

department
of human physiology 
University of Oregon

Course Name

HPHY 362 Tissue Injury & Repair_Fall 2014

Time & Location

Lecture: 8:30-9:50 Tues/Thrs, 101 LLCS

Laboratory: SRC 6

Instructor: Grace M. Golden, PhD, ATC, CSCS,

Office: 207 Bowerman

Office Hours: Monday 10am-11:30pm, Thursday 10-11:30am,
or by appointment

Phone: 541-346-4286

E-mail: graceg@uoregon.edu

Notes: *Best contact is via email. I generally try to respond to email within 24 hrs M-F. Weekend correspondence is dependent upon availability.*

Laboratory Instructors:

Best contact method is via email for all lab instructors.

M 10am: Stephen Creamer, ATC screamer@uoregon.edu

U 10am: John Badagliacco, ATC jbadagl5@uoregon.edu, Blaire Buckley, ATC bbuckle3@uoregon.edu

U 12pm: Tyler Sylvester, ATC tcs2@uoregon.edu, Jackson Smidt, ATC jsmidt@uoregon.edu

W 10am: Tanner Flatland, ATC tflatlan@uoregon.edu, Eileen Bennett, ATC eileenb@uoregon.edu

H 12pm: Leyla Kuz-Dworzak, ATC leylak@uoregon.edu, Jackson Smidt, ATC jsmidt@uoregon.edu

F 8am: Natalie Morales, ATC nmorale2@uoregon.edu, Eileen Bennett, ATC eileenb@uoregon.edu

Pre-requisite

HPHY 323 and 324 or equivalent

Coursework/Training:

This course is designed as a 300 level course, which will build upon the foundational information acquired during anatomy lecture and lab in addition to physiology. An understanding of anatomical terminology and structures as well as a foundation of physiological mechanisms of blood flow are necessary to be successful in this course.

Required Resources:

- Textbook: Starkey C., Ryan J. Evaluation of Orthopedic and Athletic Injuries. 3rd Edition. FA Davis, Philadelphia PA. 2010
- Lecture notes and additional reference materials will be provided for student use on Blackboard (blackboard.uoregon.edu).
- Assigned readings are outlined by topic and date on the course calendar/itinerary.

Course

Description:

Exploration of the physiology of injury and trauma. Emphasis on inflammation and healing of connective tissue injury as well as therapeutic strategies and rationale.

- Injury theory: what types of loads result in injury and why tissues are damaged
- Tissue response to injury- what physiological mechanisms initiate tissue healing and allow tissues to return to normal structure/function
- Common pathologies- an exploration of the etiology and outcome of common orthopedic injuries
- Orthopedic assessment- what techniques are available for evaluating an injury. What information is critical for accurate assessment
- Injury prevention- what tools do we have to evaluate movement in order to identify dysfunctional patterns that may lead to injury.

Course Learning Objectives:

- Students will demonstrate ability to understand the physiological processes of tissue injury and repair.
- Students will properly utilize foundational knowledge of functional anatomy to evaluate orthopedic injuries.

- Students will learn to conduct an injury evaluation using the fundamental principles of HOPS.
- Students will demonstrate ability to recognize the mechanism of injury associated with various orthopedic injuries.
- Students will develop palpation skills.
- Students will develop skillful orthopedic assessment special testing skills for assessing injuries.
- Students will develop clinical reasoning skills based upon findings of musculoskeletal evaluation.

Grading Criteria:

This course relies on coordinated assessment and determination of final grade through participation in lecture and lab oral practical examinations. The following details the weight that each of these areas will be assigned for this course.

Component	Weight
Written Lecture Midterm Examination	20%
Oral Practical Laboratory Midterm Examination	20%
Written Lecture Final Examination (Cumulative)	26%
Practical Laboratory Final Examination (Cumulative)	10%
Preparatory Quizzes (Best 6 of 7 @ 4% each)	24%
Total	100%

- Written examinations: each exam will include all information discussed prior to the examination date. Format is multiple-choice. Instructor will provide scantrons.
- Oral practical examinations: will be conducted during the lab time and will include all information discussed prior to the examination date. The **honor code** will be strictly enforced during this examination period.
- Quizzes are intended to introduce, assess and/or review fundamental knowledge of a topic prior to class lecture/lab. These include on-line blackboard with specific due dates. **You will be provided opportunity to drop your lowest quiz score with the cumulative 24% weighted to your grade from quiz scores resourced from 6 of the 7 quizzes. Make-ups are not allowed so pay close attention to due-dates!**

Grading Scale

Grade assignment will be based upon a percentage basis of total possible weighted points and is in accordance to the University of Oregon grade reporting system, which recognizes +/- final grades.

A+	97.0-100%
A	93.0-96.99%
A-	90.0-92.99%
B+	87.0-89.99%
B	83.0-86.99%
B-	80.0-82.99%
C+	77.0-79.99%
C	73.0-76.99%
C-	70.0-72.99%
D	60.0-69.99%
F	59.99% and below

Please note, per our HPHY department policy, D+ and D- grades are no longer awarded.

Course Policies:

- Active participation in lecture and lab experiences facilitates learning for all students. Students are strongly encouraged to come to class prepared by having studied the assigned readings.
- For laboratory sections, students are **required** to come dressed appropriately: loose fitting, comfortable, allowing access to skin for palpation/examination/special tests
- Advanced notification of absence that will potentially interfere with assignment due dates and testing dates

must be provided **48hrs** in advance in order to be excused, including University approved absence. Unexpected illness will be confirmed through appropriate University personnel.

- Any changes in the course outline are at the discretion of the instructor and will be announced in class. If you are absent and miss the announcement you are still responsible for the information.
- *Any student who allows their cellular telephone or other electronic device to activate during a formal class period [lecture, lab, examination or otherwise] will experience a 5% loss in their final grade for each occurrence.*
- Confine computer use in lecture for course related activities only. Computers will not be allowed during examination sessions. Failure to adhere to this policy may result in loss of in class computer privilege.
- **EXPECTATIONS REGARDING STUDENT CONDUCT:** The goal of the University of Oregon is to provide students with the knowledge, skill and wisdom they need to contribute to society. Our rules are formulated to guarantee each student's freedom to learn and to protect the fundamental rights of others. People must treat each other with dignity and respect in order for scholarship to thrive. Behaviors that are disruptive to teaching and learning will not be tolerated, and will be referred to the Student Conduct Program for disciplinary action. Behaviors that create a hostile, offensive or intimidating environment based on gender, race, ethnicity, color, religion, age, disability, marital status or sexual orientation will be referred to the Affirmative Action Office.

Students with Disabilities

The University of Oregon is working to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in disability related barriers to your participation, please notify me as soon as possible. You are also encouraged to contact the Accessible Education Center (formerly Disability Services) in 164 Oregon Hall at 346-1155 or uoac@uoregon.edu

Academic Integrity

If plagiarism or cheating is suspected, you will be contacted by the HPHY Conduct Officer who will assess the situation and determine the appropriate consequence which can range from an F on an assignment to an F in the course. The situation will also be reported to the Office of Student Conduct and Community Standards. To protect yourself please carefully read the following quotation from the [Office of the Dean of Student's Academic Dishonesty Policy](#) (<http://uodos.uoregon.edu/StudentConductandCommunityStandards/AcademicMisconduct>)

"Plagiarism is the inclusion of someone else's product, words, ideas, or data as one's own work. When a student submits work for credit that includes the product, words, ideas, or data of others, the source must be acknowledged by the use of complete, accurate, and specific references, such as footnotes. Expectations may vary slightly among disciplines. By placing one's name on work submitted for credit, the student certifies the originality of all work not otherwise identified by appropriate acknowledgements. On written assignments, if verbatim statements are included, the statements must be enclosed by quotation marks or set off from regular text as indented extracts.

Unauthorized collaboration with others on papers or projects can inadvertently lead to a charge of plagiarism. If in doubt, **consult the instructor** or seek assistance from the staff of Teaching and Learning Center (68 PLC, 346-3226). In addition, it is plagiarism to submit as your own any academic exercise (for example, written work, printing, computer program, art or design work, musical composition, and choreography) prepared totally or in part by another. Plagiarism also includes submitting work in which portions were substantially produced by someone acting as a tutor or editor."

In this course: 1) It is not acceptable to give or receive help on a graded assignment unless explicitly granted in writing by your instructor. 2) It is not acceptable to copy anything word for word from any source without citing the work with quotations and providing the source of the information. 3) Rephrasing, paraphrasing, reordering of words and anything added to a graded assignment that is not entirely the student's own work, without appropriate citations, is considered plagiarism.

Course Calendar: HPHY 362_F2014

Week	Date	Topics & Assignments	Readings & Reminders**
1	9/30	Introduction to course. Injury Theory and Adaptation	
	10/2	Physiology of Inflammation	Starkey pdf (Therapeutic Modalities C-1, Bb)
	LAB	No lab this week!	
	Quiz 1	<i>Evaluation Process, HOPS systems, C1-2 (Ed.3)</i>	Due by Sun 10/5 @ 11:59pm
2	10/7	Physiology of Inflammation Continued	Smith pdf (Bb)
	10/9	Tissue Repair	
	LAB 1	<i>Introduction to Evaluation Process, HOPS system</i>	C1-2
	Quiz 2	<i>Foot, Ankle, Leg C8, 9</i>	Due by Sun 10/12 @ 11:59pm
3	10/14	Pain Theory	Aronson pdf (Bb)
	10/16	Tissue Biomechanics	C-4, Woo pdf (Bb)
	*LAB 2	<i>Foot, Ankle and Leg</i>	C-8,9
	Quiz 3	<i>Knee C10,11</i>	Due by Sun 10/19 @ 11:59pm
4	10/21	Tissue Biomechanics Continued	
	10/23	Foot and Toe Injuries, <i>Blueprint Study Guide Example`</i>	C-8
	*LAB 3	<i>Knee</i>	C-10,11
	Quiz 4	<i>Pelvis, Thigh, Lumbar Spine C12,13</i>	Due by Sun 10/26 @ 11:59pm
5	10/28	Ankle and Leg Injuries Knee	C-9
	10/30	Midterm Written Examination	Weeks 1-4
	*LAB 4	<i>Pelvis and Thigh, Lumbar Spine</i>	C-12,13
	Quiz	No Quiz this week-	
6	11/4	Knee	C-10,11
	11/6	Knee Continued	
	*LAB 5	<i>Cervical Spine, Practice for OP Exam</i>	C-14
	Quiz 5	<i>Cervical Spine and Shoulder C14,16</i>	Due by Sun 11/9 @ 11:59pm
7	11/11	Pelvis and Thigh	C-12
	11/13	Lumbar Spine	C-13
	*LAB 6	<i>Shoulder, Sign-up & Review for Midterm OP Exam</i>	C-16
	Quiz	No Quiz this week- practice/study for OP Exam!!	
8	11/18	Cervical Spine	C-14
	11/20	Shoulder	C-16
	*LAB 7	Midterm Oral Practical Examination	Content: Weeks 3-5
	Quiz 6	<i>Review (questions from lecture/notes)</i>	Due by Sun 11/23 @ 11:59pm
9	11/25	Shoulder Cont'd	
	11/27	No class due to Thanksgiving Holiday	
	LAB	No lab due to Thanksgiving Holiday	
	Quiz 7	<i>Elbow, Forearm C17, Wrist, Hand and Fingers C18</i>	Due by Sun 11/30 @ 11:59pm
10	12/2	Elbow	C-17
	12/4	Wrist, Hand and Fingers, <i>Blueprint Study Guide</i>	C-18
	*LAB 8	<i>Elbow, Wrist, Hand and Fingers,</i>	C-17,18
11	12/8	Final Written & Practical Examinations, Monday @ 8:00am (do not ask to take earlier/change schedule- make your holiday travel plans appropriately!)	Cumulative

*Note: for all labs please wear/bring: shorts and a tank top

HPHY 362 Fall 2014
Topics at a View_Lab vs. Lecture

Week:	1	2	3	4	5	6	7	8	9	10	11
Lab	No Lab	How to perform and injury evaluation: HOPS Protocol	Foot, Ankle, Leg Evaluation	Knee Evaluation	Pelvis, Thigh, Lumbar Spine Evaluation	Cervical Spine Evaluation	Shoulder Evaluation	Oral Practical Examination	No Lab, Thanksgiving Holiday	Elbow, Forearm, Wrist, Hand and Fingers Evaluation	No lab
Quiz <i>(always due the Sunday of the week posted)</i>	#1 Injury Evaluation Procedures	#2 Prep for Foot, Leg, Ankle	#3 Prep for Knee	#4 Prep for Pelvis, Thigh, and Lumbar Spine	None	#5 Prep for Cervical Spine and Shoulder	None	#6 Review, lecture material	#7 Prep for Elbow, Forearm, Wrist, Hand and Fingers	None	None
Lecture	Adaptation and Injury Theory, Physiology of Inflammation	Physiology of Inflammation, Tissue Repair,	Pain Theory, Tissue Biomechanics	Tissue Biomechanics Injuries to Foot, Toes,	Injuries to Ankle and Leg Midterm Exam	Injuries to the Knee	Injuries to the Pelvis and Thigh Lumbar Spine Injuries	Injuries to Cervical Spine, Shoulder Injuries	Shoulder Continued.	Injuries to Elbow, Wrist, Hand and Fingers	Final Practical and Written Final Exam (Monday Dec. 8 th @ 8am)