

Medical Histology

Course Syllabus

Course Number: GMS 5630

Credit Hours: Four (4) credit hours

Course Format: This online course is tailored for asynchronous distance learners.

Course Description:

Medical Histology will cover the microscopic structure and function of human cells and tissues that make up the organ systems. The organization of cells and tissues are correlated with diagnostic imaging (e.g., electron microscopy and immunohistochemistry) of normal and pathologic tissues. Clinical exercises will be used to develop “problem solving” and “critical thinking” skills.

Prerequisites:

This post-graduate course is designed to meet the needs of those BA and BS graduates that want to pursue a medical career. This course will provide an essential foundation for students that wish to pursue a “change-in-career” to a health profession or have not met the admission requirements of medical school. This advance medical anatomy course will require a strong science foundation of five (5) full-semester science courses related to Biology, Chemistry, or Biochemistry.

Contacts:

If you have questions about the course or its content contact the **Course Coordinator**, Dr. William Dunn, Professor, Department of Anatomy & Cell Biology.

Schedule:

The course is offered every semester, including the summer.

Course Goals:

The goals of the course are three-fold:

- 1) to provide a foundation of the fundamental concepts of the microscopic anatomy of the human body;
- 2) to develop an understanding how organ integrity and functions are maintained by the organization of cells and tissues; and
- 3) to promote critical thinking of the clinical consequences of cellular disorders and tissue-related diseases, intracellular pathogens, cancer and diabetes.

Learning Outcomes:

Upon completion of this course, students will be able to:

- 1) demonstrate an understanding of the microscopic organization and relationships of cells, tissues and organs of the human body;
- 2) identify cells and tissues and describe their functions;
- 3) develop problem solving skills to evaluate both normal and pathologic structure and function of cells and tissues that comprise the organs of the human body; and
- 4) demonstrate critical thinking skills to describe possible pathologic outcomes of dysfunctional cells and tissues.

Learning Resources:

1. Unit overviews, lectures in web-based Powerpoint presentations and other multimedia resources will be provided on the course web site.
2. The recommended text is **Principles of Human Anatomy**, 14th or 15th edition, Tortora, G.J. and Nielsen, M., John Wiley & Sons, 2017. The information in the recommended text is available online and coordinated with online lecture materials.

You can purchase the electronic version of the text with the access code at www.wileyplus.com. While the online access is not required, it is a highly recommended resource for this course.

3. On-line quizzes that consist of multiple-choice questions will be available for each module of study.
4. Histology exercises (guided by an online laboratory manual and recorded presentations) combining web slides with virtual microscopy technology will be used to identify subcellular structures, cells, and tissues.
5. Clinical exercises on genetic disorders of cells and tissues, intracellular pathogens, cancer, and diabetes will be used to promote critical thinking.
6. An on-line chat session will be available every week to address questions related to the lectures and clinical exercises.

Examinations and Grading:

There will be 4 examinations. Each examination will cover the content of one of 4 modules. Each examination will consist of 50 multiple-choice questions and will have a time limit of 90 minutes. On average 30 questions will test the lecture material and 20 questions will be histological identification. Each question is worth 2 points for a total of 100 points. All exams will be monitored by Honorlock, a UF chosen service that allows the students to complete their exams while still ensuring academic integrity. Students will take all examinations at a computer that meets the technical requirements of Honorlock including a web cam and microphone. Honorlock is an on-demand service so there is no need to schedule your exam in advance. See the welcome announcement in Canvas for more info regarding Honorlock.

Module One: Introduction to the Histology (100 points)

Overview of Microscopic Anatomy: Cells, Tissues & Organs, Epithelium and Connective Tissue, Integumentary System, Skeletal System, Muscular System

Module Two: Nervous, Sensory, Endocrine, and Lymphatic Systems (100 points)

Nervous System, Special Senses, Endocrine System, Lymphatic System

Module Three: Thoracic and Abdomen (100 points)

Respiratory System, Cardiovascular System, Digestive System I, Digestive System II

Module Four: Pelvis (100 points)

Urinary System, Male Reproductive System, Female Reproductive System

Four (4) module examinations = Total points possible 400 points. Your final grade will be the total number of points earned/400 (%).

Course Outline

Modules	Assignments (Wiley Site)	Module/Activity (UF Site)	Learning Opportunities (UF Site)
Module 1 Units			
1-1	Tortora, Chap 2 Pre-Lecture Quiz	Overview of Histology: Cells, Tissues, and Organs 1-1.1 Lecture 1 1-1.2 Lecture 2 1-1.3 Histology Lab 1-1.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
1-2	Tortora, Chap 3 Pre-Lecture Quiz	Epithelium and Connective Tissue 1-2.1 Lecture 1 1-2.2 Lecture 2 1-2.3 Histology Lab 1-2.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
1-3	Tortora, Chap 5 Pre-Lecture Quiz	Integument 1-3.1 Lecture 1 1-3.2 Lecture 2 1-3.3 Histology Lab 1-3.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
1-4	Tortora, Chap 6 Pre-Lecture Quiz	Skeletal System 1-4.1 Lecture 1 1-4.2 Lecture 2 1-4.3 Histology Lab 1-4.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
1-5	Tortora, Chap 10 Pre-Lecture Quiz	Muscular System 1-5.1 Lecture 1 1-5.2 Lecture 2 1-5.3 Histology Lab 1-5.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
Module 1 Examination (HonorLock)			
Module 2 Units			
2-1	Tortora, Chap 16 Pre-Lecture Quiz	Nervous System 2-1.1 Lecture 1 2-1.2 Lecture 2 2-1.3 Histology Lab 2-1.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
2-2	Tortora, Chap 21 Pre-Lecture Quiz	Special Senses 2-2.1 Lecture 1 2-2.2 Lecture 2 2-2.3 Histology Lab 2-2.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
2-3	Tortora, Chap 22 Pre-Lecture Quiz	Endocrine System 2-3.1 Lecture 1 2-3.2 Lecture 2 2-3.3 Histology Lab 2-3.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
2-4	Tortora, Chap 15 Pre-Lecture Quiz	Lymphatic System 2-4.1 Lecture 1 2-4.2 Lecture 2 2-4.3 Histology Lab 2-4.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
Module 2 Examination (HonorLock)			

Module 3 Units			
3-1	Tortora, Chap 23 Pre-Lecture Quiz	Respiratory System 3-1.1 Lecture 1 3-1.2 Lecture 2 3-1.3 Histology Lab 3-1.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
3-2	Tortora, Chap 12, 13, & 14 Pre-Lecture Quiz	Cardiovascular System 3-2.1 Lecture 1 3-2.2 Lecture 2 3-2.3 Histology Lab 3-2.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
3-3	Tortora, Chap 24 Pre-Lecture Quiz	Digestive System I 3-3.1 Lecture 1 3-3.2 Lecture 2 3-3.3 Histology Lab 3-3.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
3-4	Tortora, Chap 24 Pre-Lecture Quiz	Digestive System II 3-4.1 Lecture 1 3-4.2 Lecture 2 3-4.3 Histology Lab 3-4.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
Module 3 Examination (HonorLock)			
Module 4 Units			
4-1	Tortora, Chap 25 Pre-Lecture Quiz	Urinary System 4-1.1 Lecture 1 4-1.2 Lecture 2 4-1.3 Histology Lab 4-1.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
4-2	Tortora, Chap 26 Pre-Lecture Quiz	Male Reproductive System 4-2.1 Lecture 1 4-2.2 Lecture 2 4-2.3 Histology Lab 4-2.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
4-3	Tortora, Chap 26 Pre-Lecture Quiz	Female Reproductive System 4-3.1 Lecture 1 4-3.2 Lecture 2 4-3.3 Histology Lab 4-3.4 Interactive Review	Post-Lecture Quiz Histology Lab Self-Review
Module 4 Examination (HonorLock)			

Grading Scale:

A	93-100% correct out of a possible 400 points
A-	90-92%
B+	87-89%
B	83-86%
B-	80-82%
C+	77-79%
C	73-76%
C-	70-72%
D+	67-69%
D	63-66%
D-	59-62%
E	<59%

I = An incomplete grade will be given if a student fails to complete the course as scheduled.

Grading Policy:

There are no make-up examinations unless otherwise granted by the course coordinator prior to the examination date. If personal circumstances prevent the taking of an examination, it is the student responsibility to contact the course coordinator. Failure to take an examination without prior permission will be recorded as a 0 points earned.

Assignments:

The course is divided into 4 modules.

Each module consists of selected chapters with specific reading assignments and quizzes at the Wiley site combined with video presentations and histological quizzes posted at the UF site. There is total of four hours of assigned videos per week at the UF site.

For each module students will:

- 1) review the learning objectives and corresponding lecture notes at the UF site;
- 2) read and complete the online quizzes at the Wiley site;
- 3) view the histology lectures (2 per week) and lab (1 per week) videos at the UF site;
- 4) complete the interactive review videos (1 per week) for each module at the UF site;
- 4) complete the post-lecture quizzes associated with each module at the UF site; and
- 5) take the scheduled, online module examinations.

Attendance:

Attendance will not be taken. A student's overall success, however, is based upon following the course schedule for learning the assigned materials and practicing the recommended exercises. Students are strongly encouraged to develop self-discipline to complete all text readings and online exercises, including the practice examinations.

Academic Integrity:

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Students are expected to abide by the University's Academic Honesty Policy, and to adhere to the following pledge:

"We, the member of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

According to the UF Student Guide, Academic dishonesty includes the following:

Cheating - copying another's work for academic gain.

Plagiarism - representing another's work as your own.

Bribery - offering, giving, soliciting, or receiving goods or services of value for academic gain.

Misrepresentation - altering facts (e.g., signing an absent classmate's name to an attendance sheet).

Conspiracy - planning with others to commit academic dishonesty.

Fabrication - making up information to avoid punishment or other difficulty.

Copyright Information:

Please also review the use of copyrighted materials, which can be found on the Health Science Center Library's web page: <http://www.library.health.ufl.edu/services/copyright.htm>

Accommodation Policy:

Students requesting classroom accommodation must first register with the Dean of Students' office, 202 Peabody Hall, 352-392-1261. The DSO will provide documentation to the student who must then provide this documentation to the instructor.

Student Support Services

As a student in a distance learning course or program you have access to the same student support services that on campus students have. For course content questions contact your instructor.

For any technical issues you encounter with your course please contact the UF computing Help Desk at 352-392-4357. For Help Desk hours visit: <http://helpdesk.ufl.edu/>.

For a list of additional student support services links and information please visit: <http://www.distance.ufl.edu/student-services>

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department, 392-1111 (or 9-1-1 for emergencies). <http://www.police.ufl.edu/>

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. <https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <http://www.crc.ufl.edu/>

Library Support, <http://cms.uflib.ufl.edu/ask> Various ways to receive assistance with respect to using the libraries or finding resources.

Special Accommodations

Students requesting disability-related academic accommodations must first register with the Disability Resource Center. <http://www.dso.ufl.edu/drc/>

The Disability Resource Center will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

Complaints

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.