

Tissue Injury & Repair

HPHY 362 – M-F 10:00-11:50

Summer 2007

Eric Sorenson, MS, ATC

Email: esorens1@uoregon.edu

Mailbox: Human Physiology office

Office Hours: by appointment only

Content Objectives:

Topics:

1. *Injury theory* – Why are tissues damaged and what types of loads result in injury?
2. *Tissue response to injury* – What physiological mechanisms initiate injury healing and allow tissues to return to normal structure/function?
3. *Common pathologies* – An exploration of the etiology and outcomes of common orthopedic injuries.
4. *Orthopedic assessment* – What techniques are available for evaluating an injury? What information is critical for an accurate assessment?
5. *Therapeutic strategies & rationale* – A conversation about the basics of injury management will follow each category of orthopedic injury, when appropriate.

Learning Objectives:

- Ability to recognize the mechanism of injury associated with various orthopedic injuries.
- Ability to identify and properly refer orthopedic pathologies.
- Development of palpation skills.
- Skillful and professional use of orthopedic special tests for assessing injury.
- Ability to explain the physiological processes of injury and repair in a professional manner, both verbally and written.

- Development, use and manipulation of collaborative work environments (course wiki and del.icio.us bookmarking tools) to enhance learning and share knowledge with your peers.
- Enhance critical review of web pages for professional use.
- Ability to utilize the key principles of digital citizenship.

Course Prerequisites: This course is designed as a 300-level course, which is going to build upon the foundational information acquired during Anatomy lecture and lab. An understanding of anatomical terminology and structures are necessary to be successful in this course.

Readings:

1. Starkey & Ryan - **“Orthopedic and Athletic Injury Evaluation”** - F.A. Davis Company
2. Online resources will be chosen by students for each topic and posted to the course’s **del.icio.us** website. Each student is responsible for contributing to the acquisition of online content. Each resource should be carefully selected to ensure high quality information and images.

Course links:

1. Please visit ‘Course Information’ on the course blackboard site for all relevant course links and passwords.

An optimal learning environment would include the following:

- Instructors come to each class session organized and enthusiastic to facilitate student learning.
- Students come prepared intellectually with pre-class readings/assignments complete.
- Students display a high level of information acquisition, synthesis and collaboration on the course’s wiki and del.icio.us website.
- Students come dressed for lab. Attire should be loose fitting and allow access to the skin.
- Instructors and students come awake and ready to participate. The material presented in this course will be applicable for future careers and day-to-day activities!

Grading:

Wiki contributions	25%
Del.icio.us contributions	5%
Inflammation & Pain exam	15%
Midterm practical exam – practical	15%
Final exam (cumulative) – practical	25%
Special topic podcast	15%

* Each of the above sections must receive a 65% or better to pass the overall class. All sections that do not receive a 65% or better must be retaken OR an alternate assignment will be arranged in place of the section at the discretion of the instructor.

Wiki contributions (25%) – Each wiki contribution will include a *creation portion* and an *editorial portion*. During the creation portion, students will acquire, organize, develop and produce content related to a concentrated region of orthopedic injury assessment. This content will be posted to the course wiki where it will be viewed and edited by peers in the course. Please ensure that each assignment is written professionally (grammar, spelling, citations, etc) and posted to the course wiki in the appropriate location. All wiki contributions will be graded based upon a thorough coverage of the material, proper writing skills and the style of the presentation. Assignments will be graded “as-is” on the due date/time.

* Please see the grading rubric for a more detailed list of assignment expectations.

* Note! This material will be available for general public access, and therefore, special consideration should be made to produce high quality work and properly cite all information that is developed from other resources.

Del.icio.us contributions (5%) – The course del.icio.us account will be used to develop an online library of web pages and related material. Each contribution should be appropriately ‘tagged’ in order to indicate the poster’s name and related content area (ex: ankle, knee, etc). Furthermore, each contribution should be carefully screened to ensure high quality, unbiased information that adds to our professional library.

Inflammation & Pain Exam (15%) – This exam will be used to assess an understanding of the physiological processes of tissue injury and repair.

Practical Mid-term (15%) and Final Exam (25%) – Each exam will include all knowledge and practical skills discussed prior to the date of the exam. Practical assessments will cover hands-on skills and related cognitive knowledge that is covered on the course wiki. An exam focus sheet will be provided prior to each exam for review purposes. The final exam will be cumulative.

Special topic podcast (15%) – Each student will produce a unique special topic podcast that covers an in-depth topic area related to orthopedic injury and repair. Topics areas may include prevention strategies, surgical techniques for injury care/tissue repair, pharmacological interventions, injury rehabilitation protocols, etc. Each special topic must be cleared by the course instructor and posted to the course wiki for the class to view. No two students will be allowed to use the same topic for their podcast.

Academic Policies:

“All work submitted in this course must be your own and produced exclusively for this course. The use of sources (ideas, quotations, paraphrases) must be properly acknowledged and documented. For the consequences of academic dishonesty, refer to the Schedule of Classes published quarterly. Violations will be taken seriously and are noted on student disciplinary records.”

- University of Oregon Student Judicial Affairs Program

“If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with me soon. Please bring a notification letter from Disability Services outlining your approved accommodations.”

- University of Oregon Disability Services

Tentative Schedule:

Week 1

Mon	Introduction of course, Web resource tutorial
Tues	Injury theory, Inflammation & Pain – Videos
Wed	Continue Injury theory, Inflammation & Pain – Bowerman
Thurs	Injury Evaluation Process lab – Ch. 1 – Bowerman
Fri	Injury theory, Inflammation & Pain Exam

Week 2

Mon	Begin Lower Extremity (LE) Wiki – ITC classroom
Tues	LE lab – foot, ankle & leg – Bowerman
Wed	4 th of July – No class!
Thurs	LE lab – knee – Bowerman LE Wiki Creation Due @ 4pm
Fri	LE lab review – Bowerman

Week 3

Mon	LE lab Exam – group 1 – Bowerman LE Wiki Edits Due @ 4pm Begin Upper Extremity (UE) Wiki
Tues	LE lab Exam – group 2 – Bowerman Begin Upper Extremity (UE) Wiki
Wed	UE wiki – ITC classroom
Thurs	UE lab – shoulder – Bowerman UE Wiki Creation Due @ 4pm
Fri	UE lab – shoulder, elbow, wrist & hand – Bowerman

Week 4

Mon	Begin Head, Neck, Spine, Abdomen & Thorax (HNSAT) Wiki – ITC classroom UE Wiki Edits Due @ 4pm
Tues	HNSAT lab – Bowerman
Wed	Review day – Bowerman HNSAT Wiki Due @ 4pm
Thurs	Final Exam – group 1 – Bowerman
Fri	Final Exam – group 2 – Bowerman Special Topic Podcast Due @ 12noon

***** All dates are subject to change based upon the discretion of the instructor & class *****