

HISTOLOGY
BIOLOGY 4630
COURSE SYLLABUS Winter 2019
WAYNE STATE UNIVERSITY

Course Instructor - Dr. Andrei Borisov

Instructor Information

Office Location: 2121 Bioengineering Bldg.

Email Address: eg6261@wayne.edu (preferred method of contact)

Office Hours: Fri. 2 p.m. – 3:00 PM (or by appointment). If you have quick questions, I am available immediately after each class.

Course Information

Lecture Location: Room 125 Science Hall (1125 in class schedule)

Lecture Times: T, Th 9:30 – 10:20 AM

Required Text: (Lecture & Lab) *Color Atlas and Text of Histology*, 7th ed., by Leslie P. Gartner, Wolter Kluwer, 2018 (the changes from the 6th edition are small but significant, it will be advantageous to have the latest edition)

The full text of the textbook is available with all illustrations as an electronic resource at the WSU library. To get access to the text, please log in into the library system using your WSU unique name and password (the same you use to log in into your WSU email).

Course Website: www.canvas.wayne.edu

Lab Review Websites: www.kumc.edu/instruction/medicine/anatomy/histoweb
www.lab.anhb.uwa.edu.au/mb140

** <http://histology.medicine.umich.edu/medical-schedule>

Course Description

Multi-cellular organisms are hierarchical in structure, beginning with the basic building block, the cell. Cells are then organized into tissues, and tissues into organs that are brought together to form the entire organism. A course in cell biology teaches you the structure and function of a cell. A course in physiology teaches you how organs work together to form a functional organism. In histology, we will study the microscopic organization of cells into tissues. However, it is

important to also understand the context and purpose of these tissues; hence cellular function and physiological relevance to the entire organism will also be considered.

Learning Outcomes

Upon completion of this course the student will be able to:

1. Identify and describe sample preparation and staining methods used in histological preparations.
2. Determine and describe, in general terms, what type of microscopy was used to collect a histological image.
3. Identify and properly describe, using appropriate nomenclature, multiple cell types and forms of epithelium based on morphology, location and staining hallmarks.
4. Determine what organ or tissue a histological section is derived from.
5. Describe the organization and function of specific tissues and cell types from multiple organ systems.

Course Examinations

There will be **four** semi-comprehensive lecture exams as scheduled in the lecture outline. Each exam will consist of multiple choice, true/false, essay and identification type questions. The first three exams will be worth 100 points each. The lowest score of your **first three** exams will be dropped. You must complete the course to qualify for this dropped exam option. Every student is required to take Exam (IV), as it will serve as the Final Exam. This exam will be worth 150 points and cannot be dropped. There will be **NO make-up exams** offered. If you miss one of the first three lecture exams, this will simply be your dropped exam. **350 points** of your overall course grade will come from lecture exam scores.

Exam Day

- Please bring two #2 pencils
- Scantron forms will be provided for your lecture exams.
- Questions regarding the exam will not be accepted during the administration of the exam. This policy provides all students with an equal opportunity for interpretation and minimizes classroom disruption during the exam. Errors in the writing of questions are always revealed in the grading.
- Anyone who leaves the exam room will not be allowed back in.
- Late-arriving students will not be admitted into the exam room. -Student ID will be required, be sure to bring it with you!

Attendance

To succeed in this course it is very important that you attend every lecture and keep up on your studies. It will not suffice to simply listen to the recorded lectures. Given the heterogeneity of tissue preparations and the variety of tissue slides

presented during lecture, you will be unaware of different structural attributes that are pointed out during lecture if you do not attend. This is your responsibility.

Laboratory

The laboratory portion of this course is comprised of a digital section and a microscope based section. The first hour of the lab will be spent in the computer laboratory, Rm 31 State Hall (basement), the second hour will be used to look at actual tissues on the microscopes in room 2038 Science Hall. The laboratory portion of this course is worth **250 points** (approximately 40%) of your total course grade. All labs are instructed by Graduate Teaching Assistants (GTAs). The laboratory syllabus, consisting of the schedule and policies specifically pertaining to the lab, will be explained to you by your GTA. All lab concerns should first be addressed with your TA, then the course instructor.

Grading

A total of **600** points can be earned (350 from the lecture and 250 from the lab). There will be NO opportunities for extra credit. Exams may be curved to the second highest grade earned, however if more than one person earns 100 there will be no curve applied. The overall course will NOT be curved. Course grades are determined from total point accumulation (lecture + lab) at the end of the semester. At times it may be necessary to normalize the grades earned between lab sections, however this is rare. Final letter grades will be assigned according to the following grading scale:

| Percent | Grade |
|----------------|-------|
| 93-100 | A |
| 90-92.99 | A- |
| 87-89.99 | B+ |
| 83-86.99 | B |
| 80-82.99 | B- |
| 77-79.99 | C+ |
| 73-76.99 | C |
| 70-72.99 | C- |
| 67-69.99 | D+ |
| 63-66.99 | D |
| 60-62.99 | D- |
| 59.99 or below | F |

| | Points |
|---------------|--------|
| Exam I | /100 |
| Exam II | /100 |
| Exam III | /100 |
| Exam IV | /150 |
| Drop exam | |
| Lecture Total | /350 |
| Lab Total | /250 |
| Course Total | /600 |

Final Exam Schedule

Date/Time: during the exam week at the end of April, TBA

Location: TBA

Exam Grade Disputes

Given that exams are curved to the second highest grade, I do not accept challenges to exam questions. However, if you believe your score has not been added up properly please see me immediately.

Add / Drop Policy

Students may not be added after the second week of class. Refer to the registrars calendar for the last day to drop this course. **Dropping a course is done electronically through your pipeline account.** If you officially withdraw from this course, it will appear on your transcript with a mark of “WP” (withdrawal with a passing grade earned to date), “WF” (withdrawal with a failing grade earned to date) or “WN” (withdrawal given to students who did not attend any classes and / or did not complete any assignments and / or did not participate in credit-earning activities by the withdrawal date). An “F” grade will be assigned to students who stop attending class without officially withdrawing. Further information regarding WSU’s grading policy can be found at (<http://sdcl.wayne.edu/RegistrarWeb/Registrar/policies.htm>).

General Policies

- There will be **zero-tolerance** for cheating. If you are caught cheating, you will get a zero for that exam. University disciplinary action may be pursued. Any inappropriate behavior will simply not be tolerated in lecture OR in the laboratory.
- Cell phones must be turned off or placed on a silent mode of notification before entering the lecture hall AND laboratory. Yes, this means no texting! Wrist watches may not be worn during exams.
- I am happy to write a letter of recommendation for any student that earns an “A” in my course and also demonstrates strong personal characteristics that I have been made aware of during the semester.

Special Considerations for Individuals with Disabilities

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services (SDS) for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. The SDS telephone number is 313-577-1851 or 313-577-3365 (TDD only). Once you have your accommodations in place, I will

be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University.

Religious Holiday Conflicts

If you have a conflict with any of the scheduled class or exam times due to religious reasons, you must notify me in writing by **01/20/18**. No special considerations will be considered unless I am notified in writing by this date.

Unexpected University Closures

If the University is officially closed on an exam day, the exam will be held on the next regularly scheduled class day. Closure of the University is announced by the following mechanisms:

1. University Newsline (313) 577-5345 *
2. WSU Homepage (www.wayne.edu) *
3. WSU Pipeline (www.pipeline.wayne.edu) *
4. WDET-FM (Public Radio 101.9)
5. other local radio and television stations

Disclaimer

This course syllabus is subject to modification at the discretion of the instructor without prior notice. Lecture topics and/or scheduled times may be changed to accommodate class progress. Students must keep regular attendance and take note of any such changes as appropriate. Any specific issue not covered by this syllabus will be resolved using University policies. Disputes that cannot be resolved following the guidelines present in this syllabus will be resolved by following the guidelines of the University "Student Due Process."

| DATE | TOPIC | CHAPTERS |
|-------------------------------|--|-------------|
| T/08 <u>January</u> Th/10 | Syllabus/Tissue Preparation / The Cell Epithelial Tissue / Exocrine Glands | 1 2 |
| T/15 Th/17 | Epithelium/Connective Tissue Connective Tissue Proper | 3 |
| T/22 Th/24 | Specialized Connective Tissue (Cartilage) Specialized Connective Tissue (Bone) | 4 |
| T/29 Th/31 | Muscle Tissue Muscle Tissue | 6 |
| T/05 <u>February</u> Th/07 | Integument EXAM I | 11 |
| T/12 Th/14 | Nervous Tissue Nervous Tissue | 7 |
| T/19 Th/21 | Endocrine Tissue Endocrine Tissue | 10 |
| T/26 Th/28 | Circulatory System Circulatory System | 8 |
| T/05 <u>March</u> Th/07 | EXAM II Respiratory System | 12 |
| T/12 Th/14 | Spring Break! xxxxxxxxxxxxx | |
| T/19 Th/21 | Respiratory System Digestive System I (Oral cavity) | 12 13 |
| T/26 Th/28 | Digestive System II (GI Tract) Digestive System III (Glands) | 14 15 |
| T/02 <u>April</u> Th/04 | EXAM III Urinary | 16 |
| T/09 Th/11 | Urinary Female Reproductive | 16 17 |
| T/16 Th/18 | Female/Male Reproductive Male Reproductive | 17,18 18 |
| Tu/30 | EXAM IV (FINAL EXAM) April 30 * Note: This schedule is <i>tentative</i> (it is your responsibility to keep regular attendance and make note of the modifications) | |