

## **Human Biology Lab Syllabus, BIOL1104 - Spring 2019**

### **LAB - 100% Online**

**INSTRUCTOR:** Roshanak Jafari, M.D.

- Virtual Office Hours - any time via Blackboard Course E-mail or Blackboard Course Discussion Board
- e-mail: [rjafari@utep.edu](mailto:rjafari@utep.edu)

I will try to answer your questions as soon as possible, but if you would not hear from me, give me about 24-48 hours to reply.

**CREDIT HOURS:** 1.0

### **IMPORTANT DATES**

|             |  |
|-------------|--|
| Jan 27      | Biography & Scavenger Hunt Results Due (4% of final grade) |
| Feb 11 - 17 | Lab Exam 1 (20% of final grade)                            |
| Mar 11 - 17 | Lab Exam 2 (20% of final grade)                            |
| Mar 31      | Lab Report 1 due (Lab 7, 7% of final grade)                |
| Apr 7       | Lab Report 2 due (Lab 8, 7% of final grade)                |
| Apr 14      | Lab Report 3 due (Lab 9, 7% of final grade)                |
| Apr 21      | Lab Report 4 due (Lab 10, 7% of final grade)               |
| Apr 28      | Lab Report 5 due (Lab 11, 7% of final grade)               |
| May 5       | Lab Report 6 due (Lab 12, 7% of final grade)               |
| May 12      | Lab Report 7 due (Lab 13, 7% of final grade)               |
| May 17      | Lab Report 8 due (Lab 14, 7% of final grade)               |

### **REQUIRED TEXT**

PhysioEx 9.0, Laboratory Simulations in Physiology by Zao, Stabler, Smith, Lokuta & Griff, published by Pearson Benjamin Cummings, 2012, for laboratory exercises. ISBN: 0321815572

**OR**

PhysioEx 9.1, Laboratory Simulations in Physiology by Zao et al, published by Pearson Benjamin Cummings, 2014, for laboratory exercises. ISBN: 0-321- 92964-0

**Any of these books must come with a CD-ROM or Access Code which makes you able to simulate the labs from lab 7 of this course.**

## **COURSE GOALS**

- Students will study the basic microanatomy of human cells, tissues, and organs, focusing on the linkage between structure and function.
- Students will study the gross anatomy of human skeletal and muscular systems to better understand the mechanics of human movement.
- Students will perform laboratory experiments to study phenomena related to human biology and submit lab reports on their findings.
- Class activities will be designed to enhance a student's understanding of biological principles which will serve as a solid foundation for informed decision-making.

## **STUDENT'S RESPONSIBILITY:**

Students will be expected to complete course assignments by the deadlines indicated on the course syllabus. If a student misses a scheduled exam or a deadline for an assignment such as a lab report, only a serious personal emergency will be considered as an excuse and you must apply in writing (e-mail O.K.) to the instructor to explain why an exam or assignment was missed. If an exam or assignment deadline is missed without an instructor approved excuse, one/half credit for the missed assignment or exam can be obtained by completing the exam or assignment within one week following the deadline. After one week has passed beyond the deadline for an exam or assignment, no credit will be able to be earned for that exam or assignment. The only exception to this rule is the lab report 8 which must be completed by the end of day of the last day of finals week which is **Friday, May 17**.

## **TESTING CONDITIONS**

All exams will be "open book" exams which means that when exams are taken, you will be able to have any and all support materials you think are necessary to answer exam questions. All exams will be given via the Internet using Blackboard. Lecture exams will be True/False and definition questions where you will have a list of answers to from which to choose. Although the exams may be taken open-book, the exams will be timed to permit you to have from 30 - 32 seconds to answer each question. If you have to look up a lot of answers, you will not be able to finish the exam so it is important for you to know the material as well as you can before starting an exam. The exams will be available to take during the week of an exam from Monday morning of that week through the following Sunday at 11:59 PM. The exams are to be taken alone without help from another person so that you can determine and be proud of your own accomplishments.

## **INSTRUCTOR'S RESPONSIBILITY:**

To provide students with a challenging environment for learning that also encourages questioning and respects individual opinions.

## SELF TESTING OPPORTUNITIES:

A special effort will be made to modularize this online material with self-testing opportunities to provide you immediate feedback about your understanding of the material covered. The questions in these quizzes which I've called "quizlets" will not count for a grade but are designed to give you an understanding of the types of questions that you will see on the scheduled lab exams and should also provide you with feedback to let you know your level of mastery of the material covered. They will also be timed so that you can gain experience in taking timed exams. It is important to note that past experience has shown that students who do the quizlets more times get better grades than students who do them less or not at all. An article has been published with data showing how doing the Quizlets is of importance to you to perform well in this course and you can see this article at <http://www.ementor.edu.pl/artukul/index/numer/26/id/582>.

## LAB REPORT INSTRUCTIONS

Beginning with Lab 7, lab reports are required for submission by the deadline indicated in the Important Dates section at the beginning of this syllabus. There will be eight lab reports to be submitted to the instructor using Microsoft Word files in .doc format. Lab reports must be submitted in the private folders that I have set up for you under the tab named "Lab Reports". Format for a lab report should consist of a **Title** indicating the topic of the lab followed by the **Date** and **Name** of the person submitting the report. Begin with an **Introduction** section which states in brief form what the experiment will study. A **Methods** section should follow which briefly describes the methods used to do the experiment. This can be followed by a **Results** sections containing the experimental data obtained by doing the simulated experiments and then in a **Discussion** section, you can include the answers to the questions indicated in the lab instructions. Also, be sure to add a last section of the lab report titled **Review Questions** which is where students should answer the questions from the Review Sheet Exercises which are assigned in the instructions to be answered. Each lab instructions page has a section titled "WHAT YOU NEED TO DO FOR THIS LAB". Be sure to read this section carefully to find out which lab activities and which questions are to be answered for a particular lab report. If there are any questions that come up as you are reading the instructions or are doing the experiment or analyzing the results, be sure to send them to the instructor via the Discussion Board or private Blackboard Course E-mail.

## LAB TOPICS BY DATE:

|                |   |
|----------------|---|
| Jan 22 – 27    | Lab 1, Cells and Cell Structures              |
| Jan 28 – Feb 3 | Lab 2, Mitosis                                |
| Feb 4 – 10     | Lab 3, Tissues & Organ Structure              |
| Feb 11 – 17    | Lab Exam 1 (20% of final grade, Labs 1, 2, 3) |
| Feb 18 – 24    | Lab 4 - Surface Anatomy                       |
| Feb 25 – Mar 3 | Lab 5 - Skeletal System                       |
| Mar 4 – 10     | Lab 6 - Muscular System                       |
| Mar 11 – 17    | Lab Exam 2 (20% of final grade, Labs 4, 5, 6) |

|                |                                |
|----------------|--------------------------------|
| Mar 18 – 24    | Spring Break                   |
| Mar 25 – 31    | Lab 7 - PhysioEx Ex. 1         |
| Apr 1 – 7      | Lab 8 - Microevolution Study 1 |
| Apr 8 – 14     | Lab 9 - Microevolution Study 2 |
| Apr 15 – 21    | Lab 10 - PhysioEx Ex. 2        |
| Apr 22 – 28    | Lab 11 - PhysioEx Ex. 6        |
| Apr 29 – May 5 | Lab 12 - PhysioEx Ex. 8        |
| May 6 – 12     | Lab 13 - PhysioEx Ex. 4        |
| May 13 – 17    | Lab 14 - Driving Simulation    |

## MORE DETAILED INFORMATION ABOUT LABS

- **Week 1, Lab 1 - Cells and Cell Structure**, all lab instructions, images and descriptive content for this lab can be reached by clicking on the Lab 1 link on the Lab Menu page reached by clicking on the Lab Material icon on the course content page. No lab report required for this lab. Study quizlets are listed under the Lab 1 Quizlets link on the Lab Quizlets page.
- **Week 2, Lab 2 - Mitosis**, all lab instructions, images and descriptive content for this lab can be reached by clicking on the Lab 2 link on the Lab Menu page reached by clicking on the Lab Material icon on the course content page. No lab report required for this lab. Study quizlets are listed under the Lab 2 Quizlets link on the Lab Quizlets page.
- **Week 3, Lab 3 - Tissues & Organ Structure**, all lab instructions, images and descriptive content for this lab can be reached by clicking on the Lab 3 link on the Lab Menu page reached by clicking on the Lab Material icon on the course home page. No lab report required for this lab. Study quizlets are listed under the Lab 3 Quizlets link on the Lab Quizlets page.
- **Week 4, Lab Exam 1** - covers Labs 1, 2 and 3
- **Week 5, Lab 4 - Surface Anatomy**, all lab instructions, images and descriptive content for this lab can be reached by clicking on the Lab 4 link on the Lab Menu page reached by clicking on the Lab Material icon on the course content page. No lab report required for this lab. Study quizlets are listed under the Lab 4 Quizlets link on the Lab Quizlets page.
- **Week 6, Lab 5 - Skeletal System**, all lab instructions, images and descriptive content for this lab can be reached by clicking on the Lab 5 link on the Lab Menu page reached by clicking on the Lab Material icon on the course content page. No lab report required for this lab. Study quizlets are listed under the Lab 5 Quizlets link on the Lab Quizlets page.
- **Week 7, Lab 6 - Muscular System**, all lab instructions, images and descriptive content for this lab can be reached by clicking on the Lab 6 link on the Lab Menu page reached by clicking on the Lab Material icon on the course content page. No lab report required for this lab. Study quizlets are listed under the Lab 6 Quizlets link on the Lab Quizlets page.
- **Week 8, Lab Exam 2** - covers Labs 4, 5 and 6
- **Week 9, Spring Break**

- **Week 10, Lab 7 - PhysioEx Lab Manual, Exercise 1 - Cell Membrane Function**, this lab utilizes the PhysioEx 9.0 or 9.1 lab manual but the instructions for what pages to use and what items to complete in the lab manual are contained in the lab directions page reached by clicking on the Lab 7 link on the Lab Material page in Blackboard. Lab Report 1 is required for this lab and is to be submitted by the deadline at end of day on Sunday, March 31.
- **Week 11, Lab 8 - Microevolution and Natural Selection**, all lab instructions, experimental simulations and descriptive content for this lab can be reached by clicking on the Lab 8 link on the Lab Menu page reached by clicking on the Lab Material icon on the course content page. A Lab Report 2 is required for this lab and is to be submitted by the deadline at end of day on Sunday, April 7.
- **Week 12, Lab 9 - Microevolution from the Bird's Side**, all lab instructions, experimental simulations and descriptive content for this lab can be reached by clicking on the Lab 9 link on the Lab Menu page reached by clicking on the Lab Material icon on the course content page. Lab Report 3 is required for this lab and is to be submitted by the deadline at end of day on Sunday, April 14.
- **Week 13, Lab 10 - PhysioEx Lab Manual, Exercise 2 - Skeletal Muscle Physiology**, this lab utilizes the PhysioEx 9.0 or 9.1 lab manual but the instructions for what pages to use and what items to complete in the lab manual are contained in the lab directions page reached by clicking on the Lab 10 link on the Lab Material page in Blackboard. Lab Report 4 is required for this lab and is to be submitted by the deadline at end of day on Sunday, April 21.
- **Week 14, Lab 11 - PhysioEx Lab Manual, Exercise 6 - Cardiovascular Physiology**, this lab utilizes the PhysioEx 9.0 or 9.1 lab manual but the instructions for what pages to use and what items to complete in the lab manual are contained in the lab directions page reached by clicking on the Lab 11 link on the Lab Material page in Blackboard. Lab Report 5 is required for this lab and is to be submitted by the deadline at end of day on Sunday, April 28.
- **Week 15, Lab 12 - PhysioEx Lab Manual, Exercise 8 - Chemical and Physical Processes of Digestion**, this lab utilizes the PhysioEx 9.0 or 9.1 lab manual but the instructions for what pages to use and what items to complete in the lab manual are contained in the lab directions page reached by clicking on the Lab 12 link on the Lab Material page in Blackboard. Lab Report 6 is required for this lab and is to be submitted by the deadline at end of day on Sunday, May 5.
- **Week 16, Lab 13 - PhysioEx Lab Manual, Exercise 4 - Insulin and Diabetes**, this lab utilizes the PhysioEx 9.0 or 9.1 lab manual but the instructions for what pages to use and what items to complete in the lab manual are contained in the lab directions page reached by clicking on the Lab 13 link on the Lab Material page in Blackboard. Lab Report 7 is required for this lab and is to be submitted by the deadline at end of day on Sunday, May 12.
- **Week 17, Lab 14 - Response Time Lab, see lab directions on lab menu page**, - this lab is a driving simulation in which you can test how fast you can stop the car when a deer jumps out in front of you under normal driving and then with talking on a cell phone and finally while texting. Lab Report 8 is required for this lab and must be submitted by the deadline at end of day on **Friday, May 17**.

## **STUDENTS WITH DISABILITIES**

As per Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990, if a student needs an accommodation then the Office of Center for Accommodation and Support Services (CASS) located at UTEP needs to be contacted. If you have a condition, which may affect your ability to perform successfully in this course, you are encouraged to discuss this in confidence with the instructor and/or the director of the Center for Accommodation and Support Services (CASS). You may call 915-747-5148 for general information about the American with Disabilities Act (ADA) and the rights that you have as a UTEP student with a disability.

Individuals with disabilities have the right to equal access and opportunity. It is the student's responsibility to contact the instructor and [The Center for Accommodation and Support Services \(CASS\)](#) at The University of Texas at El Paso.

## **SCHOLASTIC INTEGRITY**

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another person's as ones' own. And, collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

## **EFFECTIVE ELECTRONIC COMMUNICATION**

### **A Word of Caution**

At this point in the course, it is also important to share a word of caution, so we can become wiser about interpersonal distance learning communications. When communicating electronically, many of the feelings or impressions that are transmitted via body language in face-to-face communication, are lost. Consequently, interpreting emotions and innuendoes is much more difficult. Only what is written or drawn, carries the message. Often excitement can be misinterpreted as anger or an insult. It is important that we all keep this in mind as we communicate electronically. Words in print may seem harmless but could emotionally injure a distant learner.

**IMPORTANT:** Avoid the use of caps in your electronic messages as wording in caps comes across as shouting.

Adding Body Language to Your Messages

More information on Netiquette can be found at: [www.albion.com/netiquette](http://www.albion.com/netiquette)

## **TECHNICAL REQUIREMENTS**

The University of Texas at El Paso provides free 24/7 Helpdesk support to academic students and faculty members teaching on-line. The Helpdesk can provide answers to questions about using technology and services, as well as, technical support. Please visit the [technical support page](#) for more information.

- Microsoft Office. If you do not have Microsoft Office, check with your University of Texas branch store for the special Microsoft Office package which includes Word, Excel and PowerPoint.
  - Contact the [UTEP Bookstore](#) (915)747-5594 for more info.
- Adobe Flash: This application is for advanced multimedia presentations/interactions over the internet.
  - You may download this player from the [Adobe Download](#) site.

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