

MONTGOMERY COUNTY COMMUNITY COLLEGE  
**BIO 131 AW, PW – Human Anatomy and Physiology I (4 credits)**  
Summer One Semester, 2017

**Instructor:** Dr. Jay M. Templin

**Meeting Place:** Rooms 206 and 244

**Meeting Time:** MTuWTh 8:00 AM – 11:45 AM (AW)  
5:00 PM – 8:45 PM (PW)

**Telephone No.:** 610-326-9742 (Home)  
610-718-1877 (Work); **E Mail:** JTemplin@mc3.edu

**Office Hours:** Cubicle D of Faculty Offices  
7:30 AM – 8:00 AM MTuWTh

**Textbook:** Principles of Anatomy and Physiology, by Tortora and Derrickson  
**Lab Manual:** Human Anatomy and Physiology Laboratory Manual, by Marieb

**Course  
Description**

**BIO 131 HUMAN ANATOMY AND PHYSIOLOGY I**

A course employing a systems approach to the normal and pathological structure and function of the human body. Emphasis will be placed on the cell and the skeletal, muscular, nervous and integumentary systems. Appropriate, relevant laboratory experiences will be employed to supplement and/or reinforce the lecture material. Dissection of preserved animal material is required.

*Prerequisites: Successful completion of high school chemistry taken within the last five years, with a "C" or better, or CHE 121 taken within the last five years with a "C" or better. Completion of BIO 121, with a minimum grade of "C", or a passing grade on the biology placement test.*

**General Course  
Objectives:**

1. To provide students with a basic understanding of the structure and function of the human body
2. To relate chemistry, cells, tissues, and organs in the organism in order to understand the structure and function of the human body.
3. To provide a background for further study in a variety of professional fields
4. To develop an appreciation for the structure and function of the human body

**Attendance  
Policy:**

As a student enrolled in BIO 131, you are expected to attend all lecture and lab class periods. I will take attendance for each class period.

You are allowed two absences for the entire semester. For each additional absence, your final average in the course will be lowered by one point. Tardiness for any class day will count as one-half of one absence. Tardiness means that either you are late for class or that you leave early, failing to complete the assigned work for the day. With a valid reason, work missed due to absences or tardiness can be made up.

**Note:** If I cancel a class period on the scheduled exam day, or if the college cancels the class period that day, we will take the exam at the beginning of the very next scheduled class period when we do meet.

This is a tentative list of the lecture topics. This listing of topics closely follows the list of topics in your textbook. I will also announce the textbook chapters for these topics in class. For example, topics 1 and 2 are found in chapter one. Topic 3 is found in chapter two.

**Lecture Topics**

Introduction to Anatomy and Physiology;

1. Anatomical Position, Terminology
2. Planes/Cavities/Homeostasis
3. Chemistry of the Human Body
4. Introduction to Cells
5. Cell Structure
6. Cell Function
7. Cell Reproduction
8. Histology, Membranes
9. Introduction to the Skeletal System, Bone Structure
10. Bone Structure and Markings;
11. Axial and Appendicular Skeleton
12. Articulations
13. Introduction to the Skeletal Muscles
14. Muscle Structure and Nomenclature
15. Basic Principles of Muscle Function
16. Mechanisms of Muscle Contraction
17. Introduction to the Nervous System
18. Reflexes, Reflex Arc
19. Neural Transmission and Signaling
20. Structures and Functions of the Brain
21. Structures and Functions of the Spinal Cord
22. Spinal Nerves, Cranial Nerves
23. Autonomic Nervous System/Special Senses – Eye/Ear

This is a tentative list of some of the laboratory topics. Lab exercises will offer you the opportunity to reinforce some of the facts and concepts learned in lecture. The first lab will involve the care and use of the compound light microscope. Begin now to study your lab book. Can you find where the other laboratory topics are covered in your lab manual?

## Laboratory Topics

## Exercises

1. Care and Use of the Compound Light Microscope
2. Histology
3. Human Skeleton
4. Human Skeletal Muscles
5. Brain

### Evaluation:

First, refer to the letter grades and test average ranges on page four. Five lecture exams will be administered throughout the semester. I will announce the date for each lecture exam well in advance. There will be one lecture exam about every week. If any exam (lecture or lab) is missed for a valid reason, a makeup day will be scheduled at the end of the semester. You must state this reason to me in writing.

Each lecture exam will include multiple choice questions and short-answer questions. Objectives will be provided for each of the five units. Practice sheets will be provided in class. Back tests will be placed on reserve. All of these aids serve as examples to practice for the lecture exams.

Each lecture exam will be based on lecture notes and all relevant textbook information. Ninety percent of the points for each lecture exam will be based on lecture notes, with the textbook serving as a reference. Ten percent of the points for each lecture exam will be based on information not covered in lecture. This percentage will be based on information from the reading alone.

Read all of the assigned textbook chapters to prepare for the lecture exams. Studying the laboratory manual, and relating your lab experiences to lecture, can also help you in this preparation. Each lecture exam will count 10 percent toward the final grade for the course.

The topics for the five lecture exams are as follows:

- |           |                           |
|-----------|---------------------------|
| Exam I:   | Introduction/Chemistry    |
| Exam II:  | Cells/Tissues/Membranes   |
| Exam III: | Skeleton/Skeletal Muscles |
| Exam IV:  | Nervous System            |
| Exam V:   | Nervous System/ANS        |

Two lab practicals (exams) will be administered during the semester. I will announce the scheduled time for each lab practical well in advance. One lab practical will be at about the middle of the semester. The other lab practical will be near the end of the semester.

The lab practical questions will require short answers and involve questions at the laboratory stations. The questions will represent information studied in the lab. I will provide information checklists and examples of the lab practical questions in class. Each lab practical will count ten percent toward the final grade for the course.

The topics for the two lab practicals are as follows:

Lab Practical I:           Histology/Skeleton

Lab Practical II:         Skeletal Muscles/Brain

Daily quizzes will be administered on all class days except exam days and the first day of class. The quiz average will count ten percent toward the final grade for the course.

A biology departmental final exam will be administered on the last day of class. It will compose 20% of the course grade. It will include lecture, lab, and textbook information pertaining to the course.

A final score for the course will be computed from your lecture test average, quiz average, lab test average, and final exam score. The four components of this final score for the course will be weighted as follows:

Lecture test average	=	50%
Quiz average	=	10%
Lab test average	=	20%
Final exam score	=	20 %

The final score for the course will be translated into a final letter grade for the course. The following ranges will be used for the final letter grade in the course.

**Evaluation:**

Final letter grade for the course:		Ranges for the final score:
A	=	90 to 100
B	=	80 to 89
C	=	70 to 79
D	=	60 to 69
F	=	Below 60

**Note:** Attendance also affects your final grade in the course. See the note on this from page 1.

## **Other Policies:**

### **Withdrawal from the Course:**

Through the scheduled date for the Summer I semester, students can withdraw from a course with a grade of “W” by completing a formal withdrawal application.

After this time a grade of “W” is done at the discretion of the instructor. Failure to attend class is not an official withdrawal and may lead to a grade of “F” being assigned.

I will withdraw a student up through the last day of classes.

### **Academic Discipline (Cheating/Plagiarism)**

Refer to all stated policies in the current course catalog, student handbook and student handbook calendar.

### **Code of Conduct:**

Refer to all stated policies in the current course catalog, student handbook and student handbook calendar.

### **Students with Disability Policy:**

Students with disabilities may be eligible for accommodations in this course. At West Campus, contact the Disabilities Services Coordinator:610-718-1853.

### **Class Cancellation Policy:**

Inclement weather – 395 (day) – 2395 (evening)

Call 610-718-1800 and listen to message.

Check our website: <http://www.mc3.edu>