

*It is the responsibility of all PSL 310 students to read and understand this entire Syllabus. Questions may be posted on the Discussion Forum titled "Questions about the Syllabus or the Course?" in the "Course Introduction" module of D2L.*

**Hybrid PSL 310 (Sections 740-749) Spring Semester 2019  
Physiology for Pre-Health Professionals**

**Professor** Dr. Adele Denison  
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**Email** denison4@msu.edu  
**Office Hours** Tues, Wed, Thurs 1:00-2:30 and gladly other times by appointment  
**Exams\*** **MONDAYS at 6:00-6:50 pm** for all sections (except the last Exam, PSL 310 has a "Common Final Exam" on Tues, Apr 30, 2019 at 8:30-9:20 pm-room posted on D2L)

**\*IMPORTANT: EXAMS FOR ALL SECTIONS ARE ON MONDAYS AT 6:00-6:50 pm in N130 Business College Complex on January 28, February 18, March 18, and April 8.** All Monday exam dates and times were posted on the Schedule of Courses before you enrolled.

**Teaching Assistants** Matthew Lewis [lewism29@msu.edu](mailto:lewism29@msu.edu) and Thomas Turkette [turkette@msu.edu](mailto:turkette@msu.edu)  
**TA Office Hours** email to arrange an appointment via D2L or the email address immediately above

**Reviews:** Optional Reviews each Friday before an exam at 3:00 - 4:00 pm in room 1410 BPS. The reviews will be recorded for those that cannot attend. The time and room for the Review will be posted in the calendar on D2L.

**Help Sessions with TAs:** The Help Sessions begin the week of the first exam. These sessions include study tips and an opportunity to go over your exam answers with a TA (bring your feedback email). The time and room of the Help Sessions will be posted in the calendar on D2L.

Because it is so important for doing well in the class, "Tips for Success" are listed with the most common mistakes of previous PSL 310 students included.

**Tips for Success**

1. **This is very important: don't let the course get ahead of you** because it can severely affect your grade. Always keep up with the material in the course by following the "Recommended Daily Schedule" on the last pages of this Syllabus. Do your Homework and Case Studies early. These are ways to keep up and help you do well in the class!
2. **Write out in your OWN words and understand (don't just try to memorize) the Learning Objectives.** Results of a survey from previous students: 80% agreed that doing the Learning Objectives made the material "stick with them" (75% strongly agreed, 5% agreed). People are different but it is very likely that doing the Objectives will help you **a lot**. They are time consuming, but are a very important way most students really understand lecture material. **All exams count – don't make the mistake of failing an exam to learn you need to do the Objectives.**
3. **DO THE LEARNING OBJECTIVES IN SMALL DOSES!** You should do the Objectives after watching the videos listed for each day in the Recommended Daily Schedule. This is the best way for students because you know more going forward and it also keeps you from being overwhelmed. This tip is very important because if you save the Objectives you can get in the situation where you can't finish them, and therefore, do poorly on the exam.
4. Try writing out your responses to the Objectives while watching the Lecture videos again. For many students it is a real effective way to remain engaged and attentive, and therefore, learn the material more quickly.
5. One of the biggest mistakes students can make is to treat the "Challenge Questions and Reading Questions" (in the Appendix of the Course Pack) as only an assignment and not as an important LEARNING tool. **YOU SHOULD NOT**

IGNORE ANSWERS to the Challenge Questions and Reading Questions. The Challenge Questions and Reading Questions and the ANSWERS to the Challenge Questions and Reading Questions contain NEW material that students are responsible for on exams. **Important message! Several questions on each Unit Exam are likely to come from the Challenge Questions and Reading Questions and the ANSWERS to those questions!** You should work through and understand the Challenge Questions and Reading Questions, including the textbook readings assigned with those questions, and read and understand the ANSWERS to the Challenge Questions and Reading Questions – all are fair game for exams.

6. Do all Practice Questions\* to help you understand the material and to help prepare you for exams. Figure out why the right answers are right and **FIGURE OUT WHY THE WRONG ANSWERS ARE WRONG.** This can be huge; “memorizing” the right answers can be a recipe for failing exams.  
**\*WHAT ARE THE “PRACTICE QUESTIONS”?** The practice questions include the Comprehension Checks (answered in videos posted on D2L), the Study Questions (after the Learning Objectives in the Course Pack), Extra Study Questions (in the Appendix of the Course Pack), Challenge Questions and Reading Questions and the ANSWERS to those questions (in the Appendix of the Course Pack), Homework questions and Case Study questions (answers posted on D2L after the week’s in-class sessions, in “Homework Answers” and “Study Guide for the Case Studies”).
7. **DO THE STUDY QUESTIONS IN “ROUNDS”. THE QUESTIONS WILL BE MORE EFFECTIVE IF YOU DO SOME AND COME BACK LATER AND DO MORE.** Research has shown that you will learn the most if you come back later and have to retrieve what you have learned earlier. The Study Questions are written in rounds; you can easily do some and then some later and then some later (it’s much less effective if you do them all at once and only once). **You should also come back and re-do the other Practice Questions multiple times to enhance your learning.**
8. Realize that for almost all students, physiology is one of their most challenging courses and that it is the kind of course which requires at least 2-3 hours of studying a week for each hour of lecture. **Make sure you devote enough time to studying the material and enough time for it to “sink in”; allow enough time for the “light bulb to come on”.**
9. Do not memorize all the details of the figures in the Course Pack. You are not directly tested on the figures (that is, you are not required to identify different parts of a figure or be able to draw a figure....there are a few exceptions to this, but those exceptions are specifically noted in the Learning Objectives). The main function of the figures is to reinforce your learning and to help you remember and understand concepts (since “a picture paints a thousand words”).
10. If you have not taken Chemistry or Biology within the last few years and need some brushing up, you should read Appendix A in the ebook before the Membrane Transport Lecture (and use it for reference during the semester).
11. Attend review sessions and office hours (professor’s office hours and/or TA office hours) if you need extra help.
12. Go to the Help Sessions to learn from your mistakes on the exam and for study tips from the TA about how to do better on exams.
13. If you are unhappy with how you are doing in the course, contact the Professor early in the semester for ideas about ways to study the material. (If you wait too long it may be impossible to increase your grade as much as you want.) Let the Professor know of any problems or difficulties you are having with the course. **She wants to help! Don’t hesitate to ask!**

### **Description of PSL 310**

Human organ system physiology with clinical applications for students entering health care fields.

### **Overall Objective of the Course and Professor’s Goal**

Pre-health professional students need an especially strong foundation in physiology because successful later course work, and indeed, a successful profession requires it. It’s like building the foundation for a house out of strong material (cement, not rotten wood) before you build the house and decorate the rooms. Finishing the house and decorating the rooms makes sense only if you know you are on good footing. Also true is that no matter how good you are at decorating, if the foundation is not sound, your house has serious problems. Physiology will build the foundation or the basement, upon which you may build a large, lavish structure which you can then ornately decorate (i.e. your health profession and then your specialty). My

overall goal as your Professor is to help you build this solid foundation. We have a very limited amount of time, and can't cover everything I'd like to (everything about how the body works is interesting, almost always fascinating), but I hope to give you the tools (information, concepts, principles, and the thinking skills) to build the strong foundation you need to put that lavish, ornate house on.

### **Core Concepts or “Big Ideas” in PSL 310**

Students who have completed PSL 310 should be able to explain these core concepts:

<b>Homeostasis</b>	The internal environment is maintained relatively constant by negative feedback control.
<b>Cell membranes</b>	Cell membranes allow certain substances to enter or leave the cell. Transport through the membrane is a function of cell membrane structure and electrochemical potential differences.
<b>Organ systems</b>	Each organ system performs an essential function for the body.
<b>Structure/Function</b>	Structure of an organ or organ system determines its function. Disruption in structure can lead to dysfunction.
<b>Cause and Effect</b>	The body acts as a biological machine governed by the principle of cause and effect.
<b>Laws of Science</b>	The functions of the body can be explained by laws of science (e.g. chemistry, physics) as expressed through mathematics and visual data representation.
<b>Interaction</b>	Organ systems interact with each other to contribute to and maintain homeostasis.
<b>Communication</b>	Cells in the body communicate with other cells. The nervous system, endocrine system, and locally produced chemicals are important means of communication.

The Core Concepts (“Big Ideas”) above have been modified from: Michael J, McFarland J. The core principles (“big ideas”) of physiology: results of faculty surveys. *Adv Physiol Educ.* 2011 Dec; 35(4):336-41. doi: 10.1152/advan.00004.2011.

### **Learning Outcomes**

Students who have completed PSL 310 should be able to:

- explain the function of each human organ system.
- explain the interrelationships of organ systems required to maintain homeostasis.
- use models of normal function to predict responses.
- predict the effect of a change in one or more variables on other variables in the body.
- predict the effect of disease states on body system function.
- identify normal and abnormal body functions.
- interpret graphical representations of data and selected sets of clinical data.
- explain the derivation of mathematical formulas used in physiology.
- apply concepts learned in lecture to clinical (real world) examples.
- use clinical descriptions of diseases or symptoms to analyze their causes.
- decide appropriate treatments for hypothetical diseases and/or symptoms.
- describe common normal ranges of major physiologically controlled variables such as blood pressure, plasma glucose, body temperature, etc.

Students will practice (via in-class discussions) employability skills and should be able to:

- work with people with different ideas
- evaluate evidence
- construct reasoned arguments
- draw possible conclusions based on the situation
- communicate interpretations and conclusions
- work effectively as a collaborative member of a group
- communicate effectively within a group
- communicate effectively to the class the conclusions of the group

### **Learning Objectives**

Specific detailed Learning Objectives are included in the Course Pack (after each Lecture Notes topic).

## **Course Pack**

PSL 310 Course Pack Part 1 and Part 2 is required. You should buy both parts of the Course Pack before the semester begins. The Course Pack Part 1 comes with an access code printed on the back of the front cover. The access code gives access to an ebook (essentially free). The Course Pack was written by your Professor. It includes partial Lecture Notes (you complete while watching lecture videos), Learning Objectives for each Lecture Topic, Comprehension Checks (questions answered during videos), Study Questions (which you do on your own), and more practice questions (Extra Study Questions and Challenge Questions and Reading Questions) in the Appendix. Keep up with the material in the Course Pack (e.g. by doing the Objectives after the Lecture videos for each day) – it is WAY too much to do immediately before exams.

## **Textbook – an ebook**

PSL 310 changed to an ebook to save students money (the ebook is essentially free and the hard copy, unused text can cost more than \$200). The ebook is Human Physiology: From Cells to Systems, ninth edition, by Lauralee Sherwood. Nothing you are tested on comes directly from the ebook (unless it is specifically assigned reading – i.e. CNS reading, readings for the Challenge Questions and Reading Questions, or readings for the Case Studies – for your convenience, these readings are also included in the Readings Appendix in the Course Pack but it is good to have a digital book to be able to see figures in color and to have as a reference). There are learning tools on the publisher’s site called “MindTap” that may help your learning, but no material that is only on MindTap is required for the class. After you create an account at [login.cengagebrain.com](http://login.cengagebrain.com), click on “Register another product” on the right side of the web page. Type in the code that is on the back of the front cover of Course Pack Part 1. You may be asked to type in a course key. A course key is NOT used for PSL 310 and, if asked, you should skip this step. The icon for the ebook is on the far right side (and looks like a book).

Cengage has provided this link for Spring 2019 which makes it easier to find our ebook: Course Link URL: <https://www.cengage.com/dashboard/#/course-confirmation/MTPPC9HNQGG1/initial-course-confirmation>

The hard copy textbook is on reserve in the Main Library. For students who want their own hard copy text, area bookstores may have used copies and it can be found on the internet using ISBN 978-1-285-86693-2.

## **Technical Requirements**

You should have used the link posted at the MSU Schedule of Courses ([google doc link](#)) and read the page that listed the technical requirements for Hybrid PSL 310. You must have the requirements listed on that page to successfully watch the online videos and complete the course.

For problems with D2L or technical issues, you should contact the D2L Help Line at (517) 432-6200 OR (844) 678-6200 (you can call 24 hours a day, 7 days a week). These numbers are also listed in the Orientation module in D2L. You should NOT contact Dr. Denison for technical problems, instead, you should contact the D2L Help Line.

## **Course Organization**

The lectures for this course are all available online. They will be delivered by streaming video (lectures cannot be downloaded and saved due to copyright restrictions). Students will watch the online lectures and will simultaneously complete partial Lecture Notes which are included in the PSL 310 Course Pack. (You will need to have a comfortable place to write while you are watching the lectures.) Students will access the lectures through D2L (Michigan State University’s course management system). Type in [d2l.msu.edu](http://d2l.msu.edu), then login with your MSU netID and password, then click on SS19-PSL-310-All Sections-Physiology Pre-Health Prof. Students should be aware that the Professor may follow the activity of students on D2L.

## **Lines of Communication**

Some announcements about the class will be posted in D2L in “Announcements”. All students should check D2L Announcements regularly (every weekday). Students should also check the Calendar in D2L regularly (every weekday). If there are changes in the course protocol or the schedule, it will be posted on D2L in Announcements. Please note that there could be changes in course protocol. It is the responsibility of all students to be aware of all Announcements and calendar events posted on D2L about PSL 310. Other communications about the class may be by email. It is the responsibility of all students to regularly (every weekday) check their MSU email account (msu.edu email) for any communication about Hybrid PSL 310.

Of particular importance is checking the course D2L site when an early winter storm occurs (they are the worst). If an exam must be canceled due to weather conditions or an emergency (which is unlikely, but possible), your Professor will do all humanly possible to post the cancellation on D2L in Announcements before the scheduled exam time. Students are required to check D2L Announcements before the next day for instructions for the new exam time and place if an exam had to be canceled.

Questions about course content should be posted on the Discussion Forums in D2L. Each Unit of material will have a Discussion Forum. Try to be as clear as you can when posting a question, e.g. citing the page in the Course Pack or the Study Question number. Dr. Denison will try to check and respond to questions on the Discussion Forum at least every 48 hours (excluding weekends and holidays). The last time Dr. Denison will reliably check the Discussion Forum before an exam will be the day before the exam at 5 pm.

Personal questions regarding the class should be emailed to Dr. Denison or you may call on the telephone. (I would be happy to talk to you if I’m there or you can leave a message for me to call you back.)

### **Backup Plan if there are severe problems with D2L before Exams**

If D2L is completely down for more than 8 hours during the two days before an exam, email Dr. Denison about the problem. (Note: this applies to SEVERE problems with D2L, not an individual connection problem). Dr. Denison will try to check email once in late morning and the evening on each of the two days before an exam. If Dr. Denison determines there is a severe problem with D2L that affects your ability to study, she will send emails to the class (using the Registrar’s site). These emails will have the links for lecture videos for the Unit and other posted files attached. The Registrar’s site only allows 2 attachments – so there may be multiple emails. So, if there is a D2L catastrophe during the two days before an exam, you should check your MSU email account. Barring other catastrophes (e.g. the Registrar’s site not working or the video server going down), this should be a good backup plan.

### **Unit Exams**

Unit Exams will be based on the Learning Objectives, the Study Guide for the Case Studies for the Unit (posted on D2L), and all the “Practice Questions”. Again, what are the Practice Questions? The practice questions include the Comprehension Checks (answered in videos posted on D2L), the Study Questions (after the Learning Objectives in the Course Pack), Extra Study Questions (in the Appendix of the Course Pack), Challenge Questions and Reading Questions and the ANSWERS to those questions (in the Appendix of the Course Pack), Homework questions and Case Study questions (answers posted on D2L after the week’s in-class sessions, in “Homework Answers” and “Study Guide for the Case Studies”).

The student is encouraged to become familiar with the format of the exam questions by using the Comprehension Checks and Study Questions in the Course Pack. A note of caution when responding to exam questions: take care when answering all exam questions; choices made on the scantron answer sheet which are not options for the exam questions will be marked incorrect without exception. The student needs to be sure that their choices match the available choices (for example, if your answer is C and there is no answer C in the question, it will be marked wrong.)

Some exam questions will be similar to the Practice Questions. Many of these questions will be “changed” to make exam questions (a multiple choice question changed to a true/false question would be an example of a “changed” question. Replacing the word increase with decrease can make a “changed” question. Taking two or more “easy” questions to make one more challenging question can make a “changed” question. You can look through the Study Questions and find examples of “changed” questions).

Other questions on an exam will be entirely **NEW** questions, not based on particular practice questions, but based on Learning Objectives, ANSWERS to the Challenge Questions and Reading Questions, readings assigned with the Challenge Questions and Reading Questions, or based on the Study Guide for the Case Studies for the Unit.

There will be 5 Unit Exams in the course (see “Schedule for Hybrid PSL 310 Spring 2019” for material covered on each exam and the date of each exam). The last Unit Exam (Unit 5 Exam) will be given during the Common Final Exam time for PSL 310. **THERE IS NO CUMULATIVE FINAL EXAM IN THIS COURSE.** All students must bring their student ID to all exams and #2 pencils. There will be 42 exam questions on each Unit Exam. Exam questions will be 2 to 5 item multiple choice, true/false, and perhaps some matching questions.

An “Exam Procedure” document will be posted on D2L that all students must read and understand before our first exam.

### **Make-up exams**

Make-up exams will be given sparingly and only if the student provides clear documentation of a valid medical excuse or other emergency\* - a slip from the emergency room or a note from a doctor’s office that verifies your illness on the day of the exam would work (see \*\* below), just “not feeling well” won’t work. The student must contact the Professor no later than 24 hours after the time of the missed scheduled exam to make arrangements to take a make-up exam unless special circumstances (e.g. hospitalization) arise. If possible, it is best to contact the Professor before the missed exam to be sure your excuse is acceptable. Documentation of illness or emergency must be submitted to the Professor within 48 hours after the missed exam unless special circumstances (e.g. hospitalization) arise. Make-up exams are given on Friday evening at during the week of the missed exam date (unless special circumstances arise and the Professor approves a different make-up exam date; note: for the Thanksgiving holiday the makeup cannot be on Friday). If the student does not contact and present documentation to the Professor within the allotted times, the missed examination score will be recorded as 0 points (zero points). Note: if the student knows ahead of time that they will have to miss a scheduled exam time for a VERY good reason it may be possible to arrange an early Friday night (6:00-6:50 pm) exam. An example of a very good reason to take the early Friday night exam would be if an online class schedules an exam during our exam time (and the student was not told this exam time before classes began).

\*Students who are grieving a loss or tragedy and need to be absent should follow the MSU Grief Absence Policy using the following link: [MSU's Grief Absence Policy](#). Students with a religious observance request can consult the Office of the Registrar’s website using the following link: [Religious Policy](#).

\*\*If you have any questions about what medical documents you will need, you should contact Dr. Denison by email before 2:00 pm the day of the exam (and include a phone number where you can be reached).

### **Homework and Case Study Sessions**

There will be Case Study sessions (in-class meetings) the week before each Unit Exam. Students will attend their section’s Case Study meeting time and will submit Homework answers (done before the in-class session) and answers to the Case Studies questions (discussed during the class meeting). Instructions for the Homework and Case Study questions will be in the documents posted on D2L in the Unit materials.

The lowest Homework/ Case Study Session grade will be dropped. Homework/Case Study Assignments alone (that is, without attending the Case Study session) will NOT be accepted.

Students are not allowed to turn in a scantron and leave the Case Study session early – if you can't stay for the entire class you can go to the makeup session or try to get approval to attend another section (described immediately below). Students more than 20 minutes late to a Case Study session are not allowed to stay (they can attend another session or the Makeup session – see below).

### **Makeup Case Study sessions**

Students who miss their section's Case Study session can sign up via a survey on D2L for the makeup Case Study session. The survey will be available by Monday night of the Case Study sessions week. The makeup session will be on Thursday evening of the Case Study week at 7:50-9:10 pm. Depending on the number of students signing up for makeup sessions, students may only be able to do ONE Case Study makeup session (we will announce a limit of only one makeup session per student if the makeup sessions become too large).

### **Approval to Attend another Case Study Session (if the Makeup doesn't work)**

Students with an important reason for missing their section's meeting, a reason that is APPROVED BY DR. DENISON, can try to attend another section if they do the following. 1) Contact Dr. Denison at least 24 hours in advance and get an approval to attend the other section due to an important conflict. 2) Wait until the class almost begins (that is, wait until a couple minutes before start time for the class) to come in to be sure there is an empty seat for you. 3) Agree to leave that class meeting if more than 50 people are attending the session, that is, agree that only students enrolled in that section can stay (and you will leave) if the section is full. (If the section you are trying to attend is full you either can drop this case study or try to attend the makeup session. We are trying to accommodate students but if allowing students to attend other sections creates a problem, this will be canceled.)

### **Make-up Assignment (at end of semester)**

Students with an extended absence (who missed their section's Case Study session and the makeup session) with a valid excuse for missing the sessions (e.g. doctor's note or documented emergency or documented MSU athletic team travel) presented to the Professor by the Monday after the missed in-class session by 1 pm will be allowed to do a make-up assignment. If the student does not contact the Professor by 1 pm the Monday after their scheduled missed class to make arrangements, the makeup assignment will no longer be possible and zero points will be recorded for the missed in-class session (unless special circumstances arise, e.g. emergency surgery with inability to communicate). The makeup assignment will be available on D2L (available only to students with a valid excuse approved by the Professor) by late Friday night before Finals Week. The makeup assignment will cover all 5 units of the course. The makeup assignment must be printed and turned in at the final exam time. If students have a valid excuse for more than one in-class meeting, different make-up assignments will be used for those excused absences. No late makeup assignments will be accepted. This means after the PSL 310 Unit 5 exam time, you may not turn in a make-up assignment (it's too late)\*. Note: if you are approved to take the Alternate exam (and it is before the regularly scheduled Unit 5 Exam), you must turn in your Makeup Assignment to Dr. Denison before 5 pm on the day of the regularly scheduled Unit 5 Exam

\*unless the student is excused from the last Exam due to illness or an emergency.

### **Honors Option**

Honors students in PSL 310 should read all the material in the "Honors Option" folder in D2L to decide whether they are interested in pursuing an Honors Option in PSL 310. Students must complete an Honors Option Agreement and turn it in to Dr. Denison before 5 pm on Wednesday, February 20, 2019. You must also sign up for an Honors Option presentation time (sign up is via a discussion forum in the Honors Option module in D2L). You must sign up for a presentation time before 5 pm on Wednesday, February 20, 2019.

**MAKE SURE YOU DO BOTH – SUBMIT THE HO AGREEMENT AND SIGN UP FOR A PRESENTATION TIME – BEFORE FEBRUARY 20, 2019 AT 5 PM.** Because scheduling for a certain number of people is required (we can't keep changing numbers), students that miss the sign-up deadline may not be able to complete an Honors Option in PSL 310 (we may not be able to fit you in).

### **Special Needs**

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at [rcpd.msu.edu](http://rcpd.msu.edu). Once your eligibility for an accommodation has been determined, you will be issued a verified individual services accommodation ("VISA") form. Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc). Requests received after this date will be honored whenever possible. (This paragraph is also found in the Model Statements section of the RCPD website.)

### **Academic Honesty**

As stated in *Spartan Life Student Handbook* under Student Rights and Responsibilities: "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards". Your professor will adhere to the All-University Policy on Integrity of Scholarship and Grades in Spartan Life. Students should understand the consequences for cheating outlined in the All-University Policy, including that students who commit an act of academic dishonesty will have an Academic Dishonesty Report submitted which is added to the student's academic record and may receive a 0.0 in the course.

### **Feedback from Students Welcome (and Encouraged)**

Your Professor is very interested in what you think about the course and the hybrid structure. I welcome your comments or suggestions. You can discuss issues about the class in person with me or you can email them to me. You could also send your comments to a TA (and can request to remain anonymous). The entire class may be asked to complete surveys about the class (anonymous surveys posted on D2L or evaluations distributed at the in-class sessions).

Students are an important source for ways to improve courses and your suggestions could help make this course better. However, please realize that not all suggestions can be immediately incorporated into the class, but they will all be given consideration (and some may be incorporated later).

### **Students Helping other Students Welcome (and Encouraged)**

Your grade is assigned by the number of points you earn. There is no curve in this class; there is no limit to the number of students who can get high grades. So help each other! The goal is learning and working together (e.g. study groups) can help many students learn. (You may really learn it if you teach it to someone else. If you are in a study group, take turns teaching.) PSL 310 is meant to be a collaborative, supportive environment – we want everyone to learn as much as they can and all to help each other as much as they can.



## Grades

### Homework / Case Study Sessions – 160 points

5 Homework/ Case Study sessions worth 40 points each (lowest score dropped) = 160 points

### Exams – Unit 1-5 Exams – 840 points

**Unit 1-5 Exams** are worth 168 points each (42 questions on each exam at 4 points per question)

**5 Unit Exams** worth 168 points each = 840 points

Homework / Case Study Sessions = 160 points/1000 total points = 16% of grade

Exam points = 840 points/ 1000 total points = 84% of grade

## Grading Scale

The following grading scale will be used to determine PSL 310 grades **WITHOUT EXCEPTION** - **it will apply to all students (all students will be treated the same):**

<u>Points</u>	<u>Grade</u>	<u>Percent</u> - to allow estimation of grades during the semester ( <u>Points</u> will be used to assign course grades at semester end)
900 or above	4.0	(90% or above)
850-899	3.5	(85 - 89.99%)
800-849	3.0	(80 - 84.99%)
750-799	2.5	(75 - 79.99%)
700-749	2.0	(70 - 74.99%)
650-699	1.5	(65 - 69.99%)
600-649	1.0	(60 - 64.99%)
599 or below	0.0	(59.99% or below)

Grades and grade cutoffs are fair if you know from the outset exactly how you and all other students will be treated. The Grading Scale above shows how EVERY student will be graded in PSL 310. You should understand that if you get 899 points it will NOT be “bumped up” to give you a 4.0, nor will another student with a 849 get a 3.5, nor will another student with a 799 get a 3.0, and so on (meaning there will be no rounding or “bumping” up of any grade), that is, all grade cut offs above will be used, and a student with 599 points will receive a 0.0. Students should be able to get many Case Study session points (many of the Case Study points are “free points” if you come to the class sessions and put in the work). At the end of the course, all students will be assigned grades according to the points they have earned in the class using the above Grading Scale. There will be no special treatment for any individual students. In a class as large as PSL 310, this is the only fair way to assign grades.

You can determine your percent grade at any time by dividing the points you’ve earned by the total number of points possible in the course at that time. Contact the Professor if you have any questions about course grading. Notice: points (not percent) will be used to assign course grades at semester end (see above).

### Schedule for Hybrid PSL 310 Spring 2019 \*

Week	Dates	Lecture Topic	Class meeting/Exam	Ebook Readings**
1	1/7,8	Course Intro, Homeostasis		Chapter 1
	1/9	Membrane Transport		Chapter 3 to pg 77
	1/10	Membrane Potentials		77-84, Chapter 4 to pg 102
2	1/14,15	Membrane Potentials		
	1/16	CNS Reading***		
	1/17	Receptors		Chapter 6
3	1/21	NO CLASS		
	1/22-1/24	Receptors	<i>1/22-24 Case Study sessions</i>	
<b>(end of Unit 1 material)</b>				
4	<b>1/28</b>		<b>Unit 1 Exam</b>	
	1/29,30	Synapses		102-115
	1/30,1/31	Reflexes and ANS		281-286, Chapter 7 to pg 242
5	2/4	Reflexes and ANS		
	2/5-7	Muscle		242-248, Chapter 8 to pg 281
6	2/11	Smooth and Cardiac Muscle		286-294
	2/12-14	Blood	<i>2/12-14 Case Study sessions</i>	Chapter 11, Chapter 12 to pg 415
<b>(end of Unit 2 material)</b>				
7	<b>2/18</b>	EXAM	<b>Unit 2 Exam</b>	
	2/19,20	Immunity-B and T Cells		Chapter 12 <u>from</u> pg 415
	2/20,21	Cardiac Physiology		Chapter 9
8	2/25-27	Cardiac Physiology		
	2/27,28	Vascular Physiology		Chapter 10
	3/4-7	SPRING BREAK WEEK		
9	3/11-14	Vascular Physiology	<i>3/12-14 Case Study sessions</i>	
	<b>(end of Unit 3 material)</b>			
10	<b>3/18</b>	EXAM	<b>Unit 3 Exam</b>	
	2/19-21	Respiratory Physiology		Chapter 13
11	3/25	Respiratory Physiology		
	3/26-28	Renal Physiology		Chapter 14
	3/28	Fluid and Ion Balance		Chapter 15
12	4/1-4	Fluid and Ion Balance	<i>4/2-4 Case Study sessions</i>	
	<b>(end of Unit 4 material)</b>			
13	<b>4/8</b>	EXAM	<b>Unit 4 Exam</b>	
	4/9-11	Digestive Physiology		Chapter 16
14	4/15,16	Metabolism		685-701
	4/16-18	Endocrine System		115-129, Chapter 18, Chapter 19
15	4/22-25	Reproductive Physiology	<i>4/23-25 Case Study sessions</i>	Chapter 20
16	<b>4/30</b>	EXAM 8:30-9:20 pm	<b>Unit 5 Exam</b>	

\* This Schedule is approximate. There is also a **Recommended Daily Schedule on the following pages** that lists the specific Lecture recordings you should finish each day to help you keep up with the class (to help keep you from falling behind).

\*\* Helpful note: you are NOT directly tested on ebook readings unless it is assigned (e.g. CNS reading or an assigned reading in the Challenge Questions and Reading Questions)

\*\*\*Students learn about the CNS from reading pages 142-155, 163, 166-169 of the ebook (also found in the “Readings Appendix”, but not in color). The Learning Objectives for this reading is listed as Objective #12 in the Membrane Potentials Objectives on page 63 of the Course Pack.

**PSL 310 Recommended Daily Schedule Spring 2019**

Use this Recommended Daily Schedule when you are watching the Lectures, so you know which Lecture videos to finish each day. Monday-Thursday schedule was used. Comprehension Checks videos are not listed since they are short and they are learning tools – most students should use them the way they are posted, that is, right after the material was covered. You can also use them for review, since they are clearly labeled (and quick). **YOU SHOULD FINISH THE LEARNING OBJECTIVES FOR THE VIDEOS ON THE SAME DAY!!!**

Week	Monday	Tuesday	Wednesday	Thursday
1	January 7  Course Introduction videos	January 8  Homeostasis 1-3	January 9  Membrane Transport 1-5	January 10  Membrane Potentials 1-4
2	January 14  Membrane Potentials 5-7	January 15  Membrane Potentials 8-10	January 16  CNS reading – CNS is on the Unit 1 Exam! See the bottom of page 10 of the Syllabus.	January 17  Receptors 1-3
3	January 21  NO CLASS	January 22  Receptors 4-7  <b><u>Case Study Sessions</u></b> Section 740 – 3:00 pm class Section 741 – 4:40 pm class Section 742 – 6:20 pm class Section 743 – 8:00 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>	January 23  Receptors 8-10 <i>end of Unit 1 Lectures</i> <b><u>Case Study Sessions</u></b> Section 744 – 3:00 pm class Section 745 – 4:40 pm class Section 746 – 6:20 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>	January 24  No Lecture! Study Day!  <b><u>Case Study Sessions</u></b> Section 747 – 3:00 pm class Section 748 – 4:40 pm class Section 749 – 6:20 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>
4	January 28 <b><u>Unit 1 Exam</u></b> 6:00-6:50 pm N130 BCC	January 29  Synapses 1-3	January 30  Synapses 4,5 Reflexes and ANS 1,2	January 31  Reflexes and ANS 3-5

Week	Monday	Tuesday	Wednesday	Thursday
5	February 4  Reflexes and ANS 6-9	February 5  Muscle 1-4	February 6  Muscle 5-7	February 7  Muscle 8-13
6	February 11  Smooth and Cardiac Muscle 1-5	February 12  Blood 1-3  <b><u>Case Study Sessions</u></b> Section 740 – 3:00 pm class Section 741 – 4:40 pm class Section 742 – 6:20 pm class Section 743 – 8:00 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>	February 13  Blood 4-7  <i>end of Unit 2 Lectures</i>  <b><u>Case Study Sessions</u></b> Section 744 – 3:00 pm class Section 745 – 4:40 pm class Section 746 – 6:20 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>	February 14  No Lecture! Study Day!  <b><u>Case Study Sessions</u></b> Section 747 – 3:00 pm class Section 748 – 4:40 pm class Section 749 – 6:20 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>
7	February 18  <b><u>Unit 2 Exam</u></b> <b>6:00-6:50 pm</b> <b>N130 BCC</b>	February 19  B + T Cells 1-3  Honors Option Agreement and presentation sign up on D2L due before 5 pm TOMORROW for interested Honors College students.	February 20  B + T Cells 4,5 Cardiac Physiology 1	February 21  Cardiac Physiology 2-4

Week	Monday	Tuesday	Wednesday	Thursday
8	February 25 Cardiac Physiology 5-7	February 26 Cardiac Physiology 8-11	February 27 Cardiac Physiology 12,13 Vascular Physiology 1,2	February 28 Vascular Physiology 3-6
	March 4 <b>SPRING</b>	March 5 <b>BREAK</b>	March 6 <b>WEEK</b>	March 7
9	March 11 Vascular Physiology 7-9	March 12 Vascular Physiology 10,11  <b><u>Case Study Sessions</u></b> Section 740 – 3:00 pm class Section 741 – 4:40 pm class Section 742 – 6:20 pm class Section 743 – 8:00 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>	March 13 Vascular Physiology 12,13 <i>end of Unit 3 Lectures</i>  <b><u>Case Study Sessions</u></b> Section 744 – 3:00 pm class Section 745 – 4:40 pm class Section 746 – 6:20 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>	March 14 No Lecture! Study Day!  <b><u>Case Study Sessions</u></b> Section 747 – 3:00 pm class Section 748 – 4:40 pm class Section 749 – 6:20 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>
10	March 18 <b><u>Unit 3 Exam</u></b> <b>6:00-6:50 pm</b> <b>N130 BCC</b>	March 19 Respiratory Physiology 1-4	March 20 Respiratory Physiology 5-8	March 21 Respiratory Physiology 9-12

Week	Monday	Tuesday	Wednesday	Thursday
11	March 25 Respiratory Physiology 13-16	March 26 Renal Physiology 1-4	March 27 Renal Physiology 5-7	March 28 Renal Physiology 8 Fluid + Ion Balance 1-3
12	April 1 Fluid + Ion Balance 4-8	April 2 Fluid + Ion Balance 9 <i>end of Unit 4 Lectures</i>  <b><u>Case Study Sessions</u></b> Section 740 – 3:00 pm class Section 741 – 4:40 pm class Section 742 – 6:20 pm class Section 743 – 8:00 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>	April 3 No Lecture! Study Day!  <b><u>Case Study Sessions</u></b> Section 744 – 3:00 pm class Section 745 – 4:40 pm class Section 746 – 6:20 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>	April 4 No Lecture! Study Day!  <b><u>Case Study Sessions</u></b> Section 747 – 3:00 pm class Section 748 – 4:40 pm class Section 749 – 6:20 pm class  <b>Bring printed homework questions <u>with answers</u>. Bring printed case studies <u>with answers</u>.</b>
13	April 8 <b><u>Unit 4 Exam</u></b> 6:00-6:50 pm N130 BCC	April 9 Digestive Physiology 1-3	April 10 Digestive Physiology 4-7	April 11 Digestive Physiology 8-12

Week	Monday	Tuesday	Wednesday	Thursday
14	April 15 Metabolism 1-4	April 16 Metabolism 5 Endocrine 1-3	April 17 Endocrine 4-6	April 18 Endocrine 7-9
15	April 22 Reproductive 1-4	April 23 Reproductive 5,6 <i>end of Unit 5 Lectures</i>  <u>Case Study Sessions</u> Section 740 – 3:00 pm class Section 741 – 4:40 pm class Section 742 – 6:20 pm class Section 743 – 8:00 pm class  Bring printed homework questions <u>with answers</u> . Bring printed case studies <u>with answers</u> .	April 24 No Lecture! Study Day!!!!  <u>Case Study Sessions</u> Section 744 – 3:00 pm class Section 745 – 4:40 pm class Section 746 – 6:20 pm class  Bring printed homework questions <u>with answers</u> . Bring printed case studies <u>with answers</u> .	April 25 No Lecture! Study Day!!!! Note only for this day: class may be moved for Engineering Design Day. See calendar in D2L for changed.  <u>Case Study Sessions</u> Section 747 – 3:00 pm class Section 748 – 4:40 pm class Section 749 – 6:20 pm class  Bring printed homework questions <u>with answers</u> . Bring printed case studies <u>with answers</u> .
16	April 29 <b>FINAL EXAMS WEEK</b>	April 30 <u>Unit 5 Exam</u> 8:30-9:20 pm - Note the later time for “Common Final Exam”. Room will be posted in calendar on D2L.	May 1	May 2