

Course Syllabus & Schedule

Course Director

Lisa MJ Lee, PhD

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Office Tel: 303-724-7460

Office Hours: Open door policy. Email for an appointment

* *Best way to make an appointment: email a list of your available time slots for 2-3 days to Dr. Lee.*

** "I am available any time I am not in class" is not helpful for scheduling appointments.

Teaching Assistants

2nd year MHA students will serve as Teaching Assistants. They will run the mandatory Lab, Review and Integration sessions, provide review sessions, and may be available for extra assistance. Please contact them directly for assistance outside of scheduled class time. As part of their professional development, you will be asked to evaluate TAs once at mid-term and once around final. Providing detailed, thoughtful and constructive feedback will be mutually beneficial for TAs and students.

Roxanna Schmidt: ROXANNA.SCHMIDT@UCDENVER.EDU

Lucine Papazian: LUCINE.PAPAZIAN@UCDENVER.EDU

Avery Williams: AVERY.WILLIAMS@UCDENVER.EDU

Office hours: TBD

Student Educators

Three 2nd year MHA students will each deliver a lecture and an active review session as part of the ANAT 6490 – Advanced Teaching in Anatomical Sciences elective. They are supervised by the course director and other faculty in developing their contributions to this course. You will be asked to evaluate each student educator, as part of their professional development. Thank you in advance for providing detailed, thoughtful, constructive feedback to your peers.

About Anatomy 6321 (Human Histology):

Welcome to Anatomy 6321. This is an introductory, graduate level histology course designed for students with advanced level of basic sciences training (cell/molecular biology, physiology), and some introductory knowledge in human gross anatomy. This course is designed specifically for graduate students in early stage of their academic training and those preparing to enter post-graduate schools. Main goal of the course is to provide basic fundamental histological knowledge upon which to build broader and deeper understanding and appreciation for anatomical sciences as the student progress in their respective academic careers. This course is designed for mature, self-driven and proactive professional adult learners.

Educational Goals & Learning Objectives

By the end of the course, you will be able to

- Describe and identify various cells, tissues and organs of the human body and correlate structure with function
- Acquire skills to operate and utilize microscopes and/or virtual histology laboratory to gain critical pattern recognition skills
- Demonstrate familiarity with basic histological techniques
- Use histological, anatomical, physiological and medical terminologies fluently
- Integrate histological knowledge with other anatomical science subjects (anatomy, embryology and neuroanatomy)

** More detailed learning objectives, goals and study guides are available for each lecture – they are posted in Canvas.*

Location

All lectures and virtual lab/review/integration sessions will be held Anschutz Medical Campus; see listing in Canvas Calendar.

***** Please note: class locations change throughout the semester – it is the students' responsibility to check Canvas and come to class on time *****

Credits

This is a 4 credit hour course, with lecture and virtual lab components. Successful completion of ANAT 6321 fulfills a core requirement of the MS Modern Human Anatomy program.

Prerequisites and Enrollment Restrictions

Students must be enrolled in the Masters of Science in Modern Human Anatomy program, or have special permission from the course director. While undergraduate cell/molecular biology, physiology and gross anatomy are not prerequisite, having had some exposure to these subjects prior to Anatomy 6321 will be advantageous.

Learning Management System

All course materials and announcements will be posted on Canvas; it is your responsibility to monitor your Canvas notifications.

Course Organization & Learning Strategies

The course is divided into 4 Exam Blocks, each block containing approximately six major histological concepts. Because this course runs simultaneous with the Human Embryology course (Anatomy 6330), efforts have been made to correlate topics covered in the two courses to promote integration of the anatomical sciences subjects.

Course Organization & Learning Strategies Continued

Generally, class time will be spent on key concept reinforcement through didactic lectures delivered by the instructor and/or TAs, small group problem solving sessions, structured Q&As and virtual slide demonstration.

Lab, Review and Integration sessions will primarily be run by the TAs. In these sessions, TAs and/or instructors will review the main concept of the week, run virtual (or small group optical microscope) labs. For one hour of the session, an embryology TA will be available to help integrate histology and embryology concept. Attendance in these sessions is mandatory – more than 2 absences (including late show or early departure of 30 minutes or more) will result in deduction of one point toward course grade.

Because successful performance in this course requires students' active engagement, it is EXTREMELY IMPORTANT to read the assigned textbook chapters before coming to class. To encourage all students' engagement in the learning process, a group-based histology competition will be in effect throughout the course. The winning group will be awarded the Histology Cup at the end of the course (more on the Histology Cup below).

Not all textbook materials maybe covered during the allotted class time. It is the students' responsibility to adequately master all histology concepts in the reading assignment.

Virtual Laboratory Experience

Majority of lab exercises will be done online using CU virtual histology laboratory available at: <http://LeesHistology.com> with supplementary material available at: <http://histology.osumc.edu>

Students' Responsibilities

Students taking this course are professional or pre-professional adult learners and as such, they are expected to take responsibility of their own learning by engaging in active learning, peer teaching, class discussion and problem-solving activities, as well as helping to create a suitable atmosphere for learning.

- Students are expected to attend all didactic lectures, TA-led lab, review and integration sessions.
- Arrive on time. Classes will start promptly at 9:00am. If you are late, please enter quietly and take care to minimize disturbance to your classmates. If you are late, please wait until a break to ask content related questions – this is in case the same question may have already been discussed before your arrival.
- Silence cell phones. If you must take an urgent call, please step outside of the classroom quietly.
- Students are required to read the text book BEFORE each class. To ensure pre-lecture reading occurs, a random pop-quiz maybe administered sporatically. Pop-quiz points do not contribute to course grade, but they contribute to the points toward Histology Cup Championship
- Report any activities in or outside of class that are perceived as violation of student honor code and/or professionalism (particularly those disruptive to your learning) to the course-director immediately

- Seek help immediately. It is extremely important that students seek help from the instructors and TAs as soon as they realize they may be struggling with the course. Please do not hesitate to contact any member of the teaching team for help with the content, tips on how to study in the most efficient and effective ways.
- Provide constructive feedback on the course and the members of the teaching team.

Schedule:

Class begins **Monday, August 29th 2016** and ends with the Final Exam on **Monday, Dec 12th 2016**. The course meets weekly most **M, W, F from 9am to 12pm** for lecture and/or lab. A detailed schedule is provided at the end of this syllabus and will be posted in Canvas; ***please pay close attention to the schedule on Canvas, as meeting locations are the not same for every class.***

Required & Recommended Course Materials

The items outlined below may be available at the CU-AMC Bookstore, or can easily be purchased online or from the 2nd year class. ***Please ensure that you have all the required materials before the beginning of the class and no later than the 2nd day of class.***

Textbooks

Students are required to read the assigned sections or chapters of the required textbook before each lecture; the text should be your **primary** reference source for course content; you should read the assigned pages in advance of lecture, and refer to them again as needed. A comprehensive histology atlas is strongly recommended as a visual reference.

Required Text

1. **Junqueira's Basic Histology, 14th edition: Text & Atlas by Mescher. McGraw Hill.** Previous editions are suitable, but course materials will reference pagination or chapters in the 14th Edition.
2. **Access to <http://LeesHistology.com>** (Free): This is the primary virtual histology laboratory resource. Specific tissue slides or links will be referenced in the lecture and/or lab sessions.

Recommended Text

1. **Wheater's Functional Histology a text & color atlas** by Young et. al., any edition. Churchill Livingstone
2. **Atlas of Descriptive Histology** by Ross et. al. Elsevier
3. **Lippincott's Pocket Histology** by Lee. LWW

** The Course Director, MHA program, and AMC-Health Sciences library have copies available to help you determine which style fits you best.*

Examination and Grading Policy

Student progress in the course is assessed based on 1 written exam and 1 lab practical exam per Block.

	Exam Block 1	Exam Block 2	Exam Block 3	Exam Block 4*	
Practical	50	50	50	50	
Written exam	100	100	100	100	
Sub Total	150	150	150	150	
Total Scores					600

* The final exam is comprehensive

Each Practical: 50 Points

- 50 image based, timed questions (each question = 1pt)
- Each image based question is allotted 1 minute to answer and it will automatically advance to the next image
- Practical starts promptly at 9:00am (if one arrives late to the practical already in progress, the student will not be permitted to view and answer questions he/she missed and will receive 0 for those questions)
- No questions are allowed during the practical
- Once the practical is over, students will turn in the answer sheets immediately (no review of the images are allowed)

Each Witten Exam: 100 Points

- 80 multiple choice questions (1pt each)
- 2 essay questions (students will be given 4 essay questions from which to choose 2 to answer, each answer is worth 10pts)
- 2 hours are allotted (10:00am – 12:00pm)

First three exams and practicals will cover only the material studied after the previous examination.

However, since the mastery of histology often depends upon the retention and utilization of the previously learned material, there will be constant reinforcement. **Your retention of the previously covered material may be reexamined whenever there is relevance.**

The final exam will be comprised of 1/3 new material and 2/3 comprehensive material for both practical and written exams.

Both the practical and written exams will be administered in Canvas at a designated computer lab.

Scores from the exams will be made available to you as soon as possible, but it may take up to one week. The results of examinations, course grades, etc. are never given out on an individual basis prior to the time that they can be distributed to all students.

You can review your exam in the Course Director's office for 1 week after the grade is posted. During this time, please discuss any perceived errors in your grade with the Course Director. Modifications to grades will not be discussed beyond this timeframe. You may not copy or screen capture any component of the exam during the review period. It is an academic violation to copy or share the exam in any way.

Any questions or disputes about scores, validity of questions/answers, or any other aspect of grading or the examination must be brought to the attention of the Course Director as quickly as possible. Any discussions about the exam or grades must occur between the student and the instructor in one-on-one meeting. It is violation of FERPA for the instructor to discuss any students' grades with anyone other than the student involved. NO adjustments of the examination will be made after administration of the next scheduled examination; nor will students be able to review their examinations after the next scheduled exam has been administered.

Students are encouraged to look over their exam after each test (prior to the next scheduled exam) to discuss errors or to reinforce concepts.

Final Grade

At the end of the course, a final letter grade will be assigned according to the MHA program scale. As per program policy, a minimum grade of B- is required for successful completion of the course.

The Graduate School does not allow remediation therefore any grade below B- will require the student to retake the course in the following year without exception.

A	93-100%	C	73-76%
A-	90-92%	C-	70-72%
B+	87-89%	D+	67-69%
B	83-86%	D	63-66%
B-	80-82%	D-	60-62%
C+	77-79%	F	59% and below

Make-Up Exams

If you foresee being unable to attend of the scheduled assessments, you must contact the Course Director as soon as possible prior to the assessment date.

No make-up exams will be offered for students who fail to show up for one of the scheduled exams. No make-up lab practical exams will be given under any circumstances.

In the case of a severe illness, funeral of a close family member, personal life event or unplanned catastrophic event (as defined by University rules), a make-up written exam may be scheduled with the Course Director. The exam will be scheduled as soon as realistically possible at a time that is mutually agreed upon by the Course Director and student. The Course Director will provide advanced notice of the make-up exam format. If you also missed a lab practical exam, the make-up written exam will be weighted accordingly to compensate.

Code of Conduct Policy & Professionalism

Students are expected to abide by the Graduate School's Student Academic Honor & Conduct Code, as well as policies outlined in the MHA Student Handbook. Students are expected to act in a professional manner. Academic dishonesty, including cheating and sharing exam details will not be tolerated.

Religious Holiday Accommodations

It is your responsibility to notify the Course Director by the end of the 2nd week of the semester if you anticipate a conflict between your observance of religious holiday(s) and the requirements for this course.

Disability Services

Students with documented disabilities should inform the Course Director and have the Office of Disability Resources and Services to send a letter specifying the necessary accommodations to the course director as soon as possible.

The contact information for the Office of Disability Resources and Services is as follows:

- Sherry Holden (sherry.holden@ucdenver.edu)
- Selim Ozi (selim.oz@ucdenver.edu)

Incomplete Policy

Incomplete (I) grades are not granted for low academic performance. To be eligible for an “I” grade, you must:

- 1) Successfully complete a minimum of 75% of the course
- 2) Have special circumstances beyond your control that prevents you from attending class and/or completing coursework. Note that verification of special circumstances is required.
- 3) Make arrangements to complete missing coursework with the original instructor
- 4) If the missing coursework is not completed within 1 year from the end of the semester in which the original course was scheduled, the “I” grade will convert to an “F” grade on your official transcript.

Withdrawal Policy

Deadline for which a student may withdraw from a course is 4 weeks prior to the completion of the Fall semester (November 18th, for Fall206). Withdrawal from the course after the Add/Drop date specified by the Graduate School will result in no tuition refund and “W” will appear in the transcript. For details on the withdrawal policy and procedure, refer to the MSMHA Student Handbook.

Resolution of Conflicts

Good faith efforts will be made by students, faculty, and program and university administration to settle all appeals, complaints and grievances on an informal basis. Such efforts include conferences between the persons directly involved and others who may help solve the problems. Formal conflict resolution policies are detailed in the policies and procedures of the Graduate School, University of Colorado Denver.

Course Schedule

* subject to change at course director's discretion

WEEK 1	8/29	M	9:00-12:00	Introduction, Orientation, Microscopy
	8/31	W	9:00-12:00	Cytology (cell cycle & etc)
	9/2	F	9:00-12:00	Lab, Review, Integration

WEEK 2	9/5	M	Labor Day – No Class	
	9/7	W	9:00-12:00	Epithelial Tissue - Covering
	9/9	F	9:00-12:00	Lab, Review, Integration

WEEK 3	9/12	M	9:00-12:00	Epithelial Tissue - Glandular
	9/14	W	9:00-12:00	Connective Tissue Proper
	9/16	F	9:00-12:00	Lab, Review, Integration

WEEK 4	9/19	M	9:00-12:00	Special CT & Blood
	9/21	W	9:00-12:00	Lab, Review, Integration
	9/23	F	9:00-12:00	Exam 1

WEEK 5	9/26	M	9:00-12:00	Bone & ossification
	9/28	W	9:00-12:00	Muscles
	9/30	F	9:00-12:00	Lab, Review, Integration

WEEK 6	10/3	M	No Class	
	10/5	W	9:00-12:00	Nervous System
	10/7	F	9:00-12:00	Lab, Review, Integration

WEEK 7	10/10	M	9:00-12:00	Cardiovascular – Heart
	10/12	W	9:00-12:00	Cardiovascular – Vessels
	10/14	F	9:00-12:00	Lab, Review, Integration

WEEK 8	10/17	M	9:00-12:00	Oral cavity, teeth, tongue salivary glands
	10/19	W	9:00-12:00	Respiratory System
	10/21	F	9:00-12:00	Lab, Review, Integration

WEEK 9	10/24	M	9:00-12:00	Exam 2
	10/26	W	9:00-12:00	Digestive System - GI
	10/28	F	9:00-12:00	Lab, Review, Integration

WEEK 10	10/31	M	9:00-12:00	Digestive System – Accessory structures
	11/2	W	9:00-12:00	Integumentary system
	11/4	F	9:00-12:00	Lab, Review, Integration

WEEK 11	11/7	M	No Class	
	11/9	W	9:00-12:00	Endocrine system
	11/11	F	9:00-12:00	Lab, Review, Integration

WEEK 12	11/14	M	9:00-12:00	Urinary System
	11/16	W	9:00-12:00	Immune System
	11/18	F	9:00-12:00	Lab, Review, Integration

WEEK 13	11/21	M	9:00-12:00	Exam 3
	11/23	W	No class	
	11/25	F	Thanksgiving Holiday – no class	

WEEK 14	11/28	M	9:00-12:00	Female Reproductive System
	11/30	W	9:00-12:00	Male Reproductive System
	12/2	F	9:00-12:00	Lab, Review, Integration

WEEK 15	12/5	M	9:00-12:00	Eye & Ear
	12/7	W	9:00-12:00	Lab, Review, Integration
	12/9	F	9:00-12:00	Review

WEEK 16	12/12	M	9:00-1:00	Histology Final Exam
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