

*Biology 6 – Human Physiology*  
*Sierra College*  
*Spring 2008*

**Instructor:** Keri Muma

**Lectures:** Room V-301 MW 2:45 - 4:50 pm or  
Room I2 TTh 2:30 - 4:35 pm

**Labs:** Sewell Hall Room S-113  
T 9:00 am - 12:05 pm, W 5:00 - 8:05 pm,  
or Th 9:00 am - 12:05 pm

**Office hours:** Sewell Hall Room S-120  
M 1-2:00 & 5-6:00 pm  
Or by appointment

**Office phone:** (916) 781-7112

**Email:** kmuma@sierracollege.edu

**Textbook:** Human Physiology: An Integrated Approach, 4<sup>th</sup> edition, by  
Silverthorn (*with Interactive Physiology CD recommended*)

**Lab manual:** Bio 6 Lab Manual and Lecture Study Guide CD Version 4.0 by  
Paul Badaracco

# *Welcome to Biology 6!*

In this course we will be focusing on the physiological principles which are fundamental to understanding the human body, your health, and to prepare you for your future careers. As humans we are all biological specimens so it is important for all of us to have a general understanding about life don't you think? Human biology is one of the most exciting disciplines! Being a human, you have a huge head start on understanding how your body functions (which is physiology), so in every way you should find some kind of relevance in this course. We all will have to make decisions about our health, our family's health, or a future patient's health, and we need to be able to make educated choices as consumers and voters.

This a vigorous course, so plan on working hard. A science class should develop your critical thinking, problem solving, data analyzing, and observational skills. Be prepared to learn a lot of new terms and concepts. You will have to invest time and effort in order to succeed. One thing you will also need to accept is that in physiology there is often not just one correct answer therefore; prepare to shift to critical thinking mode. I encourage all of you to get to know your peers and collaborate with each other. Each of us comes from a unique background and has had different life experiences. We can all learn something new from every single person in this class. I expect you to respect one another and create a classroom environment where all students feel comfortable participating and sharing their thoughts. Finally, my overall goal in this course is that you will gain a deeper appreciation for human physiology and we will have a lot of fun together this semester! I am excited to start the new semester, and I am looking forward to getting to know each one of you better.

Sincerely,

**Keri Muma**

## Course Description

Biology 6 is a rigorous course in human physiology which emphasizes the functions and regulation of the body's systems at the chemical, cellular, and tissue levels. It is a one semester, five unit course consisting of two 2-hour lectures and one 3 hour laboratory per week. This course is designed for biology, science, and medical field majors and is transferable to CSU and UC systems. **Prerequisite:** Completion of Chemistry 1A or 2A or 3A/3B and Bio.Sci. 5 or 7A/7B or 55.

Students will be expected to spend a minimum of 2 hours outside of class for each hour of lecture and a minimum of 1 hour outside of class for each hour of lab to earn an average grade – C. Therefore, **plan on spending at least 11 hours / week outside of class in addition to the 7 hours spent in class.**

## Attendance

You are expected to attend all lecture and lab sessions in order to fully understand material and to succeed in this course. Please notify me if you have a circumstance that requires your absence from class. If you are absent it is your responsibility to get announcements and notes from a classmate or blackboard. If your priorities are elsewhere and they conflict with scheduled class times, such as work or other commitments, please do not attempt to do both. If you decide to drop this course, **YOU ARE RESPONSIBLE** for filing the appropriate forms by the drop deadline. Do not assume that I will drop you from the course. For procedures and deadlines refer to the current Sierra College catalog.

## Lecture

Due to the amount of material we will be covering each lecture period it is extremely important that you **review the material before you come to class** so that you are familiar with the vocabulary and topic we will be covering that day. In addition to reading, you may be assigned pre-lecture assignments that must be completed before coming to the next class period. Stay on top of your studying. Do not wait to read and review at the end. It is impossible to cram for a physiology test.

**Examinations:** There will be four sectional lecture exams consisting of multiple choice questions, matching, fill in and short answer. You will need to bring a #2 pencil and an 882-E scantron form. **It is your job to make sure you can be present at all exam dates before you continue in this course.** An unexcused absence from an exam will automatically result in a grade of zero for that exam. In fairness to other students make-up tests will be available only in the **most extreme circumstances!** You must **email or leave a voicemail the day of the exam** if you are to miss an exam and provide documentation for your absence. Make-up exams will consist of essay questions and will be given during the final week of class. All students are required to take the final exam at the scheduled time. After grading, all examinations will remain on file in the instructor's office for the remainder of the course, and will be available for student-instructor discussion at any time during office hours. This discussion session is encouraged and is designed as a time to help clarify concepts missed on the examination. Unless a transcriptional error has occurred all scores are final.

**Quizzes:** Weekly lecture/lab quizzes will be administered in the first 20 minutes of the weekly lab sessions. The quizzes will cover all material presented in lecture and lab the previous week or since the last quiz. You are required to have a #815 scantron and a #2 pencil to take the quiz. Each quiz may include multiple choice, matching, and true/false. There will be **NO make-up quizzes and they cannot be taken early however, your lowest two quiz scores will be dropped** to account for emergencies. Therefore, it is imperative that your attendance is regular and you remain for the entirety of the lab session. Students arriving late to exams or quizzes will only be allowed the remaining allotted time for the examination.

**Assignments:** Throughout the semester you will have pre-lecture, in class, and homework assignments. All assignments must be submitted by the due date and time. **No late work will be accepted.** Pre-lecture assignments are designed to prepare you for the coming lecture. They will be posted and submitted through Blackboard and will be due by 2:00 pm on the day of lecture. If they are not turned in by this time they will not be accepted.

### **Laboratory**

In the laboratory you will have an opportunity to study the details hands on and carry out the physiological principles we discuss in lecture. Arriving late or leaving lab early is not acceptable. For most of the labs you will be working in groups so you can help each other, share ideas and learn from one another.

- **Prior to coming to lab**, students are **required** to read the assigned lab material and print out the data sheet from the CD to fill out during the lab session.
- Each student is to write up a one-paragraph **“pre-lab report”** which briefly describes the upcoming lab exercises **in their own words**. Working on a pre-lab report will help you familiarize yourself with the lab material. All pre-lab reports must be **typed**. If for some unforeseen reason you are unable to type your report you must email or contact me prior to lab period to let me know your situation. Please see the “pre-lab examples” handout provided by your instructor. No credit will be given for late pre-labs.
- You are expected to understand the physiological principles, experimental procedures, and the vocabulary prior to attempting the lab. The instructor will be observing, checking, and questioning groups throughout the lab period to get a sense of basic understanding of the lab activity and to allow for evaluation of student preparedness and participation.
- I will initial your pre-lab report at the beginning of each lab. It is your responsibility to make sure I do initial it, because you will not get credit for your pre-lab report if it is not signed!

- You will receive a total of 5 points for each lab (for your pre-lab, participation, cooperation, and data sheet). You will turn in your data sheets and initialed pre-lab stapled together the following lab period.
- You must be present to make observations and conduct experiments to receive credit. Therefore, if you are absent from lab you cannot receive the points for that lab. **Make-up labs cannot be arranged.** However, if you have to miss a lab, you can arrange **ahead of time** to attend another lab section that week but only with the instructor's prior approval.
- **Being respectful of laboratory animals and equipment** - Demonstration of many physiological functions of the human body requires procedures which obviously cannot be performed on the human being. Therefore, physiologists often utilize animals ranging from primates to the most elemental forms in both their research and teaching endeavors. In two of our scheduled labs we will be observing metabolic rates in mice. The proper handling of laboratory mice is important because with improper techniques students can be bitten, scratched, or both the student and the animal injured. Keeping laboratory animals calm is perhaps the most important step in controlling them. A calm animal gives better, more productive research results than one that is frightened. Using the proper hold on each type of animal requires training and practice. Prior to an exercise requiring animal handling, the instructor will review with all students the proper handling techniques for each type of animal used. It will also be necessary to sacrifice the lives of two frogs. The taking of life should be done with high purpose, which in this case is the knowledge which a student gains from performing the lab.
- For measurement of various physiological activities, we will use the Narco Physiograph® recorder as well as the BioPac® recording system. These pieces of equipment and their accessories utilized in this course are of superior quality and very expensive. If not careful, it is possible to cause irreparable damage by an inadvertent or thoughtless switching, incorrect connection of leads, or through reckless mechanical abuse. **PLEASE BE CAREFUL!** You are responsible for cleaning your lab table and returning all study items to their proper place after use. It is important that you follow all safety procedures and properly dispose of chemical. I reserve the right to deduct points for improper care and clean up of lab equipment. Please notify your instructor of any breakages or broken supplies immediately. **\*\*Please note:** This lab utilizes materials that contain latex. Please let me know if you have an allergy to latex.

**Lab Practicals** –There will be two sectional lab practical examinations. These exams will assess your comprehension of concepts and techniques explored in laboratory activities. The practical will be divided into two portions; a multiple choice portion and a written portion which will consist of fill-in, short answer, math calculations, and labeling of diagrams. You need to bring a #2 pencil, an 882 scantron, and a NON graphing calculator.

## Grading

Your final grade in this course will be determined by the total number of points you accumulate on examinations, quizzes, and assignments during the semester. The points accumulated will contribute to your final grade in the following proportions:

<u>Components</u>	<u>Total</u>
Lecture Exam (4 @ 125 points each)	500
Lab Exam	204
Quizzes (8 @ 15 points each)	120
Pre-lecture assignments (5 points each)	~ 100
Homework	~50
<u>Pre-lab/participation</u> (10 @ 5 points each)	<u>50</u>
TOTAL POINTS	~1024

The total number of points accumulated during the semester will be converted to a final percentage that corresponds with the letter grades found in the table below:

A = 89.5 – 100%

B = 79.5 – 89.4%

C = 69.5 – 79.4%

D = 59.5 – 69.4%

F = below 59.5%

## Support services

I will be available for questions before/after class and during my office hours. **Please contact me** by phone or email if you have any additional questions or concerns or would like to set up a meeting time to chat. **Each time you send an email, please include “Bio 6” in the subject and don’t forget to put your name in the email**, since I have numerous students to keep track of.

If you purchased your book new from the bookstore, you will receive the **Interactive Physiology CD**. This CD contains additional supplemental resources to help you increase your understanding of physiology. There is great animations, self-quizzes, worksheets and more. It is an excellent tool to help you visualize difficult concepts.

**Tutors** are available to students for Biology 6. Check with the **tutoring center** in LRC 402 for schedules and availability.

The **Computer Lab** is located in LRC 444. They are open Monday -Thursday: 7:30 a.m. – 7:00 p.m. and Friday: 7:30 a.m.-3:30 p.m. If you need a computer to complete assignments or print lecture material the computer lab is available to you.

## **Expectations**

While in the classroom please keep all **cellular phones and electronic devices silent and out of sight**. If you are checking your voicemail, taking pictures or text messaging you will be asked to leave the classroom and I will consider you absent that day.

Absolutely **no eating or drinking** is allowed in the lab room.

Students are advised to maintain a neat, **organized laboratory notebook**. I expect you to have your class material with you when in class. A complete set of notes, hand-outs, and drawings will provide the best source of information to study for exams and quizzes.

It is your responsibility to keep track or records of your returned assignments. Although I will make every effort to be accurate in recording points, I'm not perfect and I am often receiving many different assignments at different times. Please help your instructor with keeping track of assignments, **by labeling all papers descriptively and correctly (with your name and assignment title)** so I will know what they are and from whom they came. Also promptly check your progress as soon as grades are posted on the Blackboard site to make sure your work has been recorded.

**Cheating and plagiarism will not be tolerated. You cheat, you fail!** If I observe any actions which lead me to believe you are acting in an academically dishonest manner, you will receive a zero on the assignment and may also receive an 'F' in the course. Cheating includes but is not limited to the following,

- a. giving or receiving information from another student during an exam/quiz.
- b. using unauthorized sources for answers during and exam/quiz.
- c. illegally obtaining the questions before and exam/quiz.
- d. altering the answers on an already graded exam/quiz.
- e. any and all forms of plagiarism. All written assignments need to be in your own words.

Please refer to the Academic Honesty Policy in your Students Rights and Responsibilities Handbook for more information. **It is your responsibility to guard yourselves from innocent activity that may appear questionable or unknowingly tempting another student to share your work.**

You are expected to **keep yourself informed by the e-learning website known as Blackboard**. This course is "web-enhanced" so all course material and assignments will be available on this website. You are responsible for obtaining any missed or lost handouts or notes from this website, checking announcements, and turning in assignments. You can also chat with your classmates, ask questions, and e-mail me through Blackboard.

## Bio 6 Blackboard Site

### To access blackboard:

1. Go to: <http://sierracollege.blackboard.com>
2. Your user ID is your student ID (970\_\_\_\_\_) Your student ID can be found in your MySierra account if you do not know it.
3. Your default password is **Student** in less you have already changed it in Blackboard

**\*If you are having trouble accessing blackboard or logging on go to the login troubleshooter found on the Sierra College website at:**

**<http://lrc.sierracollege.edu/dl/OnlineClasses/blackboardTroubleshooter.htm>**

### To change your email address:

1. Click on Tools on the left hand side of the screen
2. Click on Personal Information
3. Click on Edit Personal Information
4. Change your email address to one you actually use and check
5. Click submit

### To change your password:

1. Click on Tools
2. Click on Personal Information
3. Click Change Password
4. Click submit

### To access course materials:

1. Choose this course Biology 6 on the Welcome screen
2. The menu will appear on the left hand of the screen
3. For example if you are looking for your lecture outlines click on the "Lecture Material" tab on the menu

**\*\*If you need further assistance in navigating through blackboard I recommend that you take the blackboard tutorial which will walk you step by step through the blackboard website at:**

**<http://lrc.sierra.cc.ca.us/dl/>**

and

**<http://lrc.sierracollege.edu/dl/OnlineClasses/Index.htm>**

On this site you can checkout the distance learning handbook, the blackboard tutorial, and additional info for online students which has a link for trouble shooting if you are having problems with blackboard.