit course should involve about 150 hours of study and learning activities. The formal learning activities total approximately 50 hours throughout the term and students are expected (and strongly recommended) to do at least the same number of hours of additional study.

It is expected that for every timetabled hour of learning activity, you will need at least an hour of additional self-directed study. To master the course content, it is expected that you will engage with the course for at least one additional untimetabled hour per week. It is expected that you will attend all seminars, and practical sessions. Each of these sessions are interactive and active participation is recommended. Online laboratory sessions are collaborative learning experiences and is framed on being accountable for your learning and that of your peers. This expectation will be clearly outlined in the course learning management system (Moodle). The course utilises social learning platforms such as Microsoft Teams. It is expected that you will engage with these platforms in a respectful and professional manner **and use your cameras in online practical settings**. If you have any concerns about this, please contact the convenor as soon as possible.

4. Course schedule and structure

This course consists of 45 hours of class contact hours. You are expected to take an additional 50 hours of non-class contact hours to complete assessments, readings, and exam preparation. Please note ALL classes for this course are **online**.

WEEK	SEMINAR	SEMINAR	LABS	CONTINUOUS ASSESSMENT	EXAM
	Monday TEAMS	Tuesday TEAMS	Thursday 10-1 PM TEAMS	Due Sunday 5 PM of every week	See below
1	Cells, Basic Tissues, and Epithelium (JEH)	Connective Tissue (JEH)	Cells, Basic Tissues, and Epithelium (JEH)	Week 1 Quiz	
2	Specialised Connective Tissue (JEH) and Bone (JEH)	Muscle Tissue (RS)	Connective Tissue and Specialised Connective Tissue	Week 2 Quiz	
3	PUBLIC HOLIDAY – NO lecture	Nervous system pt 1 (RS)	Bone and Muscle tissue	Week 3 Quiz	
4	Nervous tissue pt 2 (RS)	Cardiovascular System (RS)	Nervous tissue	Week 4 Quiz	REVISION DAY: FRIDAY
5	Respiratory System (JEH)	Digestive System II (JEH)	Cardiovascular and Respiratory system	Week 5 Quiz	MID-TERM EXAM DAY: FRIDAY
7	Digestive System (JEH)	Urinary System (JEH)	GIT and Accessory GIT	Week 6 Quiz	
8	Female Reproductive System (JEH)	Male Reproductive System (JEH)	Urinary and male repro	Week 7 Quiz	
9	Integumentary system (RS) Blood (Reza)	Immune System (RS)	Female repro	Week 8 Quiz	REVISION DAY: FRIDAY
10	Self-Directed Revision	Self-Directed Revision	Integumentary system, blood, and immune system	Week 9 Quiz	END-TERM EXAM DAY: DAY: FRIDAY
11	STUDY PERIOD				
12	Final exam period. ON CAMPUS see below for more detail				

Week	Topic	Activity	Related CLO
Week 1	Cells, Basic Tissues, Epithelium, Connective Tissue	Seminar and Laboratory	CLO1, CLO2
Week 2	Specialised Connective Tissue and Bone, and Muscle Tissue	Seminar and Laboratory	CLO1, CLO2
Week 3	Endocrine, and Nervous System pt1	Seminar and Laboratory	CLO1, CLO2, CLO3, CLO4
Week 4	Nervous System pt2 and Cardiovascular System	Seminar and Laboratory	CLO1, CLO2, CLO3, CLO4
Week 5	Respiratory and Digestive Systems	Seminar and Laboratory	CLO1, CLO2, CLO3, CLO4
Week 7	Digestive and Urinary Systems	Seminar and Laboratory	CLO1, CLO2, CLO3, CLO4
Week 8	Female and Male Reproductive Systems	Seminar and Laboratory	CLO1, CLO2, CLO3, CLO4
Week 9	Integumentary, Blood, and Immune	Seminar and Laboratory	CLO1, CLO2, CLO3, CLO4
Week 10	Integumentary, Blood, and Immune	Laboratory	CLO1, CLO2, CLO3, CLO4

Exam Period: 11 Aug – 24 Aug 2023
Supplementary Exam Period: 4 Sep – 8 Sep 2023

5. Assessment

5.1 Assessment tasks

Assessment task	Length	Weight	Mark	Due date and time
Assessment 1: **Continuous Assessment** This assessment consists of 9 short quizzes that are taken throughout term. Highest 7 out of 9 quizzes will count towards final mark. Immediate feedback is provided through LMS.	5 mins	30%	100	Every Sunday 5 PM Week 1-5, 7-10.
Assessment 2: **Mid term Assessment** This assessment task will be held in week 5. The assessment task is a practical test worth 20%. The practical test assesses knowledge learned during practical classes through examination of histology virtual slides and electron micrograph images. Feedback process: Student performance feedback will be provided through LMS.	30 mins	20%	100	Week 5 Friday
Assessment 3: **End term assessment** This assessment task will be held in week 10. The assessment task is a practical test worth 20%. The practical test assesses knowledge learned during practical classes through examination of histology virtual slides and electron micrograph images. Feedback process: Student performance feedback will be provided through LMS.	30 mins	20%	100	Week 10 Friday
Assessment 4: **Final Theory Exam** A written exam will be held during the formal examination period to assess student knowledge of course content and to assess deeper learning (such as the ability to make connections between basic histological tissues and systems, as well as problem-solving capacity). The written exam will consist of multiple-choice questions and short answer questions testing knowledge integration from lectures, practical classes, and online modules. Feedback process: Student performance mark	2 hours	30%	100	Final exam period

Further information

UNSW grading system: https://student.unsw.edu.au/grades

UNSW assessment policy: https://student.unsw.edu.au/assessment

5.2 Assessment criteria and standards

Assessment of Attributes	Level of Attainment			
	Developing	Functional	Proficient	Advanced
Assessment 1: Continuous assessment - quizzes	Limited understanding of required knowledge and concepts. Inaccurate understanding of concepts discussed in lectures and laboratory sessions	Can reproduce significant facts and definitions. Has adequate breadth, but limited depth of understanding	Exhibits breadth and depth of understanding of concepts in the knowledge domain. Able to apply concepts to new contexts	Exhibits accurate and elaborate breadth and depth of understanding of concepts in the knowledge domain. Can apply concepts well to clinical scenarios.
Assessment 2: Mid term Assessment	Inaccurate understanding and explanation of concepts discussed in course. Cannot identify features in new contexts.	Can reproduce accurately required facts and definitions. Has adequate breadth, but limited depth of application of practical concepts.	Exhibits breadth and depth of understanding of practical concepts. Can use terminology accurately in new contexts.	Exhibits accurate and elaborated breadth and depth of understanding of concepts in the knowledge domain. Can apply concepts well to clinical scenarios.
Assessment 3: End term assessment	Inaccurate understanding and explanation of concepts discussed in course. Cannot identify features in new contexts.	Can reproduce accurately required facts and definitions. Has adequate breadth, but limited depth of application of practical concepts.	Exhibits breadth and depth of understanding of practical concepts. Can use terminology accurately in new contexts.	Exhibits accurate and elaborated breadth and depth of understanding of concepts in the knowledge domain. Can apply concepts well to clinical scenarios.
Assessment 4: Final Theory Exam	Limited understanding of required knowledge and concepts. Inaccurate understanding and explanation of concepts discussed in lectures and laboratory sessions;	Can reproduce accurately required facts and definitions. Has adequate breadth, but limited depth of understanding of concepts as evidenced in integrating body systems.	Exhibits breadth and depth of understanding of concepts in the knowledge domain. Can use terminology accurately in new contexts and can discuss concepts appropriately.	Exhibits accurate and elaborated breadth and depth of understanding of concepts in the knowledge domain. Can apply concepts well. Can justify application of concepts based on histological and functional principles, and integration of body systems

5.3 Submission of assessment tasks

Late Submission

UNSW has standard late submission penalties as outlined in the UNSW Assessment Implementation Procedure, with no permitted variation. All late assignments (unless extension or exemption previously agreed) will be penalised by 5% of the maximum mark per day (including Saturday, Sunday and public holidays). For example, if an assessment task is worth 30 marks, then 1.5 marks will be lost per day (5% of 30) for each day it is late. So, if the grade earnt is 24/30 and the task is two days late the student receives a grade of 24 – 3 marks = 21 marks.

Late submission is capped at 5 days (120 hours). This means that a student cannot submit an assessment more than 5 days (120 hours) after the due date for that assessment.

Special Consideration

If you experience a short-term event beyond your control (exceptional circumstances) that impacts your performance in a particular assessment task, you can apply for Special Considerations.

You must apply for Special Consideration **before** the start of your exam or due date for your assessment, except where your circumstances of illness or misadventure stop you from doing so.

If your circumstances stop you from applying before your exam or assessment due date, you must **apply within 3 working days** of the assessment, or the period covered by your supporting documentation.

More information can be found on the Special Consideration website.

5.4 Feedback on assessment

Assessment task	Feedback
Assessment 1: **Continuous Assessment** This assessment consists of 9 short quizzes that are taken throughout term. Highest 7 out of 9 quizzes will count towards final mark.	**Immediate feedback is provided through LMS.**
Assessment 2: **Mid term Assessment** This assessment task will be held in week 5. The assessment task is a practical test worth 20%. The practical test assesses knowledge learned during practical classes through examination of histology virtual slides and electron micrograph images.	**Feedback process: Student performance feedback will be provided through LMS.**
Assessment 3: **End term assessment** This assessment task will be held in week 10. The assessment task is a practical test worth 20%. The practical test assesses knowledge learned during practical classes through examination of histology virtual slides and electron micrograph images.	**Feedback process: Student performance feedback will be provided through LMS.**
Assessment 4: **Final Theory Exam** A written exam will be held during the formal examination period to assess student knowledge of course content and to assess deeper learning (such as the ability to make connections between basic histological tissues and systems, as well as problem-solving capacity). The written exam will consist of multiple-choice questions and short answer questions testing knowledge integration from lectures, practical classes, and online modules.	**Feedback process: Student performance mark**

6. Academic integrity, referencing and plagiarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.
Please use Vancouver or APA referencing style for this course.
Further information about referencing styles can be located at
https://student.unsw.edu.au/referencing

Academic integrity *is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits**:** honesty, trust, fairness, respect, responsibility and courage.*[1] *At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.*
Further information about academic integrity and ***plagiarism*** *can be located at:*

- *The Current Students site* https://student.unsw.edu.au/plagiarism*, and*
- *The ELISE training site* https://subjectguides.library.unsw.edu.au/elise

The Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct.

7. Readings and resources

- Pawlina W. 2018. Histology: A Text and Atlas. 8th edition. Wolters Kluwer Junqueira's Basic Histology: Text & Atlas 15th ed, McGraw-Hill Mescher AL. 2018.
- University of Michigan Histology: https://histology.medicine.umich.edu/resources
- Virtual Microscopy Database (VMD): http://virtualmicroscopydatabase.org/
- Histology Guide (Brelje and Sorenson): http://www.histologyguide.com/index.html

8. Administrative matters

Student enquiries should be submitted via student portal https://portal.insight.unsw.edu.au/web-forms/

9. Additional support for students

- The Current Students Gateway: https://student.unsw.edu.au/
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- *Student Wellbeing and Health* https://www.student.unsw.edu.au/wellbeing
- UNSW IT Service Centre: https://www.myit.unsw.edu.au/services/students
- *UNSW Student Life Hub:* https://student.unsw.edu.au/hub#main-content
- *Student Support and Development:* https://student.unsw.edu.au/support
- *IT, eLearning and Apps:* https://student.unsw.edu.au/elearning
- *Student Support and Success Advisors:* https://student.unsw.edu.au/advisors
- *Equitable Learning Services (Formerly Disability Support Unit):* https://student.unsw.edu.au/els
- *Transitioning to Online Learning* https://www.covid19studyonline.unsw.edu.au/
- *Guide to Online Study* https://student.unsw.edu.au/online-study

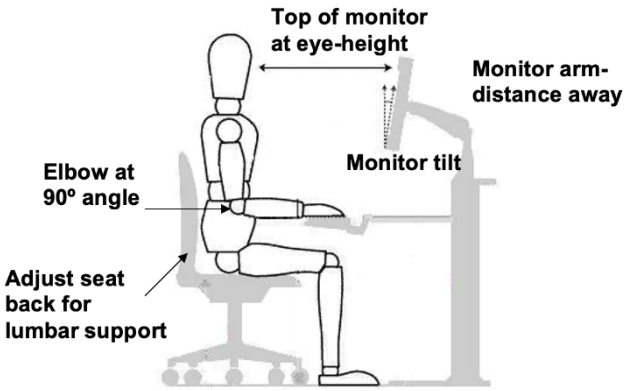
[1] International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

10. Student risk assessments

Medicine and Science Teaching Laboratory **Student Risk Assessment**	UNSW SYDNEY	Practical Classes (Dry & Computer Labs) for Medicine and Science Students C27 Wallace Wurth Building G06/07 D26 Ian Jacobs Building L1 LAB08B

Hazards		
Ergonomics	Musculoskeletal pain	• Correct workstation set-up • Check electrical equipment is in good condition before use • All portable electrical equipment tested and tagged • Disinfectants and wipes available for use before and after the practical
Electrical	Electrical shock/Fire	
Biological	Infection	

Workstation set-up



Personal Protective Equipment

Face masks may be required. Please follow the instructions provided at the time of entry.

Emergency Procedures

In the event of an alarm, follow the instructions of the academic in charge. The initial sound (beep) is advising you to prepare for evacuation. During this time pack up your personal belongings. The second sound (whoop) gives instruction to leave. The assembly point is on the lawn in front of the Chancellery. In the event of an injury inform the academic in charge (and/or lab staff). First aider and fire warden contact details are on display by the lifts on the floor and in each room. There is a wall mounted First Aid Kit located at the end of the G06 or a portable kit in the 08A Laboratory.

Clean up and waste disposal

No apparatus or chemicals used in these rooms.

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: 01/02/2024