

HBIO-442L: Evaluation and Rehabilitation of Athletic Injuries

Section 38504

Units: 4

Spring 2024

Lecture: Mon. 5:00-7:50pm

Location: THH 119

Instructor: Helaine Lopes, Ph.D., ATC

Office Location: PED 109

Office Hours: by appointment only

Email: lopes@usc.edu

Teaching Assistant: n/a

IT Help: consult@usc.edu

Course Description

Application of scientific principles to evaluating and rehabilitating athletic injuries. *Course Prerequisite: HBIO 301L or BISC 220*

Learning Objectives

- Identify and describe rehabilitation techniques used in rehabilitation of typical athletic injuries
- Identify and perform techniques used to evaluate typical athletic injuries
- Discuss the ethical and best possible treatment options for athletic injuries as it applies to the best outcome goals for athletes. This includes return-to-play as well as career ending goals.
- Discuss the influence of genetics and sociocultural factors on injury incidence and recovery.

Required Readings:

- **Principles of Athletic Training 17th ed.** William E. Prentice , available in Bookstore
 - Hardcover ISBN 9781260241051;
- **Rehabilitation Techniques in Sports Medicine 7th ed.** William E. Prentice, available in Bookstore.
 - Hardcover ISBN 9781630916237

Description and Assessment of Assignments:

Paper

Topic should cover injury evaluation and rehabilitation of a specific injury seen athletics. This injury must include some form of surgery. Age of individual, gender (if applicable), specific sport, level of competition, as well as incidence of injury in that particular group should be included. Discussion should include initial evaluation techniques used when injury occurred, referral and evaluation/tests by the physician pre-surgery, rehabilitation techniques, psychological concerns, nutrition concerns,

and return-to play. *Topic choice must be approved by Week 11. Must be 5-10 pages with a minimum of 5 “recent” (last 5 years) journal references with bibliography included.*

Grading Breakdown Assignment	Points	% of Grade
Exam #1	15	15
Exam # 2	15	15
Exam #3	15	15
Practical	25	25
Final Paper/Project	30	30
Total	100	100

Grading Scale: Grades will be curved.

Exams and the paper will not be given a letter grade. **Only the final course grade will be given a letter grade.** The practical examination requires you to be in limited physical contact with another student. If you have concerns, please let me know the first week of class

Additional Policies

Course Policy on Make-up Exams

A request to take a make-up exam may be granted if the student provides evidence of necessity (i.e. letter from a doctor, plane ticket if approved), before the date of the scheduled exam (unless the medical problem/emergency occurred on the day of the exam). It is the student’s responsibility to contact the professor if they have missed an exam without prior notification. The make-up exam may be different from the regular exam and may be proctored by personnel who do not have extensive knowledge in the area being tested.

Email Protocol:

You are encouraged to contact me by USC email. I normally reply to emails the same day but will reply within 24 hours as well as 48 hours over the weekend, and the workday following a holiday. I may not be able to reply during the 24 hours before an exam or assignment is due, but again, will do my best. I may not respond to emails sent from non-USC accounts, so do your best to email from your USC account. When sending an email, it is best to include in the subject line: the course number and your full name.

Technology in the Classroom

- Handouts will be provided through BB before class so that they will be available during lecture. You will receive the powerpoint after the class so that you can “fill in the blanks,” if you were unable to do so during the class lecture
- To keep the lecture moving, there may not be enough time to complete the handouts during lecture
- I encourage you to use your personal electronic device (e.g. laptop), for academic purposes directly related to the class. Those using a device for purposes not directly related to the class will be required to put the device away. I may ask for all devices to be put away to ensure focus on class activities

- Please turn off or disable all cell phones or other electronic communication devices during class time. If you have an emergency that needs to be addressed during class, please excuse yourself from the classroom.

THERE WILL BE NO RECORDINGS OF LECTURES.

Course Schedule (Lecture outline: reading assignments are in parentheses: AT-Principles of Athletic Training and RT-Rehabilitative Techniques in Sports Medicine) (pages may be updated once I receive new editions);

- 1/8 Evaluation (AT Pp. 306-369, RT Pp. 46-69)
Rehabilitation program (RT Pp. 2-17, AT Pp. 286-301):
- 1/15 Martin Luther King's Birthday
- 1/22 Psychology (RT Pp.71-92, AT, Pp.286-303)
Healing process/rehab programs (RT Pp. 18-39, AT Pp. 265-282)
- 1/29 Medication, modalities (RT Pp. 39-42, AT Pp. 388-417 & 453-474),
Concussions: MIDTERM review
- 2/5 EXAM 1
- 2/12 Range of motion/Flexibility soft tissue (RT Pp.175-193, 267-295)
Range of Motion; Articulations/joint mobilization
- 2/19 PRESIDENT'S DAY
- 2/26 Muscle Strength and Endurance: Open chain/closed chain exercises; Core Stability (RT Pp.98-121)
Neuromuscular Control/Balance (RT Pp. 122-170); Plyometrics
- 3/4 Aquatic Therapy; Functional progression/testing (RT Pp. 318-359) Midterm Review
- 3/11 SPRING RECESS
- 3/18 EXAM #2
- 3/25 Evaluation of Foot (AT Pp. 496-524) Evaluation of ankle and lower leg (AT Pp. 534-559)
Rehabilitation of foot, ankle and lower leg (AT Pp. 525-530, 560-565 RT Pp.579-4/12
Evaluation of knee (AT Pp. 569-608)
Rehabilitation of knee (At Pp. 609-614, RT Pp.526-572)
- 4/1 Evaluation of Elbow/Forearm and wrist/hand/fingers (AT Pp. 697-712, 720-744) and
Shoulder (AT Pp. 653-684)
Rehabilitation of Elbow/Forearm and wrist/hand/fingers (AT Pp. 713-717, 745-750, RT Pp.418-481) and Shoulder (AT Pp. 685-692, RT 364-411)
- 4/8 Evaluation of thigh, hip and groin; evaluation of the thorax and abdomen (AT Pp. 618-644, 842-872) Rehabilitation of thigh, and groin (RT Pp. 484-525)
Evaluation of the spine (LS, thoracic and cervical) (AT Pp. 753-791)
Rehabilitation of the spine (LS, thoracic and cervical) (AT Pp. 792-801, RT Pp. 646-687).
- 4/15 Exam #3
- 4/22 Practical Examination
- 4/29 Study Day
- 5/6 FINAL PAPER due

Statement on Academic Conduct and Support Systems

Academic Conduct:

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the [student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

Use of AI Generators

I expect you to use AI (e.g., ChatGPT and image generation tools) in this class for your final paper. Learning to use AI is an emerging skill, and I welcome the opportunity to meet with you to provide guidance with these tools during office hours or after class. Keep in mind the following:

- AI tools are permitted to help you brainstorm topics or revise work you have already written.
- If you provide minimum-effort prompts, you will get low-quality results. You will need to refine your prompts to get good outcomes. This will take work.
- Proceed with caution when using AI tools and do not assume the information provided is accurate or trustworthy. If it gives you a number or fact, assume it is incorrect unless you either know the correct answer or can verify its accuracy with another source. You will be responsible for any errors or omissions provided by the tool. It works best for topics you understand.
- AI is a tool, but one that you need to acknowledge using. Please include a paragraph at the end of any assignment that uses AI explaining how (and why) you used AI and indicate/specify the prompts you used to obtain the results what prompts you used to get the results. Failure to do so is a violation of academic integrity policies.
- Be thoughtful about when AI is useful. Consider its appropriateness for each assignment or circumstance. The use of AI tools requires attribution. You are expected to clearly attribute any material generated by the tool used.]
- Please ask me if you are unsure about what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

Course Content Distribution and Synchronous Session Recordings Policies

USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the internet, or via any other media. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Course Evaluations

Course evaluation occurs at the end of the semester university-wide. It is an important review of students' experience in the class and the professor can use this evaluation for future classes. There will be an "open" period for each student to submit their evaluation. Your professor will let you know when "evaluation" period starts and you will be expected to complete the evaluation in a timely manner.

Students and Disability Accommodations

USC welcomes students with disabilities into all of the University's educational programs. [The Office of Student Accessibility Services](#) (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

[*988 Suicide and Crisis Lifeline*](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity, Equity and Inclusion](#) - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or otfp@med.usc.edu

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.