BOSTON COLLEGE

SUMMER SESSION

BIOL 131001 and BIOL 131002: Anatomy and Physiology Lab 1, 1 credits
Boston College Summer Session 2019
Summer Session 1, 5/14/19 – 5/30/19
Monday, Tuesday, Wednesday, Thursday 8:30am-10:30am

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Office Hours: Monday-Thursday 7:00am-8:15am

Boston College Mission Statement
Strengthened by more than a century and a half of dedication to academic excellence, Boston College commits itself to the highest standards of teaching and research in undergraduate, graduate and professional programs and to the pursuit of a just society through its own accomplishments, the work of its faculty and staff, and the achievements of its graduates. It seeks both to advance its place among the nation's finest universities and to bring to the company of its distinguished peers and to contemporary society the richness of the Catholic intellectual ideal of a mutually illuminating relationship between religious faith and free intellectual inquiry.

Boston College draws inspiration for its academic societal mission from its distinctive religious tradition. As a Catholic and Jesuit university, it is rooted in a world view that encounters God in all creation and through all human activity, especially in the search for truth in every discipline, in the desire to learn, and in the call to live justly together. In this spirit, the University regards the contribution of different religious traditions and value systems as essential to the fullness of its intellectual life and to the continuous development of its distinctive intellectual heritage.

Course Description
Lab fee required. Laboratory exercises intended to familiarize students with the various structures and principles discussed in BIOL 1300 through the use of anatomical models, physiological experiments, and limited dissection.

Textbooks & Readings
Human Anatomy and Physiology Laboratory Manual, Main Version by Elaine N. Marieb, 13th ed.

Canvas
Canvas is the Learning Management System (LMS) at Boston College, designed to help faculty and students share ideas, collaborate on assignments, discuss course readings and materials, submit assignments, and much more - all online. As a Boston College student, you should familiarize yourself with this important tool. For more information and training resources for using Canvas, click here.

Course Objectives

Upon successful completion of this course, students should be able to:

- Speak the language of Anatomy
- Understand the structure of atoms that form molecules and how they are involved in chemical reactions
- Describe the basic unit of life, the cell, as well as its many components and how cells from tissues which form organs that ultimately form the 11 organ systems in the human body
- Comprehend the structure of both DNA and RNA
- Explain DNA replication
- List and understand the phases of mitosis and meiosis
- Recognize and comprehend histology, the study of tissues
- Explain why the skin is an organ, and its importance in protecting the body
- Describe the macro and microscopic structure of bone and how it becomes the skeletal system
- Recognize the many components of body movement from the complicated joints/articulations to the muscle system itself
- Study the micro and macroscopic structures of the muscle and muscle contractions
- Understand and explain the structure and function of the nervous system including both the Central and Peripheral Nervous System
- Describe the functions of neurons, synapses and neurotransmitters
- Demonstrate knowledge across cultural settings and the impact of culture, gender, and age as it relates to anatomy and physiology, as well as to how medicine is practiced
- Demonstrate ethical knowledge pertaining to human and animal use the study of anatomy and physiology

General Information

No food or drink is allowed in the lab at any time. Please wear closed toed shoes while in the lab. Sandals/flip flops or any other type of open toed shoes are not allowed at any time during the lab period. You will be sent home to change your shoes if this rule is not complied with.

Please print out the power point presentations prior to the scheduled lab time. As there will be an introductory lecture given at the beginning of each lab, this step will aid you during the lab time. The lecture will be based on these slides. Also, please print out any handouts associated with the lab at that time as well. Please speak with me if you are experiencing any difficulties during the lab. My office hours are on the first page.

The lab is structured so that you will be working with a partner during the lab time. Please use this time to share any information that you will obtain with your partner. You may also use this time to ask any questions you may have. If questions arise while at home, please do not hesitate to contact me or the TA for clarification. Feel free to use your text book or lab manual to find an answer. Please refrain from using the internet to aid in your completion of assignments. Any graphs or charts that need to be generated to complete an assignment must be done by you and you alone.

Grading

There will be **2 Quizes, 2 Exams,** as well as **In Class Assignments** that you will need to turn in as part of your grade broken down as follows:

In class assignments	26%

Quiz 1	12%
Quiz 2	12%
Midterm Exam	25%
Final Exam	25%
T.A. Evaluation	3%

Quizzes are given at the beginning of the lab. Please make sure you are on time for lab as there are ***no makeup exams or laboratories.*** It is your responsibility to contact me to inform me of an excused absence prior to the scheduled quiz or exam. You will then need to obtain a letter from the dean in order to be allowed the opportunity to sit for the exam. If this policy is not followed, a zero will be recorded for the missed quiz or exam.

You are expected to be at every lab. Use the time allotted in lab, to fully understand the material you are working on. The lab time is also a great time to ask any questions you may have on any of the topics that have been covered. We are there to help you succeed during the semester.

Grade Determination:

Range	Letter Grade
90-100	A-/A
80-89	B-/B+
70-79	C-/C+
60-69	D-/D+
Below 60	F

Deadlines and Late Work

In general, make up exams, quizzes, or labs **WILL NOT** be given, however, in the event of an emergency, please contact me **PRIOR** lab, preferably not the day of. If I do not hear from you, you will receive a zero any assignments, quizzes, or exams that day.

Course Schedule

Date/Week	Topic	Reading/Assignments
5/14	The Metric System, Language of Anatomy, Body Planes, and Rat Dissection	Handout, Exercise 1 pp: 1-10 Exercise 2 pp: 15-24
5/15	**Quiz 1** Microscopy and Histology 1	Exercise 3 pp:27-34 Exercise 6 pp: 67-74, 83-86
5/16	Histology 2	Exercise 6 pp: 75-82
5/20	**NO CLASS: COMMENCEMENT**	
5/21	**MIDTERM**	
5/22	The Skeletal System: The Axial Skeleton	Exercise 8 pp: 107-115 Exercise 9 pp: 121-139
5/23	The Skeletal System: The Appendicular Skeleton Articulations	Exercise 10 pp: 149-162 Exercise 11 pp: 171-184

5/27	**NO CLASS: MEMORIAL DAY**	
5/28	**Quiz 2** Muscles and Genetics	Exercise 12&13 pp: 189-228 ADAM Software Exercise 4 pp: 45-47
5/29	The Nervous System: Brain and Spinal Cord Sheep Brain Dissections	Parts of Exercises 17&19
5/30	**FINAL EXAM**	

Attendance

Class attendance is mandatory. Please make sure you are on time for lab as there are ***no makeup exams or laboratories.*** It is your responsibility to contact me to inform me of an excused absence prior to the scheduled quiz or exam. You will then need to obtain a letter from the dean in order to be allowed the opportunity to sit for the exam. If this policy is not followed, a zero will be recorded for the missed quiz or exam.

However, consistent with BC's commitment to creating a learning environment that is respectful of persons of differing backgrounds, we believe that every reasonable effort should be made to allow members of the university community to observe their religious holidays without jeopardizing their academic status. Students are responsible for reviewing course syllabi as soon as possible, and for communicating with the instructor promptly regarding any possible conflicts with observed religious holidays. Students are responsible for completing all class requirements for days missed due to conflicts with religious holidays.

Accommodation and Accessibility

Boston College is committed to providing accommodations to students, faculty, staff and visitors with disabilities. Specific documentation from the appropriate office is required for students seeking accommodation in Summer Session courses. Advanced notice and formal registration with the appropriate office is required to facilitate this process. There are two separate offices at BC that coordinate services for students with disabilities:

- The Connors Family Learning Center (CFLC) coordinates services for students with LD and ADHD.
- The Disabilities Services Office (DSO) coordinates services for all other disabilities.

Find out more about BC's commitment to accessibility at www.bc.edu/sites/accessibility.

Scholarship and Academic Integrity

Students in Summer Session courses must produce original work and cite references appropriately. Failure to cite references is plagiarism. Academic dishonesty includes, but is not necessarily limited to, plagiarism, fabrication, facilitating academic dishonesty, cheating on exams or assignments, or submitting the same material or substantially similar material to meet the requirements of more than one course without seeking permission of all instructors concerned. Scholastic misconduct may also involve, but is not necessarily limited to, acts that violate the rights of other students, such as depriving another student of course materials or interfering with another student's work. Please see the Boston College policy on academic integrity for more information.