



# College of Natural Science MICHIGAN STATE UNIVERSITY

Physiology Department

## Physiology for Pre-Health Professionals (Sections 740-749) Spring22 Syllabus

**Course Number** - PSL 310

**Credit Hours** - 4

**Course meeting days and time** – Fully Asynchronous Online lectures and D2L Case Studies

**Course location** - D2L

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

**Course Modality** – Online - Asynchronous

**Exams** - Unit 1-4 Exams (for ALL sections) are MONDAY EVENINGS at 6:00-6:50 pm ONLINE (via D2L) on the following dates: January 31, February 21, March 21, and April 11, 2021. 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, May 2, 2022 from 6:00-6:50pm. “Students must arrange their schedules to take PSL 310 exams at 6-6:50pm on the dates listed”. See below description for makeup policy and makeup exam dates.

### Instructors

**Course Coordinator** John F. Zubek, PT, MS, DPT **Case studies, All makeup requests**

**Co-Instructor/Online lectures** Dr. Adele Denison, Ph.D. **Online Lectures/Do not contact**

**Teaching Assistant** Gokul Murali, BS **Recitations, Lecture assistance, Q&A, Exams**

### Contact info for John Zubek

**Office** : BPS 3177 Biomedical and Physical Sciences Building

Email: [zubekjoh@msu.edu](mailto:zubekjoh@msu.edu) Preferred (Please give me 2-4 hours to reply to general inquiries)

**Office Hours**: In person Nat Sci 139/141 or Zoom– Tues/Thu 1:00-2:00 pm via Zoom link located in D2L.

**Informal office hours**: in person - Natural Science 139 Lab between 1:00 and 2:00pm on Mon and Weds

**NOTE: While Dr. Denison and I will be working together to make this course a success, please contact John Zubek [zubekjoh@msu.edu](mailto:zubekjoh@msu.edu) for ALL inquiries this semester. This includes anyone wishing to complete an Honor’s Option, please choose John Zubek when you go to register for this option.**

### Teaching Assistant

**Gokul Murali, BS.** Email: [muraligo@msu.edu](mailto:muraligo@msu.edu) Office hours: TBD

Please feel free to contact Gokul for any course related questions as he will be in charge of managing the exam and learning materials for each unit. *Continue to contact John Zubek for any makeup requests.*

Learning Assistants: **Feel free to contact for help with concepts and lecture material**  
Jackson of the House Joseph [joseph93@msu.edu](mailto:joseph93@msu.edu)  
Natasha of the House Chinoy [chinoyna@msu.edu](mailto:chinoyna@msu.edu)

## 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 to help students understand how PSL 310 Lectures relate to their future health care careers.

### 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.

Case studies will also be available on D2L and consist of multiple interactive clinical cases which correspond to the material from each respective unit we are studying. Each case study module will be available in D2L the Wednesday after exam day and will be due at 11:59pm on the day of the subsequent exam for each Unit. You may work on these individually or with others, but you will have to submit your own work for full credit. Instructions for how to navigate the case study modules will be given when the first one becomes available.

There will be a previously recorded Unit Review available and a Question and Answer Session on the Thursday prior to exam week. See calendar at the end of this syllabus.

### 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 Dr. Denison. 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 ( MTPQ-RHZQ-TMDW). 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 Spring 2022 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 is required for the course. Click on the following link for [MSU's laptop requirement](#). You will **NOT** need a working webcam for this course. Access to a high speed internet connection is required for course website use.

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 John Zubek (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 SS22-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, Discussion Forums for each Unit for questions about course material, recordings of Review Sessions, Zoom links for John Zubek's scheduled Office Hours and Question and Answer Sessions.

### **Learning Continuity Statement**

If a student is unable to keep up with the course work and has extenuating circumstances, please contact me (John Zubek) as soon as you are able. If eligible, we can work out a plan for you to maintain pace with the course material. While I am very sympathetic to a variety of challenges people may be facing at this time, not being able to keep up due to work, technology or other school responsibilities are not reasons to be granted extensions.

### **Course Continuity Statement**

If the Professor somehow is absent for a long period (though this is very unlikely!), 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
<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 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).
<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 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.

<b>Grade</b>	<b>Percentage</b> (percentage is to allow estimation of grades during the semester)	<b>Points</b> ( <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.

#### **Case Studies Assignments – 160 points**

5 Case Studies Assignments worth 32 points each = 160 points

#### **Unit 1-5 Exams – 840 points**

**Unit 1-5 Exams** are worth 168 points each (5250 questions on each exam at 3.36 points per question + 2 bonus questions)

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

Case Studies Assignments = 160 points/1000 total points = 16% of grade

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

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 Spring Semester 2022" 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:**

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

### **Exam Procedure**

Exam Procedures will be posted on D2L prior to the first exam. It is the responsibility of all students to read and understand the entire Exam Procedure document before the Unit 1 Exam. The Exam Procedure instructions (to be sent out later) describes how the online exam will be conducted (including start time at 5:50 pm, at 6:10 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.

Since exams will not be formally monitored, you may use your notes and book to help you answer questions, but attempting to do so without studying will not allow you enough time to complete the exam.



Therefore, it is to your advantage to study as if you “didn’t need your notes,” other than maybe to confirm a few answers here and there.

**Makeup Exams – Note All makeup requests must go through John Zubek**

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)

Here are a few **non-excusable** reasons to miss an exam (Note: this is not an exhaustive list. Further additions are at the instructor’s discretion).

1. Scheduled to work (the exam schedule is known far enough in advance to request the time off)
2. But, I have to work every Monday. (Makeup days on Thursdays are only for extenuating circumstances, not recurrent circumstances).
3. Not ready for the exam or had too much school work and don’t think I’ll be able to give this exam my best.
4. Poor internet connectivity and don’t have a backup plan (please try to have a backup location or computer option).
5. Don’t want to ruin my 4.0 so I would like to take it later.
6. Contacting instructor **more** than 48 hours after one of the above unexpected emergencies.

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 **Thursday evening at 6 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 6 pm Thursday evening makeup exam, but if it is impossible, an oral makeup exam given at a time arranged with the Professor will be the backup plan.

## Other Course Policies and Information

### **Important Policies Regarding Dates and Communication:**

Important dates are listed on the “Course Schedule for PSL 310 Spring Semester 2022” 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. John Zubek of TA will try to check and respond to questions on the Discussion Forum at least every 48 hours (excluding weekends and holidays). However, do not wait until the last minute to post questions on the discussion board during exam weekend for a timely response. We may not get back to in enough time before your exam. Please give us some time to reply during that week.

Personal questions regarding the class should be emailed to John Zubek (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 February 24, 2021 and sign up for an Honors Option presentation time (I will post a google spreadsheet about 2-3 weeks prior to end of semester for sign up times). Be sure to designate JOHN ZUBEK as the instructor when you register for your HONOR’s Option. 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](#).

## **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. on Case Studies and forming 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**

### **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). I will try to check email once in late morning and the evening on each of the two days before an exam. If I determine 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](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 from the Model Statements section of the RCPD website.)

## Schedule for Hybrid PSL 310 Spring 2022 \*

Week	Dates	Lecture Topic	Class meeting/Exam	Ebook Readings**
1	1/10,11	Course Intro, Homeostasis		Chapter 1
	1/12	Membrane Transport		Chapter 3 to pg 77
	1/13	Membrane Potentials		77-84, Chapter 4 to pg 102
2	1/17	NO CLASS		
	1/18, 19	Membrane Potentials		
	1/20	CNS Reading***		
3	1/24-27	Receptors		Chapter 6
		<b>(end of Unit 1 material)</b>		
4	<b>1/31</b>	<b>EXAM 6:00-6:50pm D2L</b>	<b>Unit 1 Exam</b>	<i>Case study unit 1 due by 11:59pm</i>
	2/1,2	Synapses		102-115
	2/2,3	Reflexes and ANS		281-286, Chapter 7 to pg 242
5	2/7	Reflexes and ANS		
	2/8-10	Muscle		242-248, Chapter 8 to pg 281
6	2/14	Smooth and Cardiac Muscle		286-294
	2/15-17	Blood		Chapter 11, Chapter 12 to pg 415
		<b>(end of Unit 2 material)</b>		
7	<b>2/21</b>	<b>EXAM 6:00-6:50pm D2L</b>	<b>Unit 2 Exam</b>	<i>Case study unit 2 due by 11:59pm</i>
	2/22,23	Immunity-B and T Cells		Chapter 12 <u>from</u> pg 415
	2/23,24	Cardiac Physiology		Chapter 9
8	2/28,3/1,2	Cardiac Physiology		
	3/2,3	Vascular Physiology		Chapter 10
	3/7-10	SPRING BREAK WEEK		
9	3/14-17	Vascular Physiology		
		<b>(end of Unit 3 material)</b>		
10	<b>3/21</b>	<b>EXAM 6:00-6:50pm D2L</b>	<b>Unit 3 Exam</b>	<i>Case study unit 3 due by 11:59pm</i>
	3/22-24	Respiratory Physiology		Chapter 13
11	3/28	Respiratory Physiology		
	3/29-31	Renal Physiology		Chapter 14
	3/31	Fluid and Ion Balance		Chapter 15
12	4/4-7	Fluid and Ion Balance		
		<b>(end of Unit 4 material)</b>		
13	<b>4/11</b>	<b>EXAM 6:00-6:50pm D2L</b>	<b>Unit 4 Exam</b>	<i>Case study unit 4 due by 11:59pm</i>
	4/12-14	Digestive Physiology		Chapter 16
14	4/18,19	Metabolism		685-701
	4/19-21	Endocrine System		115-129, Chapter 18, Chapter 19
15	4/25-28	Reproductive Physiology		Chapter 20
16	<b>5/2</b>	<b>EXAM 6:00-6:50pm D2L</b>	<b>Unit 5 Exam</b>	<i>Case study unit 5 due by 11:59pm</i>

- \* 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 2022**

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 10  Course Introduction videos	January 11  Homeostasis 1-3	January 12  Membrane Transport 1-5	January 13  Membrane Potentials 1-4
2	January 17  NO CLASS	January 18  Membrane Potentials 5-7	January 19  Membrane Potentials 8-10  <i>Cast study unit 1 available in D2L</i>	January 20  CNS reading – CNS is on the Unit 1 Exam! See the bottom of page 10 (page 12-13 now) of the Syllabus.
3	January 24  Receptors 1-3	January 25  Receptors 4-7	January 26  Receptors 8-10 <b><i>end of Unit 1 Lectures</i></b>	January 27  No Lecture! Study Day!  <b>Question and Answer Session 7-8 pm Use Zoom link in D2L</b>
4	January 31 <b><u>Unit 1 Exam</u></b> <b>6:00-6:50 pm</b> <b>D2L</b>  <i>Cast study unit 1 due by 11:59pm</i>	February 1  Synapses 1-3	February 2  Synapses 4,5 Reflexes and ANS 1,2	February 3  Reflexes and ANS 3-5

Week	Monday	Tuesday	Wednesday	Thursday
5	February 7  Reflexes and ANS 6-9	February 8  Muscle 1-4	February 9  Muscle 5-7  <i>Cast study unit 2 available in D2L</i>	February 10  Muscle 8-13
6	February 14  Smooth and Cardiac Muscle 1-5	February 15  Blood 1-3	February 16  Blood 4-7  <b><i>end of Unit 2 Lectures</i></b>	February 17  No Lecture! Study Day!  <b>Question and Answer Session 7-8 pm Use Zoom link in D2L</b>
7	February 21  <b><u>Unit 2 Exam</u></b> <b>6:00-6:50 pm</b> <b>D2L</b>  <i>Cast study unit 2 due by 11:59pm</i>	February 22  B + T Cells 1-3	February 23  B + T Cells 4,5 Cardiac Physiology 1	February 24  Cardiac Physiology 2-4  Honors Option Agreement sign up due before 5 pm TOMORROW for interested Honors College students.  Be sure to designate John Zubek when you register for this option

Week	Monday	Tuesday	Wednesday	Thursday
8	February 28  Cardiac Physiology 5-7	March 1  Cardiac Physiology 8-11	March 2  Cardiac Physiology 12,13 Vascular Physiology 1,2  <i>Cast study unit 3 available in D2L</i>	March 3  Vascular Physiology 3-6
	March 7 SPRING	March 8 BREAK	March 9 WEEK	March 10
9	March 14  Vascular Physiology 7-9	March 15  Vascular Physiology 10,11	March 16  Vascular Physiology 12,13 <b><i>end of Unit 3 Lectures</i></b>	March 17  No Lecture! Study Day!  Question and Answer Session 7-8 pm Use Zoom link in D2L
10	March 21  <b><u>Unit 3 Exam</u></b> <b>6:00-6:50 pm</b> <b>D2L</b>  <i>Cast study unit 3 due by 11:59pm</i>	March 22  Respiratory Physiology 1-4	March 23  Respiratory Physiology 5-8	March 24  Respiratory Physiology 9-12



Week	Monday	Tuesday	Wednesday	Thursday
11	March 28 Respiratory Physiology 13-16	March 29 Renal Physiology 1-4	March 30 Renal Physiology 5-7 <i>Cast study unit 4 available in D2L</i>	March 31 Renal Physiology 8 Fluid + Ion Balance 1-3
12	April 4 Fluid + Ion Balance 4-8	April 5 Fluid + Ion Balance 9 <b><i>end of Unit 4 Lectures</i></b>	April 6 No Lecture! Study Day!	April 7 No Lecture! Study Day! Question and Answer Session 7-8 pm Use Zoom link in D2L
13	April 11 <b><u>Unit 4 Exam</u></b> <b>6:00-6:50 pm</b> <b>D2L</b> <i>Cast study unit 4 due by 11:59pm</i>	April 12 Digestive Physiology 1-3	April 13 Digestive Physiology 4-7	April 14 Digestive Physiology 8-12

Week	Monday	Tuesday	Wednesday	Thursday
14	April 18  Metabolism 1-4	April 19  Metabolism 5 Endocrine 1-3	April 20  Endocrine 4-6  <i>Cast study unit 5 available in D2L</i>	April 21  Endocrine 7-9
15	April 25  Reproductive 1-4	April 26  Reproductive 5,6 <b><i>end of Unit 5 Lectures</i></b>	April 27  No Lecture! Study Day!!!!	April 28  No Lecture! Study Day!!!!  Question and Answer Session 7-8 pm Use Zoom link in D2L
16	May 2  <b>Unit 5 Exam 6:00-6:50pm D2L</b>  <i>Cast study unit 5 due by 11:59pm</i>	May 3  Go swimming!	May 4  Go hiking!	May 5  Go somewhere!