# **Anatomy & Physiology for Sports & Exercise Science**

PET5936 | Class #25272 (K830) | 3 Credits | Fall 2024

Connect with HHP

#### **Course Information:**

INSTRUCTOR Paul A. Borsa, PhD, ATC

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OFFICE HOURS Office Hours: by appointment

**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: This course is for APK graduate students only.

### **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 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).
- Utilize correct anatomy and physiology terminology and language to describe the various structures and physiologic 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.

## **Course and University Policies:**

**Personal Conduct Policy:** Students are expected to exhibit behaviors that reflect highly upon themselves and our University. UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<a href="http://www.dso.ufl.edu/sccr/process/student-conduct-honor-">http://www.dso.ufl.edu/sccr/process/student-conduct-honor-</a>

code/) specifies a number of behaviors that are in violation of this code and the possible sanctions.
Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult the instructor or TA in this class.

Policy on Missed Assignments Due to Illness, Family Emergency or Death: 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: <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.</a>"

**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.** 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 (<a href="www.dso.ufl.edu">www.dso.ufl.edu</a>) and follow the DSO Care Team procedures for documentation and assistance (<a href="https://care.dso.ufl.edu/instructor-notifications/">https://care.dso.ufl.edu/instructor-notifications/</a>).

**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.

Requirements for class attendance and make-ups, assignments, and other work are consistent with the university policies that can be found at <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</a>.

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

Accommodating Students with Disabilities: "Students requesting accommodation for disabilities must first register with the Dean of Students Office (<a href="http://www.dso.ufl.edu/drc/">http://www.dso.ufl.edu/drc/</a>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations."

Communication: Students are responsible for getting a University of Florida email account (e.g., john.doe@ufl.edu) and should use this email for all university related correspondence – The instructor may not read emails from or send emails to any non-UF email addresses (e.g., john.doe@hotmail.com). Email subject should start with "PET 5936 – First name, Last name - ..." Email use does not relieve students from the responsibility of confirming the communication with the instructor. Always sign your email – don't make the instructor guess from whom the email was sent. The instructor will answer your email within two business days, if possible. 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.

**Course evaluations:** Students in this class are participating in GatorEvals. This evaluation system is designed to be more informative to instructors so that teaching effectiveness is enhanced and to be more seamlessly linked to UF's CANVAS learning management system. Students can complete their evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <a href="https://ufl.bluera.com/ufl/">https://ufl.bluera.com/ufl/</a>. Thank you for serving as a partner in this important effort.

## **Getting Help:**

#### **Academic Resources**

- E-learning technical support, 352-392-4357 (select opti on 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml
- Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. <a href="https://career.ufl.edu/">https://career.ufl.edu/</a>
- Library Support, <a href="http://cms.uflib.ufl.edu/ask">http://cms.uflib.ufl.edu/ask</a>. Various ways to receive assistance with respect to using libraries or finding resources.
- Student Complaints On-Campus: <a href="https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/">https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/</a> On-Line Students Complaints: <a href="https://distance.ufl.edu/student-complaint-process/">https://distance.ufl.edu/student-complaint-process/</a>

#### **Honorlock Exam Proctoring Information:**

Honorlock will proctor your quizzes and examinations this semester. Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account, download software, or schedule an appointment in advance. Honorlock is available 24/7 and all that is needed is a computer, a working webam, and a stable internet connection.

To get started, you will need Google Chrome and to download the Honorlock Chrome Extension. You can download the extension at <a href="https://www.honorlock.com/extension/install">wwww.honorlock.com/extension/install</a>

When you are ready to take a test, log into Canvas/E-Learning, go to your course, and click on your exam. Clicking launch Proctoring will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session by webcam as well as recording your screen. Honorlock also has an integrity algorithm that can detect searchengine use, so please do not attempt to search for answers, even if it's on a secondary device.

Honorlock support is available 24/7/365. If you encounter any issues, you may contact Honorlock by live chat, phone (844-243-2500), and/or email (<a href="mailto:support@honorlock.com">support@honorlock.com</a>)

# **Grading:**

Evaluation Components	#	Points	Total Points
Examinations	6	50	300
Discussion Boards	6	5	30
Total Points			330

**Written examinations** will be completed on CANVAS and proctored by Honorlock. Each exam will be worth 50 points. Exams will contain primarily multiple choice, matching, and true/false questions.

**Discussion boards**. There will be 6 Discussion Boards (5 points each = 30 points). Students are required to participate in all discussion board assignments. To receive full credit for each post, please write a minimum of 200 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 50 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:	3 pts	0 pts
Discussion thread posts should be 200	If post is 200 or more words in	If post is less than 200 words in length.
words or more in length.	length.	
Number of replies:	2 pts	0 or 1 pt
Each student should respond to at least	If you respond to at least 2	0 pts if you do not respond to any
2 peers (50 words or more for each).	peers.	peers, 1 pt if you respond to 1 peer, and
		2 pts if you respond to 2 peers.

**Grading Scale:** More detailed information regarding current UF grading policies can be found here: <a href="https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/">https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/</a>.

Letter	Percent of Total Points Associated	GPA Impact of Each
Grade	with Each Letter Grade	Letter Grade
Α	90.00-100%	4.0
B+	87.00-89.99%	3.33
В	80.00-86.99%	3.0
C+	77.00-79.99%	2.33
С	70.00-76.99%	2.0
D+	67.00-69.99%	1.33
D	60.00-66.99%	1.0
Е	0-59.99%	0

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 30	5
2-3	Cellular and Tissue Level of Organization	Read Ch. 3 & 4 Exam 1 (Ch. 1,3,4)	Sunday, Sep 8	50
3-4	Integumentary System; Skeletal System: Bone Tissue	Read Ch. 5 Discussion Board 2 Read Ch. 6 (pgs. 110-116)	Friday, Sep 13	5
4-5	Skeletal System: Axial & Appendicular Skeleton; Articulations	Read Ch. 6 (pgs. 117-133) Exam 2 (Ch. 5-6)	Sunday, Sep 22	50
5-6	Muscular System: Tissue; Skeletal Muscle Structure & Function	Read Ch. 7 Discussion Board 3	Friday, Sep 27	5
6-7	Muscular System: Skeletal Muscle Structure & Function	Read Ch. 7 Exam 3 (Ch. 7)	Sunday, Oct 6	50
7-8	Nervous System: Nervous Tissue; Brain & Spinal Cord	Read Ch. 8 & 9 Discussion Board 4	Friday, Oct 11	5
8-9	Nervous System: Sensory/Motor Integration; Endocrine System	Read Ch. 9 & 10 Exam 4 (Ch. 8-10)	Wednesday, Oct 23	50
9-10	Blood, Cardiovascular & Lymphatic System	Read Ch. 11-14 Discussion Board 5	Friday, Nov 1	5
10-11	The Lungs: Pulmonary Tissue Respiratory System: Lung Function & Gas Exchange	Read Ch. 15 Exam 5 (Ch. 11-15)	Friday, Nov 15	50
11-12	Abdominal Region: Digestion, Thermoregulation & Metabolism	Read Ch. 16 & 17 Discussion Board 6	Friday, Nov 22	5
12-13	Fluid-Electrolyte and Acid / Base Balance	Read Ch. 19		

14	Thanksgiving Break			
15	Human Genetics	Read Ch. 21 Exam 6 (Ch. 16,17,19 & 21)	Friday, Dec 6	50

University Holidays: Labor Day, Sep 2; Homecoming, Oct 18; Veterans Day, Nov 11; Thanksgiving, Nov 25-27