



# Histology I

## ANAT 306

### Course Description

This course provides students a foundation for understanding the organization of the human body. The course commences with the basic concepts of tissue preparation and microscopy, followed by the study of the cardinal features of the cell and its internal structures as revealed by light and electron microscopy. The normal histological organization of each of the four basic tissues is presented with emphasis on the relation of structure to function, as well as the structural changes underlying selected diseases.

Credit: 1.5 semester credits

**Competencies:** At the end of Histology I and II, the student will have had the opportunity to practice the following competencies through meeting the objectives of the course:

#### Medical Knowledge

- MK1 Demonstrate knowledge of normal and abnormal structure and function of the human body on the macroscopic, microscopic and molecular levels.
- MK2 Identify the pathology and pathophysiology of various diseases and correlate them with clinical signs and symptoms.
- MK3 Demonstrate knowledge of common or significant, acute and chronic clinical problems.
- MK4 Differentiate between normal and abnormal development and age-related changes across the life span.
- MK5 Demonstrate comprehension of clinical interventions and agents including pharmaceutical, surgical, genetic, complementary and alternative medicines, and other therapies.
- MK6 Demonstrate knowledge and ability to interpret epidemiological and public health contributions to understanding health and disease.
- MK7 Demonstrate knowledge of preventive medicine and current guidelines for health promotion and disease screening.

#### Professionalism

- PR1 Demonstrate honesty, integrity, and ethical behavior in all interactions with patients and other health care professionals, including:

### Objectives

By the end of the course, students should be able to:

- understand the scientific basis of histology
- describe the microscopic anatomy of tissues and organs of the human body
- explain the relationship between microscopic structure and function
- use histological terms and concepts for the purposes of identification and precise communication to professional colleagues and to the lay person
- apply the histological principles to better understand the concepts of physiology, pharmacology and pathology
- develop a systematic approach to the correct identification of histological preparations using photomicrographs, microscopic slides, digital images
- pursue independent, self-directed and critical learning

## Evaluation

Two quizzes, one midterm exam, and a final exam will be given during the term. Quiz 1 will occur before the midterm exam and quiz 2 will occur before the final exam. The midterm exam will be scheduled in week 7 and will include all topics covered through the previous week. The final exam will be scheduled according to the exam schedule. Quizzes and exams will use the NBME (multiple choice) format and may include pictures, photomicrographs, microscopic slides, and digital images. According to NBME procedures, the time allocated for completing an exam will be approximately 1.2 minutes (72 seconds) per exam question. Quizzes and exams will be revised completely after an examination.

## Grading Criteria

The Quizzes represent 20% of the final grade, the midterm and final exams will comprise 40% of the final grade each.

**Grade:** The grading scale is according to school policy.

Percent of Points	Letter Grade
95-100%	A(h)
90-94%	A
85-89%	B+
80-84%	B
75-79%	C+
70-74%	C
<70%	F

**Textbook:** *Junqueira's Basic Histology Text and Atlas*, 13th Edition, 2013  
 Anthony L. Mescher, PhD, Lange Publisher  
 ISBN 10: 978-0-07-180798-2

## COMPLEMENTARY READINGS:

*Histology: A Text and Atlas*, 6<sup>th</sup> Edition, 2010  
 Michael H. Ross and Wojciech Pawlina, Lippincott Williams & Wilkins  
 ISBN 978-0-7817-7200-6

**ATTENDANCE POLICY:** According with the Student Handbook.

**OFFICE HOURS:** Wednesday at 1:30 PM and by appointment.

**Schedule:** The lecture schedule will be posted to the online calendar.

**Faculty**

Dr. Lina L. Díaz Galán MD, PhD – course director