

Welcome

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Anatomy & Physiology



Learning AP Is Fun!

- My goal is to help you learn human anatomy and physiology.
- Success occurs when you are prepared for an opportunity! This class is your opportunity. However, I may need to help some students develop new study and learning behaviors . (success = preparation + opportunity)
- I will assume that you will conduct yourself as responsible adults!
- We have “**shared responsibilities**”
 - Be on time
 - Respect your classmates, support staff, and faculty.
 - Respect the lecture and lab resources.
 - You need to ask questions if you don't understand something.
 - You need to come to class prepared for the lectures and labs. I will have more to say about “what it means to be prepared”.

About AP at MC3

- This is an introductory college level anatomy and physiology course.
- This is not a comprehensive AP course. We will not cover all topics covered in the textbook, however.
- You **need to read the book**. Read topics to be covered in lecture before we cover the topics in lecture. This is part of your preparation for the lecture! (more to come about preparation)
- The course is designed for students interested in a career in allied health care.
- The Web site is designed to help you pass this class. Lecture slides, chapter study guides, Video Homework Assignments, Learning Objectives, instructional videos and more are in www.mc3cb.com
- The Web site also has “extra-in-depth-content”. This information is not required but available for curious students.
- A red star (★) and/or **red text** on lecture slides denotes topics likely to be on the lecture exam!

Expectations

- What are your expectations for your professor. I assume you want a professor who is knowledgeable, passionate, and dedicated to helping you achieve your career goals. Your professor should also be on time for class and be prepared for lecture and lab sessions. **This is my promise to you!**
- *I assume my students are passionate, curious, and need to learn anatomy and physiology. I assume my students will follow **Michigan Educational Association's bench mark for study time** required to learn new lecture material. This benchmark is **“two to three hours per day per lecture hour”**. You will need to do this seven days a week for the next 16 weeks.*
- **“Study time” is also necessary on days when we have class!** If you can't find time to study each day then you will fall behind. You will not be able to catch up! *If you do not have a solid science background then you may need to spend more study time per day to keep up with the class.*
- Success in this class is all about “time on task”! **If you are not willing to put in the time then you should not take the class.** Remember, study time is an investment in your future.
- Without the study time it is unlikely that you will be able to earn an “A or B” If you study only one hour per day then you will likely fail this class. However, if you do what I ask you to do, then you should be able to earn an “A or B” in my class. (See Daily 24 Hr Worksheet)

MC3 Open Enrollment Policy

- MC3's open enrollment policy is good because anybody may take the class. MC3 open enrollment policy is bad because anybody may take the class, even those students not prepared for success.
- If you do not have basic knowledge about general biology, chemistry, physics, and math then you will find this class extremely difficult. You may still earn an "A" but you will need to learn the prerequisite knowledge you lack while you are learning anatomy and physiology.
- An open enrollment policy also means that many students are likely to start the class with different knowledge levels. It is like running a race where everyone starts the race at a different position. Some students in our class may already have a four year degree in biology. Other students may not have had a science class in 20 years.
- *Everyone is welcome to take this class. Any student who is passionately curious and willing to put in the necessary study time should be able to earn an "A".*

Lecture Room Conduct

- Before you come into the lecture room *please turn cell phones off and put your phones and laptop computer in your backpack* (read articles about the negative impact of digital devices in the lecture room on the Home Page). Research data shows any type of digital device in the classroom lowers test scores!
- Beverage is allowed in the lecture room. However, no food and no snacks are allowed in the lecture room.
- Once the lecture starts, the instructor will have the floor.
- Students are *not allowed to “cross talk”* during the lecture.
- Students need to be alert. *If you fall asleep in the class then I will ask you to leave the room.*
- Students are encouraged to *ask question*. When you have a question, please raise your hand and I will call on you.
- We will take a 10 minute break during the lecture.

Lab Conduct

- Beverage, food, and snacks **are not allowed** in the lab.
- Please wash your hands before coming into the lab. MC3 will provide gloves for you to wear for dissections. Follow all lab regulations (see lab agreement).
- You may use your phone and computer in lab to access lab resources. (Please leave the lab if you need to talk on your phone.)
- You need to **prepare at home for lab. Do not use your lab time to prepare for lab.** Before you come to lab, select the lab objectives that you want to identify in the lab session. Use your text book, lab manual, and Web site resources to familiarize yourself with the location of the structures. **Don't come to lab without having a clear goal about what structures you need to identify..**
- Your lab instructor is a **“facilitator”**. This means the lab instructor is not expected to show students the lab objectives or lecture during the lab session. Lab instructors shall answer students questions and shall help students identify lab objectives. But students need to ask for help!
- I will have “break out sessions” to discuss select models and charts.
- **See lab safety form.**

Collaborative Learning

- Health care requires a team effort to treat patients. No one person may take all the credit for a patient's healthcare. So it is important to learn how to collaborate with others. At MC3, we nurture this idea in our lecture and lab classes.
- **You need to form a study group** (groups of three are best) in your lecture and lab classes. You need to meet with other students to compare and quiz each other using your Study Guide Questions. This will allow you to edit your answers. Flash cards (on paper not digital) are old school but still work!
- Lecture slides with red starts or red text is content likely to be on the Lecture Unit Exam. Remember, when you answer the study guide questions, you are preparing for the unit exam.
- Here is a key idea. You need to **learn the new information as we cover the topics in class**. Don't wait until just before the the exam and then try to “cram” for the exam. You can't do it. If you try, then you will fail the class.
- If you are serious about earning an “A” in this class, then this is how you do it! **Don't work by yourself**. This is a sure way to fail this class.
- **The best way to advance your knowledge on any topic is to help someone learn the material!**

Preparation Is The Pathway To Success

- Here is what you need to do throughout the semester to be successful in my class.
- Before we cover the chapter in lecture you need to do the following. You do this at home or in the library before you come to class. This is your “preparation”. If you can't do this then you should drop this class now. We (that means you and me) can not succeed unless you are willing to prepare for lectures and labs before you come to class. If you don't prepare, then we both fail!
 - First, read the topic(s) in the textbook to be covered in the next lecture.
 - Preview the online lecture slides to be covered in the next lecture.
 - Answer the lecture's **Chapter Study Guide Questions before you come to class.** The answers are in the textbook and lecture slides. The Study Guide Questions will follow the lecture slide sequence
 - If you can not find an answer or if you want to confirm your answer is right, then first ask one of your classmates to see their answer. If you still are not sure, then ask me in our QA session. Exchanging ideas with other students is “active learning”!
 - If you can not find an answer then bring your questions to class.

About the Chapter Study Guides

- To receive full credit (four bonus points) the Chapter Study Guides must be completed before we cover the chapter in lecture. There will be some exceptions to this rule and these occasions will be posted on the message board.
- The Study Guide Questions are the critical factoids that **you need to know**.
- **Exam questions are the Study Guide Questions**. If you know the Study Guide Questions then you will earn an “A” on the lecture exam.
- Your Study Guide Answers should be detailed answers and not “one word answers”.
- Your answers need to be written on a separate piece of paper.
- I suggest that you work with other students to compare your answers so you may edit your answers and make your answers more complete. This is “active learning”.
- I review your homework assignments for **completion and not for correctness**. This means it is critical to compare your answers with other students and confirm “correctness”. If you are still not sure if your answers are correct then bring your questions to class.
- ***Study Guide Questions “are the exam questions”. If we do not cover a question in class, it may still be on the exam.***

Lab Preparation

- Before coming to lab:
 - Determine the lab objectives you need to identify in the lab session
 - At home, use your textbook, lab book, and Web resources (i.e. like Google image) to identify the location of the selected lab objectives.
 - In lab, you need to quiz your lab partners to identify lab objectives using the lab charts and models.
 - At the beginning of every lab session, review all lab objectives identified in previous lab sessions before you start to learn new structures.
 - Do not use your lab period to prepare for lab! This is a sure sign that you will not earn an “A” on the lab exam.

Things You Need To Do

- First, you need to “**unleash your imagination**”. You need to image your body not as a monolithic structure but as a collection of cells. The cells are made up of molecules which are constructed by even smaller structures called atoms. You can't see atoms but you and everything else in the universe are constructed from atoms. This may seem strange but it is true. So, **to learn human physiology you need to use your imagination!**
- Every day, you need to make **quiet time** for yourself . This is time when you can think. This is **different than study time**. Quiet time is a **day dream state of mind**. Einstein said that his quiet time was his most important time. Close your eyes and let your mind drift among all the factoids you know. It is here, in your quiet time, where you will start to understand human physiology.
- Ask yourself questions about how your body works. How do you move? Why do you eat? How do you remember where you parked your car today or yesterday? What is a smell? What is pain? What is consciousness? There are an endless list of questions you can ask. **You need to be passionately curious!**
- **Lastly, you need to trust me.** You need to believe that when I ask you to do something, it is only because I want to help you achieve your career goal. You can not learn human physiology in 16 weeks. But you can start to build a solid foundation that will prepare you for a successful career in health care.
- **Preparation + Opportunity = Success**

If success = preparation + opportunity (Then what are the opportunities?)

- Opportunities are what you prepare for. If you are not prepared for an opportunity then you will not be able to take advantage of the opportunity.
- Sometimes in life, you may only get one chance at an opportunity.
- Opportunities should never be taken for granted.
- What are the opportunities in this class?
 - Lab sessions
 - Lecture sessions
 - Lab exams
 - Lecture exams
 - Video Homework Assignments
 - Chapter Study Guides
 - Homeostasis Definition

Grades

- There are four unit exams. Your grade is the average of the four unit exams. The unit exam score is the average between a unit lab exam and a unit lecture score. The lab and lecture have equal value (i.e. 50% each).
- The lecture score is determined by a lecture exam (80%), Video Homework Assignments (18%), and writing out the homeostasis definition (2%). There is an additional four bonus points for doing the Chapter Study Guide Questions.
- The lab exam requires you to identify 50 structures from the Lab Learning Objectives. Each identified structure is worth two points.
- Video Homework Assignments and Chapter Study Guide Questions need to be turned in on-time to receive full credit. (Before the lecture on video subject.)
- Consider the “video assignments” as part of your lecture exam, therefore. Do not share your answers with other students before the due date. Sharing these answers with other students will be considered “cheating” and both parties will receive no credit for the assignment.
- See syllabus for Science Departments Grading Scale.
- How important is it to “capture” the video, study guide, and definition points? (see next slide).

Sheet1

Lab	Lecture	Video HW	Study Guide	Homeostasis	Total Pts	Grade
100 pts	(100 x .8) = 80 pts	20	4 pts	2 pts	206	A
100 pts	(100 x .8) = 80 pts	0	0	0	180	-A
90	(90) 72	20 pts	4 pts	2 pts	188	A
90	(90) 72	10	2	1	185	-A
90	(90) 72	0	0	0	174	B+
86	(86) 69	20 pts	4 pts	2 pts	181	-A
86	(86) 69	10	2	0	167	B
86	(86) 69	0	0	0	155	C
75	(75) 59	20 pts	4 pts	2 pts	160	-B
75	(75) 59	10	2	0	147	C
75	(75) 59	0	0	0	134	D+
63	(63) 52	20 pts	4 pts	2 pts	141	C
63	(63) 52	10	2	0	128	D
63	(63) 52	0	0	0	115	E

What happens if you do not prepare for lectures?

- If you come to lecture “prepared” then we can spend our time together with me answering your questions. Your preparation turn the lecture into a “question and answer” session. To answer your questions, I may refer to lecture slide(s). This then is a “discussion about the material” instead of me simply reading you my power-point slides.
- I will have time to “ask you questions” from the Chapter Study Guides. I can now focus on the most critical information that is likely to be on the lecture exam.
- However, **this means everybody in the class must come to class prepared.** If the majority of the students do not come to class prepared then the QA session crumbles.
- If you fail to prepare for the lecture sessions, then I will need to go back to the old boring routine of reading power-point slides to students.
- You decide on how we conduct the class.

What is the best way to learn physiology? (Turn each “topic” into a story!)

- A narrative is a spoken or written account of connected events (i.e. our AP factoids). So, a narrative is simply a story. Every good story needs to have a beginning, middle, and an end.
- So, to learn human physiology, you first need to memorize a some factoids. These are like the pieces to a puzzle (the factoids to your story). Next, you will need to connect the “factoids” together to create a story about your topic.
- At first, the story should be simple, only a few factoids. But as you learn more factoids, you add new factoids to your story. When you tell your story to someone, remember to make sure you include a beginning, middle, and an end.
- *Here is advise from someone considered to be the most brilliant scientist ever born in the United States. He said this is the best way to see if you really understand the subject. Tell your story to a ten year old child in a way so they understand the story.* (Dr. Richard Feynman, PhD Theoretical Physics on How to Learn Anything)
- So learning physiology is not hard. You just have to practice telling your story to a ten year old.

Carpe diem

Carpe diem is a phrase that comes from the Roman poet Horace (65 BC to 8 BC). Carpe diem means literally "Pluck the day", though it's usually translated as "Seize the Day".

For students, a better translation might be "Do everything you can do today to make tomorrow better".

Remember, the time you spend to prepare for your lectures and labs, and the study-time that you spend to learn the Science Department's Learning Objectives, are **"investments in your future"**.

You are the only person who may put a value on your education!

Ask yourself, "Where do I want to be next year, three years from now, or ten years from now". Time is your enemy and it is the most valuable asset you have. You will be rewarded for the sacrifices that you make today by having a brighter future tomorrow.

Seneca (another Roman orator) said, "It is not that we have a short space of time, but that we waste much of it."

Carpe diem!