Welcome

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Learning AP Is Fun!

My goal is to help you learn human anatomy and physiology.

You are only able to learn if you are curious! If success in this class is learning new knowledge, then you need to prepare for this opportunity! This class is an opportunity. (success = preparation + opportunity)

Some students may need to develop new study habits to pass this class. You need to prepare for lectures, labs, and exams. You need to come to lab and lecture sessions curious.

I will assume that everybody in this class is an adult. Therefore, we have **"shared responsibilities"**

- Be on time for the lecture and lab sessions.
- Respect your classmates, support staff, and faculty.
- Respect the lecture and lab resources.
- Ask questions if you don't understand something.
- Be prepared for lectures, labs, and exams. These are opportunities! I will have more to say about "what are opportunities and what it means to be prepared".

MC3 Open Enrollment Policy

Macomb's open enrollment policy is good because anybody may sign up to take the class. MC3 open enrollment policy is bad because anybody may sign up to take the class, even those students who lack the prerequisite knowledge required to pass the class.

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 students are likely to start the class with different levels of knowledge. It is like running a race where everyone starts the race at a different position. Some students in your class may already have a four-year degree in biology. While other students may not have had a science class in 20 years.

Any student who is passionately curious and willing to put in the necessary study time may earn an "A" in my class.

About Anatomy and Physiology 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 in the textbook.

You need to read a college level textbook (either the assigned book or another textbook). You need to read scheduled lecture topics before I 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 an allied health career.

My Web site (www.mc3cb.com) is designed to help you pass this class. The Web site has my lecture slides, chapter study guide homework assignments , video homework assignments, learning objectives, and much more.

The Web site also contains “extra-in-depth-content”. This information is not required but available for curious students.

Expectations

You need a professor who is knowledgeable, passionate, and dedicated to helping you achieve your career goals. You need a professor to be on time and to be prepared for your lecture and lab sessions. **This is my promise to you!**

I need students that are passionate and curious. I need students that need to learn *anatomy and physiology. (I hope you know the difference between wanting something and needing something!)*

You will need to follow Michigan Educational Association's benchmark for study time. The benchmark tells us how much study time is required to learn new lecture material.

The benchmark is "two to three hours" study time for each hour of lecture time. The lectures are two hours long. So, if you factor in extra time for lab then you will need to study 2 to 4 hours per day, seven days a week for the next 16 weeks.

More About Expectations

"Study time" is also required on the 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 more study time per day.*

If you study only one hour per day, then you may fail this class.

Success in this class is all about "time on task"! If you are not willing to do the time, then you should not take this class. Study-time is an investment in your future.

However, if you follow my recommendations, then you should be able to earn an "A or B" in my class. (See Daily 24-Hour Worksheet)

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 to wear when you do dissections. You will need to follow all lab regulations (Sign and turn in lab safety 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.)

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 lab. Use your textbook, lab manual, and Web site resources to familiarize yourself with the location of these structures. Come to lab with a clear goal to identify the learning objectives using lab resources.

I am your lab facilitator". I am not expected to show students the lab objectives or use your lab session to cover lecture topics. Lab instructors shall answer student's questions and shall help students identify lab objectives. Students need to ask for help!

I will have "group break out sessions" with students to discuss select models and charts.

More About Lab Preparation

Before you come to lab you need to determine the lab objectives that you plan to identify in the lab session. At home, use your textbook, lab book, and Web resources (i.e. Google image and course lab learning objective links) to identify the lab objectives you plan to identify in lab.

Come to lab prepared with a clear goal on what learning objectives you need to identify on the models and wall charts. During lab, quiz students in your lab group to test their knowledge. This is how you earn an "A" in the lab session.

Start every lab session by reviewing lab objectives identified in previous lab sessions. After the review, start to identify new structures.

Do you know how to eat an elephant? You do it by taking one small bite at a time. Use this technique to learn the unit lab objectives. Learn a new group of lab learning objectives each lab period.

Instructors will prepare practice lab exams to help you pace your learning experience.

Lecture Room Conduct

Before you come into the lecture room, *please turn your cell phones off and put your phones and laptop computers in your backpack or leave them in your car. The only exception to this policy will be students with approved special accommodations from Student Access Services Department*.

Research proves all digital devices (phones and computers) in the classroom lowers test scores! The test scores are lower for the person using the digital devise as well as those sitting around the person with the digital devise. (Read the articles on the Web site's home page about the negative impact of digital devices in the lecture room.)

You may have a beverage in the lecture room. However, food and snacks are not allowed in the lecture room.

Once the lecture starts, the instructor speaks and the students listen. Students are not allowed to "cross talk" during the lecture. Students are encouraged to ask question. When you have a question or want to make a comment, please raise your hand and I will allow you to speak.

Students need to be alert. If you fall asleep in the class, then I will ask you to leave the room. We will take a 10-minute break during the lecture.

About Lecture Preparation

To be successful in my class, you need to prepare for the lecture sessions at home or in the library before you come to class.

First, read about the topic(s) to be covered in the lecture session.

Second, preview my lecture slides. Make notes about questions that you need to ask during the lecture.

Third, as you review the lecture slides, write out the answers to the Chapter Study Guide Questions. This must be done before you come to class. The Study Guide Questions follow the lecture slide sequence. If you can not find an answer or if you want to confirm your answer is right, then ask one of your classmates to share their answer with you. If you are still not sure if your answer is right, then ask me in our lecture QA session. Exchanging ideas with other students is "active learning"!

Fourth, watch the Video Assignments and complete the video homework worksheets. These videos feature the most important lecture learning objectives. This too must be done before we cover topics in lecture.

This is your "preparation". If you can't do this, then you should drop the class now.

Chapter Study Guide Bonus Points

You may earn four "extra credit bonus points" for turning in your Chapter Study Guide's answers. The Chapter Study Guide Answers must be completed before we cover the chapter in lecture and turned in at the end of the lecture period. Occasionally, there will be an 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 for the exam.

Exam questions are taken from the Study Guide Questions. If you know the Study Guide Questions, then you should earn an "A" on the lecture exam.

Your Study Guide Answers should be detailed answers and not "one-word answers".

When you turn in your work, write your answers on a separate piece of paper. At the top of the page write "Study Guide" and your full name.

I review your homework assignments for completion and not for correctness. This means it is critical for you 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.

You need to compare your SG answers with the answers of other students. Then edit your answers to make your answers more complete. This is "active learning".

If a study guide question is not covered in class, then it may still be on the exam.

Collaborative Leaning Using Chapter Study Guides

Health care is a team effort. No one person may take credit for a patient's healthcare. Therefore, it is important to learn how to collaborate with others. At MC3, we promote 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 students to compare and quiz each other using the Chapter Study Guide Questions. This will allow you to edit your answers. Flash cards (on paper not digital) are old school but are still the best learning aids!

When you complete the chapter study guide assignments; you are preparing for the unit exam. *The Study Guide Questions are the exam questions.* *Assume h*alf of the study guide questions will be on each exam!

You need to *learn the new lecture topics daily as we cover the material in class*. Don't try to learn everything the day before the exam. You can't do it. And if you try this 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 and study two to three hours per day.

The best way to advance your knowledge on any topic is to help someone learn the material!

Video Homework Assignments Bonus Points

You may earn 18 bonus points for turning in your Video Homework answers. Each chapter will have on average 60 minutes of video to watch. The Video Homework Assignments must be completed before we cover the video topics in lecture.

You will turn in your work at the start of the lab period. Occasionally, there will be an exceptions to this rule. On these occasions, I will post when the work must be turned in on the message board.

The video assignments feature key learning objectives. I will also cover these learning objectives in my lectures.

Students often find some of these topics hard to understand. The videos are designed to illustrate the concepts graphically. You may watch the videos as often as necessary until you understand the topic.

Lecture Attendance Is Required
Bonus Points Are Proportional to Lecture Attendance

You enrolled in an on-campus class scheduled to meet on Tuesdays and Thursdays for a 3 ½ hour lab and lecture session. Attendance is required and you are expected to be prepared so you may participate in lecture and lab activities.

You will have assignments to turn in at the beginning of each lab session and at the end of each lecture session. These documents are used to monitor your attendance. The bonus points awarded will be proportional to your attendance record. If you do all the homework but only attend half of the lab/lecture sessions, then you will be awarded half of the bonus points.

If you do not attend class, then I can not help you learn anatomy and physiology . If you are not in class, then you can not participate in class activities and help other students to learn anatomy and physiology

Is it possible to earn an “A” without coming to lab/lecture session? Yes, but it is unlikely. I have taught this class many years and here is what I have learned. It is only the students who come to class that pass the class and earn an “A”.

What happens if you do not prepare for lectures?

If you come to lecture “prepared” then we will use some of our lecture time to review Study Guide Questions. As you prepare for lecture, you should find questions to ask during our discussion session.

Your preparation then determines how much time we use in lecture for our “question and answer” session.

It is essential that all students must be prepared for the lectures. It does not work if only 10% of the class comes to class prepared for the lectures.

Everybody should have questions. And everybody needs to be prepared to answer questions from their study guide homework assignments and video homework assignments.

If you fail to prepare for the lecture sessions, then by default I read power-point slides to the students.

Then What Are the Opportunities?

If success equals preparation plus opportunity, then opportunities are what you need to prepare for. If you are not prepared for an opportunity, then you will not be able to take advantage of the opportunity.

Often in life, you get only one chance at an opportunity. An opportunity should never be taken for granted or ignored.

What are your opportunities in this class?

- Lab sessions
- Lecture sessions
- Lab exams
- Lecture exams
- Video Homework Assignments
- Chapter Study Guides
- Homeostasis Definition
- Working with other students.
- Asking questions

How to Learn Science

You need to "unleash your imagination". Imagine your body not as a monolithic structure but as a collection of cells. The cells are made up of molecules which are constructed of even smaller structures called atoms.

You can't see atoms but you and everything in the universe is 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 a strange concept. It is different than study time. Time to think is quiet time. It is a daydream 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 human physiology factoids you know. It is here, in your quiet time, where you will start to understand human physiology.

How to Learn Human Physiology

Constantly ask yourself questions about your body.

How do you move? Why do you eat? How do you remember where you parked your car yesterday? What is a smell? What is pain? What is consciousness? Is there free will? What do organs do?

There is an endless list of questions to ask. You need to be passionately curious!

Lastly, you need to trust me. The foundation of my class is built on "best practices". You need to believe that when I ask you to do something, it is to help you achieve your career goal. You can not learn human physiology in 16 weeks. This will take a lifetime, however. I can help you build a solid foundation that will prepare you for a successful career in health care.

Preparation + Opportunity = Success

What Is The Easiest Way to Learn Physiology?

Take 25 factoids and arrange the factoids into one story. Now you only need to remember one thing, a story! A story is a narrative, spoken or written, an account of connected events. The factoids for your story are in your Chapter Study Guides.

You will need to start by memorizing a few factoids. These factoids are like the pieces to a puzzle. As you connect the factoids together, you tell your story. Every good narrative needs a beginning, a middle, and an end.

You should start with just a few simple factoids. As you learn additional factoids, add the new information to your narrative. This is a concept Greek orators used 2500 years ago to memorize their long speeches before teleprompters!

More About How to Learn Physiology

At first, the story should be simple, short, not too complicated, and may only use a few factoids. But as you learn more factoids, you may continue to add new factoids to your story. When you tell your story to someone, remember to make sure you include a beginning, a middle, and an end.

Practice telling your story to someone who does not know anything about science. This will force you to explain the topic using a simple easy to understand language, not scientific jargon. This will show you if you really understand the topic.

This advise is from Richard Feynman, considered to be the most brilliant scientist ever born in the United States. He said that the best way to see if you really understand the subject is to 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)

Learning physiology is not hard. You just need to practice telling your story to a ten-year-old.

Grades

Your final grade is calculated by an average of four Unit Exams. The Unit Exam is an average of one lab exam and one lecture exam. The lab and lecture exams have equal value. (Note: The Unit One Lecture Exam is now split into two shorter tests: Part A and Part B

The unit lecture exam score is calculated by using 80% of your exam test score then adding another possible 20% from video (18%) and homeostasis definition (2%). The maximum lecture score is 100%.

You may earn an additional four bonus points by doing the Chapter Study Guide Questions.

The total possible points for each unit exam is 104%

More About Grades

The lab exam will require you to identify 50 structures from the Lab Learning Objectives worksheet. Each identified structure is worth two points.

Video Homework Assignments and Chapter Study Guide Questions need to be turned in on-time. The Video Assignments are turned in at the beginning of the lab session.
The Study Guide Answers are turned in at the end of the lecture session.

If your homework assignments are not turned in on time and in person, then you will not receive full credit.

Grading Scale

100 - 93	%	A
92 - 90	%	A-
89 - 87	%	B+
86 - 83	%	B
82 - 80	%	B-
79 - 77	%	C+
76 - 73	%	C
72 - 70	%	C-
69 - 67	%	D+
66 - 63	%	D
62 - 60	%	D-
Below 60	%	E

Completing the Homework Assignments Will Improve Your Final Grade

Lecture Points (80% of Exam Score)	Video HW Bonus Points	Homeostasis Definition Pts	Study Guide Bonus Points	Unit Lecture Score With Bonus Pts	Lab Points	Average Lecture Lab	Grade
100 x .80 = 80	18	2	4	104	100	102	A
100 x .80 = 80	0	2	0	82	100	91	A-
100 x .80 = 80	0	0	0	80	100	90	A-
90 x .80 = 72	18	2	4	96	90	93	A
90 x .80 = 72	0	0	0	72	90	81	B-
86 x .80 = 69	18	2	4	93	86	90	A-
86 x .80 = 69	0	0	0	69	86	76	C
75 x .80 = 60	18	2	4	84	75	80	B-
75 x .80 = 60	0	0	0	60	75	68	D+
65 x .80 = 52	18	2	4	76	65	71	C-
65 x .80 = 52	0	0	0	52	65	59	E

And Completing the Homework Assignments Is How You Prepare For the Lecture Exam!

Carpe diem

Carpe diem is a phrase used by the Roman poet Horace (65 BC to 8 BC). Carpe diem means literally "Pluck the day", but it is 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 lecture and lab classes, the study-time you spend to learn the Science Department's Learning Objectives, this is your "**investments in your future".**

You are the only person that 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, but time is also your asset. So, use your time wisely. *You will be rewarded for the sacrifices you make today by having a brighter future tomorrow.*

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

Carpe diem!