

Medical Histology

Course Syllabus

Course Number: GMS 5630

Credit Hours: Three (3) 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 advanced 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. Laura Schroder, Lecturer, 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 function 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 required text is: **Principles of Human Anatomy**, 12th Edition. Tortora, G.J. and Nielsen, M., John Wiley & Sons, 2011. The information in the required text is available on line and coordinated with online lecture materials.
3. Online 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 weblides 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 online chat session will be available every week to address questions related to the lectures and clinical exercises.

Examinations and Grading:

There will be four (4) examinations. Each examination will cover the content of one of 4 modules. Each examination will consist of 50 multiple-choice questions (each valued of 2 points) and will have a time limit of 90 minutes. Each exam will be worth 100 points. All exams will be monitored by ProctorU, 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 ProctorU including a web cam and microphone. Students will make the arrangements for exam proctoring. We recommend students make an appointment at least two weeks in advance of the exam date.

Module One: Introduction to the Histology (100 points)

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

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)

Cardiovascular System
Respiratory System
Digestive System I and 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 (%).

Grading Scale (correct out of a possible 400 points):

A	93-100%
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's responsibility to contact the course coordinator. Failure to take an examination without prior permission will be recorded as 0 points earned.

Assignments:

The course is divided into 4 modules.

Each module consists of selected chapters with specific reading assignments. 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) complete the histology exercises at the UF site;
- 4) complete the clinical exercises associated with each module at the UF site; and
- 5) take the scheduled, online module examinations.

Course Schedule:

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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
1-3	Tortora, Chap #5 Pre-Lecture Quiz	Integument 1-3.1 Lecture #1 1-3.2 Lecture #2 1-3.3 Histology Lab	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
Module 1 Examination (on-line) – Opens on Friday			
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
Module 2 Examination (on-line) – Opens on Friday			

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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
Module 3 Examination (on-line) – Opens on Friday			
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
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	Post-Lecture Quiz Histology Lab Self-Review On-line Chat Session (1 hr)
Module 2 Examination (on-line) – Opens on Friday			

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:

Please review the University's complete policy regarding academic dishonesty, found online in the student handbook: <http://www.dso.ufl.edu/judicial/pdffiles/handbook2003.pdf>

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, 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>

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.