

Human Pathophysiology for the Exercise Sciences

APK5133 | Class#15244 | 3 Credits | Summer C 2025

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Course Information

INSTRUCTOR

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OFFICE HOURS

Office hours: by appointment

Course Description: In-depth study of current concepts and theories related to the prevention and management of athletic injuries and other medical conditions; including factors affecting inflammation and healing, and the role of therapeutic intervention, exercise, and rehabilitation.

Prerequisite Knowledge: A background in human anatomy and physiology will be helpful.

Required and Recommended Materials: There will be no required textbook for this course, however lecture notes will be posted to Canvas in .pdf format. In addition, recommended and supplemental readings may be available for students to download or photocopy.

Course Learning Objectives: At the conclusion of this course, the student is expected to:

1. Examine the patho-anatomical and patho-physiological mechanisms of acute and chronic inflammation healing and repair of connective tissues and other related conditions.
2. Analyze the biomechanical and neuromuscular processes related to the development of bone, cartilage, ligament, muscle, tendon, and nerve injuries commonly seen in athletes and physically active individuals.
3. Evaluate selected therapeutic agents and intervention methods used in the clinical management of sports related injuries and illnesses.
4. Interpret the clinical implications therapeutic agents have on the healing process.
5. Assess the role of proprioception and neuromuscular control in the management and rehabilitation of athletic injuries.

Course Requirements:

Module Quizzes – 390 pts

Group Discussions – 6 pts

Module quizzes and group discussions will be used to assess the students' academic standing in this course. **Late assignments will not be accepted for credit unless arrangements have been made with the instructor prior to the due date for that assignment.** Failure to make prior arrangements may result in rejection of work submitted late as rescheduling/accepting assignments is at the discretion of the instructor. Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Discussion Boards/Assignments

6 Discussion Boards X 1 point each = 6 points

Overview: Students are expected to participate in all group discussion board assignments. The quality of engagement in this activity will be noted and graded accordingly.

Module Quizzes

14 Module Quizzes = 390 points total this semester

Overview: Students will be assessed throughout the semester by taking weekly module quizzes. Students are required to complete quizzes and submit them by due date assigned. Point value per quiz will vary. Please review each quiz's instructions & guidelines

Students should be aware that online learning is different than a traditional classroom experience and can present unique challenges, particularly to individuals who do not possess good time management skills. The online classroom is available to you 24 hours a day. Unlike traditional instructional settings in which each student gets the same class at a set time and day, the online setting gives students the opportunity to tailor class to their learning style. You should note, however, that this course is not completely self-paced. As listed on the class calendar, there are select times during which units and course materials will be available and are due. You can view each unit's lectures at any time during the dates on which that specific unit is open. Please note that all quizzes, exams, assignments, discussion posts, etc. must be completed and submitted by the due date listed on the syllabus. Quizzes and exams will only be available to you on the date(s) and time(s) listed on the syllabus. Since we will not have in-class meeting times for me to remind you of critical dates, it is essential to familiarize yourself with the course schedule, deadlines, and due dates.

Course and University Policies:

Personal Conduct Policy: Students are expected to exhibit behaviors that reflect highly upon themselves and our University. Outline for them exactly what that means in the context of your course. 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 (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-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.

Make-up Policy: Quizzes and discussion posts will not be accepted late, and on some days more than one of these tasks may be due. If personal circumstances arise that may interfere with your ability to meet a deadline, **please let me know as soon as possible before the due date.** Please keep in mind only university authorized excuses will be accepted, and documentation must be provided. Requirements for make-up exams, assignments, and other work are consistent with university policies:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Accommodating Students with Disabilities: "Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). 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."

Course Evaluations: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via 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 <https://my-ufl.bluer.com/>. Thank you for serving as a partner in this important effort.

Getting Help:

The University of Florida recognizes that pursuit of an online degree requires just as much student support as pursuit of a traditional on-campus degree and, therefore, each online program is responsible for providing the same student support services to both students who are in residence on the main campus and those who are seeking an online degree through distance learning. The following links provide support services for students:

[Online Computing Help Desk- e-Learning Support Services](#)

The UF Computing Help Desk is available to assist students with technical issues. If you have any issues accessing the online course material, you must contact the UF Computing Help Desk immediately for assistance and obtain a case number. I will not accept late assignments, or change any course dates, due to technology difficulties if you do not have a case number prior to the due date for the assignment.

For issues with technical difficulties in E-learning, please contact the UF Help Desk:

helpdesk@ufl.edu

(352) 392-4357

<https://elearning.ufl.edu/student-help-faqs/>

Other resources are available at: <https://distance.ufl.edu/getting-help/>

[Online Library Help Desk](#)

The help desk is available to assist students with access to all of the UF Libraries resources.

[Disabilities Resource Center](#)

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. If you have a physical, learning, sensory or psychological disability, please visit our Disabilities Resource Center.

U Matter, We Care - Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor are available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Honorlock Quiz and 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 webcam, 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

www.honorlock.com/extension/install

When you are ready to complete a quiz, log into Canvas/E-Learning, go to your course, and click on your quiz. 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 search-engine 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 (support@honorlock.com)

Grading:

Students will be assessed over the following course materials: recorded lectures and discussion boards. For final grading you will be evaluated on your performance on the module quizzes (cumulative point values). Your final cumulative score from the 14 quizzes will be divided by the total possible points for the quizzes (390) and

multiplied by 100 for a percentage value. In addition, each discussion board is worth 1 point and the total from the discussions will be added to your percentage score for the semester. Final scores will be compared to the grading scale below.

For example, if your final cumulative point value from the 14 quizzes comes to 340. That score will be divided by the possible point total and multiplied by 100 ($330/390 \times 100 = 84.6\%$). If you complete all 6 discussion boards that total will be applied to your % score ($84.6 + 6 = 90.6$). If you use the grading scale below that equates to an A- grade for the semester.

Grading Scale: *More detailed information regarding current UF grading policies can be found here:*

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

A	= 100-93	C(S)	= 76.99-73
A-	= 92.99-90	C-(U)	= 72.99-70
B+	= 89.99-87	D+	= 69.99-67
B	= 86.99-83	D	= 66.99-63
B-	= 82.99-80	D-	= 62.99-60
C+	= 79.99-77	E	= 59.99-0

See current UF Grading Policies for further details:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Communication and Questions:

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 “APK 5133 – 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.

Copyright Statement:

The materials used in this course are copyrighted. The content presented is the property of UF and may not be duplicated in any format without permission from the College of Health and Human Performance and UF and may not be used for any commercial purposes.

Content includes but is not limited to syllabi, videos, slides, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy or distribute the course materials, unless permission is expressly granted. Students violating this policy may be subject to disciplinary action under the UF Conduct Code.

Disclaimer: This syllabus represents the objectives and tentative plans for the course. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, will be communicated clearly, are not unusual, and should be expected.

Weekly Course Schedule:

Week	Module	Assignment	Due Date	Point Value
1	Intro to Pathophysiology Concepts of Sports Injury Injury Prevention Strategies	Group Discussion 1 Quiz 1 Quiz 2	Friday, May 16 Sunday, May 18 Wednesday, May 21	1 20 30
2	The Injury Process: Physiological Response to Injury <u>Holiday:</u> May 26 th Memorial Day	Group Discussion 2 Quiz 3 & 4	Friday, May 23 Wednesday, May 28	1 50
3	Bone & Joint Pathology Impaired Proprioception & Neuromuscular Control	Group Discussion 3 Quiz 5	Friday, May 30 Wednesday, June 4	1 30
4	Skeletal Muscle & Tendon-related Injuries	Quiz 6	Wednesday, June 11	30
5	Injuries to the Head/Face <u>Holiday:</u> June 19 th Juneteenth	Group Discussion 4 Quiz 7	Friday, June 13 Wednesday, June 18	1 30
6	Injuries to the Cervical and Lumbar Spine	Quiz 8	Sunday, June 22	40
	<u>Holiday:</u> Summer Break (June 23 – June 27)			
7	Internal Injuries to the Abdominal/Thoracic Regions <u>Holiday:</u> July 4 th Independence Day	Quiz 9	Wednesday, July 9	30
8	Common Injuries to the Upper Extremity	Group Discussion 5 Quiz 10	Friday, July 11 Wednesday, July 16	1 30
9	Common Injuries to the Lower Extremity	Quiz 11	Wednesday, July 23	30
10	Exertional Conditions	Quiz 12	Wednesday, July 30	30
11	Dermatological Conditions	Quiz 13	Wednesday, Aug 6	20
12	Other Medical Conditions	Group Discussion 6 Quiz 14	Friday, Aug 8 Friday, Aug 8	1 20