

Human Pathophysiology for the Exercise Sciences

APK5133 | Class # 20136 (2104) | 3 Credits | Fall 2025

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Course Info

INSTRUCTOR

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OFFICE HOURS

Office hours: MWF 3rd Period or by appointment

MEETING TIME/LOCATION

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

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 and Skills: A background in human anatomy and physiology is expected and 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 will be available for students to download or photocopy.

Course Format: A hybrid or flipped class method will be used as a means of presenting course material. Lectures have been pre-recorded and made available to students on Canvas. Students will be able to download lecture modules to various media sources (smartphone, ipod, ipad, MP3 player, laptop, etc.), and view/listen to them during the week/days before class (asynchronous learning). Class periods will be used for in-depth follow-up discussions led by the instructor and students (synchronous learning).

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

1. Demonstrate an understanding of the patho-anatomical and physiological mechanisms of acute and chronic inflammation, healing, and repair of connective tissues and other related conditions.
2. Demonstrate a comprehension of 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. Identify and describe selected therapeutic agents and intervention methods used in the clinical management of sports related injuries and illnesses.
4. Demonstrate an understanding of the clinical implications therapeutic agents have on the healing process.
5. Demonstrate an understanding of the role of proprioception and neuromuscular control in the management and rehabilitation of athletic injuries.

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."

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

Grading:

Evaluation Components	Points	Weighting (%)
Quizzes/Mini-Exams	395	60
Discussion Boards	25	15
Project	30	25
Attendance/Participation	N/A	0
Total	450	100

Weekly Quizzes will be completed on CANVAS. Each quiz will be worth 25-50 points. Quiz format will be multiple choice, True/False, fill in the blank, matching and maybe short answer.

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 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).

Length of post: Discussion thread posts should be 200 words or more in length.	3 pts If post is 200 or more words in length.	0 pts If post is less than 200 words in length.
Number of replies: Each student should respond to at least 2 peers (50 words or more for each).	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.

Course Project. To demonstrate critical thinking and application of major concepts taught in this course students will be required to complete a course project. Each student will present on a clinical topic of choice (approved by instructor) and submit a written report on the topic (30 points). The format and design of the Report and Presentation, as well as the grading rubric and due dates will be posted as a separate document on CANVAS.

Attendance (and participation) is expected but will not affect grading.

Weekly Course Schedule:

Week	Date	Lecture Topic	Assignment	Due Dates
1	Aug 21	Course Overview		
2	Aug 28	The Injury Process: Concepts of Sports Injury	Disc Board 1	Aug 29
3	Sept 4	The Injury Process: Injury Prevention Strategies	Quiz 1	Sep 4
4	Sept 11	The Injury Process: Physiological & Psychological Response	Disc Board 2 Quiz 3 & 4	Sep 5 Sep 11
5	Sept 18	The Injury Process: Musculoskeletal Injuries	Disc Board 3 Quiz 5 & 6	Sep 12 Sep 18
6	Sept 25	Head (Concussion) & Face Injuries	Disc Board 4 Quiz 7	Sep 19 Sep 25
7	Oct 2	Spinal Conditions: Cervical and Lumbar Regions	Quiz 8	Oct 2
8	Oct 9	Internal: Abdominal/Thoracic Injuries	Quiz 9	Oct 9
9	Oct 16	Common Injuries of the Upper Extremity	Quiz 10	Oct 16
10	Oct 23	Common Injuries of the Lower Extremity	Disc Board 5 Quiz 11	Oct 17 Oct 23
11	Oct 30	Exertional Conditions	Quiz 12	Oct 30
12	Nov 6	Dermatological & Other Medical Conditions	Quiz 13 & 14 Written Report	Nov 6 Nov 6
13	Nov 13	Student Presentations		
14	Nov 20	Student Presentations		
15	Nov 27	Thanksgiving Holiday – no class		