

Anatomy and Physiology Syllabus 2025-26 **McKinley Classical Leadership Academy**

Instructor: Dr. Jason Kesselring (Please call me Dr. K or just Doc is fine)

Course Website: <https://www.slps.org/Domain/4011>

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Materials: **1)** Openstax Anatomy and Physiology (online) **2)** Technology (supplied by SLPS, but don't forget to bring it please!) **3)** Access to Microsoft Teams **4)** 3 ring binder with paper (preferred) or Notebook or 3 ring binder **5)** Folder **6)** Writing utensil (pencil and pens) **7)** Calculator (Scientific) - rarely!

Upfront: Welcome back! Some of you I have taught before, some of you I have not. I strive to be approachable and to make learning enjoyable. I was a pediatrician for 13.5 years prior to teaching (odd career change, tell me about it!) This is Year #8 for me at McKinley, and I am fully vested in assisting students challenge themselves intellectually.

Philosophy: This class is a little glimpse of my old world! I am excited to have this class available, and I certainly want to make this course interesting, intellectually stimulating, and accessible to you, the student. While I am being a bit modest, thinking about the human body and physiological function is not particularly difficult. It is a completely different type of thinking. Once you get into that mindset, the prediction business gets a lot easier, and I am certain that we will get there together.

I have set up much of this course (not all of it) in a case-based format. I think that will make it more interesting. I want to use the abnormal to show you the normal (we are working backwards a little bit). While there will be a bit of me explaining things to you (for example, the beginning of each unit has to start off with me imparting some knowledge), most of the learning is going to come from the students pulling apart cases and problems in groups. Think of this class as a seminar (it IS a glimpse of how a lot of classes in college will run). As such, **my expectations are that you will do sufficient preparation to come to class ready to learn and to participate to the best of your capability to really push everyone's understanding.**

As alluded to above, this class is really a blend of different types of learning. There will be work involved, but it should not be overwhelming. The heavy lifting will be in the class time we have together - and I want to make this as interesting as I can. There will be some work outside of class, but it should not be terrible.

Taking this course will not get you out of a nursing or medical school class, but will hopefully make such classes easier, *especially if you focus on how to think*. I am a little less interested in the Anatomy (the structure) than I am in the Physiology (the function). There will be a little memorizing (hello, it IS Anatomy), but not as much as other A&P classes. The emphasis skewed to function and using disease processes to illustrate how our body works (and how hard "normal" is to maintain!)

You probably heard through the "rumor mill" that I had "Mystery Guests" last year. I did - and even during coronavirus, I am going to try and do that again - more on that in a bit.

Course Outline: Please note that I will have to keep close to this schedule. I would love to go into more depth into each topic, but this is not medical school! Here is the layout (things may vary a little bit in actual practice):

Semester 1 → Thinking about A&P - how to think about the body (Models) (2 weeks), Musculoskeletal system (3 weeks), Integumentary (Skin) system (3 weeks), Cardiopulmonary (6-ish weeks)

Semester 2 → Immune System (3 weeks) Nervous System (5 weeks), GI and Renal System (3 weeks), Endocrine System (3 weeks)

Grading: *I reserve the right to amend the grading formula and allow retakes depending on progress and effort of the class.*

This class will have an easy formula: 60% assessments, 30% classwork, and 10% homework.

Assessments - Unit tests, papers, “big” projects (when you teach!), and the occasional quiz.

Classwork - Do-Nows, Exit slips, small / quick group work, and the occasional “lab.” I will take this time to say we will not have any dissections (whew!) This will be any work that you start in class and have significant class time to finish.

Homework - Work that is mostly done at home with minimal class time to finish. This is usually an extension to a topic we start in class. An example would be: I give you an exercise on broken bones in class, and at home, I ask you 3 questions about how different injuries might happen.

POLICY ON TURNING IN WORK: Most work will be turned in via Microsoft Teams unless noted otherwise. Some labs and most tests will be done with “old school” pencil and paper. This means uploading a copy of work to Teams. If there are assignments where I request a hard copy, the instructions will still be posted on Microsoft Teams.

To be clear, I DO NOT ACCEPT LATE WORK. At higher levels, deadlines are deadlines. Part of college and career preparedness is getting your work done on time.

Homework and classwork are a lower percentage of your grade. If you choose not to turn in work, your grade will not suffer greatly. However, the lack of practice and preparation will become evident in your assessment scores, and your grade will suffer. Homework and classwork are given for you to practice concepts and improve. If you do not practice, you will not improve. As you progress in your education and career, you will have to DO WORK ON YOUR OWN in order to improve. I assess this process by seeing what you know when you get an exam. You might “get points” on classwork or homework if you complete a task. If you do not do the work well by learning earnestly, your test will not reflect your classwork and homework scores. If you do not do work AT ALL, you know the result!

Here is the formula (many of you have had me by now - this isn’t new to most!):
(Total points earned + extra credit points) / (Total possible points - exemptions)

Letter grades are as follows: **A (89.5% to 100%) B (79.5% to 89.4%) C (69.5% to 79.4%)**
D (59.5% to 69.4%) F (59.4% and under)

Tests: This section is particularly important; please read in detail. There will be a test at the end of each unit. They will be a constructed response (essay) - think writing a few paragraphs. I want you to THINK. I do not give multiple choice tests in this class.

If you score below an 80% (scaled score) on a test, **I will offer the chance to do test corrections.** The student may do test corrections only TWICE in the school year. To obtain credit for doing test corrections, the student must:

-Correct their response & explain why they changed their answer, and the new answer is correct.

If both parts are not present, you do not get credit. This is an exercise to help them learn. As such, it is open note and resource, but they cannot improve their grade above 80% (I will average the old score and the new score, but it cannot exceed 80%). This forces the student to go back and re-learn the material and think about what can be improved.

Class Structure: The first day of each unit will be one class of me going over the basics of structure and function of the organ system for the chapter. I will cover a lot of details, **but not everything** - as many details will get discovered in the cases and diseases we cover. I lovingly refer to this as "Boring Lecture Day." Some units will have "BLD" broken up into smaller pieces (for example, the Nervous System would just take too long to do one lecture. So, I break it into mini lectures).

Subsequent classes will involve students working in small teams (usually 3-4 students - something they can pick, but usually I will). We will cover a disease process or a medical case, and I will ask them to break down a topic (and provide resources to do so). Sometimes each group will get a unique topic; sometimes all groups will get the same thing. When we re-group, we will discuss what got uncovered and try to pick out patterns, commonalities, and areas where things diverge/breakdown. I will then lead/guide the students through these areas to help fill in the blanks. By the midpoint of the year - as the students get more comfortable with the format, I will lead less and less.

I do have students "teach" in group presentations frequently. EXPECTATION → any group member could present ANY PART of the topic. "This is my part of the presentation" is NOT an acceptable phrase! Get used to PUSHING to dig for little details that prove that YOU ARE THE EXPERT. Typically, I will give students 2 class periods to pull a presentation together (maybe 2.5). Groups will try to finish in 1 class, and it is IMPOSSIBLE to finish that quickly. Over time, students learn to self-critique; I have had a number of students give college level presentations because they have learned to embrace this type of growth.

On some days, I will have a "Mystery Guest." I have some friends with interesting, not made-up medical issues. This year, they will "Zoom" into the classroom. I anticipate at least one guest per quarter (on average). The structure is simple: the guest has a medical problem relating to a unit we are studying or have just studied. The students must ask questions of the guest - and based upon the guests' responses (and asking more detailed questions), the students need to try to figure out what the guest's medical problem is. YOU DO NOT ASK "DO YOU HAVE 'X' PROBLEM!!!!" You ask questions to get them to tell the story!!! Last year, the students were able to come with 30-40 minutes of questions easily. Afterwards, my guest talks about their condition, how they are doing, what it is like for them to go through their treatment, and other details. I leave the last 10 or so minutes open for general information (as I know all my guests - they very well may have career information for the class). The idea is to show the students that with a little knowledge, even at the high school level, you can figure out A LOT. For comparison, I had 4 guests last year, 3 of whom my students were tasked with trying to diagnose (the 4th, the format just was not going to work). The class went 3 for 3 - and the medical problems my guests had were NOT easy to solve.

Absences: These will inevitably happen, whether these are at the last minute or scheduled. Communication is key! For brief absences, we will assign any homework, classwork, or lab work that was missed. This should be completed as soon as reasonably possible so your learning can continue with minimal interruptions - IT IS YOUR RESPONSIBILITY TO CATCH UP. If you are out for a prolonged period of time, please talk with me, and we will set a schedule to have you catch up.

Classroom expectations: As stated earlier, I am a firm believer in working hard, but also in treating each other with kindness and respect. Learning goes MUCH BETTER in a relaxed environment where there is mutual respect. As such, the specific rules that we will make together at the beginning of the year will reflect this. You are close to being adults, and I will treat you as such so long as your behavior and effort reflect this. Specific procedures are listed at the end of the document. My big expectations and rule are: Act like an adult and I will treat you like one. I am in Year 5, and 99% of my students do just fine with this expectation.

Technology expectations: You need to → check Microsoft Teams DAILY for messages / (even on days we do not have class), check your SLPS email DAILY for messages, and STAY OFF YOUR PERSONAL DEVICE (CELL PHONE) in class - see below.

These are expectations in college and the professional world and are easy to do. You have been given SLPS technology, please use it like a professional.

Use of “Artificial Intelligence” in the classroom: You are at the stage of your education where being original and learning to THINK FOR YOURSELF is more important than using AI. There MIGHT be a case where using an “AI” will be sanctioned and allowed under my guidance in the classroom. However, unless stated otherwise, use of AI to complete an assignment is not allowed. Use of AI (such as - but not limited to - ChatGPT) would result in failure of the assignment. Continued use of AI to complete what needs to be original work would result in a conversation with the principal.

There will be a blend in our careers of using AI to accomplish some tasks! However, we still need to be able to do critical thinking. There is little use in using AI before you are accomplished critical thinkers. When we can use it to make a point about a concept, we will.

Please:

- Come to class prepared - This is HUGE when you hit college or any secondary education. Come ready to go - READ.
- Be respectful and kind to your classmates. (I remember my “thank you’s” and “please’s” when addressing you; do the same courtesy when addressing me or other students.
- Be on time.
- Have work completed.
- Follow district and school policy with regards to NOT using your cell phone / personal devices in class.
- Stay on topic
- Adhere to the rules of the student handbook
- Clean up your workspace / table / lab before you leave the classroom (this is really helpful! Thank you in advance!)
- Use school appropriate language in the classroom, hallways, and school property.
- Communicate with me if you have specific problems ahead of time or when something pops up.** This is another HUGE skill for after high school. It is much easier to help you if I know about issues AHEAD of time. A simple email or side conversation fixes a lot - but it needs to come from you first, BEFORE the issue arises. I promise you, I am easy to work with, and USUALLY work arounds exist - if I know about the issue.

Procedures: Any homework or lab report is due at the beginning of class unless stated otherwise. We will be using Microsoft Teams.

I will have a “do-now” or “warm-up” activity. This should be started at the beginning of class - and everyone should be used to this by now.

I will have a supply of paper, pens/pencils, or other materials if you lack material for the day. Please quietly help yourself to the material needed.

When I am giving a lecture or instruction, attention should be on me and the information I am conveying. No conversations or other distractions should be taking place. I will take questions from students in an appropriate manner (please, just raise your hand!)

I will put you in groups for group work - sometimes I will pick groups; sometimes students will pick. I am intentional about this - students need to learn to work with a variety of people. Of course, group work will require conversation and collaboration. However, your group should treat each other with respect, talk at a tone appropriate for learning, and have everyone participate. If you need help from me, please ask!

Should you be doing individual work in class, the room should be quiet unless I say otherwise.

No talking during tests. Period.

Please turn in your test to my desk (appropriate tray) or raise your hand to have your test collected. (There might be a few assignments still on paper. Maybe...)

Food and water are not permitted on lab days. I also highly encourage students to wear closed shoes on lab days and to wear lab safe clothing. This is for your safety. Many of the lab activities will be low risk, but I urge students to prepare on the side of caution. ***(There are not many “labs” for Anatomy, but I have kept this in here. There will be a few activities and I will alert the students ahead of time. We will NOT be doing anything like we would in my AP Chemistry or AP Bio class!)***

If you need to use the restroom during class, please raise your hand. Once I acknowledge you, you need to sign out before using the restroom. If this becomes a chronic issue, it will be discussed with the student first & then parents. I need you and expect you in my classroom as much as possible. If I see a pattern of avoiding my room, it will be addressed. The same holds for getting a drink during class.

Generally, I will finish right at the bell. If instruction is occurring, do not leave class until I have finished the class. I promise I will not run over for unnecessary reasons & let your next teacher know. (I have started using a “Dr. K, be quiet alarm” 2 minutes before class ends to avoid this problem!)

Please contact me with any questions. I am very much excited about this class, this school year, and this group of students! Let's get to this!

Respectfully,
Dr. K