BIOL2213-01

Human Physiology

Spring 2023

Lecture: T*&F 8:00am – 9:15am in LH247; **Lab**: F 9:30-11:30am in Spencer 229
INSTRUCTOR: Dr. Adam Gunn, PT & Maria Sturluson
OFFICE: Lecture 247
OFFICE HOURS: Available as needed via email or pre-arranged on campus meeting
EMAIL: agunn@uarichmountain.edu

PREREQUISITES for this course are successful completion Human Anatomy course or instructor permission.

RESOURCES:
Lecture Text *Hole's Human Anatomy and Physiology* 16th ed; Shier, Butler, Lewis.ISBN:1264262868
Optional-** *Netter's Anatomy Coloring Book Updated Edition (Netter Basic Science)* 2nd Edition ISBN-10: 0323545033
Course Description: Human Physiology is a continuation of the Human Anatomy course designed to meet the needs of premed, pre-nursing, allied health students, exercise physiology students, and other students interested in human body organization. This course includes a study of the function and structure of the remaining organ systems: endocrine, cardiovascular, lymphatic, digestive, respiratory, and urinary, and reproductive systems, including fluid and electrolyte balance; and acid-base balance.

Food and Drink: Food and drinks, including water are not allowed in the classroom at any time.

Program outcome and rationale: The knowledge and critical thinking skills acquired in the general education component enable students to analyze problems, arrive at intelligent conclusions, and make reasoned choices in their professional and personal lives. This course provides a basic, yet comprehensive, knowledge of the human body for any and all medical purposes: to familiarize students with the physiology of the human body, to develop an understanding of the functions of the organ systems including pathologies (diseases) that affect these systems.

COURSE OBJECTIVES: Upon completion of this course, the student will be able to:

1. Use appropriate anatomical terminology as it relates to regions, directions, body planes, and cavities of the body.
2. Describe the importance of chemistry and biological molecules associated with general human physiology.
3. Describe the functions and structures of the endocrine system and typical pathologies/medical diagnoses associated with dysfunction of any of the part(s) of this system.
4. Describe the physiology and relevant anatomy of the cardiovascular system(s) and typical pathologies/medical diagnoses associated with dysfunction of any of the part(s) of this system.
5. Describe the anatomy and physiology of the pulmonary/respiratory system and typical pathologies/medical diagnoses associated with dysfunction of any of the part(s) of this system.
6. Describe the physiology and applicable anatomy of the lymphatic and immune system(s) and how they fulfill their associated functions.
7. Describe the physiology and relevant anatomy of the digestive system and how it fulfills its functions.

8. Describe the physiology and applicable anatomy of the urinary system and how it fulfills its functions.
9. Describe the physiology and related anatomy of the reproductive system and how it fulfills its functions.
10. Describe the integration and relationships between these bodily systems
11. Be able discuss current relevant topics concerning genetics and genomics
12. Clinically apply an understanding of human physiology to realistic scenarios, case problems, and/or pathologic illnesses altering normal physiology.

Tentative Lecture Schedule for Human Physiology

	SUBJECT	CHAPTER
	Endocrine System	13
	Blood	14
February 3		**EXAM I**
	Cardiovascular System	15
	Respiratory System	19
March 3		**EXAM II**
	Lymphatic System and Immunity	16
	Digestive System	17
	Nutrition and Metabolism	18
March 31		**EXAM III**
	Urinary System	20
	Water, Electrolyte, and Acid-Base Balance	21
	Reproductive Systems	22
	Genetics and Genomics	24
April 28		**EXAM IV**
Finals Week (May 8 - 11)		**Comprehensive Final**

Last day to withdraw from the course – May 5th

Disclaimer: The information contained in this syllabus is as accurate as possible, but may be subject to change with reasonable advance notice. The schedule and content of lectures and assignments may be changed at the

discretion of the instructor upon oral notification in class. Changes may involve additions, deletions, substitutions, or changes in sequence or due date.

COURSE CONDUCT: Classroom presentation is basically of the lecture-demonstration type. Lecture will be over the pre-assigned chapters with PowerPoints delivered as a visual aid. This will be supplemented with various scientific models, representative specimens, supplemental handouts, and special projects. Students should take notes and are expected to study beyond the lab and classroom and manage their time to develop good study habits for this course.

UARM CREDIT HOUR CALCULATOR: For every course credit hour, you should expect to spend at least three clock hours per week of concentrated attention on course-related work, including but not limited to time attending class, as well as out-of-class time spent reading, reviewing, organizing notes, preparing for upcoming quizzes/exams, problem solving, developing and completing homework, and other activities that enhance learning. For a three hour course, a typical student should expect to spend at least nine hours per week dedicated to the course. This includes the time spent in class.

COURSE REQUIREMENTS: Students are required to ***READ*** the material in the textbook and ***take notes*** over the lectures. It is advisable to read at least 5 pages in the assigned chapter daily). If you wait until the day before the test to read the chapter, study the notes, and learn the vocabulary, you will not do well on the exams.

COURSE EVALUATION: Student performance in the course will be based on the following factors:

Lecture Exams:	4 @ 100 points each	=	400 points *
Quizzes:	5-10 @ 10 points each	=	50-100 points
Comprehensive Exam	1 @ 200 points	=	200 points
TOTAL POINTS POSSIBLE		**=**	**650 – 750 points ****

GRADING SCALE:

A = 100 - 90%
B = 89 - 80%
C = 79 - 70%
D = 69 - 60%
F = 59% or lower

EXAMS: Exam dates are given in the syllabus and students are required to take all the tests offered including the Comprehensive final. Exam questions will be taken from lecture notes, exercises, discussion, audiovisuals, handouts, textbook information and other assignments. Many exam questions will require use of this material and critical thinking to conclude the answer. Exams may include all or any combination of the following types of questions: multiple choice, true/false, short-answers, fill-in-the blank, draw and label, matching, and short answer.

Comprehensive Final - 100 multiple choice questions taken from the semester material.

1. **Everyone must take the comprehensive final.**

* 2. If an exam is missed, potential credit may be carried over to the next exam IF GIVEN PERMISSION FROM THE INSTRUCTOR BASED ON REASONING FOR THE MISSED EXAM. (Example- if exam #2 is missed with an excused absence, exam 3 will be worth 200 points)

LECTURE/LAB QUIZZES – Approximately 5-10 quizzes will be given throughout the semester during lecture periods. The quizzes will consist of questions related to lecture exercises performed, assigned readings, and related lecture information.

ATTENDANCE REQUIREMENTS: As a student, you are responsible for all material presented during lecture, whether present for the class or not. Assignments are to be completed in a timely fashion; therefore all make-up work must be completed within 3 calendar days of your return following an absence. Unexcused absences are not to exceed twice what the class meets in a week. Laboratory is a required part of this course and failure to attend or participate **will** result in an "F" for this course. For further information, see "Student Attendance" on page 70 of the 2017/2018 UARM Academic Catalog.

> **Make-up Policy:** A student who misses an assignment because of an officially sanctioned college activity or those with a documented excuse for their absence, will be permitted to make up the assignment or test without penalty. Any deviation from this policy will be considered on a case-by-case basis.

Academic Dishonesty: Instances of academic dishonesty, *i.e., "cheating,"* will be dealt with in accordance with those policies outlined in the current UARM Student Handbook. Any student suspected of cheating will be asked to complete an alternate proctored exam.

Cellphone usage policy: Use of personal cell phones in class is prohibited **unless it is an emergency.** Failure to abide by policy results in a *verbal warning* upon first offense, and *10 point deduction* in grade with each additional offense after a verbal warning has been given.

Additional Information: Food and drinks are not permitted in this class. **Please make sure that your cell phone and any other electronic devices are turned off (or to silent mode) during the class session**.

Disability Policy: It is the policy of UARM to accommodate students with disabilities, pursuant to state and federal law. Any student with a disability who needs accommodations should contact the Vice President for Student Affairs Office, 394-7622 ext.1400.

Title IX and Discrimination Policy: UA Rich Mountain adheres to a policy that enables all individuals regardless of race, color, gender, national origin, age, religion, sexual orientation, veteran's status, or disability, to work and study in an environment unfettered by discriminatory behavior or acts. Harassment of an individual or group will not be condoned, and any person (student, faculty, of staff member) who violates this policy will be subject to disciplinary action.

Harassment that is considered discriminatory includes actions or conduct (verbal, graphic, gestural, or written) directed against any person or group with the intent to demean or create a hostile or threatening environment. It is not the intent of this policy to infringe upon or limit educational, scholarly, or artistic expression. Any person who believes he or she has been discriminated against should contact the Title IX Coordinator to obtain assistance and information concerning the filing of a complaint.

Face mask policy: Students are encouraged but not required to wear face masks in class and public spaces.

Attendance Policy: For attendance purposes, a student who is displaying symptoms of illness must email: contact.tracing@uarichmountain.edu to determine next steps for an excused absence related to COVID or flu. Contacting an instructor **DOES NOT** start this process or guarantee an excused absence.
Arkansas Clean Air Act: In compliance with the Arkansas Clean Air Act, UARM is a smoke and tobacco free facility. Students and guests are to refrain from the use of all tobacco products while on campus.

Student Misconduct: Students committing misconduct are subject to disciplinary sanction(s) and or restrictions. Misconduct or prohibited behavior includes, but is not limited to endangerment, harassment, disruption, sexual misconduct, dishonesty, illegal drugs and/or alcohol, fire or safety issues, gambling, property violations, computer violations or other violations as listed in detail in the UARM catalog.

UARM Mission: University of Arkansas Rich Mountain provides transformative education to all learners.

Campus Security: UA Rich Mountain strives to provide a safe learning environment; therefore, students who know of any security risk are asked to contact a college official. For more information follow this link and look under the title Health and Safety: http://www.uarichmountain.edu/at-a-glance/disclosures