

## **BSC 105 - HUMAN BIOLOGY**

**Spring 2017**

**INSTRUCTOR:** Dr. Habiba Chirchir  
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Office: Science Building Rm. 279B

**LECTURES:** Monday, Wednesday, Friday 2:00-2:50 pm, Science Building 374

**LABS:** Science Building 273

Section 205: Wednesday 8:00-9:50 am

Section 206: Monday 10:00 am - 11:50 am

Section 207: Wednesday 10:00 am - 11:50 am

**OFFICE HOURS:** Monday & Wednesday 3:00-5:00pm (other by appointment)

### **REQUIRED TEXTS, ADDITIONAL READING, AND OTHER MATERIALS**

Human Biology, 14<sup>th</sup> or 13<sup>th</sup> editions, S.S. Mader  
Lab manual (available only at Marshall Bookstore)

13<sup>th</sup> Edition available through the textbook Loan Program:  
<http://www.marshall.edu/uc/textbook-loan-program/>

**TECHNOLOGY REQUIREMENTS:** A computer that runs Microsoft Office or an equivalent.

**COURSE DESCRIPTION:** This course focuses on the fundamentals of biological human structure, function, and interactions with the environment. The course is divided into lecture presentation and laboratory instruction. Lectures will introduce students to how humans are related to other living organisms, cell function, basic human anatomy, and fundamental functions of the human body, basic human genetics and evolution. In the laboratory, students will interact with specimens as a way of reinforcing what was learned in the classroom.

**UNIVERSITY POLICIES:** By enrolling in this course, you agree to the University Policies. Please read the full text of each policy by going to <http://www.marshall.edu/academic-affairs/policies/>.

### **STUDENT LEARNING OUTCOMES/OBJECTIVES**

- Students will be able to correctly use scientific terminology and explain basic biological concepts clearly and accurately (communication, critical thinking)
- Students will be able to describe the human body systems and their functions (communication, critical thinking)
- Students will be able to accurately conduct and describe laboratory experiments and their importance in the broader perspective of understanding science (communication, critical thinking, technology)

### **LEARNING OUTCOMES WILL BE ASSESSED AS FOLLOWS:**

Critical Thinking: Critical thinking outcomes will be assessed via laboratory assignments, and exams.

Communication: Students will be required to correctly spell anatomical structures on practical lab exams.

Technology: Students will be required to know how to utilize microscopy.

**ATTENDANCE POLICY**: You are expected to attend all scheduled lectures and laboratory sessions. Lectures are designed to explain difficult material, indicate relative importance of specific topics, answer questions, and give guidance and direction in your study. If you are not present it will be much more difficult for you. If you miss a class session, it is **YOUR** responsibility to obtain all assignments and materials.

**LABORATORY ATTENDANCE AND LAB GRADES**: Your lab grade will be calculated from 13 graded data sheets @ 10 points/data sheet. The student must hand in each data sheet by the end of each lab period – **no late data sheets are to be accepted**. Two data sheet grades may be dropped, for a lab point total of 110 points.

You should attend all labs in order to have the maximum number of graded data sheets from which to select two lowest grades for dropping. Both excused and unexcused absences do count toward the two drops. **If an exception for extra drops due to an extended medical situation (for example) is necessary, arrangements are to be made between you and your instructor.**

The only make-up labs available are other sections of the same course during the same lab week. If a student attends a make-up lab section, s/he must write his/her name and his/her regular TA's name on the data sheet, then turn in the data sheet to the TA in the lab attended.

**EXAMS**: There are **3 exams** scheduled during this course; look at your course schedule. All three are worth 100 points each, and all are **non-cumulative** and of the same length. Tests may include multiple-choice, figure labeling, true-false, or other types of questions.

**MAKE-UP EXAMS**: Make-up exams are NOT ordinarily given. If you miss an exam you must provide an acceptable excuse within 24 hours of the scheduled time for the exam. **If you do not, you will not be permitted to take a make-up and a "0" will be scored for this exam.** Make-up exams will be given ONLY in the event of (1) an officially approved university absence, (2) a death in the immediate family, or (3) an illness that prevents you from attending class on the scheduled exam day. In the case of illness, you must provide a note signed by a physician stating that you could not be present during the exam period for medical reasons.

**ATHLETES**: members of sports teams that must travel on exam days may take the exam early. We should meet and arrange this as early in the semester as possible.

**GRADING**: Final letter grades for the course are determined on the percent of total possible points achieved by the following scale:

**A=90-100%, B=80-89%, C=70-79%, D=60-69%**

Your final average will include lecture exam grades and lab sheet grades.

**ACADEMIC DISHONESTY IN ANY FORM WILL NOT BE TOLERATED.** All written assignments, laboratory reports, and exams are to be independent efforts of each student. (see University Policies above). You are responsible for knowing the University's policies, which can be found in the student handbook or at these web addresses:

<http://www.marshall.edu/academic-affairs/policies/#AcademicDishonesty>. Ignorance of the policies is not an excuse. No electronic devices, EVER, will be allowed during tests.

In the lab, most experiments will be done in groups, but we expect that all assignments will be written up independently. Exceptions to independent work will only be allowed in cases where you are expressly instructed to write up your assignment in groups.

**STUDENTS WITH DISABILITIES:** Students are entitled to receive accommodations for documented physical, learning and psychological disabilities (see University Policies above). No accommodation can be allowed until documentation is received, and it must be received several days in advance of the exams to allow me time to arrange the conditions required. For more information, please visit <http://www.marshall.edu/disability/> or contact Office of Disability Services Prichard Hall 119, phone 304-696-2271.

### TENTATIVE COURSE SCHEDULE

	<u>Date</u>	<u>Lecture Topics</u>	<u>Readings</u>
I	1/9	Introduction; what's biology/science?	Chapter 1, 2
	1/11	Introduction: chemicals of life	Chapter 1 & 2
	1/13	Cells	Chapter 3
	LAB:	Laboratory Safety	
II	1/16	MLK day No class	
	1/18	Cells	Chapter 3
	1/20	Organization of body systems	Chapter 4
	LAB:	No lab	
III	1/23	Cardiovascular system	Chapter 5
	1/25	Cardiovascular system	Chapter 5
	1/27	Blood & infectious disease	Chapter 6
	LAB:	Scientific measurement	
III	1/30	Blood & infectious disease	Chapter 6
	2/1	Infectious disease & immunity	Chapter 7
	2/3	No class	Chapter 8
	LAB:	Column Chromatography	
IV	2/6	Digestive system	Chapter 8
	2/8	Digestive system	Chapter 8
	2/10	Respiratory system	Chapter 9
	LAB:	Microscope and Cells	
V	2/13	Urinary system	Chapter 10
	2/15	Urinary system /review	Chapter 10
	<b>2/17</b>	<b>Exam 1</b>	
	LAB:	Circulation	

VI	2/20	Skeletal system	Chapter 11
	2/22	Skeletal system	Chapter 11
	2/24	Skeletal system	Chapter 11
	LAB:	Immunology	
VII	2/27	Muscular system	Chapter 12
	3/1	Muscular system	Chapter 12
	3/3	Nervous system	Chapter 13
	LAB:	Digestion	
VIII	3/6	Nervous system	Chapter 13
	3/8	Nervous system	Chapter 13
	3/10	Endocrine system	Chapter 15
	LAB:	Skeleton	
IX	3/13	Endocrine system	Chapter 15
	3/15	Lecture review	
	<b>3/17</b>	<b>Exam 2</b>	
	LAB:	Nervous system	
X	3/20	Spring break	
	3/22	Spring break	
	3/24	Spring break	
	LAB:	Spring break	
XII	3/27	Reproductive system	Chapter 16
	3/29	Reproductive system	Chapter 16
	3/31	Development & aging	Chapter 17
	LAB:	Embryology	
XIII	4/3	Human genetics	Chapter 18
	4/5	Human Genetics	Chapter 18
	4/7	Human Evolution	Chapter 22
	LAB:	Genetics	
XIV	4/10	Human Evolution	Chapter 22
	4/12	Human Evolution	Chapter 22
	4/14	Human Evolution	Chapter 22
	LAB:	Protein Synthesis	
XV	4/17	Global ecology	Chapter 24
	4/19	Global ecology/pop growth	Chapter 25
	4/21	Population growth	Chapter 25
	LAB	Population Growth and Human Impact	
XVI	4/24	Catch up	
	4/26	Review	
	4/28	No class: study for final exam	

**Final exam: Monday, May 1, 12:45-2:45 pm in class**

**HELP**

If you are having trouble or not doing as well as you want to (or need to) come talk to the TAs or me! It is our job to try to help you.

Marshall also has organizations helping students that are having problems:

1. College of Science free tutoring in Science 209. You can get free extra help from your own TA or from another TA that is involved with this class. It can even be a TA from one of the other professors' classes. The TAs' office hours will be posted on the door of 209 by the end of the first week of classes. Simply pick a TA or time that works for you.
2. University College Tutoring Center (in the basement of the Community College building between the Henderson Center and Prichard Hall) You can view the drop in tutoring schedule on line and even request a tutor on line at:  
<http://www.marshall.edu/uc/ts.shtm>