

Information for Prospective MHS Anatomy & Physiology Students

So I understand that you are considering taking Anatomy & Physiology next school year. That's GREAT! However, I wouldn't feel right if I didn't tell you that it's not for everyone and give you a little sample of what to expect. First of all, I take this course VERY seriously will push you more than perhaps any course you have taken up to this point. If you are not a self-disciplined, mature and motivated student, you will not have a good experience. On the other hand, if you have a real interest in the medical fields and want this opportunity to study the amazing machine that is the human body, then you will have a blast!

Special aspects of the course to consider:

- This is an opportunity for freedom to explore and excel without the burden of immature slackers to weigh you down. If you did not achieve at least a "B" in Biology or have ever spent time in E115, please reconsider enrolling in this class. I do not babysit.
- We do an extensive amount of dissection. Rats, pigs and/or cats, hearts, lungs, eyes, brains, kidneys, spinal columns, etc. It is not uncommon for three days of every week to be spent doing such labs. It smells bad and often difficult to find what you are looking for. You need to be able to stick with it, use your resources creatively, and solve problems without whining or giving up.
- The body is unimaginably complex, so I expect you to retain A LOT of things in your head and will test you on all of it. I will always be willing to help you if you have honestly tried to figure things out, but YOU are responsible for YOUR learning. And word banks are for sissies.
- This class is conducted as a freshman-level college course. You will be expected to recall material from previous science and English courses to explain the discoveries that you make. The Three-Part Summer Assignment is designed to help you prepare for this and the attached point values of each section will be applied to your first semester grade before you even begin the course.

When asked what they would tell others who want to take the class, here are some of the things that past students have said:

- *Study, study, study! There's A LOT to memorize. Also, dissecting is not what it seems and looks. Yes, it's frustrating to find what you need and a little smelly, but it's really fun too!*
- *He thinks "word bank" is a double four-letter word! (I mean really, you will NEVER see a word bank on a test!)*
- *Please choose wisely. Know what you're getting in to.*
- *Visit during a dissection before just jumping into the class.*
- *He does not grade on a class curve, so you are responsible for the quality your own work.*
- *It's a fun class, just be on task with your work and don't procrastinate...it will hurt you!*
- *He gives you a lot of resources, but you need to figure out a lot of stuff on your own too. I learned a lot about how to find and use my own resources, which I think will be helpful in college.*

On the next page are some of this year's students' letters to next year's students...

Dear N.Y.'s A.S,

don't be wannabe's. If there is one thing I learned in this class, it's that you CANNOT afford to procrastinate. Many times I have done this and it doesn't work in this class. This class is too complex for that. So, get your head out of your ass, it's not a hat. You also have to want to be in this class, or it won't give you drive to strive for good. Don't take this if you can't handle blood or guts. Don't take this if you don't have drive in you, or if you don't believe in yourself. That's the mistake I made; not believe in myself.

Dear Next Year's Students

Make sure you study for tests/exams and come to class as often as possible. Don't miss any dissections and if you have a weak stomach I wouldn't recommend this class. Make sure you always put in your best effort.

Dear Next year students,
Anatomy is not all fun and games. You must have a strong stomach + a good work ethic to pass this class.

Hey guys,

Some advice I can give is in order to pass this class is to: 1. Show up everyday, 2. Pay attention + study, 3. Ask to do extra credits, 4. Not be afraid to touch the pig, or anything else you're working on, and 5. Choose good lab partners.

- The smells are very overwhelming
- Dissections are difficult, you're dealing with real, complex specimen. The ~~body~~ body can not be understood by cutting a pig open and blankly staring at it. You will have to invest time.

Dear students who are coming into Anatomy next year, if you are just taking this class to get a science credit, switch to physics because this class is for people who are actually interested. It's hard work and dissecting is gross. The smell is ~~gross~~ nauseating. I'm not going to lie, I almost throw up every time that being said this class is worth it, especially if you want to go into the medical field. Just study and pay attention and you'll do fine.

I'm pretty smart, and I've done terrible in this class. You have to work, and work hard. You have to be here, you have to study, you have to try. I made a mistake, thinking I could treat this like my other classes, I was wrong. Do it, try hard, and go the extra mile, or you will NOT do well in this class.

Mr. Johnson is like one of the best teachers you'll ever have. You can build a bond with him, and he also has a sense of humor. You can also gain a lot of knowledge from his class.

If you are truly interested in taking this class, I need you to think about and respond to some questions. I do not want to see any answers for at least a week from when you get this assignment, because I believe that it will take that long to truly give thought to the topics. By then, of course, school will be out so you can share a GoogleDoc or email an attached document to me at mjohnso4@mpsk12.net. So then, here are your thinking points:

1. Leadership & Discipline

- Would you consider yourself to be a leader or follower (be honest) and why?
- This class requires much individual self-discipline. What does this concept mean to you? *(Do NOT just Google an answer for this. I will search the whole internet if I think you did!)*

2. You need to WANT to take this class. If not, it will become an overwhelming chore for you, which none of us want. So here's what I need a paragraph about: **Why do you WANT to take this class?**

- "Because it looked cool" is NOT an acceptable response.
- Your response should reflect your future goals (academic, career, personal application, etc.)
- To assure me that you know what you've signed up for, I also expect your response to demonstrate a basic knowledge of what "Anatomy & Physiology" is. Yes, you will probably have to research this on your own before you can answer, but get used to that. You'll be doing a lot of that in here.

Again, do not send me your responses to these questions before mid-June, but do make sure that I receive your document by the end of July. If you have any questions or concerns, feel free to email me.

The second part of the summer assignment is a little taste of the large amount of memorization that this class requires. Learn the Body Landmark and Orientation & Directional Terms on the next page during the summer. We will be using them in class during a rat dissection the first week and all year as part of our daily vocabulary. There will also be a QUIZ over them the first week of school. Yes, brutal. Again, make sure you really have a desire to be in this class. If you do, it will be an AWESOME experience and prepare you very well for your future studies in medical fields. If not, you will be MISERABLE, and none of us want that.

Table 1.1 Orientation and Directional Terms

Term	Definition	Illustration	Example
Superior (cranial or cephalad)	Toward the head end or upper part of a structure or the body; above		The forehead is superior to the nose.
Inferior (caudal)	Away from the head end or toward the lower part of a structure or the body; below		The navel is inferior to the breastbone.
Anterior (ventral)*	Toward or at the front of the body; in front of		The breastbone is anterior to the spine.
Posterior (dorsal)*	Toward or at the backside of the body; behind		The heart is posterior to the breastbone.
Medial	Toward or at the midline of the body; on the inner side of		The heart is medial to the arm.
Lateral	Away from the midline of the body; on the outer side of		The arms are lateral to the chest.
Intermediate	Between a more medial and a more lateral structure		The armpit is intermediate between the breastbone and shoulder.
Proximal	Close to the origin of the body part or the point of attachment of a limb to the body trunk		The elbow is proximal to the wrist (meaning that the elbow is closer to the shoulder or attachment point of the arm than the wrist is).
Distal	Farther from the origin of a body part or the point of attachment of a limb to the body trunk		The knee is distal to the thigh.
Superficial	Toward or at the body surface		The skin is superficial to the skeleton.
Deep	Away from the body surface; more internal		The lungs are deep to the ribcage.

*Ventral and anterior are synonymous in humans; this is not the case in four-legged animals. Ventral refers to the "belly" of an animal and thus is the inferior surface of four-legged animals. Likewise, although the dorsal and posterior surfaces are the same in humans, the term dorsal refers to an animal's back. Thus, the dorsal surface of four-legged animals is their superior surface.

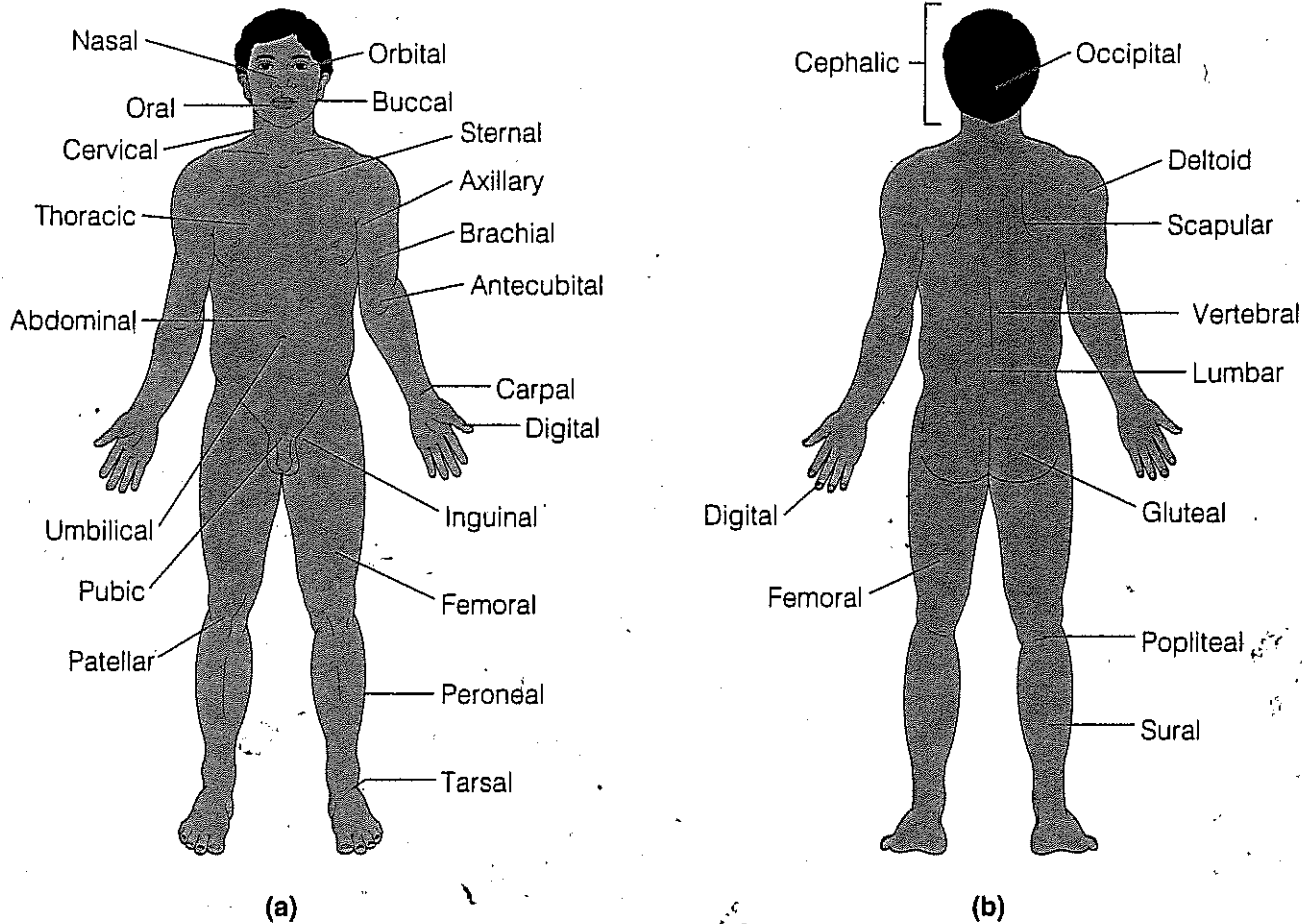


Figure 1.5 Surface anatomy: Regional terms.
(a) Anterior body landmarks. **(b)** Posterior body landmarks.

I am also extending an open invitation to you to visit the A&P classroom (A204) during this week of exams. If you come with a pass proving permission from you 1st or 2nd hour teacher, I am also available to show you the sights (and smells) of the course.

If you cannot make it in person (or even if you can), I encourage you explore the A&P section of the class website (www.mrjohnson-science.weebly.com) to see what topics we will be covering and the learning expectations.

Thank you,

Mr. Johnson, M.Ed.