

**THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL
DEPARTMENT OF PATHOLOGY**

TO: Pathology 581 Students
FROM: Russell Ryan, M.D. and Simon Hogan, Ph.D.
RE: Course information
DATE: January 18, 2021

Welcome to Pathology 581! This course will teach concepts related to mechanisms of disease. We will cover pathological mechanisms ranging from the level of the single molecule and the individual cell, all the way up to the whole tissue and organism. Many of the topics discussed in Pathology 581 could easily serve as the focus of an entire dedicated course! The intent of Pathology 581 is not to cover any of these in great depth. Rather it is a survey course that intentionally samples a broad range of topics of interest in modern Pathology. The course is offered for 3 credits this winter. Classes will be conducted live via Zoom on **Mondays** and **Wednesdays** from **2:45-4**. Link: <https://umich.zoom.us/j/91530167269>

Histopathology – the diagnosis of disease based on tissue microscopic appearance – is a core component of the basic language of Pathology. To become truly fluent in histopathology requires many years of intensive study. Nonetheless, students pursuing a Ph.D. in Pathology need to be comfortable with basic histology. The first six sessions of the course are designed to provide this introduction. **Students will be asked to install and consult the SecondLook Histology teaching app, available at the following link (iOS or Android device preferred):** <https://www.umich.edu/~mededlrc/secondlook/install.html>

The 6th session of the course will not be a lecture, but rather an interactive slide session, designed to test each student's fluency in basic principles of histopathology. **This will be graded pass / fail as a class participation exercise.** Students will be asked to review virtual slide images online in advance of this session. Please use the following link to test that you are able to view and browse these images (Chrome browser recommended): <https://tinyurl.com/yymnb6hk>

Please refer to the course website on Canvas (<https://umich.instructure.com/courses/405776>) for the lecture schedule and announcements. Powerpoints will be available on this site for review shortly after each lecture.

There will be two formal evaluations: **a midterm on Wednesday, March 10** and a **final exam on Wednesday, April 26**, that count equally towards your final grade. These tests will be mostly multiple-choice format, with each lecture represented by roughly 5 questions. These questions will primarily be drawn from the lectures themselves; however anything in any assigned articles is also fair game.

After each instructor has completed her/his block of lectures, you may have the opportunity to deliver feedback. This process is anonymous. Please take this seriously, and put careful thought into this process! Instructors usually change their lectures in response to student critiques; thus **this represents your opportunity to improve the course for subsequent generations of Path 581 students.** In addition, the medical school takes your opinions very seriously in the context of promotion and tenure decisions.

We hope that you will enjoy this introduction to the fascinating and ever-advancing study of disease mechanism! Should you have any questions or concerns, please feel free to contact us:

Russell Ryan, Co-Director
Rogel Cancer Center 4306
Tel: 647-6768
rjhryan@med.umich.edu

Simon Hogan, Co-Director
BSRB 4051
Tel: 647-9923
sihogan@med.umich.edu

Laura Labut, Administrative Services
NCRC 520-1211
Tel: 763-0846
laszczem@med.umich.edu

PATHOLOGY 581 2021 TISSUE, CELLULAR AND MOLECULAR BASIS OF DISEASE

Lecture 2:45-4:00 p.m., Monday and Wednesday. Zoom link: <https://umich.zoom.us/j/91530167269>

DATE		LECTURE	INSTRUCTOR	ROOM
01 20	Wed	Introduction Review of normal histology I	Ryan, Russell Hortsch, Michael	
01 25	Mon	Review of normal histology II	Hortsch, Michael	
01 27	Wed	Histopathology I: Cell injury, death, aging, and adaptation	Farkash, Evan	
02 01	Mon	Histopathology II: Histopathology of neoplasia	Abbott, Sarah	
02 03	Wed	Tissue-based diagnostics and research methods	Harms, Paul	
02 08	Mon	Interactive slide review / discussion: Histology and histopathology	Ryan, Russell	
02 10	Wed	Inflammation & Tissue Repair I	Lukacs, Nick	
02 15	Mon	Inflammation & Tissue Repair II	Lukacs, Nick	
02 17	Wed	Pathophysiology of organ systems	Hogan, Simon	
02 22	Mon	Genetics and Human Pathology	Wilson, Thomas	
02 24	Wed	Well-Being Break – NO CLASS		
03 01	Mon	Development I	Dressler, Greg	
03 03	Wed	Development II	Dressler, Greg	
03 08	Mon	Cardiovascular Pathology	Wilson, Allecia	
03 10	Wed	MIDTERM		
03 15	Mon	Introduction to Neoplasia	Venneti, Sriram	
03 17	Wed	Neoplasia: Genetics of Cancer	Ferguson, David	
03 22	Mon	Neoplasia: Genome Stability	Wilson, Thomas	
03 24	Wed	Neoplasia: Cancer Metabolism	Lyssiotis, Costas	
03 29	Mon	Neoplasia: Epigenetics of Cancer	Ryan, Russell	
03 31	Wed	Clinical translation: Targeting Epigenetic mechanisms	Cierpicki, Tomasz	
04 05	Mon	Clinical translation: Molecular Diagnostics of Cancer	Betz, Bryan	
04 07	Wed	Polyglutamine diseases	Lieberman, Andrew	
04 12	Mon	Neurodegenerative disease and protein misfolding	Barmada, Sami	
04 14	Wed	Introduction to the biology of aging	Lombard, David	
04 19	Mon	Mouse longevity models	Miller, Richard	
04 21	Wed	Microbes, Genes and Inflammatory Disease	Nunez, Gabriel	
04 26	Mon	FINAL EXAM		