

**Bi 455/555 Histology & Bi 455L/555L Histology Lab**  
**Spring 2021 Syllabus**  
**Portland State University**

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**Lecture: MW 5:40 – 7:50 on Zoom**

**Labs: MW 2:00 pm – 4:50 pm**

**TR 9 am- 11:50 am**

<b>Course Description</b>	Bi 455 is a systemic study, description, and identification of histological structures. The course includes Two 2-hour lecture periods and two 3-hour laboratory periods. Also offered for graduate-level credit as Bi 555 and may be taken only once for credit. Expected preparation: two years of biology. 6 credit hours Schedule Types: Lecture, Laboratory, Fully online	
<b>Instructor</b>	Christina Howard	
<b>Contact Information</b>	Office: My secret lair <a href="mailto:chow@pdx.edu">chow@pdx.edu</a> OR <a href="mailto:choward@clark.edu">choward@clark.edu</a> Office hours: Hour TBA (need to coordinate with other classes first)	
<b>TA Contact and Office hours:</b>	Malorri Hughes <a href="mailto:malorri@pdx.edu">malorri@pdx.edu</a> Tuesday/Thursday lab	Lillian Raley <a href="mailto:lilraley@pdx.edu">lilraley@pdx.edu</a> Monday/Wednesday lab
<b>Required items</b>	<u>Text:</u> Junqueira's Basic Histology: Text and Atlas by Anthony Mescher, McGraw Hill Professional. 13 <sup>th</sup> or 14 <sup>th</sup> edition. Digital content not required.  <u>Exams &amp; Quizzes:</u> Will be administered online via D2L <u>Laboratory Manual:</u> A set of colored pencils for drawing. We provide the histology lab manual pages.	
<b>Course Web Page</b>	The PSU online resource "D2L" will be used for posting course materials and grades, as well as administering quizzes and tests. Log in at <a href="https://d2l.pdx.edu">https://d2l.pdx.edu</a> with your PSU username and password. Material will be posted by 9am on the morning of class.	
<b>Objectives &amp; Skills Development</b>	<ul style="list-style-type: none"><li>• Develop a foundation of the fundamental concepts of the microscopic anatomy of the human body</li><li>• Develop an understanding how organ integrity and function are maintained by the organization of cells and tissues</li><li>• Promote critical thinking of the clinical consequences of cellular disorders and tissue demonstrate an understanding of the microscopic organization and relationships of cells tissues and organs of the human body;</li><li>• Identify cells and tissues and describe their functions</li><li>• Develop problem solving skills to evaluate both normal and pathologic structure and function of cells and tissues that comprise the organs of the human body; and related diseases, intracellular pathogens, cancer and diabetes</li></ul>	

- Lecture Exams**      There will be three in class exams (50 points) and a final exam (100 points). Multiple choice, 2 points per question.  
Do not take this course if you cannot attend all 4 exams. See schedule below for exam dates. Lowest exam score and quiz score will be dropped. As such, **No makeup exams or quizzes will be given for any reason whatsoever. Do not skip exams or lectures as you will not be given any leeway if unforeseen circumstances force you to miss another.**
- Lecture Quizzes**      Quizzes will be weekly, and online via D2L. They will be released on Mondays and will be due by 11:59 pm on Friday. I recommend not attempting them until after the week's lecture material has been delivered. There will be no makeup quizzes as you have ample time and warning to complete them.
- Laboratory Practical Exams & Quizzes**
- laboratory practical exams and quizzes will be administered on a weekly basis.
    - o UNGRADED PRACTICE Quiz format: 10 questions, these are practice questions to check in with your knowledge and prepare you for the practical
    - o Exam format: 25 questions, 2 minutes per question (subject to change)
  - Practicals will emphasize slides, but may also include diagrams and worded questions.
  - Incorrectly spelled words on practicals will cost 1/2 point, up to 10% of the total score. This is not negotiable as correct spelling is an important part of unambiguous medical communication in health care fields.

**Scientific Literature (SL) Assignments**

You will be assigned 6 sets of articles to be posted on D2L. These readings will examine current science relevant to course material. The exercise itself will involve reading literature published from primary scientific experimentation as well as popular media articles on the same topic which establish the social relevancy of this science. Assignments for each article set:

1. Quizzes: Each set of articles will have an associated 20 point online quiz designed to test your comprehension of these readings. Quizzes are due at the start of class on the day the articles will be discussed. Late submissions are accepted for up to one week after the due date with a 10 point penalty. There are **no dropped scores in this category**, meaning all 6 online quizzes must be completed by dates indicated on the course schedule. Submission via quizzes tool under "Activities" tab in D2L.
2. Worksheets: Each article will have one worksheet associated with it. These are to be completed in groups. I will randomly assign the groups after I take attendance on the first day. Afterward, group discussions and worksheets can be completed by students in their groups remotely via zoom. 1 worksheet will be submitted per group using the dropbox in D2L. The lowest worksheet score is dropped. In cases of non-attendance, the worksheet may be completed by the individual and submitted up to 1 week late with a 10 point penalty applied.
3. Essays: After each discussion, a 250 word essay (10 points) reflecting on what you have learned from the assignment will be due within a week of the lecture in which the article is discussed. The essay must be submitted through the online quiz tool under the "activities" tab in D2L. The essay may be completed up to 1 week late with a 5 point penalty applied. Lowest essay score is dropped.

**Attendance policy**

- **Quizzes and Exams in both lecture and lab cannot, under any circumstances, be made up.** The lowest score in each of the following categories will be dropped: Lecture Quiz, Lecture Exam, Lab Quiz, SL Worksheet, SL Essay.
- Use your dropped score wisely, as you have only one per category and cannot anticipate accidents or illnesses.
- Laboratory Exams, Final Exam, and SL Quizzes are required, and **no dropped scores can be used in these grading categories.**

**Laboratory Manual**

Your completed laboratory manual, with all required drawings will be turned in at each midterm. ALL LAB MANUALS MUST BE CONVERTED TO PDF FORMAT AND UPLOADED TO D2L. This ensures that your TA's can open the files and that they are legible and gradeable across all formats.

Each week's manual is worth 20 points, with 4 entries for each half term. 5 additional points are awarded per half term based on lab etiquette at the discretion of the course TAs.

Note: Either drawings or labelled screen grabs are acceptable as lab manual entries.

## Laboratory Policies

1. Laboratory zoom session attendance is *not* mandatory **BUT while it is theoretically possible to succeed in lab without attending, it is unlikely. Our skilled TA's provide crucial guidance on how to distinguish between and among challenging structures. You should plan on attending their zoom sessions if you want to be successful in this course.**
2. You may not attend a virtual lab other than the one for which you are registered.
3. Please read the lab assignments before coming to class.
4. Please try to spend the full 2 hours & 50 minutes in your virtual lab each assigned day. Note that since we are operating remotely this term, this two hours and fifty minutes may be broken up into a lecture session and individual practice. Regardless, there is no substitute for spending time with slides as a predictor of practical testing success. Invest the time in preparing and it will pay dividends.
5. No food or drink allowed in the physical lab, but this is virtual lab so feel free to eat a pizza in your jammies if that is what it takes!
6. If you need additional accommodations for the laboratory portion of the course, you must review all necessary paperwork from the PSU Disability Resource Center with your lab instructor within one week of your first day of lab for arrangements to be made. Please be aware that not all accommodations can be made at all lab times.
7. You may earn 5 extra credit points for good lab etiquette each half term. This includes proper care and storage of assigned microscope and slides.

## Grading

Item	Quantity	Points each	Points total
Lecture Quizzes*	6	10	50
Lecture Exams*	3	50	100
Lecture Final Exam	1	100	100
Scientific Literature Online Quizzes	6	20	120
Scientific Literature Worksheets*	6	20	100
Scientific Literature Reflection Essays*	6	10	50
Lab Exam	2	100	200
Lab Manual	2	85	170
Lab Tissue Staining	2	15	30
Totals			920

90-100%= A, 88-89.99%= B+, 80-87.99%= B, 78-79.99%= C+, 70-77.99%= C, 68-69.99%= D+, 60-67.99%= D, 0-59.99%= F. Grades will be rounded to 2 significant digits.

\*Lowest score will be dropped.

Final exam is compulsory, and cannot be considered a dropped score.

There will be no exceptions or bumping up of grades for being "close".

There will be no curve, however there may be opportunities for extra credit.

**Disability**

If you have a disability and are in need of academic accommodation: first register with the Disability Resource Center (503) 725-4150, <http://www.drc.pdx.edu>, then notify Dr. Reddy to make appropriate arrangements.

To ensure all students with disabilities receive the accommodations they are entitled to, Dr. Reddy needs advance notice that you plan on using them. To guarantee accommodation, please confirm that Dr. Reddy has received your accommodation letter from the DRC, and notify her at least a week before the exam date with specific testing arrangements.

Note: Students with testing accommodations may take exams at the PSU Testing Center. These exams must be taken the same day as class exams.

**Making your testing center appointments:** To ensure optimal appointment times, please schedule exams with the testing center and e-mail your appointment times for all 4 exams to Dr. Reddy by **5pm on Monday of week 2**.

**Academic Courtesy**

1. If you arrive late to zoom, please do so as unobtrusively as possible, with your mic muted.
2. Respect the rights of fellow students during the class period.
3. Please avoid talking or other distracting behavior, and turn phones off.
4. Everyone is expected to help maintain the appearance of the classroom. After class, all trash should be removed and discarded appropriately.

**Title IX Statement:** As an instructor, one of my responsibilities is to help create a safe learning environment for my students and for the campus as a whole. Please be aware that as a faculty member, I have the responsibility to report any instances of sexual harassment, sexual violence and/or other forms of prohibited discrimination. If you would rather share information about sexual harassment, sexual violence or discrimination to a confidential employee who does not have this reporting responsibility, you can find a list (<https://www.pdx.edu/sexual-assault/get-help>) of those individuals. For more information about Title IX please complete the required student module Creating a Safe Campus (<https://www.pdx.edu/sexual-assault/safe-campus-module>) in your D2L.

**Academic Honesty**

Cheating or plagiarism of any kind will not be tolerated. See the PSU "Code of Student Conduct and Responsibility" for more information: <http://www.pdx.edu/dos/codeofconduct>. If cheating is observed, the grade for the assignment will be a "0", and cannot be dropped as a lowest score. The student will be reported to University officials as described in the Code (577-031-0142: Procedures for Complaints of Academic Dishonesty). **IF YOU ARE TAKING THIS COURSE IN FULFILLMENT OF PRE-MEDICAL COURSEWORK ANY CHEATING WILL CARRY DISCIPLINARY ACTION. IT IS IMPERATIVE THAT FUTURE CLINICIANS HOLD THEMSELVES TO THE HIGHEST STANDARD OF INTEGRITY. THIS POLICY IS NOT NEGOTIABLE.**

**Lab Schedule**

<b>Week of (Monday date)</b>	<b>Mon/Tue</b>	<b>Wed/Thur</b>
Mar 29	Histological technique & The Cytoplasm	The Nucleus, Classifying Tissue
Apr 5	<b>Quiz 1 (Technique, The Cell, Classifying Tissue)- Due 11:59pm on April 5<sup>th</sup></b> Epithelial Tissue	Connective Tissue, Cartilage & Bone
Apr 12	<b>Quiz 2 (Epithelial, Connective, Cartilage, Bone)- Due 11:59 pm April 12<sup>th</sup></b> Adipose, Blood	Muscle, Nerve tissue
Apr 19	<b>Quiz 3 (Adipose, Blood, Muscle, Nerve)- Due 11:59pm April 19<sup>th</sup></b> Cardiovascular Staining Tissue: H & E of adipose	Review (Mock Practical) Viewing stained tissue
Apr 26	<b>-Lab Exam 1- Available from Sunday 25<sup>th</sup> @ 8 am to Tuesday 27<sup>th</sup> @ 11:59 pm</b> <b>-Week 1-4 Lab Manual- Due 11:59 pm on Sunday April 25<sup>th</sup></b>	Lymphatic, Digestive I
May 3	Digestive II	<b>Quiz 4 (Lymphatic, Digestive)- Due 11:59pm May 3<sup>rd</sup></b> Respiratory system
May 10	Integument, Urinary	<b>Quiz 5 (Respiratory, Integument, Urinary)- Due 11:59pm May 10<sup>th</sup></b> Endocrine
May 17	Male Reproductive	<b>Quiz 6 (Endocrine, Male Reproductive)- Due 11:59pm on May 17<sup>th</sup></b> Female Reproductive, Eye, Ear
May 24	<u>No Class, Memorial Day Holiday</u>	<b>Quiz 7 (Female Reproductive, Eye, Ear)- Due 11:59pm on May 24<sup>th</sup></b> Staining Tissue: Congo Red of amyloid
May 31	Review (Mock Practical) Viewing stained tissue	<b>Lab Exam 2</b> <b>Week 5-9 Lab Manual Due, turn in at start of final</b>
Jun 7 <sup>th</sup> -10 <sup>th</sup>	No lab during Finals Week	<b>No Lab during Finals week.</b>

## Lecture Schedule

Week	Dates M/W	Scheduled Topics <sup>1</sup>
1	Mar 29/Mar 31	<b>Lecture:</b> Introduction, Cells, The Nucleus <b>Text:</b> Chapter 1-3
2	Apr 5/7	<b>Monday Quiz #1</b> <b>Lecture:</b> Epithelial, Connective, Adipose, Cartilage <b>Text:</b> Chapter 4-7 <b>Text:</b> <b>Monday, Article Set 1 Online Quiz and in class discussion worksheet due Cancer</b> <b>Article</b>
3	Apr 12/14	<b>Monday Quiz #2</b> <b>Lecture:</b> Bone, Nervous, Muscle <b>Text:</b> Chapter 8-10 <b>Text:</b> <b>Monday, Article Set 2 Online Quiz and in class discussion worksheet due</b> <b>Article</b> <b>Pig human embryos</b>
4	Apr 19/21	<b>Monday EXAM 1 Chapter 1-10, SL1-2</b> <b>Lecture:</b> Circulatory, Blood, Hemopoiesis <b>Text:</b> Chapter 11-13
5	Apr 26/28	<b>Monday Quiz #3</b> <b>Lecture:</b> Lymphatic, Digestive <b>Text:</b> Chapters 14-16 <b>Text:</b> <b>Monday, Article Set 3 Online Quiz and in class discussion worksheet due</b> <b>Article:</b> <b>Appetite and Signaling</b>
6	May 3/5	<b>Monday Quiz #4</b> <b>Lecture:</b> Respiratory, Skin <b>Text:</b> Chapters 17-18 <b>Text:</b> <b>Monday, Article Set 4 Online Quiz and in class discussion worksheet due</b> <b>Article:</b> <b>Microbiomes of the gut</b>
7	May 10/12	<b>Monday EXAM 2 Chapters 11-18, SL 3-4</b> <b>Lecture:</b> Urinary, Endocrine <b>Text:</b> Chapters 19-20
8	May 17/19	<b>Monday Quiz #5</b> <b>Lecture:</b> Male & Female Reproductive <b>Text:</b> Chapters 21-22 <b>Text:</b> <b>Monday, Article Set 5 Online Quiz and in class discussion worksheet due</b> <b>Article:</b> <b>Environmental estrogens</b>

9	May 24/26	<b>Lecture:</b> <b>Text:</b>	<b><u>Monday May 25<sup>th</sup>: Memorial Day holiday, no class</u></b> <b>Wednesday Quiz #6</b> Eye, Ear Chapter 23
10	May 31/Jun 2	<b>Article:</b>	<b>NO CLASS MONDAY, MEMORIAL DAY HOLIDAY</b> <b>Wednesday: EXAM 3 Chapters 19-23, SL5</b> <b>Article Set 6 Online Quiz and in class discussion worksheet due</b> <b>Gender physiology</b>
11 Final S	Jun 7 <sup>th</sup> - 10 <sup>th</sup>		<b>Final Exam (Comprehensive) No labs or office hours this week</b> <b>Weds June 13<sup>th</sup> due by end of Wednesday (11:59 pm)</b>