

HPHA 239 – Therapeutic Modalities

Fall 2012

Location: FH 005

Time: T, R 9:30-10:45am / 3 semester hours

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Required Text

Knight, L; Draper, D. (2008). *Therapeutic Modalities the Art and Science*, Lippincott Williams & Wilkins: Philadelphia, PA. **ISBN: 978-0-7817-5744-7**

Course Description

HPHA 239 – Therapeutic Modalities

Three semester hours

A study of knowledge, skills and values an athletic trainer or health care provider must possess to plan, apply, document and evaluate the efficacy of therapeutic modalities. Scientific theories and application principles will be discussed. Content areas include: cold, heat, ultrasound, electrical stimulation, traction, and manual therapy techniques. Course fees and lab fees are listed in the current course schedule. Prerequisite: HHPA 213 or HHPK 213.

Course Objectives – Learning objectives for this course are based entirely on assigned educational competencies of athletic training as prescribed by the Education Council of the National Athletic Trainers' Association.

Therapeutic Modalities

- TM-C1 Describe the physiological and pathological processes of trauma, wound healing and tissue repair and their implications on the selection and application of therapeutic modalities used in a treatment and/or rehabilitation program.
- TM-C2 Explain the principles of physics, including basic concepts associated with the electromagnetic and acoustic spectra (e.g., frequency, wavelength) associated with therapeutic modalities.
- TM-C3 Explain the terminology, principles, basic concepts, and properties of electric currents as they relate to therapeutic modalities.
- TM-C4 Describe contemporary pain-control theories.
- TM-C5 Describe the role and function of the common pharmacological agents that are used in conjunction with therapeutic modalities
- TM-C6 Explain the body's physiological responses during and following the application of therapeutic modalities.
- TM-C7 Describe the electrophysics, physical properties, biophysics, patient preparation and modality set-up (parameters), indications, contraindications, and specific physiological effects associated with commonly used therapeutic modalities.
- TM-C8 Identify appropriate therapeutic modalities for the treatment and rehabilitation of injuries and illness.
- TM-C9 Describe the process/methods of assessing and reassessing the status of the patient using standard techniques and documentation strategies to determine appropriate treatment and rehabilitation and to evaluate readiness to return to the appropriate level of activity. This includes the ability to:
 - TM-C9a Describe and interpret appropriate measurement and assessment procedures as they relate to the selection and application of therapeutic modalities.
 - TM-C9b Interpret objective measurement results as a basis for developing individualized therapeutic modality application and set-up (parameters).
 - TM-C9c Interpret the results of injury assessment and determine an appropriate therapeutic modality program to return the patient to physical activity.

TM-C9d	Determine the appropriate therapeutic modality program and appropriate therapeutic goals and objectives based on the initial assessment and frequent reassessments.
TM-C9e	Determine the criteria for progression and return to activity based on the level of functional outcomes.
TM-C9f	Describe appropriate methods of assessing progress when using therapeutic modalities and interpret the results.
TM-C9g	Interpret physician notes, postoperative notes, and physician prescriptions as they pertain to a treatment plan.
TM-C9h	Describe appropriate medical documentation for recording progress in a therapeutic modality program.
TM-C10	Identify manufacturer's, institutional, state, and federal standards for the operation and safe application of therapeutic modalities.
TM-C11	Identify manufacturer's, institutional, state and federal guidelines for the inspection and maintenance of therapeutic modalities.

Professional Development

PD-C14	Interpret the current research in athletic training and other related medical and health areas and apply the results to the daily practice of athletic training.
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Attendance:

Class attendance is **required**. Excused absences include university approved absences or those that the instructor receives appropriate notification of (i.e. sudden/serious illness, death to immediate family member, etc.). It is the student's responsibility to notify the instructor ahead of time if they are going to miss class due to an excused absence and make arrangements for all materials and assignments that will be missed on that day. In the case of excused absences due to unavoidable or emergency situations, the student must promptly notify the instructor via **phone call** or **email** (sending a text is not considered professional and is not an acceptable means of notification) explaining the circumstances. **Prompt** notification is required to have an absence excused; additionally, written documentation may be required to have the absence excused. If a student misses a class, excused or unexcused, the student is responsible for obtaining all information presented and turning in all assignments by the due date. Remember: *Poor planning on your part is not an emergency on my part.* Unexcused absences beyond **three (3)** will automatically drop your **final** grade by 5% (i.e. if your final grade = 83 with 3 or fewer absences, the 83 stands; but drops to a 78 with 4 absences; 73 with 5 absences, etc.). A student who misses 5 or more classes must meet with the instructor to determine if they need to drop the course.

Tardiness WILL NOT be tolerated. Classroom doors will be locked at the beginning of class. If a student cannot attend class because the door is locked it will be considered an unexcused absence.

Missed Work

Exams must be taken on the designated date and time. ***No make-up exams will be allowed unless prior arrangements have been made with the instructor.*** Under certain extenuating circumstances (situations out of your control), make-ups will be allowed at the instructor's discretion. Student's will be required to contact the instructor ASAP if they happen to miss an exam and may be required to provide documentation for the absence if a make-up is to be allowed. Likely, points will be taken off of the test score whenever a test is made-up.

In-class activities and section quizzes will not be allowed for make-up unless prior arrangements have been made, the absence/tardy is deemed to be excused by the instructor, and the nature of the activity allows for it to be made up. Again, documentation may be required by the student to allow for the make-up.

Academic Dishonesty

Academic dishonesty is unacceptable conduct and will not be tolerated in any form at Texas A&M University – Commerce. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include losing points on an assignment, not receiving credit on an assignment, suspension from the class, or expulsion from the University.

Drop policy

It is the student's responsibility to know the appropriate dates in order to initiate dropping a class. A student will not be dropped from the course as a result of no longer attending classes. Students must go through the proper procedures to be officially dropped from the course.

Classroom/Student Expectations

THIS IS NOT AN ONLINE CLASS! Be professional, come to class. Students are expected to prepare for, participate in, and attend each scheduled class. Failure to do so may/will lead to a decline in the student's overall grade. Forming study groups to prepare for class will also greatly benefit students throughout the semester.

Students are also expected to behave appropriately in class and avoid being a distraction to their fellow students and the instructor. Appropriate behavior involves paying attention, actively participating, and following instructions. Cell phones (including text messaging), music, inappropriate language/gestures, and any other behavior determined to be a distraction will not be tolerated. Students who are considered to be a disturbance in class will be asked to leave.

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (see Student's Guide Handbook, Policies and Procedure, Conduct).

Assignments

4 Tests	400 points
1 Research Paper	200 points
20 Quizzes	400 points

Grading Scheme

Each assignment will be worth a pre-determined amount of points (see above). There will be approximately 700 – 800 points available in the class. Upon the completion of the course, grades will be calculated by adding up the total number of points each student has earned and dividing it by the total amount of points available in the course. This will produce a percentage of points earned (Ex. Student earned 850 points out a possible 1000 in the course: $850/1000 = 85\%$ "B"). Grades will be assigned based upon the percentages below.

A = 90 – 100 %

B = 80 – 89 %

C = 70 – 79 %

D = 60 – 69 %

F = 0 – 59 %

At no point during the semester will extra credit be permitted. Students are expected to earn points toward their final grade during the course of the semester with the activities, assignments and tests that are already scheduled. All students are graded based on the exact same criteria and no exceptions will be made for individual assignments, tests, or final point values. Also, keep in mind that excessive absences and tardies will result in the loss of points. Refer to the attendance policy within the syllabus.

Students will receive back all graded assignments in a timely manner. Students are encouraged to keep all graded assignments as well as keep up with their grades throughout the semester. Any questions or concerns about assignments/grades should be brought to the instructor's attention immediately (Do not wait until the end of the semester).

Americans with Disabilities Act (ADA) Statement

The ADA is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. Students requesting accommodations for disabilities must go through the Office of Student Disability Resources and Services. For more information, please contact SDRS at Gee Library – Rm. 132; (903)886-5150 or (903)886-5835; StudentDisabilityServices@tamu-commerce.edu

Note: This syllabus is tentative and may be changed as the course dictates.

Tentative Daily Schedule

Date	Activity	Reading Assignment
8/28	Syllabus	Ch. 1
8/30	Ch. 1 Injury Response	Ch. 2
9/4	Labor day	
9/6	Ch. 2 The Physiology & Psychology of Pain	Ch. 3
9/11	Ch. 3 Development & Delivery of Treatment Protocol	Ch. 4
9/13	Ch. 4 Administrative Considerations	Review!
9/18	Review	Study!
9/20	Exam 1	Ch. 5
9/25	Ch. 5 Thermal Modalities	Ch. 6
9/27	Ch. 6 Clinical Application of Thermal Modalities	Ch. 7
10/2	Ch. 7 Therapeutic Ultrasound	Ch. 8
10/4	Ch. 8 Clinical Application of Therapeutic Ultrasound	Ch. 9 & 10
10/9	Ch. 9 & 10 Shortwave Diathermy	Review!
10/11	Review	Study!
10/16	Exam 2	Ch.11
10/18	Ch. 11 Principles of Electrical Stimulation	Ch. 12
10/23	Ch. 12 Electrical Stimulation Techniques	Ch.13
10/25	Ch. 13 Clinical Application of Electrical Agents	Review!
10/30	Review	Study!
11/1	Exam 3	Ch. 14 & 15
11/6	Ch. 14 & 15 Intermittent Compression & Continuous Passive Motion	Ch. 16
11/8	Ch. 16 Therapeutic Massage	Ch. 19
11/13	Ch. 19 Light Modalities	Review!
11/15	Review	Study!
11/20	Exam 4	
11/22	THANKSGIVING!!!	Ch. 17
11/27	Ch. 17 Cervical & Lumbar Traction	Ch. 18 & 20
11/29	Ch. 18 & 20 Electromyographic Biofeedback & Hyperbaric Oxy Therapy	Review!
12/4	Review of Semester & Research Paper due	Study!
12/6	Review of Semester	Study!
12/11	FINALS	
12/13	FINALS	