



College of Natural Science MICHIGAN STATE UNIVERSITY

Physiology Department

Physiology for Pre-Health Professionals (Sections 740-749) Fall 2020 Syllabus

Course Number - PSL 310

Credit Hours - 4

Course meeting days and time - Online lectures and Zoom Case Study meetings

Course location - D2L and Zoom

Course website address - <https://d2l.msu.edu>

Course Modality - Online

Exams - Unit 1-4 Exams (for ALL sections) are MONDAY EVENINGS at 6:00-6:50 pm ONLINE (via D2L) on the following dates: September 21, October 12, November 2, and November 23, 2020. The last (Unit 5) exam will be over only Unit 5 (not cumulative), will be 50 minutes (during the time scheduled for the PSL 310 final exam) and will be ONLINE (via D2L). The Unit 5 Exam is Monday, December 14, 2020 from 8:40-9:30 pm. Exam times were posted on the Schedule of Courses before you enrolled and, as it states at the Schedule of Courses: "Students must arrange their schedules to take PSL 310 exams at 6-6:50pm on the dates listed".

Instructors

Instructor Information

Instructor (she/her/hers)	Undergraduate Learning Assistants (she/her/hers)
Name: Adele L. Denison, PhD	Names: Madison Noom and Danielle Thomas
Office: online	Office: online
Office hours: On Zoom on Tues, Wed, Thurs from 12:00-1:30 pm. Office hour link and password will be posted in Announcements on D2L. Other office hours are gladly arranged by email.	Office hours: Email to arrange a Zoom office hour
Phone: please contact by email	Phone: please contact by email
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Course Information

Course Description

As stated in the University Online Catalog, the PSL 310 Course Description is “Human organ system physiology with clinical applications for students entering health care fields”.

Lecture material is applied to clinically related questions during each Unit’s Case Study meetings to help students understand how PSL 310 Lectures relate to their future health care careers. In-class discussions during Case Study meetings allow students to practice communication and team work skills employers deem essential.

Course Overview

The Lectures for this course are all available online (on D2L). There are detailed Learning Objectives and Practice Questions to help students work with the material and understand Lectures.

The week before each Unit Exam, there is an 80 minute Zoom Case Study class meeting for each of the 10 sections in the course. Students are assigned Case Study Questions to do on their own before their scheduled Case Study Zoom time. During the meeting, Case Study Questions are discussed in small groups and in the entire 50 person class to explain reasoning for correct answers. After their Case Study session, students use the Case Study Assignment on D2L to submit their answers.

Students do a Homework Assignment on D2L due by Sunday at 10 pm before each Case Study week. The Homework Assignment will help students prepare for Open Notes exams.

There will be a recorded Unit Review available and a Question and Answer Session on Thursday night the week before an exam.

Tips for Success

- **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 Study Questions early. These are ways to keep up and help you do well in the class!
- **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.**
- **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.

- 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.
- 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 Assignment on D2L, and Case Study Assignment on D2L (with Case Study answers explained in the “Study Guide for the Case Studies” posted on D2L).
- **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 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 many times to enhance your learning.**
- 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”.**
- For some students, try writing out your responses to the Objectives while watching the Lecture videos again. It can be a real effective way to remain engaged and attentive, and therefore, learn the material more quickly.
- 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).
- Use review recordings, attend Question and Answer Sessions and office hours (professor’s office hours and/or undergraduate assistant office hours) if you need extra help.
- If you are unhappy with how you are doing in the course (and need ideas about ways to study the material), or, for example, if you are a transfer student (and need extra guidance), contact the Professor early in the semester. 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!**

Tips for Open Notes Exams

- You SHOULD STUDY just as much for an Open Notes exam as you do for other exams, but you should study differently.

- Realize that almost all exam questions will NOT be ones in which you can easily look up an answer, so your focus should be on understanding concepts, not something like recall of a name of a structure.
- The PSL 310 Practice Questions will help you understand concepts (and are VERY important to use) but will not often directly give you an answer to an Open Notes exam question.
- Practice Questions may be merged into one exam question.
- You may want to use sticky notes to flag areas of the Course Pack that are especially important in the Unit to prepare for the exam.
- Probably most important is: YOU SHOULD CREATE A WELL THOUGHT OUT DOCUMENT USING THE LEARNING OBJECTIVES THAT DESCRIBES THE IMPORTANT CONCEPTS FOR THE UNIT.

Required Textbook & Course Materials:

Course Pack – PSL 310 Course Pack Part 1 and Part 2 is required. Both parts of the Course Pack are shrink-wrapped together. The Course Pack Part 1 comes with an access code printed on the back of the front cover (a few students may have the access code printed on a card-if you have a card use the code on the card). 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.

Textbook – is an ebook. PSL 310 changed to an ebook to save students money. The ebook is Human Physiology: From Cells to Systems, 9th 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, which you can enlarge, 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. A good way to think about how we use the MindTap website is we only use the ebook for color figures that can be enlarged. After you create an account at login.cengagebrain.com, click on “Register another course or product” on the right and top 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 – which is MTPP-QQTQ-Q71W. Once into MindTap, you can see the icon for the ebook is on the far right side (and looks like a book). Again, to prevent any confusion, we use the MindTap website only for the ebook (to be able to enlarge figures and to see them in color). All readings are included in the Readings Appendix of the Course Pack. Cengage has provided this link for Fall 2020 which makes it easier to find our ebook: [Publisher's site with ebook](#)

Required Technologies:

As posted in the Schedule of Courses “Textbooks and Supplemental Materials” a laptop with working webcam (camera) is required for the course. Click on the following link for [MSU's laptop requirement](#). There are relatively inexpensive (some under \$50) web cams available if your laptop does not have one. Access to a high speed internet connection is required for course website use and for Zoom meetings.

You may want to use the following links for information about browsers [D2L browser support](#) internet speed [how much internet speed do I need](#) or MSU provided information about internet access away from campus [finding internet access](#)

Students should also consult this google doc link [PSL 310 Technical Requirements Google link](#) which is posted at the Schedule of Course and details more technical requirements for the class.

What to do if there is a technical problem during an exam or class Zoom meeting: If students have an internet problem or other technical problem during an exam, it is their responsibility to contact Dr. Denison (via email or the Zoom room that will be open during an exam) and call the D2L helpdesk. If students have an internet problem during a Zoom Case Study session (and are not able to quickly return to the Zoom meeting) they should request the Makeup Case Study session and describe the internet problem as their reason for their Makeup request.

Course platforms/Structure:

The lectures for this course are all available online. Students will access the lectures through D2L (Michigan State University's course management system). Lectures 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.) Type in d2l.msu.edu, then login with your MSU netID and password, then click on FS20-PSL-310-All Sections-Physiology Pre-Health Prof. Students should be aware that the Professor may follow the activity of students on D2L.

Additional resources will be posted on D2L including Homework Assignments, Case Study Assignments, Study Guides to the Case Studies, Discussion Forums for each Unit for questions about course material, recordings of Review Sessions, Zoom links for Dr. Denison's scheduled Office Hours and Question and Answer Sessions.

There will be synchronous Zoom Case Study meetings at the time listed in the Schedule of Courses for your section. The Case Study meetings occur the week before each Unit Exam. Case Study meetings will be listed in the D2L calendar and are listed in this Syllabus (on the last pages) in the "Recommended Daily Schedule".

Learning Continuity Statement

If a student is unable to attend class for a long period of time and the absence is excused (use the same examples given for a makeup exam excuse) they should contact Dr. Denison by email. If a student misses 2 Case Study Sessions (and misses the Case Study Makeups), Dr. Denison and the student can discuss a possible substitute for Case Study attendance.

Course Continuity Statement

If the Professor somehow is absent for a long period (though this is very unlikely, I have only missed one class in my decades of teaching!), there will be information posted in D2L in Announcements about how the class will progress.

Instructional Objectives

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, 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.

Course Objectives:

Core Concepts or "Big Ideas" in PSL 310

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

Core Concept	Description of the Core Concept
Homeostasis	The internal environment is maintained relatively constant by negative feedback control.
Cell membranes	Cell membranes allow certain substances to enter or leave the cell. Transport through the membrane is a function of cell membrane structure and electrochemical differences.
Organ systems	Each organ system performs an essential function for the body.
Structure/Function	Structure of an organ or organ system determines its function. Disruption in structure can lead to dysfunction.
Cause and Effect	The body acts as a biological machine governed by the principle of cause and effect.
Laws of Science	The functions of the body can be explained by laws of science (e.g. chemistry, physics).
Interaction	Organ systems interact with each other to contribute to and maintain homeostasis.
Communication	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 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 after completion of PSL 310 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.

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

Grading Policy

Grading Scale:

The table below describes the relationships between grades, percentage, and points. The first column is the grade. The second column is the percentage range associated with that grade, and the third column is the points associated with that grade.

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

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

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 Homework points (since the Homework is treated as a mastery and you have unlimited tries for those questions). Students should be able to earn many Case Study session points (many of the Case Study points are “free points” if you attend the class Zoom sessions, pay attention, participate, and are careful to record correct answers on D2L). 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 the above table).

Graded Course Activities:

The table below describes the graded course activities including points and activity description. The first column includes the points possible, and the second column includes a description for each activity.

Points	Description
60 points/1000 total points (6% of total grade)	Homework Assignments Five 15 point Homework Assignments (with lowest Homework Assignment score dropped)
100 points/ 1000 total points (10% of total grade)	Case Study Assignments Five 25 point Case Study Assignments (with lowest Case Study Assignment score dropped)
840 points/ 1000 total points (84% of total grade)	Unit Exams Five 168 point (42 question, 4 points per question) Unit Exams (no Exam scores are dropped because there is no cumulative Final Exam)
1000 points	Total Points Possible

NOTE: the Course Schedule is located near the last pages of this Syllabus (so you can easily find it). There is a one page summary titled “Course Schedule for PSL 310 Fall Semester 2020” and then a detailed “Recommended Daily Schedule”. **It is very important to closely follow the Recommended Daily Schedule** – if you follow it each day you will keep up in the course and you are much more likely to succeed and earn a high grade!

Grade Dissemination:

Homework Assignment, Case Study Assignment, and Exam grades will be available on D2L.

Exam Procedure

A document titled “PSL 310 Fall 2020 (All Sections) Exam Procedure” will be posted on D2L. It is the responsibility of all students to read and understand the entire Exam Procedure document before the

Unit 1 Exam. The Exam Procedure document describes how the online exam will be conducted (including start time at 6:00 pm, at 6:15 you will not be able to enter the exam, it's a 50 minute exam with a 5 minute grace period, open notes are allowed, collaboration with other people is not allowed, students are NOT able to make changes after the 5 minute grace period ends and must submit their exam, and rules about what to do if you have technical difficulty). The Exam Procedure document also lists the tips for studying for Open Notes exams.

Makeup Exams

Makeup exams (consisting of different questions than the original exam) are allowed if a student provides clear documentation of a severe illness (just “not feeling well” or a cold is not a severe illness) or a severe injury that requires treatment or has a University approved excuse (a Grief Absence or Religious Observance, described below) or has an unexpected emergency. Examples of instances in which a makeup exam would be allowed are listed.

1. Severe illness requiring treatment
2. Severe injury requiring treatment
3. Surgery
4. Hospitalization
5. Grief absence
6. Religious observance
7. Unexpected emergency or unexpected problem (for example, loss of internet just before the exam due to a storm, tornado, earthquake...it is impossible to list all emergencies that would qualify but it would be something you cannot prepare for and affects your ability to take the exam)

All instances above except #6 require documentation. For #1-4 a letter (often called a “doctor’s note) on a health provider’s letterhead and signed by the health provider is required. For a grief absence, you must follow the MSU [Grief Absence Policy](#). Students with a religious observance request can consult the Office of the Registrar’s website on [Religious Observance Policy](#). Students are expected to notify the Professor in advance if they intend to miss an exam due to a holy day of their religious faith. Following includes information about major religious holidays at the [Office of Inclusion and Intercultural Initiatives](#). For #7, find the most appropriate documentation you can (it will vary for different circumstances but you will need to provide clear evidence that the event occurred). The professor may be able to help you decide what may work for appropriate documentation for an emergency.

The student must contact the Professor no later than 24 hours after the time of the missed scheduled exam regarding a makeup exam unless special circumstances arise (e.g. hospitalization). If possible, it is best to contact the Professor before the missed exam to be sure your excuse will be acceptable; there may be special instances not listed above in which a makeup exam would be allowed. Required documentation must be submitted to the Professor within 48 hours after the missed exam unless special circumstances arise (e.g. hospitalization). Makeup exams are given on Friday evening at 9 pm during the week of the missed exam date. If the student does not contact and present the required documentation to the Professor within the allotted times, the missed examination score will be recorded as 0 points (zero points). Students should arrange their schedules to take the 9 pm Friday evening makeup exam, but if it is impossible, they can request an oral makeup exam given at a time arranged with the Professor.

Attendance Policy for Case Study Meetings and Makeup Case Study:

Students are expected to attend the Case Study Zoom meeting for the section for which they are enrolled. It is strongly encouraged that all students to use their webcam so they can discuss most

effectively (as they would in a typical classroom). Attendance will be verified by poll questions at different times during the Zoom meeting (including at the end of the meeting). Just as in a physical classroom, students must wear appropriate clothing and must treat everyone in the meeting respectfully. Students who are unable to attend all of the Zoom meeting due to technical problems (or some other reason) should email Dr. Denison immediately to resolve whether their attendance requirement is met or they should attend the Makeup Case Study (described immediately below).

If a student has not attended their section's entire Case Study (due to technical or other issues) or has an important reason to miss their scheduled Case Study Zoom meeting, they can request (via a link in the calendar on D2L) to attend the Makeup Case Study Zoom meeting which occurs on Wednesday of the Case Study week at 8:00-9:20 pm. Students can check if their request is approved or not by going to the same area on D2L that they submitted their request (in the Assignment area of D2L). Students are reminded that the lowest Case Study Assignment grade is dropped [which could be 0 (zero) points due to a Case Study absence].

Your participation in your section's or a Makeup Case Study Zoom meeting is REQUIRED to receive ANY points on the D2L Case Study Assignment. STUDENTS WHO DO NOT ATTEND THEIR SCHEDULED CASE STUDY ZOOM SESSION OR THE MAKEUP CASE STUDY ZOOM SESSION ARE NOT ALLOWED TO SUBMIT ANY ANSWERS FOR THAT CASE STUDY ON D2L (this attendance requirement will be noted – students will be reminded they must have attended an entire Case Study Zoom meeting at the beginning of the Case Study Assignment on D2L). Case Study points are attendance and participation points. If a student does not attend an entire Case Study but still submits answers in the Case Study Assignment on D2L, those answers (those points or that grade) will be removed (replaced with 0 points or zero points) and the student is required to have a Zoom meeting with Dr. Denison about violation of course rules and potential dishonesty.* This answer submission policy is similar to students only being able to turn in an answer sheet if they attended an entire class. You are earning points for attending the session and participating in small group and larger group discussions. If you do not attend the session to participate, you should not receive any of those participation points. Note: we are using D2L as means of submitting answers instead of creating another method to prevent students having to buy a device and/or learn more technology. *Failure to meet with Dr. Denison will result in further consequences, including removal of exam grades from D2L until there is the required meeting.

Makeup Homework Assignment (at end of semester)

Homework Assignments are due before 10 pm on Sunday immediately preceding the Case Study sessions. The lowest grade of the 5 Homework Assignments (including a missing grade or a grade of 0 points) will be dropped. Students who miss a Homework Assignment with a valid excuse (use the same examples as given for a makeup exam excuse) for not completing a Homework Assignment (emailed to the Professor by Wednesday before 1 pm of the same Unit's Case Study week will be allowed to do a Makeup Homework Assignment at the end of the semester. If the student does not contact the Professor by 1 pm deadline on Wednesday immediately following the missed Homework Assignment deadline, the Makeup Homework Assignment will no longer be possible and zero points will be recorded (unless special circumstances arise, e.g. emergency surgery with inability to communicate). The Makeup Homework Assignment will be available on D2L (available only to students with a valid excuse approved by the Professor) on Friday night before Finals Week and will be due on Tuesday of Finals Week before 8 pm. The Makeup Homework Assignment will cover all 5 units of the course and will be worth 15 points. If students have a valid excuse for more than one Homework Assignment, a second Makeup Homework Assignment will consist of short answer questions worth 15 possible points. No late Makeup Homework

Assignments will be accepted. This means after Tuesday of Finals Week at 8 pm you may not turn in a Makeup Homework Assignment (it's too late)*.

*unless the student is excused due to illness or an emergency (use the same examples as given for a makeup exam excuse).

Other Course Policies and Information

Important Policies Regarding Dates and Communication:

Important dates are listed on the "Course Schedule for PSL 310 Fall Semester 2020" and the "Recommended Daily Schedule" at the end of this Syllabus. Please note that there could be changes in course protocol or the course schedule. 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 PSL 310.

Unit Reviews and Question and Answer Sessions before Exams

Unit Review recordings will be posted on D2L and can be used for a summary of important and challenging material in the Unit. There will also be a Zoom Question and Answer Session at 7-8 pm on Thursday before the Monday exam.

Communication about Course Material and Personal issues

Questions about course content can 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 (not posted on D2L).

Honors Option

Honors students in PSL 310 should read all the material in the "Honors Option" module on D2L to decide whether they are interested in pursuing an Honors Option in PSL 310. Students must complete an online Honors Option Agreement before 5 pm on Oct. 14, 2020 and sign up for an Honors Option presentation time (sign up is via a discussion forum in the Honors Option module on D2L). **MAKE SURE YOU DO BOTH – SUBMIT THE HO AGREEMENT AND SIGN UP FOR A PRESENTATION TIME BEFORE OCT. 14, 2020 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).

Grades of "Incomplete"

Incomplete grades can only be given when 6/7 of course work is completed by the student and university policy is followed found at [MSU's incomplete grade policy](#).

Group Work Policy

All students are expected to attend the Case Studies with their own answers to all questions to share their thinking with the rest of their group. All students are expected to contribute to their small group discussions. Undergraduate Learning Assistants will move into Zoom groups to see if there are questions and to promote group productivity. If a student was not contributing in your group please email Dr. Denison to describe what happened. Dr. Denison will contact the student to discuss the issue with them (but will not use your name).

Class Etiquette and Helping Each Other

All students' ideas and contributions to group discussions should be considered valuable. All students should be treated with respect. 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. in Case Study meetings and 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.

Technology and Media

Phone Usage

Students should stay off phones during Case Study Zoom meetings. If you have an emergency you have to respond to, please briefly turn off your microphone and video and return as soon as possible. Students who miss a substantial amount of the Zoom meeting will need to attend the Makeup Case Study Zoom meeting as described above.

Course Recordings

The Makeup Case Study will be video and audio recorded. Students will be reminded that a recording will be made when they request to attend the Makeup and students can opt to use only a microphone on Zoom if they object to a video of their image being recorded. Other Case Study Zoom meetings of this course may be recorded and before beginning the recording, students will be informed that they can opt to use only a microphone on Zoom if they object to a video of their image being recorded. Following is language suggested by MSU that we will follow in PSL 310: "The recordings may be available to students registered for this class. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Recordings may not be reproduced, shared with those not in the class, or uploaded to other online environments. Doing so may result in disciplinary action. If the instructor or another University office plan other uses for the recordings beyond this class, students identifiable in the recordings will be notified to request consent prior to such use." The following links describe MSU policies regarding data and privacy: [MSU Institutional Data Policy](#) ; [Privacy Guidelines](#)

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.

Student Expectations

The All-University Policy on Integrity of Scholarship and Grades

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. MSU's Policy is found here: [Integrity of Scholarship and Grades](#).

Disability Access

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. 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 from the Model Statements section of the RCPD website.)

Course Schedule for PSL 310 Fall Semester 2020*

Week	Dates	Lecture Topic	Zoom meeting/Exam on D2L	Ebook Readings**
1	9/2	Homeostasis		Chapter 1
	9/3	Membrane Transport		Chapter 3 to pg 77
2	9/7	HOLIDAY		
	9/8-10	Membrane Potentials, CNS Reading***		77-84, Chapter 4 to pg 102
3	9/14-17	Receptors	9/14-16 Case Studies	Chapter 6
		(end of Unit 1 material)		
4	9/21	EXAM 6:00-6:50 pm	Unit 1 Exam	
	9/22,23	Synapses		102-115
	9/23,24	Reflexes and ANS		281-286, Chapter 7 to pg 242
5	9/28	Reflexes and ANS		
	9/29,30,10/1	Muscle		242-248, Chapter 8 to pg 281
6	10/5	Smooth and Cardiac Muscle		286-294
	10/6-8	Blood	10/5-10/7 Case Studies	Chapter 11, Chapter 12 to pg 415
		(end of Unit 2 material)		
7	10/12	EXAM 6:00-6:50 pm	Unit 2 Exam	
	10/13,14	Immunity-B and T Cells		Chapter 12 from pg 415
	10/14,15	Cardiac Physiology		Chapter 9
8	10/19-21	Cardiac Physiology		
	10/21,22	Vascular Physiology		Chapter 10
9	10/26-29	Vascular Physiology	10/26-28 Case Studies	
		(end of Unit 3 material)		
10	11/2	EXAM 6:00-6:50 pm	Unit 3 Exam	
	11/3-5	Respiratory Physiology		Chapter 13
11	11/9	Respiratory Physiology		
	11/10-12	Renal Physiology		Chapter 14
	11/12	Fluid and Ion Balance		Chapter 15
12	11/16-19	Fluid and Ion Balance	11/16-18 Case Studies	
		(end of Unit 4 material)		
13	11/23	EXAM 6:00-6:50 pm	Unit 4 Exam	
	11/24-25	Digestive Physiology		Chapter 16
	11/26	HOLIDAY		
14	11/30	Digestive Physiology		
	12/1,2	Metabolism		685-701
	12/2,3	Endocrine System		115-129, Chapter 18, Chapter 19
15	12/7	Endocrine System	12/7-9 Case Studies	
	12/8-10	Reproductive Physiology		Chapter 20
16	12/14	EXAM 8:40-9:30 pm	Unit 5 Exam	

* 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 or reading with Case Study 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 Fall 2020

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 OBJECTIVES FOR THE VIDEOS ON THE SAME DAY you watch the videos!!!**

Week	Monday	Tuesday	Wednesday	Thursday
1			September 2 Classes begin Homeostasis 1-3	September 3 Membrane Transport 1-5
2	September 7 HOLIDAY	September 8 Membrane Potentials 1-4	September 9 Membrane Potentials 5-7	September 10 Membrane Potentials 8-10
3	September 14 Receptors 1-3 <u>Case Study Sessions</u> Section 740 – 3:00 pm Zoom Section 741 – 4:40 pm Zoom Section 742 – 6:20 pm Zoom Section 743 – 8:00 pm Zoom Have Case Study Questions with your answers with you!	September 15 Receptors 4-7 <u>Case Study Sessions</u> Section 744 – 3:00 pm Zoom Section 745 – 4:40 pm Zoom Section 746 – 6:20 pm Zoom Have Case Study Questions with your answers with you!	September 16 Receptors 8-10 <i>end of Unit 1 Lectures</i> <u>Case Study Sessions</u> Section 747 – 3:00 pm Zoom Section 748 – 4:40 pm Zoom Section 749 – 6:20 pm Zoom Makeup – 8:00 pm Zoom Have Case Study Questions with your answers with you!	September 17 No Lecture! Study Day! You can work on the CNS reading – CNS is on the Unit 1 Exam! See the bottom of page 10 of the Syllabus. Case Study Assignment due on D2L before 3 pm Question and Answer Session 7-8 pm
4	September 21 <u>Unit 1 Exam</u> 6:00-6:50 pm (on D2L)	September 22 Synapses 1-3	September 23 Synapses 4, 5 Reflexes and ANS 1,2	September 24 Reflexes and ANS 3-5

Week	Monday	Tuesday	Wednesday	Thursday
5	September 28 Reflexes and ANS 6-9	September 29 Muscle 1-4	September 30 Muscle 5-7	October 1 Muscle 8-13
6	October 5 Smooth and Cardiac Muscle 1-5 <u>Case Study Sessions</u> Section 740 – 3:00 pm Zoom Section 741 – 4:40 pm Zoom Section 742 – 6:20 pm Zoom Section 743 – 8:00 pm Zoom Have Case Study Questions with your answers with you!	October 6 Blood 1-3 <u>Case Study Sessions</u> Section 744 – 3:00 pm Zoom Section 745 – 4:40 pm Zoom Section 746 – 6:20 pm Zoom Have Case Study Questions with your answers with you!	October 7 Blood 4-7 <i>end of Unit 2 Lectures</i> <u>Case Study Sessions</u> Section 747 – 3:00 pm Zoom Section 748 – 4:40 pm Zoom Section 749 – 6:20 pm Zoom Makeup – 8:00 pm Zoom Have Case Study Questions with your answers with you!	October 8 No Lecture! Study Day! Case Study Assignment due on D2L before 3 pm Question and Answer Session 7-8 pm
7	October 12 <u>Unit 2 Exam</u> 6:00-6:50 pm (on D2L)	October 13 B + T Cells 1-3 Honors Option Agreement and presentation time sign up due before 5 pm TOMORROW for interested Honors College students.	October 14 B + T Cells 4,5 Cardiac Physiology 1	October 15 Cardiac Physiology 2-4

Week	Monday	Tuesday	Wednesday	Thursday
8	October 19 Cardiac Physiology 5-7	October 20 Cardiac Physiology 8-11	October 21 Cardiac Physiology 12,13 Vascular Physiology 1,2	October 22 Vascular Physiology 3-6
9	October 26 Vascular Physiology 7-9 <u>Case Study Sessions</u> Section 740 – 3:00 pm Zoom Section 741 – 4:40 pm Zoom Section 742 – 6:20 pm Zoom Section 743 – 8:00 pm Zoom Have Case Study Questions with your answers with you!	October 27 Vascular Physiology 10,11 <u>Case Study Sessions</u> Section 744 – 3:00 pm Zoom Section 745 – 4:40 pm Zoom Section 746 – 6:20 pm Zoom Have Case Study Questions with your answers with you!	October 28 Vascular Physiology 12,13 <i>end of Unit 3 Lectures</i> <u>Case Study Sessions</u> Section 747 – 3:00 pm Zoom Section 748 – 4:40 pm Zoom Section 749 – 6:20 pm Zoom Makeup – 8:00 pm Zoom Have Case Study Questions with your answers with you!	October 29 No Lecture! Study Day! Case Study Assignment due on D2L before 3 pm Question and Answer Session 7-8 pm
10	November 2 <u>Unit 3 Exam</u> 6:00-6:50 pm (on D2L)	November 3 Respiratory Physiology 1-4	November 4 Respiratory Physiology 5-8	November 5 Respiratory Physiology 9-12

Week	Monday	Tuesday	Wednesday	Thursday
11	November 9 Respiratory Physiology 13-16	November 10 Renal Physiology 1-4	November 11 Renal Physiology 5-7	November 12 Renal Physiology 8 Fluid + Ion Balance 1-3
12	November 16 Fluid + Ion Balance 4-8 <u>Case Study Sessions</u> Section 740 – 3:00 pm Zoom Section 741 – 4:40 pm Zoom Section 742 – 6:20 pm Zoom Section 743 – 8:00 pm Zoom Have Case Study Questions with your answers with you!	November 17 Fluid + Ion Balance 9 <i>end of Unit 4 Lectures</i> <u>Case Study Sessions</u> Section 744 – 3:00 pm Zoom Section 745 – 4:40 pm Zoom Section 746 – 6:20 pm Zoom Have Case Study Questions with your answers with you!	November 18 No Lecture! Study Day! <u>Case Study Sessions</u> Section 747 – 3:00 pm Zoom Section 748 – 4:40 pm Zoom Section 749 – 6:20 pm Zoom Makeup – 8:00 pm Zoom Have Case Study Questions with your answers with you!	November 19 No Lecture! Study Day! Case Study Assignment due on D2L before 3 pm Question and Answer Session 7-8 pm
13	November 23 <u>Unit 4 Exam</u> 6:00-6:50 pm (on D2L)	November 24 Digestive Physiology 1-3	November 25 Digestive Physiology 4-7	November 26 HOLIDAY

Week	Monday	Tuesday	Wednesday	Thursday
14	November 30 Digestive Physiology 8-12	December 1 Metabolism 1-4	December 2 Metabolism 5 Endocrine 1-3	December 3 Endocrine 4-6
15	December 7 Endocrine 7-9 <u>Case Study Sessions</u> Section 740 – 3:00 pm Zoom Section 741 – 4:40 pm Zoom Section 742 – 6:20 pm Zoom Section 743 – 8:00 pm Zoom Have Case Study Questions with your answers with you!	December 8 Reproductive 1-4 <u>Case Study Sessions</u> Section 744 – 3:00 pm Zoom Section 745 – 4:40 pm Zoom Section 746 – 6:20 pm Zoom Have Case Study Questions with your answers with you!	December 9 Reproductive 5,6 <i>end of Unit 5 Lectures</i> <u>Case Study Sessions</u> Section 747 – 3:00 pm Zoom Section 748 – 4:40 pm Zoom Section 749 – 6:20 pm Zoom Makeup – 8:00 pm Zoom Have Case Study Questions with your answers with you!	December 10 No Lecture! Study Day!!!! Case Study Assignment due on D2L before 3 pm Question and Answer Session 7-8 pm
16	December 14 <u>Unit 5 Exam</u> 8:40 - 9:30 pm (on D2L)	December 15 Finals Week	December 16	December 17

Important Reminder: One of the most important things you can do to succeed in the course is to very closely follow the “Recommended Daily Schedule” on the previous pages!

It is the responsibility of all students in PSL 310 to understand this entire Syllabus.