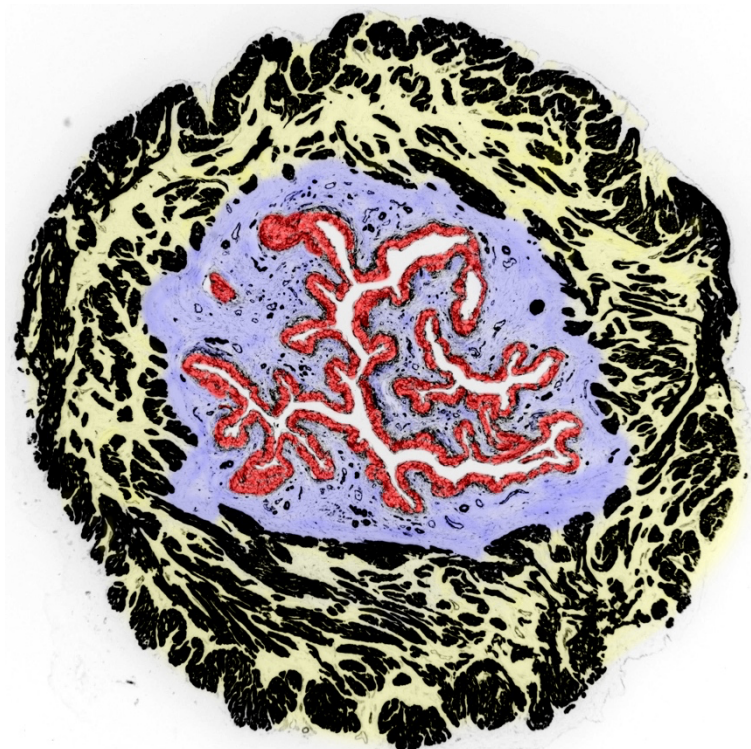


# **HISTOLOGY GRADUATE COURSE (MSCBMP # 2870)**

**Steven Truschel, Ph.D.  
Course Director**

**Spring Semester, 2024**



## **COURSE DIRECTOR**

Dr. Steven Truschel  
Department of Cell Biology  
311 Scaife Hall  
[stt39@pitt.edu](mailto:stt39@pitt.edu)

## **COURSE DESCRIPTION**

Histology is the microscopic study of body tissues and how these tissues are organized to form functioning organs and organ systems. In this course you will study the microanatomy of tissues and how structure and organization correlate to physiologic function. You will learn to identify and distinguish microscopically among a wide variety of tissues throughout the body. Where relevant, pathological disease states highlighting changes in normal tissue architecture will be discussed. Students who perform well in this class may be eligible for a teaching fellowship in histology teaching 1<sup>st</sup> year medical students at Pitt.

## **LECTURES AND LABS**

Classes are scheduled on Monday and Wednesday from 12:00pm–3:00pm throughout the semester except for University holidays. On most occasions, this time will be split between a lecture followed by a laboratory exercise using a microscope to examine tissue sections. The lectures will introduce a particular topic of histology to prepare you for the lab that follows. During the laboratory component you will examine tissue sections while you work through a self-guided course manual that contains explanatory text and illustrative images. Your instructor will be available throughout the lab session to assist you and to answer questions.

Most of your time in the lab will be spent examining glass slides in a microscope in addition to viewing tissue sections using virtual slides. Virtual slides are created by digitally scanning glass slides to produce high resolution digital images that when viewed with appropriate software can be manipulated on a computer screen (or tablet, smart phone etc.) in a similar way as one would manipulate a glass slide using a microscope. Virtual slides are used by most medical schools (including Pitt) to teach histology and other disciplines (e.g., pathology) that require morphological analysis of tissue.

While most tissue sections that you encounter in the lab sessions will be in the context of the light microscope (whether glass slides or virtual slides), some features of tissues are best appreciated when viewed by an electron microscope (EM). Thus, EM images called electron micrographs will be presented in both lecture and in the lab.

You will be given a printed copy of the course manual to use while you explore tissue sections in the lab. While all the exam material will be based on the material presented in lecture and in the lab manual, you may choose to supplement your learning by consulting a histology textbook. There are numerous digital textbooks that as a University of Pittsburgh student you can access using the health sciences library website at [www.hsls.pitt.edu](http://www.hsls.pitt.edu).

## **EXAMINATIONS**

There will be four non-comprehensive examinations and one final exam during this course. Each non-comprehensive exam will contribute 15% to your final grade and the final exam will contribute 30% to your final grade. The final exam is comprehensive and will cover all topics throughout the semester with an emphasis on tissue and organ identification. A review session or practice exam will be provided to you to assist in your final exam preparation.

## **ORAL PRESENTATION**

Near the end of the semester, you will be required to give a 10-minute oral presentation (e.g., PowerPoint) about a disease or pathology of your choice, focusing on the normal histology followed by a description of the histopathology. Details of this assignment will be provided during the semester and will contribute 10% to your final grade.

## **GRADING**

The Histology course is graded on the following curve:

<b>Grade</b>	<b>Classic %</b>	<b>Curve Histo</b>
A+	100-97	<b>100-95</b>
A	96-93	<b>94-90</b>
A-	92-90	<b>89-85</b>
B+	89-86	<b>84-80</b>
B	85-83	<b>79-75</b>
B-	82-80	<b>74-70</b>
C+	79-76	<b>69-65</b>
C	75-73	<b>64-60</b>
C-	72-70	<b>59-55</b>
D+	69-66	<b>54-50</b>
D	65-63	<b>49-45</b>
D-	62-60	<b>44-40</b>
F	59-0	<b>39-0</b>

**SCHEDULE: All classes 12pm-3pm**

<b>Date</b>	<b>Topic</b>	<b>Room</b>	<b>Instructor</b>
Mon, Jan 8	Intro to Histology and microscopes	S373 BST, 311 Scaife	Truschel
Wed, Jan 10	Epithelia	S373 BST, 311 Scaife	Truschel
Mon, Jan 15	No class- MLK Holiday		
Wed, Jan 17	Connective Tissue	S373 BST, 311 Scaife	Truschel
Mon, Jan 22	Cartilage and Bone	S373 BST, 311 Scaife	Truschel
Wed, Jan 24	Muscle	S373 BST, 311 Scaife	Truschel
Mon, Jan 29	Nervous	S373 BST, 311 Scaife	Truschel
Wed, Jan 31	Exam 1	S373 BST	Truschel
Mon, Feb 5	Vascular	S373 BST	Truschel
Wed, Feb 7	Lymphoid	S373 BST, 311 Scaife	Truschel
Mon, Feb 12	Endocrine	S373 BST, 311 Scaife	Truschel
Wed, Feb 14	Skin	S373 BST, 311 Scaife	Truschel
Mon, Feb 19	Exam 2	S373 BST, 311 Scaife	Truschel
Wed, Feb 21	Oral Cavity	S373 BST	Truschel
Mon, Feb 26	Pharynx, Esophagus, Stomach	S373 BST, 311 Scaife	Truschel
Wed, Feb 28	Intestines	S373 BST, 311 Scaife	Truschel
Mon, Mar 4	Liver, Gallbladder, Intestines	S373 BST, 311 Scaife	Truschel
Wed, Mar 6	Exam 3	S373 BST, 311 Scaife	Truschel
Mon, Mar 11	No class- Spring Break		
Wed, Mar 13	No class- Spring Break		
Mon, Mar 18	Respiratory	S373 BST	Truschel
Wed, Mar 20	Urinary	S373 BST, 311 Scaife	Truschel
Mon, Mar 25	Female Reproductive	S373 BST, 311 Scaife	Truschel
Wed, Mar 27	Male Reproductive	S373 BST, 311 Scaife	Truschel
Mon, Apr 1	Exam 4	S373 BST, 311 Scaife	Truschel
Wed, Apr 3	Student Presentations	S373 BST	
Mon, Apr 8	Review	S373 BST	Truschel
Wed, Apr 10	Final Exam	S373 BST	Truschel