

Anatomy and Physiology for Sport and Exercise Science

APK5121 | Class #28579 (1148) | 3 Credits | Fall 2025

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Course Information:

INSTRUCTOR

Paul A. Borsa, PhD, ATC

Office: 149 FLG

Office Phone: 352-294-1726

Email: pborsa@ufl.edu (Preferred Method of Contact)

OFFICE HOURS

Office hours: MWF 3rd Period or by appointment

MEETING TIME/LOCATION

T Period 3-5 (9:30am - 12:35pm, FLG 225)

Course Description: Study of human anatomy and physiology from an organ-systems approach with direct applications to exercise, sport, training, and clinical practice. This course will serve as a foundation for learning and applying more advanced principles and concepts related to biomechanics, exercise physiology and applied kinesiology. This course uses an integrated approach to discuss topics of cell, tissue and organ structure and function.

Prerequisite Knowledge and Skills: Graduate Level Standing.

Required and Recommended Materials:

Required Text: Essentials of Anatomy & Physiology

Edition: 8th

Authors: Scanlon and Sanders

Publisher: F.A. Davis

Year: 2019

ISBN: 978-0803669376

Recommended Text: Essentials of Strength and Conditioning

Edition: 4th

Author: National Strength and

Conditioning Association

Publisher: Human Kinetics

Year: 2015

ISBN: 978-1492501626

All other reading materials will be available on CANVAS (eLearning)

Course Format: A lecture-based class format will be used to present course material.

Course Learning Objectives: After taking this course, students should be able to:

- Identify important structures of the organ-systems with emphasis on the musculoskeletal, neuromuscular, cardiovascular, and respiratory systems.
- Describe the relationship between structure and function at all levels of organization (cellular, tissue, organ, system, organism).
- Describe correct anatomy and physiology terminology and language to describe the various structures and physiological processes of the body.
- Relate anatomical and physiological knowledge to exercise, sport, strength and conditioning, and clinical practice.
- Compare and relate structural changes of the body from injury and disease with adaptive responses in function.

CASCE Standards Included in this Course

Human Anatomy and Physiology
a. Structure and function of body systems
b. Musculoskeletal system
c. Neuromuscular system
d. Cardiovascular system
e. Respiratory system

Course and University Policies:

“University policies are summarized [here](#). This link will direct students to a separate webpage that will provide all required academic policies, such as attendance, grading, personal conduct, DRC and evaluation verbiage, as well as campus academic, health, and wellness resources.”

Attendance Policy: Attendance and punctuality are expected and highly recommended. Make every effort to attend all lectures. Attendance will not directly affect your grade. However, some concepts will be made ONLY during class lecture (**and are not in the lecture notes**) and may be part of your quizzes and examinations.

Policy on Missed Classes Due to Illness, Family Emergency or Death: A student experiencing an illness should visit the UF Student Health Care Center or their preferred healthcare provider to seek medical advice and obtain documentation. If you have an illness, family emergency or death, please contact the Dean of Students Office (www.dso.ufl.edu) and follow the DSO Care Team procedures for documentation and submission of a request for make-up assignment (<https://care.dso.ufl.edu/instructor-notifications/>). The DSO will contact the instructor. Do not provide any documentation to the instructor regarding illness or family emergency. This is your personal and protected information. The DSO is qualified to receive and verify the documents you provide. The instructor will follow the recommendations from the DSO. “Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.”

Exam/Quiz Make-up Policy: No makeup examinations or quizzes will be given without a serious and/or compelling reason.

Step 1: Get documentation of your illness or emergency. A student experiencing an illness should visit the UF Student Health Care Center or their preferred healthcare provider to seek medical advice and obtain documentation. If you have an emergency (including but not limited to, a new medical diagnosis or death of a loved one), please contact the Dean of Students Office (www.dso.ufl.edu) and follow the DSO Care Team procedures for documentation and assistance (<https://care.dso.ufl.edu/instructor-notifications/>).

Step 2: Submit a make-up request to the instructor via CANVAS email. In the request provide reason for missing exam/quiz and availability for make-up. Make-ups will not be granted for personal travel/vacations. Additionally, many students will encounter multiple exams in one day. Only if another exam is scheduled for the same time as an exam in this course will a make-up request be considered.

Should a student miss an exam due to an excused reason, the exam can be taken without penalty. Please contact the instructor to schedule a time for the make-up exam.

Should a student miss an exam due to an unexcused reason (e.g., overslept, mixed up the exam time, etc.), the exam can be taken with a 20% penalty if taken within 24 hours of the original exam time or with a 40% penalty if taken within 48 hours of the original time.

Tip: Whenever possible contact the instructor immediately or well ahead of the scheduled date if you need to miss a quiz or exam.

Communication: You are responsible for checking announcements and course postings on CANVAS. This is how your course instructor will communicate with you. All course grades (quizzes and examinations) will be posted on CANVAS. Any discrepancies should be pointed out to the instructor on or before the last day of finals week.

Grading:

Evaluation Components	#	Points	Total Points
Examinations	5	60	300
Discussion Boards	5	5	25
Total			325

Written Examinations will be administered on paper with scantron (#2 pencil will be required), proctored by the instructor and completed in class. Each exam will be worth 60 points. Exams will contain multiple choice and true/false questions.

Discussion Boards. There will be 5 Discussion Boards (5 points each = 25 points). Students are required to participate in all discussion board assignments. To receive full credit for each post, please write a minimum of 250 words (3-pt deduction if not sufficient), but feel free to write as much as you need-keep in mind, some topics take more explanation than others. Reference your sources, if possible. Also, respond to at least 2 peers with a minimum of 100 words each (1-pt deduction for each deficient peer response). Final post due by 11:59pm Sunday of the week that the board is posted in the syllabus.

Length of post: Discussion thread posts should be 250 words or more in length.	3 pts If post is 250 or more words in length.	0 pts If post is less than 250 words in length.
Number of replies: Each student should respond to at least 2 peers.	2 pts If you respond to at least 2 peers.	0 or 1 pt 0 pts if you do not respond to any peers, 1 pt if you respond to 1 peer, and 2 pts if you respond to 2 peers.

Weekly Course Schedule: (Tentative schedule – subject to change at the discretion of the instructor)

Week	Module	Assignments	Due Date	Point Value
1-2	Organization/General Plan for the Human Body & Anatomical Terminology	Read Ch. 1 Discussion Board 1	Friday, Aug 29	5
3	Cellular and Tissue Level of Organization	Read Ch. 3 & 4 Exam 1 (Ch. 1,3,4)	Sunday, Sep 14	50
4	Integumentary System; Skeletal System: Bone Tissue	Read Ch. 5 Discussion Board 2 Read Ch. 6 (pgs. 110-116)	Friday, Sep 19	5
5	Skeletal System: Axial & Appendicular Skeleton; Articulations	Read Ch. 6 (pgs. 117-133) Exam 2 (Ch. 5-6)	Sunday, Sep 28	50
6	Muscular System: Tissue; Skeletal Muscle Structure & Function	Read Ch. 7 Discussion Board 3	Friday, Oct 3	5
7	Muscular System: Skeletal Muscle Structure & Function	Read Ch. 7 Exam 3 (Ch. 7)	Sunday, Oct 12	50
8	Nervous System: Nervous Tissue; Brain & Spinal Cord	Read Ch. 8 & 9 Discussion Board 4	Sunday Oct 19	5
9	Nervous System: Sensory/Motor Integration; Endocrine System	Read Ch. 9 & 10 Exam 4 (Ch. 8-10)	Sunday, Oct 19	50
10	The Thorax: Heart & Vascular System & Blood	Read Ch. 11, 12 & 13 Discussion Board 5	Friday, Oct 31	5
11	The Lungs: Pulmonary Tissue Respiratory System: Lung Function & Gas Exchange	Read Ch. 15		
12	Abdominal Region: Digestion, Fluid-Electrolyte and Acid / Base Balance	Read Ch. 16 & 19 Exam 5 Discussion Board 6	Sunday, Nov 16 Friday, Nov 21	50 5
13	Endocrine System; Lymphatic System & Immunity	Read Ch. 10 & 14		
14	Thermoregulation & Metabolism; Human Genetics	Read Ch. 17 & 21 Exam 6	Wednesday, Dec 7	50
15				

University Holidays: No classes will be held; Labor Day Sep 1st, Homecoming October 17th – 18th, Veterans Day Nov 11th, and Thanksgiving Nov 24th to 29th.