

Athletic Training Seminar: Evidence Based Clinical Practice and Research
HPHY 607_ Fall 2014_2 credits
Monday, 12:00-12:50am, 132 ESL

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

Office: 207 Bowerman

Office Hours: Summer: By appointment and then 10-11:30 Mon and Thrs. during the regular term or by appointment

Phone: 346-4286 (office)

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.*

Adjunct Instructors:

Stephanie Brooks MS, ATC/R: slb@uoregon.edu

Tom Embree MS, ATC/R: tembree@uoregon.edu

Heather Halseth MS, ATC/R: hgarris@uoregon.edu

Travis Halseth, MS, ATC/R: thalseth@uoregon.edu

Clay Jamieson, MS, ATC/R: cjamiesn@uoregon.edu

Molly Wheatley, RD, LD: mollyw@uoregon.edu

Tori Noda MS, ATC/R, CSCS: tnoda@uoregon.edu

Greg Skaggs MD: gskaggs@uoregon.edu

Kim Terrell MS, ATC/R: kterrell@uoregon.edu

Annie Zeidman-Karpinski, MLIS: annie@uoregon.edu

Pre-requisite Coursework/Training: None. Enrollment in Graduate Athletic Training Program

Required Resources:

1. Accessibility to Blackboard for course materials
2. Computer access and software: You will need regular access to a computer in this course. You will also require the following software: a web-browser (ex: Firefox, Explorer), and Adobe Reader.

Course Description:

The first phase of the course requires students to attend advanced skills training sessions three times per week as part of the September Clinical Experience Program. Students can expect to spend two or more hours per week in preparation for each week's classes by completing assigned reading. The remainder of the course will be conducted during fall term, meeting 1x per week. Students are expected to be prepared and actively engaged in discussion during all class sessions.

Course Expectations:

This course will heavily rely on student interaction and participation in small and large group discussion. Students are also encouraged to further explore course content with their peers and clinical supervisors outside of the classroom.

Graduate Athletic Training Program Objectives:

Overarching Objectives:

At the conclusion of this course you will be able to:

1. Constructively self-evaluate regarding your strengths and weaknesses as a clinician.
2. Effectively implement advanced skills into your clinical practice.
3. Constructively evaluate scientific literature using critical thinking skills
4. Demonstrate integrity in professional communication, clinical decision making and behavior, and scholarly activity.
5. Facilitate creative solutions to clinical problem solving.

September Clinical Skills Experience Objectives:

At the conclusion of this course you will be able to:

1. Describe a concussion management program that includes baseline neuro-psychological testing, clinical assessment, medical referral, follow up testing, and return to play progressions.
2. Explain the signs/symptoms which necessitate referral to a physician for common illness/infection.
3. Explain the physiological principles of strain/counterstrain.
4. Explain the physiological principles of Muscle Energy Technique.
5. Perform basic Muscle Energy technique on the musculoskeletal system.

6. Describe how nutrition can affect an athlete's recovery following injury.
7. Describe and implement the five basic principles of Pilates.
8. Describe the purpose and application of a movement screen.
9. Instruct an athlete to perform movement screen components (DART).
10. Perform scoring of a movement screen.

Course Learning Objectives:

Research and Evidence Based Clinical Practice

At the conclusion of this course you will be able to:

1. Embrace critical-thinking skills necessary for the application of evidence-based clinical practice/medicine.
2. Perform a comprehensive search of the literature on a specific athletic training topic, utilizing a variety of methods.
3. Identify the existence of strong inference in research manuscripts.
4. Utilize the critical-thinking skills you've obtained to aid your identification of a question of interest related to a thesis topic.

Grading Criteria:

To earn a "Pass" in this course, participants must

1. Be in attendance every class ready to contribute to the day's activities. Please contact Grace if you have a conflict with class, or you are ill.
2. Submit your Appraisal of Learning via E*value by the Friday of the 10th week of Fall term.
3. Complete Human Research Curriculum via the CITI Collaborative Institutional Training Initiative (this coursework is done on-line and is necessary in order to submit IRB protocols) Website: <https://www.citiprogram.org/>

Assignments:

1. Weekly readings, including 2 or more research articles
 - a. Each student will be required to lead one group discussion (presentation) over the term, interpreting 2 or more research articles and identifying the presence of strong inference, how the information can be incorporated into clinical practice, and further directions for research on the particular topic.

Format for presentation (Evidence Based Clinical Practice and Research):

 1. Identify important background research related to strong inference.
 2. Identify purpose of study and question of interest.
 3. Identify how methods of study helped investigate question of interest/purpose of study.
 4. Discuss results and how they can be utilized relative to evidence based clinical practice.
 5. Note: everyone reads and synthesizes weekly articles (be prepared to discuss).

Course Examinations: None

Course Policies

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 uoaec@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) (<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 607 _September Clinical Experience_ 2014 Course Outline:

Session	Topics
1 (Mon 9/8)	A. General Health Evaluation Skills (Dr. Skaggs) 5:30pm B. Concussion Management Plan (Dr. Skaggs)- [included during orientation week] C. Muscle Energy Techniques (Tori Noda) 7:00pm
2 (Wed 9/10)	A. Active Release Technique (Heather Halseth) 6:00pm B. Movement Screen Assessment (Stephanie Brooks, Clay Jamison) 7:00pm
3 (Sun 9/14)	A. Pilates (Kim Terrell) 12:30pm
4 (Mon 9/15)	A. Strain/Counterstrain (Tom Embree) 6:00pm B. Nutrition (Molly Wheatley) 7:00pm
5 (Wed 9/17)	A. Facilitated Stretching (Grace Golden) 6-7:30pm

HPHY 607 _Evidence Based Clinical Practice and Research_ Fall 2014 Course Outline:

Week	Topic/Readings
1	Strong Inference: -Platt, JR. Strong Inference. Science, 146(3642): 347-351 (1964) -Forscher, BK. Chaos in the Brickyard, Science, 142(339), (1963) -Biddle, S. Chaos in the Brickyard Revisited, J of Sport Sciences, 15: 383-384, (1997)
2	Orientation to Library Resource and refining your literature searching skills (bring your laptop!, complete assignments in Bb prior to class) Annie Zeidman-Karpinski, UO Libraries: Human Physiology Reference Librarian (confirmed)
3	Evidence Based Clinical Practice: -Grol R, Wensing M. What drives change? Barriers to and incentives for achieving evidence-based practice. Med J of Aust, 180:S57-S60, (2004) -Scalzitti DA. Evidence-Based Guidelines: Application to Clinical Practice. Phy Therapy, 81(10):1622-1628, (2001) -Steves, R, Hootman, JM. Evidence-Based Medicine: What is it and How Does it Apply to Athletic Training? J of Athl Trng, 39(1):83-87, (2004)
4	Application of Strong Inference -Golden et al. Knee Joint Kinematics and Kinetics During a Lateral False-Step Maneuver, J Ath Trng, 44(5):503-510, (2009) -Golden et al. Investigation of the biomechanics of running and rapid change-of-direction tasks, Dissertation, Oregon State University, 2007

5	<p>Disablement Models in Athletic Training:</p> <p>-Snyder AR, et al. Using Disablement Models and Clinical Outcomes Assessment to Enable Evidence-Based Athletic Training Practice, Part 1: Disablement Models. <i>J of Athl Trng</i>, 43(4):428-436, (2008)</p> <p>-McLeod TC, et al. Using Disablement Models and Clinical Outcomes Assessment to Enable Evidence-Based Athletic Training Practice, Part 2: Clinical Outcomes Assessment. <i>J of Athl Trng</i>, 43(4):437-445, (2008)</p> <p>-Sauers EL, et al. Practice-Based Research Networks, Part I: Clinical Laboratories to Generate and Translate Research Findings into Effective Patient Care. <i>J Athl Trng</i>, 47(5):549-556, (2012)</p>
6	<p>Student Presentation:</p> <p>-Fredericson M, et al. Hip Abductor Weakness in Distance Runners with Iliotibial Band Syndrome. <i>Clin J of Sp Med</i>, 10:169-175, (2000)</p> <p>-Noehren B, Davis I, Hamill J. Prospective study of the biomechanical factors associated with iliotibial band syndrome. <i>Clin Biom</i>, 22:951-956, (2007)</p>
7	<p>Student Presentation:</p> <p>-Cools AM, et al. Rehabilitation of Scapular Muscle Balance: Which Exercises to Prescribe: <i>Am J of Sports Med</i>. 35(10): 1744-1751, (2007)</p> <p>-De Mey K, et al. Kinetic Chain Influences on Upper and Lower Trapezius Muscle Activation During Eight Variations of a Scapular Retraction Exercise in Overhead Athletes. <i>J Sci and Med in Sport</i>. 16:65-70 (2013)</p> <p>-Cools AM, Cambier D, Witvrouw EE. Screening The Athlete's Shoulder for Impingement Syndromes: A Clinical Reasoning Algorithm for Early Detection of Shoulder Pathology. <i>Br J Sports Med</i>. 42:628-635; (2008) <i>For your library</i></p>
8	<p>Student Presentation:</p> <p>-Irrgang JJ, et al. Development and Validation of the International Knee Documentation Committee Subjective Knee Form. <i>Am J Sports Med</i>, 29(5):600-613, (2001)</p> <p>-Irrgang JJ, et al. Responsiveness of the International Knee Documentation Committee Subjective Knee Form. <i>Am J Sports Med</i>. 34(10):1567-1573, (2006)</p>
9	<p>Student Presentation:</p> <p>-Peeler JD, Anderson JE. Reliability of the Thomas Test for Assessing Range of Motion About the Hip. <i>Phy Ther in Sport</i>, 8(1):14-21, 2007</p> <p>-Ferber R, Kendall KD, McElroy L. Normative and Critical Criteria for Iliotibial Band and Iliopsoas Muscle Flexibility. <i>J of Athl Trng</i>, 45(4):344-348, (2010)</p>
10	<p>Student Presentation:</p> <p>-Bergeron MF. Muscle Cramps During Exercise- Is it Fatigue or Electrolyte Deficit. <i>Curr. Sports Med. Rep.</i>, 7(4);S50-S55, (2008)</p> <p>-Horswill CA et al. Sodium Balance During US Football Training in the Heat: Cramp-Prone vs. Reference Players. <i>International J of Sports Med</i>. 30(11)789-794, (2009)</p> <p>-Braulick KW, et al. Significant and Serious Dehydration Does Not Affect Skeletal Muscle Cramp Threshold Frequency. <i>Br J Sports Med</i>. 47(7);710-714, (2013)</p> <p>-Miller KC, et al. Three Percent Hypohydration Does Not Affect Threshold Frequency of Electrically Induced Cramps. <i>Med Sci Sports Exerc</i>. 41(11): 2056-2063, (2010) <i>(Pending)</i></p>
11	<p>Research or Manuscript Brainstorming Session (AT faculty and staff included)</p>

Notes: Provide a copy of CITI training by Friday of week 10 (more details during the term)