

## **BSC 105 - HUMAN BIOLOGY**

**Fall 2017**

**INSTRUCTOR:** Dr. Habiba Chirchir  
Email: [chirchir@marshall.edu](mailto:chirchir@marshall.edu)

Office: Science Building 279B

**LECTURES:** Tuesday and Thursday 9:30-10:45 am, Science Building 374

**LABS:** Science Building 273  
Section 105: Monday 2:00-3:50 pm  
Section 106: Tuesday 2:00-3:50 pm  
Section 107: Wednesday 8:00-9:50 am

**OFFICE HOURS:** Tuesdays & Thursdays 3:15 -5:15pm (or other time by appointment)

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

Human Biology, 15<sup>th</sup> or 14<sup>th</sup> or 13<sup>th</sup> editions by S.S. Mader & M. Windelspecht  
Lab manual (available only at Marshall Bookstore)

14<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 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, human evolution and human impact on the global ecology. In the laboratory, students will interact with and observe 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 human body systems and how they function (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, classroom exams and group discussions.

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

Technology: Students will be required to learn how to use a microscope.

**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 studying. 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. **One data** sheet grade may be dropped, for a lab point total of 120 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 one drop. **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 lab 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, lab sheet grades, and case study discussions in class.

Assessment	Points
Lecture Exam 1	100
Lecture Exam 2	100
Lecture Exam 3	100
Class discussions (case studies)	20
Lab grades	120

**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 accommodations 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	8/22 8/24 LAB:	Introduction; what's biology/science? Chemicals of life & Cells Laboratory Safety	Chapter 1, 2 Chapter 2 & 3
II	8/29 8/31 LAB:	Cells Organization of body systems Scientific Measurement	Chapter 3 Chapter 4
III	9/5 9/7 LAB:	Cardiovasuar system Cardiovascular system No lab	Chapter 5 Chapter 6
IV	9/12 9/14 LAB:	Immune system & Infectious disease Immune system & Infectious disease Column chromatography	Chapter 7&8 Chapter 7&8
V	9/19 9/21 LAB:	Digestive system Respiratory system Microscope & Cells	Chapter 9 Chapter 10
VI	9/26 9/28 LAB:	Urinary system Urinary system & lecture review Circulation	Chapter 11 Chapter 10
VII	<b>10/3</b> 10/5 LAB:	<b>Exam 1</b> Skeletal system Immunology	Chapter 12
VIII	10/10 10/12 LAB:	Skeletal system Skeletal system Digestion	Chapter 12 Chapter 12
IX	10/17 10/19 LAB:	Muscular system Nervous system Skeleton	Chapter 13 Chapter 14
X	10/24 10/26 LAB:	Nervous system Endocrine system Nervous system	Chapter 14 Chapter 14
XI	10/31 <b>11/2</b> LAB:	Endocrine system & lecture review <b>Exam 2</b> Embryology	Chapter 16

XII	11/7	Reproductive system	Chapter 17
	11/9	Development & aging	Chapter 18
	LAB:	Genetics	
XIII	11/14	Human genetics	Chapter 19
	11/16	Human genetics	Chapter 21&22
	LAB:	Protein synthesis	
XIV	11/21	Thanksgiving break	
	11/23	Thanks giving break	
	LAB:	Thanksgiving break	
XV	11/28	Human evolution	Chapter 23
	11/30	Human evolution	Chapter 23
	LAB:	Population growth & human impact	
XVI	12/4	Ecology & Ecosystems	Chapter 24
	12/7	Human Interactions	Chapter 25
	LAB:	No lab	

### **Exam 3: Tuesday, December 12, 8-10am 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 Smith Communications Building Room 211. You can view the drop-in tutoring schedule on line and even request a tutor on line at: <http://www.marshall.edu/uc/tutoring-services/>