

BIOLOGY 227 – HUMAN ANATOMY AND PHYSIOLOGY I
FALL SEMESTER 2020
LECTURE AND LABORATORY SYLLABUS

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Office Hours: Monday 9am to 11am and Wednesday 9am-11am, or by appointment.

Prerequisite: Biol 115 or Biol 102 is a required pre-requisite for this course, or previous instructor approval.

Textbook: Required Lecture Textbook/ISBN: This course will be using the eBook “Anatomy and Physiology – The Unity of Form and Function” 9th Edition by Dr. Kenneth Saladin with an online program from McGraw-Hill called “Connect”. The link to the eBook and program will be available in bblearn and I will post instructions on how to register for “Connect” and access all course materials from “Connect” on bblearn. You may also purchase a loose-leaf copy of the textbook from McGraw-Hill if you would like to have a physical copy of the text.

You have been registered for this course through UI registration. Your textbook and other learning resources are all linked directly in this course on bblearn to ensure you have the correct course materials on the first day of class, and at a much lower cost. The charge for your lecture eBook and digital materials goes directly to your UI account, making it eligible for Financial Aid. Also, you have the option to purchase a loose-leaf printed version of the text once you have registered for “Connect” for a small fee. Because you are enrolled, simply log-in to your bblearn course and follow the instructions under the module entitled “Connect Access” to learn how to access all your digital resources.

Required Lab text: “Laboratory Exercises for Human Anatomy and Physiology, by Candi Heimgartner, published by Morton Publishing, 2020. Diagrams, lecture material and related exam questions may be taken from these texts for use during the course. You will be submitted some of the completed assignments in this text via email throughout this semester as well as additional assignments from “Connect” and other sources. Keep in mind, this lab book will also be used for Biol 228 – A&P II Spring Semester 2020, so not all material will be used this semester.

I also recommending use of the supportive material provided with the texts including web access to material, accompanying CDs and atlas. Recommended texts: Van De-Graaff et al. “A Photographic Atlas for the Anatomy and Physiology Laboratory, 6th Ed. I recommend this text for the more visual/diagrammatic learner. For the application type of learner, I recommend “A Visual Analogy Guide to Human Anatomy and Physiology” by Paul Krieger. All of these titles are recommended (but not required) and can be purchased hard copy or ebook access through the UI bookstore.

Course Objectives: This course will provide a basic overview of human anatomy and physiology, with a general approach to cytology, histology, and “exercise based” body systems (see the lecture and lab outline in this syllabus). For the students pursuing careers in the Allied Health Sciences and Physical Therapy curriculums, this course will be your primary exposure to human anatomy and physiology. It is important to learn how the healthy body is constructed and performs specific physiological functions before you can study how disease and injury impair function. The goal of this course is to provide a fundamental background in human anatomy and physiology to enable you to be successful in an allied health career, as well as future exams and future courses related to human anatomy and physiology. It is important to remember that anatomy is the study of structure and therefore memorization is a key tool that will enable you to master the material in this course, yet physiology is the study of function, requiring application of anatomy and critical thinking.

Course Learning Outcomes: In accordance with UI Learning Outcomes, it is expected that students will:

- Learn & Integrate: Students will apply their previous and gained knowledge of the human body to gain a basic understanding of anatomical structures and physiological functions.
- Think & Create: Students will be expected to apply the concepts and approaches learned here to solve future anatomical, physiological, and academic problems.
- Communicate: Students will be expected to better communicate with others using the vernacular and nomenclature of human anatomy and physiology.
- Clarify Purpose & Perspective: It is expected that all students will gain important insights into the human body and the physical world that helps to support anatomical and physiological study.
- Practice Citizenship: It is every student's responsibility to share their knowledge and appreciation of the human body and its anatomical structure and function.

This course is offered in the Department of Biological Sciences, College of Science, University of Idaho, Moscow, Idaho. This course and the instructor will comply with all Federal, State, and University laws, rules, and policies. These include, but are not limited to the following:

- Academic Integrity
 - I will not tolerate any form of cheating in this course, either in lecture or lab or in online work. Any individual that is observed cheating by the teaching assistants or myself will be dealt with according to the university regulations.
- Students with Disabilities/Disabilities Support Services
 - Reasonable accommodations are available for students who have documented temporary or permanent disabilities. All accommodations must be approved through the Center for Disability and Academic Resources located in the Bruce Pitman Center in order to notify your instructor(s) as soon as possible regarding accommodation(s) needed for the course. An individual study and examination plan will be developed between the student, instructor and CDAR.
- Discrimination
- Classroom Civility
 - In any environment in which people gather to learn, it is essential that all members feel as free and safe as possible in their participation. To this end, it is expected that everyone in this course will be treated with mutual respect and civility, with an understanding that all of us (students, instructors, professors, guests, and teaching assistants) will be respectful and civil to one another in discussion, in action, in teaching, and in learning. Should you feel our classroom interactions do not reflect an environment of civility and respect, you are encouraged to meet with your instructor during office hours to discuss your concern. Additional resources for expression of concern or requesting support include the Dean of Students office and staff (5-6757), the UI Counseling & Testing Center's confidential services (5-6716), or the UI Office of Human Rights, Access, & Inclusion (5-4285).
- Family Educational Rights and Privacy Act (FERPA)
- Emergency Management

- Weapons
 - "The University of Idaho bans firearms from its property with only limited exceptions. One exception applies to persons who hold a valid Idaho enhanced concealed carry license, provided those firearms remain concealed at all times. If an enhanced concealed carry license holder's firearm is displayed, other than in necessary self-defense, it is a violation of University policy. Please contact local law enforcement (call 911) to report firearms on University property."

Students are expected to adhere to the University of Idaho Student Code of Conduct.

If you have any questions or concerns regarding these topics, please contact the administrative offices of the University of Idaho. <http://www.uidaho.edu/about/administration>

Exams and Grading: This course is designed around a 50 minute lecture three times a week as well as an associated laboratory portion of one 3 hour session per week. HOWEVER, due to COVID 19 enacted policies, it is impossible to social distance in the A&P lab. Therefore, all fall 2020 labs will be conducted in a virtual environment. These will consist of submitted labs via pdf or word documents, completion of online labs in "Connect", and occasional completion of other labs in a web environment. Specific lab based work in an online environment may constitute up to six hours per week (normally three hours in lab sessions with approximately three hours per week of outside study time).

The lecture will present material related to microscopic and cellular anatomy and physiology while the lab will be used to demonstrate these structures and functions and present anatomical structures on a macroscopic level. Remember, topics overlap, so you may see both lecture and lab assignments containing similar questions. This will help you better understand the material from several different approaches.

Your grade in this course will be based on: five multiple choice lecture exams worth 100 points each, various online homework and lab assignments, etc. I will strive to have approximately 1000 total points for this course, but this may vary as online resources for instruction allow. Extra credit opportunities will be provided both on Connect and in class. These will be announced in class and on bblearn and will be used to determine student scores/final grades at the end of the semester only.

Due to the nature of human anatomy and physiology, each lecture exam is considered comprehensive. This means that in order to understand how the heart is comprised and functions, you must have a solid background in cellular anatomy and physiology.

In order to reschedule an exam, you MUST have an official university excused absence. This is limited to athletic travel and doctor recommended absences ONLY. See your student handbook for official descriptions of excused absences. If you need to miss an exam for ANY other reason, this is your choice, but you will receive a zero for this exam. If you have any questions about this policy or know of an excused absence during an exam time, you MUST contact me at least ONE WEEK BEFORE to the scheduled exam. Not showing up for an exam means that you earn a zero. Any rescheduled exams time and format will be at the discretion of the instructor. ONLY ONE documented reschedule is allowed. If you are unable to attend the rescheduled time, you will earn a zero for that exam.

If you think that your exam was incorrectly graded, you must submit your concern to me IN WRITING no more than three class days following the exam. I will NOT entertain verbal requests for additional points, but I would be happy to recheck your exam if you submit your request in writing in a timely manner. Grading concerns must be typed, in a memo format and contain the original question and answer choices as well as an explanation of the concern. These will be returned following the submission deadline for each exam. Grading concerns may NOT be submitted via e-mail. Writing assignments, online assignments, and quizzes are exempt from this grading concern submission policy.

Any subsequent concerns or policies concerning grading and exams may be found in your student handbook and corresponding catalog for reference. These publications will be referred to concerning any other aspects of examinations and student grades.

Lab Fees and Policies: Lab fees may be reimbursed only if the course is dropped within the first two weeks of the semester. A credit to your account will automatically be processed by Accounting Services. With the move to online labs for fall semester 2020, the college, department, and myself are working diligently to apply lab fees to corresponding materials and resources. Please be patient as we all work through the costs and materials for newly designed labs.

Cell Phone and Computer Use: Cell phone use during lecture sessions is prohibited. All cell phones must be turned off and stored prior to entering the lecture hall. Failure to do so may constitute your dismissal from the course or a failing grade. Portable computers may be used in lecture for course material ONLY! Any unauthorized use of portable computers during lecture may constitute your removal from the course or a failing grade.

Suggestions for Success: This course is very fast paced and integrated. It is therefore very important that you keep up with study of the material. If you fall behind, I suggest dropping the course. It is extremely difficult to catch up in a course that builds on presented topics throughout the semester.

I suggest reading the chapter summaries before attending the lecture on the material. Don't worry about the details in the chapter, we will cover those in lecture. After attending the presentation, I suggest THEN reading the chapter front to back, reviewing your lecture notes at the same time. Highlight or otherwise note key concepts during this phase of study. The following day, review these key concepts and incorporate the new material. In this manner, you will be able to simply review the key concepts the day before the exam since you have seen them everyday prior!

I will post the PowerPoint slides online before each lecture. You may print these slides at your convenience to use during the lecture presentation or access these on your device during the lecture. I suggest using all your course materials interchangeably. Your lecture materials and text are excellent resources for detailed study of a topic, while your lab materials provide a concise overview and summary of the topics. As mentioned previously, online homework and lab assignments may contain very similar questions to better help you understand a specific topic.

There are many resources available for you to better learn the material. Please ask about these BEFORE you fall behind! Your lab coordinators and myself are available at most any time to answer your questions and to help you better understand the concepts. The TAAP is a huge resource for students. They offer group tutors, one-on-one tutors for specific students, drop in tutor hours in the library, college success and study coaches, and supplemental instruction sessions. Your supplemental instructor leader will be introduced the first day of class along with times of SI Sessions. Get involved in these early! Don't wait until you are behind or right before an exam!

WEEK 6

DUE Monday 9/28 6:00am
Week 5 Labs
Chapter 7 HW

LAB Bones of the Axial Skeleton

LECTURE Monday 9/28 - Chapter 9 – Synovial Classifications
Wednesday 9/30 - Chapter 10 – Introduction to the Muscular System
Friday 10/2 - Chapter 11 – Microscopic Skeletal Muscle

WEEK 7

DUE Monday 10/5 6:00am
Week 6 Labs
Chapter 9 HW
Chapter 10 HW

LAB Articulations and Movements/Introduction to Skeletal Muscles/Muscle Histology

LECTURE Monday 10/5 - Chapter 11 – Microscopic Skeletal Muscle Continued
Wednesday 10/7 - Chapter 11 – Excitation/Contraction Coupling
Friday 10/9 - Chapter 11 – Fiber Types/Macroscopic Contractions/Whole Muscle Physiology

WEEK 8

DUE Monday 10/12 6:00am
Week 7 Labs
Chapter 11 HW

LAB Muscles of the Appendicular Skeleton

LECTURE Monday 10/12 - Catch Up and Review for Lecture Exam III
Wednesday 10/14 - **Lecture Exam III – Chapters 9, 10, and 11**
Friday 10/16 - Chapter 12 – Introduction to Nervous Tissue

WEEK 9

DUE Monday 10/19 6:00am
Week 8 Labs

LAB Muscles of the Axial Trunk

LECTURE Monday 10/19 - Chapter 12 – The Resting Membrane Potential and Action Potentials
Wednesday 10/21 - Chapter 12 – Conduction of Nerve Fibers
Friday 10/23 - Chapter 12 – The Synapse and Post-Synaptic Potentials

WEEK 10

Due Monday 10/26 6:00am
Week 9 Labs
Chapter 12 HW

LAB Muscle Contractions/Fatigue/Spinal Nerves/Reflexes

LECTURE Monday 10/26 - Chapter 13 – The Spinal Cord and Spinal Nerves
Wednesday 10/28 - Chapter 13 - Reflexes
Friday 10/30 - Catch Up and Review for Lecture Exam IV

WEEK 11

Due Monday 11/2 6:00am

Week 10 Labs

Chapter 13 HW

LAB Anatomy of the Heart

LECTURE

Monday 11/2 - **Lecture Exam IV – Chapters 12 and 13**

Wednesday 11/4 - Chapter 19 – Introduction to the Cardiovascular System – The Heart

Friday 11/6 - Chapter 19 – Electrical Conduction in the Heart and the EKG

WEEK 12

DUE Monday 11/9 6:00am

Week 11 Labs

LAB EKG/Cardiac Output/Cardiac Cycle

LECTURE

Monday 11/9 - Chapter 19 – The Cardiac Cycle

Wednesday 11/11 - Chapter 22 – Introduction to the Respiratory System

Friday 11/13 - Chapter 22 – The Bronchial Tree and Lungs

WEEK 13

DUE Monday 11/16 6:00am

Week 12 Labs

Chapter 19 HW

LAB Respiratory Anatomy/Pulmonary Ventilation/Respiratory Capacities

LECTURE

Monday 11/16 - Chapter 22 – Pulmonary Ventilation

Wednesday 11/18 - Chapter 22 – Respiratory Measurements/Capacities

Friday 11/20 - **Lecture Exam V – Chapters 19 and 22**

WEEK 14

Monday 11/23

NO CLASS – Fall Break

Wednesday 11/25

Friday 11/27

WEEK 15

DUE Monday 11/30 6:00am

Week 13 Labs

Chapter 22 HW

ALL Extra Credit Assignments/Modules

Monday 11/30

Classes All Online for Remainder of Semester