LECTURE SYLLABUS
BIOL 4420 Histology Fall 2019

Instructor: Dr Sean P. Graham
Lectures: MW 1200-115 WSB 107
Laboratory: W 3-4:50 WSB 107
Office: WSB 221

Office Hours: T-Th 2:30-6pm, Fri 2-5pm
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Course Description: Histology is the study and analysis of tissues. It is also a complicated technical process that takes time and practice to develop skills in. Rather than a lecture-heavy course, this will be an entirely hands-on training program that will instruct students how to do histology.

Recommended Books/materials: None

Exams & Grading: The table below illustrates the grading for this course. There will be no exams, and there will be long hours of independent work. After each major benchmark in the individual's student project, the quality of the student's work will be appraised.

Tissue harvesting	**15 points**
Tissue preparation	**20 points**
Microtomy and Slide Preparation	**35 points**
Hematoxylin and Eosin Staining	**10 points**
Microscopy and Measurements	**20 points**
Total Credit	**100 points**

A 90 — 100% B 80 — 89% C 70 — 79% D 60 — 69% F 0 — 60%

Participation is mandatory. I will not waste class time calling roll because you are all adults. However, this will be a small class and I will notice when you are missing. So, I'll deduct points from your I total if it becomes a problem. I don't want to hear about your excuse for not being in class and I don't want to hear about it every time you're gone. If you tell me about being missing, I will probably deduct points; if you don't, I probably won't notice. Your absence will not be excused unless you have a documented, university-approved excuse (hospitalization, etc.), and I need to hear about this **BEFORE THE DAY OF THE EXAM**. Otherwise you're out of luck.

Course Objectives. At the end of the semester, students should be able to:

Complete a histological study, including tissue harvesting, preparation, microtome slicing, staining, and analysis.

Student Learning Outcomes:

The biology student graduating with a BS in Biology should be able to:

SLO1 demonstrate an understanding of basic biological concepts, including but not limited to evolution via natural selection, cell theory, and the role and function of DNA.

SLO2 demonstrate utilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing.

SLO3 use biological instrumentation to solve biological problems using standard observational strategies.

SLO4 develop writing skills by summarizing and critiquing recent relevant biological literature.

Tentative schedule (subject to change) week of

Week	Topic
1	Introduction
1	Tissue Harvesting
2	
2	Tissue Harvesting
3	Tissue Harvesting
3	**Deadline 1: Sample tissues harvested by Sep 11**
4	Tissue preparation: paraffin embedding
4	Paraffin embedding
5	Paraffin embedding
5	**Deadline 2: sample tissues embedded by Oct 2**
6	Microtomy- Learning to slice
6	Slicing and slide mounting
7	Slicing and slide mounting
7	Slicing and slide mounting
8	Slicing and slide mounting
8	**Deadline 3: sample tissues sliced and mounted by Oct 23**
9	Staining
10	Staining
10	Staining
11	Staining
11	**Deadline 4: sample tissues stained and cover slipped by Nov 13**
12	Microscopy and measurements
12	Microscopy and measurements
13	Microscopy and measurements
13	Microscopy and measurements
14	Microscopy and measurements
14	Microscopy and measurements
15	Microscopy and measurements
15	Microscopy and measurements
16	**Deadline 5: measurements taken and turn in spreadsheet Dec 4** **Final Exam Dec 10 12:30-2:30 pm**

Students with disabilities will be provided reasonable accommodations. If you would like to request such accommodations because of a physical, mental, or learning disability, please contact the ADA Coordinator for Program Accessibility at 837-8203, FH 112.