

**College of Public Health and Health Professions
Department of Physical Therapy
PHT 6218C: Therapeutic Modality Interventions in Physical Therapy
Summer Semester, 2014**

Course Description:

This course is designed to instruct physical therapy students in the underlying principles and clinical applications of thermal, electrical and mechanical modalities. An emphasis will be placed on problem solving and good patient education when using these modalities. The focus of laboratory sessions is the demonstration of safety and appropriate clinical application of thermal, electrical, and mechanical modalities. Use of the modalities to address the treatment of clinical symptoms including inflammation, muscle re-education, pain and other dysfunctions will be discussed.

Course prerequisites: PHT 6153, PHT 6187C, PHT 6605, PHT 6206C, PHT 6188C, PHT 6189C, PHT 6207C, PHT 6152C

Instructional Methods:

This course will use a combination of lecture, class and small group discussion, case studies and skills lab.

Credits: 2

Class Schedule: Monday: Lecture 3:30-4:45 p.m.
Thursday: Lab 1: 2:00-4:00; Lab 2: 4:15-6:15
- labs will alternate times each week

Course Instructor:

Joel Bialosky

Health Professions Nursing and Pharmacy Building Room 1158

352-273-8636

bialosky@phhp.ufl.edu

Office Hours: by appointment

Teaching Assistants:

Sharareh Sharififar

sharareh75@phhp.ufl.edu

Sudeshna Chatterjee

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Office Hours:

As necessary. Please contact instructor to arrange meetings outside of class time.

Textbook:

Modalities for Therapeutic Intervention. Susan Michlovitz, James Bellwe, Thomas Nolan. Fifth Edition. Available in the bookstore.

Website:

We will use the Sakai system found at <http://lss.at.ufl.edu/>. (Sakai)

Laboratory:

Self-Responsibility:

Laboratory instruction provides a hands-on learning environment in which each participant is evaluated and treated by his or her partner. It is the responsibility of each student to monitor his or her own limitation of class participation.

Safety

- To insure your safety in the lab, you are responsible for providing your lab partners and instructors with relevant information and feedback in order to prevent any injury. ***If you have a condition that is a contraindication to the treatment procedure, inform the instructor and your partner.***
- Each piece of equipment that you will be using has specific guidelines for safe use, and it will be your responsibility to seek these guidelines and to follow through with the recommendations set forth.

Lab Clothes

Please wear proper lab clothes as outlined in the student handbook allowing exposure of the trunk, scapulae, and extremities. Please respect your classmates' physical privacy as you would patient privacy.

Lab Clean-up

You will be assigned to prepare and clean up on scheduled lab days. This includes assuring all equipment is stored in its original containers with all appropriate components in its assigned location, pillows returned and laundry to be placed in appropriate containers.

Your Learning:

Each lab will follow a similar schedule which includes: Introduction to and instruction of the equipment, in class lab assignment, practice time, patient problems and review.

Lab times on Thursday will not be sufficient time for you to learn and master the use of the equipment. Please take advantage of the open lab time. We can also set up special times for those who may need additional time to practice.

Testing and Grading: Students' performance will be assessed by written and competency examinations and written assignments.

Homework Assignments		
Evidence Based Modalities (6x10 points)	30%	60 points
Non- Specific Effects of Treatment	7.5%	15 points
Case Study Assignments (2X10)	10%	20 points
Class Assignments/ Exams		
Competency check offs (5X5 points)	12.5%	25 points
Exams (2 x 40 points)	40%	80 points
Total	100%	200 points

Grading Criteria:

Grade Scale (%)	Total Points	Grade	Grade Points
93 - 100	186 - 200	A	4.00
90 - 92	180 - 184	A-	3.67
87 - 89	174 - 178	B+	3.33
83 - 86	166 - 172	B	3.00
80 - 82	160 - 164	B-	2.67
73 - 76	146 - 152	C	2.00
63 - 66	126 - 132	D	1.00
<60	<120	E	0.00

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Midterm and Final Exams (40% of total grade):

The exams will cover class and lab lectures/discussions. Grading will follow the standard grading scale listed above.

Competency Check Offs (12.5% of grade):

Since the practice of physical therapy relies heavily on clinical skills, an emphasis is placed on evaluating the student's skills using patient simulations. You will be required to complete 5 total competency check offs during the semester specific to: hot pack; ultrasound; TENS; Interferential; NMES.

Emphasis for competency check offs is on patient safety, professionalism, and the ability to correctly perform skills being tested.

Competency check offs are pass/ fail. A grade of 70 or above must be obtained to pass a competency check off. A safety issue such as forgetting to leave a call bell with your simulated patient will result in automatic failure. You will earn 5 points towards your overall grade by passing on the first attempt. You are required to pass each competency check off and it is your responsibility to do so prior to the end of the semester. In case of each failing grade on an individual competency check off, 2 points will be deducted from your overall grade.

ASSIGNMENTS

Homework Assignments (47.5% of grade total):

You will perform 6 Evidence Based Modalities written assignments based upon patients observed during your single day clinical visits or at the Equal Access Clinic. These assignments must be specific to 1) hot packs OR cold packs, 2) ultrasound, 3) traction, 4) TENS, 5) iontophoresis, and 6) NMES. The template for these assignments is on Sakai and should be followed to guide your successful completion. Additionally, one written assignment related to “non- specific effects” of treatment will be posted on Sakai.

Case Studies: Two guided case studies will be conducted during the semester. The case study will emphasize the development of critical thinking skills in examination, evaluation and intervention through small group discussion following written, video or live patient case presentation. A written assignment related to the case study will be posted on Sakai.

Assignments are to be typed and are due in the drop box by 5:00 pm on the date indicated on the syllabus.

Assignments will be accepted late with an automatic 20% deduction in your score.

The honor code (below) should be included on each written homework assignment.

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

CLASS SCHEDULE

Day	Date	Time	Topic
Monday	May 12	3:30 – 4:45	<ul style="list-style-type: none"> • Review of Course • Introduction to Modalities • Inflammation and Tissue Repair •
Thursday	May 15	Labs A&B 2:00 – 4:00 4:15 – 6:15	<ul style="list-style-type: none"> • Pain (Lecture)
Monday	May 19	No Class	
Thursday	May 22	Labs B&A 2:00 – 4:00 4:15 – 6:15	<ul style="list-style-type: none"> • Nonspecific effects of rehabilitation interventions
Monday	May 26	No Class- Memorial Day	
Thursday	May 29	Labs A&B 2:00 – 4:00 4:15 – 6:15	Lecture: Thermal Agents: Cold and Heat Lab: Cryotherapy Thermotherapy
Monday	June 2	3:30 – 4:45	Ultrasound/ Traction
Thursday	June 5	Labs B&A 2:00 – 4:00 4:15 – 6:15	Ultrasound Traction
Monday	June 9	3:30 – 4:45	Electromagnetic Radiation Laser, UV, Diathermy, Infrared
Thursday	June 12	Labs A&B 2:00 – 4:00 4:15 – 6:15	Case Study 1 ***Non- Specific Effects of Treatment Assignment due***
Monday	June 16	3:30 – 4:45	Review
Thursday	June 19	Labs B&A 2:00 – 4:00 4:15 – 6:15	Exam 1 ***Case Study I assignment due***
Monday	June 23	3:30 – 4:45	Low frequency <ul style="list-style-type: none"> • TENS • Iontophoresis *** Clinic homework assignments due for Hot OR Cold Pack, ultrasound, traction***
Thursday	June 26	Labs A&B 2:00 – 4:00 4:15 – 6:15	Application of TENS

WEEK	DATE	TOPIC	LECTURE & LAB
Monday	June 30	3:30 – 4:45	Medium Frequency • Interferential, Pre-modulated, Russian
Thursday	July 3	Lab B&A 2:00 – 4:00 4:15 – 6:15	Application of Interferential, Pre-modulated, Russian
Monday	July 7	3:30 – 4:45	NMES & FES
Thursday	July 10	Lab A&B 2:00 – 4:00 4:15 – 6:15	Application of NMES & FES
Monday	July 14	3:30 – 4:45	Biofeedback
Thursday	July 17	Lab B&A 2:00 – 4:00 4:15 – 6:15	Biofeedback
Monday	July 21	3:30 – 4:45	HVGS
Thursday	July 24	Labs A&B 2:00 – 4:00 4:15 – 6:15	Case Study 2
Monday	July 28	3:30 – 4:45.	Review *** Clinic homework assignments due for TENS, iontophoresis, NMES***
Thursday	July 31	Labs B&A 2:00 – 4:00 4:15 – 6:15	Exam 2 ***Case Study 2 Assignment due***

Course Objectives:

Upon successful completion of this course the student is expected to:

Overall Objectives:

1. **Comprehend** the multidimensional aspect of pain and the many factors influencing self-report of pain.
2. **Understand** different instruments available to measure pain and the constructs of pain
3. **Understand** the factors other than the specific rehabilitation intervention responsible for treatment outcomes and how these can influence variability in treatment response
4. **Analyze** the clinical findings, **propose** goals of treatment, **determine** the best interventions, and **formulate** an effective treatment plan including treatment parameters for achieving the goals of treatment when presented with a clinical case.
5. Differentiate the **indications and contraindications/precautions** of the modalities presented in class.
6. Analyze the physiologic and therapeutic **effects and efficacy** of the modalities presented in class.
7. Apply appropriate methods for **selecting** a modality and treatment parameters to produce the desired physical and physiological effects.

8. Research the literature to critically **analyze** applicability of the findings to modality selection and treatment choices.
9. **Educate** the patient and/or family member regarding the effects and use of modalities.
10. Understand and employ the patient's rights to know the **risk/benefits of treatment**.
11. Demonstrate **safe and effective** operation of all modalities used in class.
12. Employ methods to ensure patient **comfort and safety** including draping and positioning.

Teaching Methods: Lecture, laboratory, discussion

PHYSICAL THERAPY PROGRAM POLICIES FOR ALL COURSES

Attendance is expected for all class sessions, labs, and examinations. The Physical Therapy Program at the University of Florida strongly believes that professional behavior patterns begin during the student's academic preparation. According to the PT Student Handbook, students are expected to notify the department by phone (273-6085) in the event of unexpected absence from a scheduled class session. Please inform the instructor of planned absences at least two days in advance.

Policy Related to Make-up Exams or Other Work: Students who miss a class/clinic visit because of an emergency or excused absence should make arrangements with the instructors to complete missed exams or assignments and with fellow students to obtain class notes/hand-outs or to gain information about lab activities. If the absence was unexcused, no opportunity will be given to complete the missed exams or assignments.

Punctuality is important in both the clinic and classroom. Students are expected to arrive to class on time (i.e. prior to the instructor initiating class) and to return from breaks on time. The clock in the classroom will be considered the "official" clock. You are encouraged to notify your instructor(s) when appointments/ unavoidable commitments will cause arrival to class after start time, or require you to leave early. It is also the responsibility of the instructor to begin and end class at agreed upon times, and to notify you when changes of schedule may occur.

Course Accommodations:

If for any reason you feel you will have difficulty meeting the objectives and expectations of this course, please notify me within five (5) weekdays of the start of class so that accommodations may be implemented where indicated. Individuals who require reasonable accommodations must contact the Dean of Students Office, 202 Peabody Hall, phone: 392-1261, as soon as possible. This office will provide necessary documentation. The student who is requesting accommodation must then provide this documentation to the instructor.

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 these web sites for more details:

<http://www.dso.ufl.edu/sccr/honorcodes/conductcode.php>

<http://www.dso.ufl.edu/studenthandbook/studentrights.php>

<http://gradschool.ufl.edu/students/introduction.html>

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.

Professional Behavior:

Professional behavior is critical for a successful transition from the classroom to the clinical setting. The faculty recognizes the importance of this by incorporating the development and evaluation of professional behavior into each academic course. All students must attain developmentally appropriate levels of professionalism on the University of Florida's Professionalism Development Tool (PDT). Student performance on the PDT will be determined by behaviors in the classroom and lab. Additional feedback will be provided by peers, instructors, and teaching assistants.

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 UF Counseling & Wellness Center, 352-392-1575. Visit their web site for more information: <http://www.counseling.ufl.edu/>.

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

<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.asp>

X

BUT – Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.