

College of Public Health & Health Professions
Course Syllabus

OTH 3413 Applied Kinesiology
Spring Semester 2015
Course e-learning website located at <http://lss.at.ufl.edu/>

INSTRUCTOR INFORMATION:**COURSE INSTRUCTOR**

Mrs. Emily Sorgius, MOT, OTR/L:

Phone: 273-6128 (Thursdays only)

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Office hours: By appointment

GUEST LECTURER

Mrs. Wendy Holt, OTR/L, CHT:

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Office: HPNP 2162

Office Hours: By appointment

MEETING TIMES:

	<u>Day</u>	<u>Time</u>	<u>Location</u>
<u>Lecture:</u>	Thursdays	4:05pm – 7:05pm	G101

Course Overview and Purpose:

The purpose of this course is to explore human movement during performance of activities, especially the geometry of movement (kinematics) and the forces influencing movement (kinetics). This course will focus on applying an understanding human movement in a manner that is foundational for future studies in rehabilitation.

Course Objectives:

This course partially meets two standards of the Education Standards for the American Council for the Accreditation of OT education (ACOTE). The student will:

- B.1.4 Demonstrate knowledge and understanding of the structure and function of the human body to include the biological and physical sciences. Course content must include, but is not limited to, biology, anatomy, physiology, neuroscience, and kinesiology or biomechanics.
- B.2.6 Analyze the effects of physical and mental health, heritable diseases and predisposing genetic conditions, disability, disease processes, and traumatic injury to the individual within the cultural context of family and society on occupational performance.

More specifically, at the conclusion of this course the successful student will be able to:

1. Define and describe basic kinesiological concepts (e.g., planes/axes of movement, types of joint movements, levers, how muscles function, etc)
2. Identify the major muscles of the body and explain their primary contributions to movement
3. Acquire basic knowledge of how a goniometer is utilized to measure joint angles
4. Define and describe basic concepts and terminology relating to posture, balance, lifting, reaching, grasping and walking.
5. Analyze an individual's performance of a given activity as evidenced by correctly:
 - a. describing the movement(s) occurring at joints throughout the body
 - b. describing the types of muscle contractions occurring during movement
 - c. identifying the muscular agonist(s), antagonist(s) and synergist(s) contributing to the movement
6. Analyze a given activity as evidenced by correctly:
 - a. identifying the movement(s) necessary to perform the activity
 - b. describing the types of muscle contractions necessary to perform the activity
 - c. identifying the muscular agonist(s), antagonist(s) and synergist(s) necessary to perform the activity
7. Compare and contrast "normal" human movement to "abnormal" movement caused by selected pathological conditions.

Course Materials:

Required Text: **Kinesiology: The Skeletal System and Muscle Function**, 2nd Edition, 2011
 Author: Joseph E. Muscolino, ISBN: 978-0-323-06944-1

Required reading/other course materials (powerpoint presentations, pictures, etc.) will be posted on e-Learning for each class. The e-Learning website is located at: <http://lss.at.ufl.edu/>

Course Requirements/Evaluation/Grading:

Assignments and Exams:

	Points	Approx % of grade
Applied Experience Assignment 1	75	13.5%
Applied Experience Assignment 2	75	13.5%
Exam 1	120	22%
Exam 2	120	22%
Exam 3	160	29%
Total	550 points	100 percent

Description of and Dates for Assignments and Exams:

- **Applied Experience Assignments:** There will be two assignments associated with the "applied experiences." The purpose of these assignments is to provide the opportunity for you to practice using course material in a "real life" manner. Specifically, these assignments are intended to help you see the connection between the course material and its clinical application. On these days we may use relevant client video footage and/or have a client physically visiting class. Your assignment will be to use kinesiological terminology and concepts (learned via lectures and readings) to describe the person's ability (or inability) to perform specific movement tasks. The ability to describe movement is a foundational skill for occupational and physical therapists. The week prior to the applied experience, students will be provided (via e-Learning course website) with a sample version of what the assignment will look like, minus the specifics of the actual client to be analyzed. Students will be responsible for becoming familiar with the sample in

order to prepare for the assignment as notes or conversations with classmates will not be allowed during that class period. Assignment 1 (1/29) will be due at the end of the corresponding class period and Assignment 2 (3/12) will be due upon its conclusion, as the remainder of class that day will continue with scheduled lecture material.

- **Exams 1 and 2:** These exams (given on 2/5, and 3/19), will cover the lecture and reading materials preceding each exam and consist primarily of multiple choice and short answer questions. See the class schedule for specific information regarding what will be covered for each exam.
- **Exam 3:** This exam (given on 4/16) will be partly a comprehensive exam because “real life” clinical practice requires a comprehensive knowledge of full-body kinesiology. It will also include the material covered on gait and the lower extremity. This exam will take into account your ability to analyze movement processes based on the kinesiology terms you have learned throughout the course and apply them to every day scenarios. Exam questions may be short answer and/or multiple choice questions. Further details regarding this exam will be provided closer to the time of the exam.

Grading Scale: The class grading scale will be strictly based on the point system below, each listed with a corresponding percentage range:

GRADE	POINTS	PERCENT
A	511.5 – 550	93 – 100
A-	495.0 – 511.4	90 – 92
B+	478.5 – 494.9	87 – 89
B	456.5 – 478.4	83 – 86
B-	440.0 – 456.4	80 – 82
C+	423.5 – 439.9	77 – 79
C	385.0 – 423.4	70 – 76
D+	368.5 – 384.9	67 – 69
D	346.5 – 368.4	63 – 66
D-	330.0 – 346.4	60 – 62
E	≤ 329.9	0 – 59

Topical Outline:

See course schedule included at end of syllabus.

Class Demeanor Expected by the Instructors:

Preparation for class: Students are expected to read the assigned chapters/pages in the text and material provided on e-Learning prior to class.

Class behavior: Students are expected to behave in a professional manner with all aspects of this class. Expected professional behaviors include:

- **Being on time** for class and staying until class is dismissed. Chronic late arrive-ers will be invited to discuss professional behavior in a 1:1 meeting with the Course Instructor, as this is a disruption not only to the instructor but also to the other students in the class.
- **Being courteous** in lecture by refraining from chatter or other distracting behaviors. For example, cell phones and pagers should be turned OFF. If using a laptop, it should not be used

for anything other than accessing course material. No other materials should be read or accessed during class (i.e., the newspaper, crossword puzzles, Facebook or non-course related websites, etc.). Those noted to be distracting to the Course Instructor or other classmates for the above reasons will be asked to leave class.

- **Being professionally dressed when/if a guest is in class.** To show respect for the guests who have graciously volunteered their time, and because your demeanor reflects on the university, college and our profession, professional dress is expected when/if we host a guest for an applied experience assignment. You will be informed ahead of time if we are to have a guest in class. Professional dress is defined as: khaki/dress pants (no jeans) and a nice shirt (e.g., polo shirt or blouse). Pants should not reveal underwear in any position or manner, and shirts should not reveal bellies, breasts, or bra-straps in any position. The Course Instructor reserves the right to ask a student to leave class if un-professionally dressed when a guest is in class.

Other Important Information:

Procedure for exams: On exam day, if space allows please be sure to sit every other seat and store course materials, backpacks, cell phones, etc., away from view. Answer all exam items using your best judgment and instinct choosing the best possible answer.

Seeing exams and the answer key: All grades will be posted at the course e-Learning website. You may come to view your exam and exam key during office hours or by appointment. You may also have the opportunity to see your exam and the answer key during scheduled times to be announced in class if time allows.

Questions about exam scores: If, after seeing your exam you dispute your score, please submit an email to the Course Instructor in which you (a) identify the item(s) that you are disputing, (b) identify the answer(s) that were designated “correct” on the answer key, and (c) provide an argument why another answer (i.e., the one you chose) is a more correct answer. The Course Instructor will read your rationale and make one of the following decisions; (1) agree with you and increase your score, (2) disagree with you and keep your original score, or (3) partially agree with you and partially increase your score. Please note: your argument should be presented in writing (via email), not in person. This policy gives you an opportunity to provide a clear, well thought out rationale for an exam re-score. Additionally, the policy alleviates emotion from influencing either side of the student-instructor interaction.

Policy Related to Class Attendance:

Class attendance will not be taken, however students are expected to attend all scheduled lectures/labs as this is a reflection of academic professionalism. Vacations or travel for non-medical or non-family emergencies are not legitimate reasons for missing class. If a student is to miss a class, it is the student’s responsibility to arrange with other students to get handouts, notes, and announcements if a class is missed and/or contact the instructor via email or office hours if additional clarification is needed or questions arise related to the missed material. Attendance is mandatory for exams and assignments; please see policy below regarding this topic.

Policy Related to Make-Up Exams or Other Work:

Make up exams or assignments will **only** be given for **documented** medical or family emergencies. Vacations are **not** legitimate reasons for missing exams or assignments. Makeup exams or assignments will not be given without **prior** arrangements with the Course Instructor. "Prior" means at least one day in advance. Failure to do this will result in a zero grade for that test or assignment. Emergencies have to be documented (such as a medical exemption). Undocumented absence from an exam or in-class assignment will result in a score of "0" on that exam or assignment. Makeup exams or assignments that are given due to authorized absence may be oral exams.

Statement of University's Honesty Policy (cheating and use of copyrighted materials):

Academic Integrity:

Students are expected to act in accordance with the University of Florida policy on academic integrity (see Student Conduct Code, the Graduate Student Handbook or the following website for more details: www.dso.ufl.edu/judicial/procedures/academicguide.php).

Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

*We, the members of the University of Florida community,
pledge to hold ourselves and our peers to the
highest standards of honesty and integrity.*

On all work submitted for credit by UF students, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

Statement Related to Accommodations for Students with Disabilities:

If a student requires classroom accommodation because of a disability, he/she must first register with the Dean of Students Office (<http://oss.ufl.edu/>). The Dean of Students Office will provide documentation to the student, which the student will then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework. Department policy requires students registered for accommodations, regardless of reason, to take all exams at the Disabilities Resource Center. Arrangements are confidential and will be made ahead of each exam.

Counseling and Student Health:

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575, or Student Mental Health Services, 352-392-1171. Visit their web sites for more information: <http://www.counsel.ufl.edu/> or <http://www.health.ufl.edu/shcc/smhs/index.htm#urgent>

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services, including primary care, women's health care, immunizations, mental health care, and pharmacy services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: www.health.ufl.edu/shcc

Crisis intervention is always available 24/7 from:

Alachua County Crisis Center: (352) 264-6789.

BUT – Do not wait until you reach a crisis to contact the Crisis Center. They have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for their assistance.

CLASS SCHEDULE AND TOPICAL OUTLINE

* Additional class materials will be posted at e-Learning each week*

DATE	TOPIC	ASSIGNMENT
Thurs Jan 8	Introduction to the class Terminology for describing movement and basic kinesiology concepts <i>*Bring activity analysis Chart #1 posted on course website for in-class activity*</i> Emily Sorgius	<i>Muscolino Chapters: 1, 2, 5 (5.1-5.15, 5.18, 5.25-5.29), 6 (6.1-6.3), 10 (10.1-10.12), 11 (11.1-11.2; 11.6-11.7), 12, 13 (13.1-13.11),</i> Also, review open and closed chain activities: pg 284 box 8-8 and pg 644-645
Thurs Jan 15	Muscle mechanics, forces, torques, & leverage The above related to: posture, bending, & lifting Emily Sorgius	<i>Muscolino Chapters: 5 (5.30), 11 (11.3-11.5, 11.8-11.10), 14, 18 (18.1-18.7)</i> Additional material to be provided in PPT on laws of motion
Thurs Jan 22	Applying concepts learned for normal movement analysis <i>*Bring activity analysis Charts #2 & #3 posted on course website for in-class activity*</i> Emily Sorgius	All material covered thus far
Thurs Jan 29	Applying concepts learned for abnormal movement analysis: *Applied Experience #1* Emily Sorgius	All material covered thus far Applied Experience Assignment 1 due at the end of class
Thurs Feb 5	EXAM I	Covers all chapters and lecture materials thus far
Thurs Feb 12	Trunk and Shoulder Emily Sorgius	<i>Muscolino Chapters: 5 (review 5.13, 5.15; add 5.19- 5.22), 7 (7.3, 7.4), 8 (8.1, 8.3-8.5), 9 (9.1-9.6), 13 (13.12), 15 (15.2, 15.3)</i>
Thurs Feb 19	Shoulder, Elbow and Forearm Emily Sorgius	<i>Muscolino Chapters: 4 (4.10, 4.11), 6 (6.10-6.12), 9 (review 9.1-9.6; add 9.7-9.9), 16 (16.1-16.6)</i>

Thurs Feb 26	Wrist Complex and Hand: Arches, Joints, & Extrinsic Guest Lecturer: Mrs. Wendy Holt	<i>Muscolino Chapters:</i> 4 (4.12 - pgs 145-151), 9 (9.10-9.12 and 9.14-9.16), 14 (review 14.3-14.5), 15 (15.5-15.6)
Thurs March 5	SPRING BREAK	NO CLASS
Thurs March 12	<i>1st hour:</i> *Applied Experience #2* Emily Sorgius <i>2nd part of class:</i> Hand: Intrinsic & Thumb Guest Lecturer: Mrs. Wendy Holt	*Applied Experience Assignment 2 Due On Completion* <i>Muscolino Chapters:</i> 4 (4.12: review pgs 148-151), 5 (5.23), 6 (6.11), 9 (9.10: pg 357, 9.13, review 9.14-9.16), 15 (15.6-15.7)
Thurs March 19	EXAM II	Covers chapters and lecture materials from 2/12-3/12
Thurs March 26	Pelvis and Hip Emily Sorgius	<i>Muscolino Chapters:</i> 4 (4.4-4.5), 5 (review 5.22), 6 (review 6.3), 8 (8.1-8.11), 15 (15.12)
Thurs April 2	Standing Posture, Balance, and the Gait Cycle Emily Sorgius & guest lecturer	<i>Muscolino Chapters:</i> 18 (18.1-18.9)
Thurs April 9	Knee, Ankle & Foot Emily Sorgius	<i>Muscolino Chapters:</i> 4 (4.6-4.8), 5 (5.16-5.17), 6 (review 6.10, 6.14), 8 (8.12- 8.24), 15 (15.13-15.16)
Thurs April 16	EXAM III	Covers GENERAL concepts used <u>throughout</u> <u>the course</u> as well as lecture material from 3/26-4/19
Thurs April 24	Reading day	

*The assigned reading includes the entire chapter unless the chapter number is followed by parentheses (indicating only certain sections need to be read for that day)