

# GENERAL LECTURE SYLLABUS SPRING '11

## BIOLOGY 202 - Human Anatomy and Physiology

Instructor: Dr. James Sinner

Room #: 2<sup>nd</sup> floor Dalby building 208

E-Mail: [James.Sinner@pcmail.maricopa.edu](mailto:James.Sinner@pcmail.maricopa.edu)

Phone: 602 285-7105

Office Hours: Monday 8:30 – 9:00 and 10:30 – 11:00  
Tuesday 11:00 – 11:15 and 1:15 – 2:00  
Wednesday 10:30 – 11:00 and 2:00 – 2:30  
Thursday 11:00 – 11:15 and 12:45 – 1:30  
Friday 10:00 – 11:00

### **COURSE DESCRIPTION:**

Study of structure and function of the human body. Topics: Endocrine system, Blood, Heart and Cardiovascular system, Digestive system, Respiratory and Excretory systems. Prerequisites: BIO 201 with a grade of "C" or better.

### **REQUIRED BOOKS & MATERIALS:**

Zao et al. *PhysioEx 8.0 for A&P: Laboratory Simulations in Physiology*

### **Reference Texts:**

Saladin, Kenneth S. *Anatomy and Physiology, The Unity of Form and Function* or

Seeley, Stephens, and Tate. *Anatomy and Physiology* or

Marieb. *Human Anatomy and Physiology* or

Tortora and Grabowski, *Principles of Anatomy and Physiology*

*Any edition is acceptable*

### **ATTENDANCE AND WITHDRAWAL POLICIES:**

\*Attendance in class is required.

\*Anyone who hasn't attended the 1<sup>st</sup> class will be dropped.

\*Anyone who has not taken at least one quiz or assignment will be dropped.

\*Multiple non-excused absences may result in withdrawal from the class or a failing grade for the semester.

\*Class starts promptly. Excessive or frequent tardiness may result in a loss of points and/or a withdrawal from class.

\*The student is responsible for all announcements, class changes and assignments.

\*Withdrawal for a "W" is ultimately the student's responsibility.

\*It is the responsibility of the student to withdraw by 3/04/10 to receive a guaranteed grade of "W".

\*Last day for student-initiated withdrawals is 4/25/10. If at this time the student's grade percentage is below 60% a grade of 'Y' will be given, otherwise the student will receive a "W".

\*Students still enrolled after the "Deadline for student initiated withdrawals" will receive a letter grade (A-F) for the course. No 'W' or 'Y' grades will be given after this date

\*According to college policy, no one may attend lab or lecture if they are NOT enrolled in the course.

\*When in attendance all cell phones and pagers must be in silent mode. NO TEXT MESSAGING IS PERMITTED!

\*No headphones are allowed during lecture or exams.

\*Baseball caps must be worn with the bill toward the back during quizzes and exams.

### GRADING:

\*Cheating is not tolerated and is considered to be (but is not limited to) ANY of the following: sharing of information during exams and quizzes, plagiarism, and copying other students work.

\*Any cheating will result in a zero grade for the entire test or assignment, with no make-up possible, and with the possibility that the student may be withdrawn immediately from the course with an "F". Please note this applies to both the cheater and the student that allowed them to cheat.

\*You will be notified in advance of any change in the distribution of points.

\*Grades are tentatively based on a total of 1185 points, distributed as follows:

*** Lecture Exams		6 @ 100	600	
*** Lab Practical Exams	2 @ 75	1 @ 50	200	
*** Quizzes/PhysioEx/Biopac/Misc.			385	
A= 100-90%	B= 89-80%	C= 79-70%	D= 69-60%	F=59% and below

\*There is a comprehensive final exam which will count double. This exam will replace your lowest exam grade as well as factor into your total points.

\*Come prepared to turn in any homework when class starts, the homework is due when the instructor asks for it, after that it is at least 50% off (in lab it is at least 5 pts off). The later the homework is turned in the more points will be taken off.

\*Incomplete grade (I) is only given to a student doing acceptable work (C or better) who is unable to complete the course requirements due to illness or extenuating circumstances, and who only needs to make up the last lecture or lab exam to complete the requirements. An Incomplete Grade Contract" must be filed with the Records office.

\*Instructor will keep all lecture exams.

\*Students have one week after the graded test, quiz or assignment to discuss questions and answers.

### MAKE-UP POLICY:

**\*If you are going to be absent, notify the instructor immediately with the reason in order to arrange to take the exam early.**

\*If you miss an exam you will be required to take the Comprehensive Final Exam as a replacement for that exam.

\*You are only allowed to miss one exam. Missing for than one exam results in being dropped from the class.

\*The Final cannot replace any exam failed due to cheating.

\*You will not be permitted to start an exam 15 minutes after the initial dispersal of that exam.

\*You will not be allowed to leave the room during an exam for any reason.

**\*There are no make-ups available for quizzes, labs, lab quizzes or lab practicals.**

**\*If you miss the class handouts it is your responsibility to get copies of them from a fellow student or print them off from blackboard.**

**\*If you take a quiz in class but leave early you will not get credit for that quiz.**

### ACADEMIC GRIEVANCES:

\*Your instructor attempts to provide excellent instruction in a manner that is fair to ALL students. If, however, you feel that you have not been dealt with fairly or that instruction has been inadequate, procedures exist for handling such grievances.

\*First: Speak with your instructor. Perhaps he is unaware that a problem exists. He may be able to provide satisfactory explanations to resolve the problem.

\*Second: If the problem is not or cannot be resolved, speak with the Department Chair, Mark Rosati.

\*Third: If the problem is still not resolved, a written complaint should be sent to the Dean of Arts and Sciences, Wilbert Nelson, and a meeting with the Dean will be arranged.

### OTHER:

\*Disruptive students will be asked to leave the classroom. If the student refuses to leave, campus security will be called and the student will be removed. Students will not be allowed to return until they have met with the Dean of Arts and Sciences.

\*A disruptive student is any student that interrupts the learning atmosphere.

\*The Maricopa Community Colleges acknowledge that faculty members are, by law, afforded copyright protection in their classroom lectures and, therefore, may limit the circumstances under which students may tape (audio/visual) their classes.

\*The college will make reasonable accommodations for persons with documented disabilities.

\*Students should notify Disability Resource Center (DRC) on campus of any special needs.

\*If you are taking this lecture then you need to be enrolled in a face-to-face lab (not an online lab).

\*This class uses real bones, cadaveric specimens, sheep brains and eyes. If this is a problem speak to your instructor right away.

\*Students need to view the course website weekly.

\*The policies and requirements stated above are subject to change at the discretion of the instructor.

# GENERAL LECTURE SCHEDULE

Biology 202  
Dr. James Sinner

Week:	Dates	TOPIC	Chapter
1	1/18 & 1/20	Introduction & Endocrine	17
2	1/25 & 1/27	Endocrine cont. & Endocrine cont.	17
3	2/1 & 2/3	Endocrine cont. & Review	
4	2/8 & 2/10	<b>EXAM 1</b> & Circulatory system	19
5	2/15 & 2/17	Circulatory system & Blood vessels	20
6	2/22 & 2/24	Blood & Blood	18
7	3/1 & 3/3	Review & <b>EXAM 2</b>	
8	3/8 & 3/10	Respiratory system & Respiratory system	22
9	3/15 & 3/17	<b><u>NO CLASS SPRING BREAK</u></b>	
10	3/22 & 3/24	Urinary system & Urinary system	23
11	3/29 & 3/31	<b>EXAM 3</b> & Lymphatic system	21
12	4/5 & 4/7	Digestive system & Digestive system	25
13	4/12 & 4/14	Digestive system & <b>EXAM 4</b>	
14	4/19 & 4/21	Reproductive system & Reproductive system	27
15	4/26 & 4/28	Reproductive system & Reproductive system	28
16	5/3 & 5/5	Reproduction system & <b>EXAM 5</b>	
17	5/12	<b>COMPREHENSIVE FINAL EXAM</b>	

\*\*\*This schedule is tentative and is subject to change at the discretion of your instructor. \*\*\*

## BIO 202 Lab Schedule

Week	Topic
1	<b>NO LABS – MLK Jr. Day</b>
2	Hematology and Vasculature Abdominopelvic Quadrants Cadaver: Major arteries Vascular Project (Table due <b>Week 3</b> , Completed project due <b>Week 4</b> ) PhysioEx (Data and Review Sheets due <b>Week 4</b> ) Exercise 11: Activities 1 and 4 <b>Homework: Abdominopelvic Quadrants</b> <b>Vascular Project Table</b> <b>PhysioEx Worksheets</b>
3	Hematology and Vasculature Cadaver: Major veins Vascular Project (due <b>Week 4</b> ) PhysioEx (due <b>Week 4</b> ) <b>Abdominopelvic Quadrants Due</b> <b>Vascular Project Table Due</b> <b>Homework: PhysioEx Data and Review Sheets</b> <b>Vascular Project</b>
4	Cardiology Sheep heart dissection and cardiac anatomy Cadaver cross sections Computerized tomography (CT) sections <b>Vascular Project Due</b> <b>PhysioEx Data and Review Sheets Due</b>
5	Cardiac Functions Electrocardiogram (Worksheet due <b>Week 7</b> ) Review for lab practical <b>Homework: ECG Worksheet</b>
6	<b>NO LABS – President's Day</b>
7	<b>Lab Practical One (100 points)</b> <b>ECG Worksheets Due</b> <b>Homework: PhysioEx (Data and Review Sheets due Week 8)</b> <b>Exercise 7: Activities 1 and 5</b>
8	Respiratory System Cadaver: Respiratory anatomy Cadaver cross sections CT sections Respiratory Functions Spirometry (Worksheet due <b>Week 10</b> ) <b>PhysioEx Data and Review Sheets Due</b> <b>Homework: Spirometry Worksheet</b> <b>PhysioEx (Data and Review Sheets due Week 11)</b> <b>Exercise 9: Activities 1, 2, 4, and 6</b> <b>Exercise 10: Activities 1, 2, 3, 4, 5, 6, 7, 8, 9</b>

\* All dates and topics on this schedule are subject to change.

## BIO 202 Lab Schedule

Week	Topic
9	<b>NO LABS – Spring Break</b>
10	Urinary System Cadaver: Urinary anatomy Cadaver cross sections CT sections Maintenance of Acid-Base Balance <b>Spirometry Worksheet Due</b> <b>Homework: PhysioEx Data and Review Sheets</b>
11	Digestive System Cadaver: Gastrointestinal tract (esophagus to anus) Cadaver cross sections CT sections PhysioEx (Worksheets due in lab <b>Week 13</b> ) Exercise 8: Activities 1, 3, and 4 <b>PhysioEx Data and Review Sheets Due</b> <b>Homework: PhysioEx Data and Review Sheets</b>
12	Digestive System Cadaver: Digestive accessory organs, serous membranes and ligaments Cadaver cross sections CT sections <b>Homework: PhysioEx Data and Review Sheets</b>
13	<b>Lab Practical Two (100 points)</b> <b>PhysioEx Data and Review Sheets Due</b>
14	Reproductive System Male and female anatomic models Cadaver: Male and female reproductive anatomy Cadaver cross sections Computerized tomography (CT) sections
15	<b>Hormone Projects Due</b> Review for lab practical
16	<b>Lab Practical 3 (50 points)</b>

---

\* All dates and topics on this schedule are subject to change.

# **Human Anatomy and Physiology Guide to Success**

## **Time --- your most important resource**

The most important key to success in anatomy and physiology is time. You must spend time in class and outside of class in order to learn the massive amount of material involved.

### *How much time?*

The rule of thumb for any college course is that for every hour spent in class, the student should plan to spend two hours outside of class.

This class meets for 6 hours a week: three hours of lecture and three hours of lab.

A starting place for determining how much time you should spend is twelve hours a week. A few people may need less time, and many people will need more.

### *What kind of time?*

The twelve hours should be spent in blocks of uninterrupted time, and the time spent getting ready to study (gathering supplies, clearing a place to study, etc.) doesn't count. If you have kids, have someone watch them for you; if you live with other students, put a "Do not disturb" sign on your door, take the phone off the hook, or go to the library ---- do whatever you can to assure that your concentration will not be disrupted.

Spend 30-45 minutes at a time studying, then break for 10-15 minutes. Don't study for more than 45 minutes without a break. Get up, walk around, relax, give your mind a rest, and then go back to work. Spend some time every day studying. Waiting until the weekend or a day off and then studying for 12 hours is not nearly as effective as studying an hour or two every day. (You wouldn't go without food for a week; then eat all you need in one day, would you? View studying as food for your brain and this advice should make sense)

### *How do I find that much time in a week?*

Make out a weekly or daily schedule. Include all your activities for the day/week: classes, work, meals, sleep, and family, study and personal time. Write out a list of things to do in a given day or week. Then prioritize the items --- most important items receive "1" priority, less important "2" etc. Consider whether "3" and "4" priority items really have to be done and cross them off your list if they don't. Put the "1" priority items on your schedule first. Some people will not need to write out a schedule, but if you are having trouble finding time to study, this is the best way I know to assess and allocate your time.

## **There's so much material here; it's just overwhelming!**

You should know that this is a very common response to the subject of anatomy. There is a lot of material --- new terms to learn --- it's like a whole new language. The sense of being overwhelmed is common, even in the most seasoned anatomy student. The successful student breaks the overwhelming whole into small tasks and takes them on one at a time.

The trick is persistence, even though you may feel discouraged and overwhelmed; use some of the techniques suggested later, struggle with the difficult concepts awhile, then go on to something else and come back to the difficult things again the next day or later that same day. Do the most difficult studying when you are fresh and at your best mentally. Try to find ways to use what you are learning during the day. The obvious way to do this is to work with a study group of other anatomy and physiology students in which you take turns reciting and explaining the information to each other. If you already work in a clinical situation, try to find applications of your schoolwork to your clinical work. The more different ways you can look at this material and apply it, the better you will remember it later and the more use it will be to you in your chosen field.

Listen carefully to what your instructor emphasizes. Some instructors test strictly from lecture notes, some strictly from the text, and some from both. If your instructor emphasizes a point by saying "This is important." or "Be sure to know the difference between ...", for example, then there's a good chance that what follows those introductory phrases will show up on the test. In the same way that the Diamondbacks must have spring practice before the season, or that an actor must memorize lines and practice the play before a performance, or that a musician must do musical drills and practice before a

performance, a student of anatomy must rehearse the information before a test. Good performance requires that the student understand and remember the information.

### **What are some good study techniques for lecture?**

1. Always review the lecture material within 24 hours. If you wait too long, the notes get "cold" and you can't remember what they mean.
2. If you use a tape recorder, use your tape to fill in blanks in your lecture notes. DO NOT listen to the tape over and over again and hope that you will learn it that way. A better use of the tape in learning material is to use it for drill and practice. Record a question on the tape, then a pause, then the answer. Use it like an "audio flashcard" while walking, washing dishes, etc. Listen to the question, then turn off the tape and recite the answer. Then turn the tape back on to check the accuracy of your answer.
3. Reading your notes and textbook are an important first step in studying, but you must be able to express the ideas you are studying, and express them in as many ways as possible:
  - a. Speak the ideas and terminology, even if there's no one there to hear you. Saying things out loud engages your voice as well as your hearing. Use flashcards (described later) to drill and practice, and speak your answers out loud.
  - b. Write the ideas and terminology.
    - 1) Consider recopying your lecture notes
    - 2) Write the answers to study questions. You can make flashcards by writing the question on one side of a 3x5 or 4x6 index cards and the answer on the other side. Another flashcard idea is to write an important term on one side and its definition on the other. You should be able to use the flash cards forward and backward. That is, if you see the term, you should be able to define it; if you see the definition, you should be able to give the term.
  - c. Draw your own diagrams explaining the interrelationships of ideas.
  - d. As you begin to feel you understand or know some block of material well, take a blank sheet of paper and write down or outline as much as you can remember about this topic without consulting your notes.
  - e. Then compare what you have written with your lecture notes, correct your mistakes, note what you have left out, and try again. As you learn the material better and better, you should be able to describe larger blocks of material more accurately without consulting your notes.
4. If questions arise in your studying, write them down. Check first to see if the information is in your textbook or in the handouts for the course. If not, or if the answers don't make sense to you, ask them at the next class, or during lab time, or during the instructor's office hours.
5. Some people prepare for lecture by answering the study questions from the textbook before the lecture on that topic.

### **What are some good study techniques for lab?**

1. Come to all your scheduled labs and come on time. One lab missed is a week of lab missed. There is no substitute for being in lab and working with the bones, models, cats or whatever anatomical materials you are using that week. Any guidance or special instructions, sometimes including tips about the test, are given in the first part of lab, so it is imperative that you be on time.
2. Use the lab handouts; familiarize yourself with the terminology of the lab before going to lab. You can do this by practicing labeling drawings or by viewing the website posted on blackboard. Have specific goals in mind for the week's lab; for example, "I will find all the markings on the bones of the appendicular skeleton by the end of this lab." Your instructor may be able to help you set goals for each week's lab.
3. If you find that the three hours per week is not enough time for you to learn the material, make arrangements to study at times other than your regular lab time. Some instructors will let you come into their labs if there is room. There are also open labs almost every week in the lab rooms. Make a note of these times and take advantage of them.

4. Do the lesson builders for lab (if there are any) and do the practice practical's by writing out your answers.

### **How do I prepare for exams?**

1. The most important thing is to keep up. It is impossible to learn all the material the night before the exam (or even two or three nights before the exam).
2. At the end of each chapter in the textbook are sample exam questions. Try answering the ones which cover material you are responsible for.
3. Work with a study group. Question each other and "grade" each other strictly.

### **Are there any "tricks" for taking exams?**

1. The major "trick" is to know the material and know it thoroughly. Prepare thoroughly, and imagine yourself doing well.
2. Answer the questions you know first, and then come back to the ones which will require more thought. Don't change an answer unless you are certain that the new answer is correct.
3. If there is memorized material that you will probably need to refer to several times on the test (such as names and numbers of cranial nerves), write it in the margin of your test before starting, and refer to it as you need to during the course of the test.
4. On multiple choice questions, read the question and, if you can, write your answer before looking at the choices. This will give you more confidence in your answer and you will be less likely to choose one of the wrong answers.
5. If you can't think of the correct answer right away, write down what you do know. Perhaps in thinking through what you do know, you will eventually recall the information you need. Draw pictures or diagrams, especially if that's the way you studied that block of information.
6. Only when all else fails should you resort to the process of elimination. Mark out answers you know to be wrong and see if you can narrow the choices to 2 or 3 possibilities instead of 4 or 5. Then, guess. Always mark an answer; you will not be penalized for guessing.
7. Before handing in your test, be sure you have answered all questions.



# CONSTRUCTIVE ADVICE FROM PAST STUDENTS

Rewrite all notes. Make flash cards for practicals. Study. Study. Study.

Do your very best at the beginning to give yourself some cushion at the end of the semester.

Study the pictures very thoroughly.

Study day by day. Read the book, and make your own notes in addition.

Study until you think you know everything then study twice as long!

Study every day for at least 2 hours.

Find a dependable study group. Make flash cards for definitions/functions.

Buy the book and as you review, study the lecture notes and read the corresponding pages.

Do not put off studying. Schedule it into your day and focus on trying to understand the material it will pay off in 202.

Study you're a\$\$ off. (3)

I have a master's in psychology and this was far and away the best and most difficult class I've ever had. So "believe that" when he tells you to start out strong. His multiple choice questions require you know the material because the incorrect answers don't jump out at you like in some classes.

Try to get away from thinking "what do I have to do to pass this class" and start to think "what do I have to do to know this material."

Buy the book. Do not miss class! Pay attention. Come ready for a quiz everyday!

Make time to study the material everyday instead of cramming all the info the day/night before a test. Try and find videos online that help with any of the concepts.

Study hard and give 100% from the beginning. Don't slack off.

If you want to do well, 1) you must ace the lab practicals, they are effort points (just memorization), 2) come to class every day ready for a quiz (these are like smaller versions of the test with not a lot of material. 3) sit where you can see the power point.

Study and don't slack off. Reading the book helps.

Study a lot! If you want to pass you can't be a "slacker"!

Study for the quizzes like a test!

Get a study group by the end of this week!!

Schedule time to study just as you schedule time to do everything else in your life. Avoid taking several classes in addition to BIO 201.

Study every day and test yourself afterward.

If you aren't going to put the time in to studying drop the class right now and re-think what you want to go into as a career!

Pray! (studying helps too!)

Start off right from the beginning because it only gets harder!!

Study your notes everyday is if it is an exam day because it probably is a quiz day!!

Study like you are going to teach the material to someone.

Study for the first test like you are already failing and you need an "A" to pass. What you did in high school won't get it done!

\_\_\_\_\_  
(Print last, first name)

## SYLLABUS ACKNOWLEDGMENT RECEIPT

*(Personal contact information you give me on this form is used only for identification in case I need to contact you, for example, if you leave personal items in the classroom.)*

NAME: \_\_\_\_\_  
                    *Last*                                    *First*                                    *Nickname*

EMAIL: \_\_\_\_\_ CURRENT PHONE(S) \_\_\_\_\_ SECTION # \_\_\_\_\_

*I have received a copy of the course syllabus for BIO 201 taught by Dr. James Sinner. I have read it and understand the course content, class procedures, and what is expected of me to earn credit toward a specific grade in this class.*

*If circumstances are such that I cannot complete the semester, I understand that it is my responsibility to withdraw officially from the course. If I do not withdraw officially, I know that I will receive a course grade and that the course instructor is required by law to report when I last attended class.*

**HONOR CODE:** *My signature below affirms that I will not cheat\* or knowingly receive or give assistance to classmates on examinations, quizzes, and collected homework, and I will not condone the cheating of others. \*cheating includes (but shall not be limited to) such activities as using notes on a closed book exam, copying a classmate's paper, copying material or merely paraphrasing information from a reference.*

\_\_\_\_\_  
*Student Signature*

\_\_\_\_\_  
*[Date]*

OTHER BIOLOGY CLASSES TAKEN AND INSTRUCTOR \_\_\_\_\_

GRADE YOU HOPE TO EARN \_\_\_\_\_ MAJOR \_\_\_\_\_

REASON YOU CHOSE THIS MAJOR \_\_\_\_\_

FAVORITE MOVIES \_\_\_\_\_

FAVORITE TV SHOWS \_\_\_\_\_

HOBBIES INTERESTS \_\_\_\_\_

ABOUT YOURSELF \_\_\_\_\_