

## HUMAN PATHOPHYSIOLOGY FOR THE EXERCISE SCIENCES

ATR 6145 08G1(11600) ~ 3 CREDITS ~ FALL 2021

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**OFFICE HOURS:** By appointment

**MEETING TIME/LOCATION:** FLG 225, T periods 3-5 (9:35am – 12:35pm)

**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:

**ATTENDANCE POLICY:** Attendance and punctuality is expected and highly recommended.

**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.

**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>."

**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 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 <https://ufl.bluera.com/ufl/>. Thank you for serving as a partner in this important effort.

**COVID-RELATED:** For face to face courses a statement informing students of COVID related practices such as:

- We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.
- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class. [Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms](#).

- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies.](#)

**PRIVACY:** For online course with recorded materials a statement informing students of privacy related issues such as: Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

## GETTING HELP:

### Health and Wellness

- U Matter, We Care: If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575
- Counseling and Wellness Center: <https://counseling.ufl.edu/>, 352-392-1575
- Sexual Assault Recovery Services (SARS) - Student Health Care Center, 392-1161
- University Police Department, 392-1111 (or 9-1-1 for emergencies) <http://www.police.ufl.edu/>

### Academic Resources

- E-learning technical support, 352-392-4357 (select option 2) or e-mail to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu). <https://lss.at.ufl.edu/help.shtml>
- Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. <https://career.ufl.edu/>
- Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>
- Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> On-Line Students Complaints: <http://distance.ufl.edu/student-complaint-process/>

## GRADING:

Evaluation Components	Points	Weighting (%)
Quizzes/Mini-Exams	400	60
Discussion Boards	25	15
Project	25	25
Attendance/Participation	0	0
Total	450	100

**Weekly quizzes** will be given during the semester. 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.** 5 Course Discussion Boards X 5 points each = 25 points. Students are required to participate in all discussion board assignments. The quality of engagement in this activity will be noted and graded accordingly. Final post due by Friday of the week by 11:59 pm

**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 (25 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 and self-explanatory (0 points).

**GRADING SCALE:** More detailed information regarding current UF grading policies can be found here:

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

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

**WEEKLY COURSE SCHEDULE:**

<b>Week</b>	<b>Date</b>	<b>Lecture Topic</b>	<b>Assignment</b>	<b>Due Dates</b>
1	Aug 24	Course Overview	Disc Board 1	8/29
2	Aug 31	The Injury Process: Concepts of Sports Injury & Prevention Strategies	Quiz	9/3
3	Sept 7	The Injury Process: Physiological & Psychological Response	Quiz	9/10
4	Sept 14	The Injury Process: Pain, Placebo & Therapeutic Intervention	Quiz Disc Board 2	9/17 9/19
5	Sept 21	Bone & Joint Pathology/Fracture Healing & Repair	Quiz	9/24
6	Sept 28	Impaired Proprioception & Neuromuscular Control	Quiz	10/1
7	Oct 5	Student Presentations	Report	10/8
8	Oct 12	Student Presentations	Report	10/15
9	Oct 19	Skeletal Muscle & Tendon-related Injuries	Report Disc Board 3	10/19 10/10
10	Oct 26	Intracranial: Concussion & Expanding Intracranial Lesions	Quiz	10/29
11	Nov 2	Spine Conditions: Cervical and Lumbar Regions	Quiz	11/5
12	Nov 9	Internal: Abdominal/Thoracic Injuries	Quiz Disc Board 4	11/12 11/14
13	Nov 16	Common Injuries of the Upper Extremity	Quiz	11/19
14	Nov 23	Common Injuries of the Lower Extremity	Quiz	11/28
15	Nov 30	Exertional Conditions: Parts 1 & 2	Quiz Disc Board 5	12/3 12/5
16	Dec 7	Dermatological & Other Medical Conditions	Quiz	12/8