

GEORGE MASON UNIVERSITY
School of Recreation, Health and Tourism

ATEP 355 — Clinical Techniques 3: Therapeutic Modalities (3)
Fall 2010

DAY/TIME:	MW 10:30 – 11:45 AM	LOCATION:	ATEP Laboratory, Occoquan 318
INSTRUCTOR:	Shruti Ambegaonkar	EMAIL ADDRESS:	sambegao@gmu.edu
OFFICE LOCATION:	OB 219	PHONE NUMBER:	703-993-7156
OFFICE HOURS:	W 12 -1 PM or by appointment	FAX NUMBER:	703-993-2025
DEPT. WEBSITE	http://www.rht.gmu.edu	CLASS WEBSITE:	http://courses.gmu.edu

PRE/CO-REQUISITES:

Pre-requisites: Formal acceptance to the professional phase of the ATEP; ATEP 150, 180, 250, 255, 256, 260, 265, 266, 270; BIOL 124, 125; HEAL 110; PHED 300

Co-requisite: Concurrently enrolled in ATEP 350 and 356.

COURSE DESCRIPTION

An examination of the scientific theory and standard operating procedures necessary for the safe application of therapeutic modalities in a physically active patient population.

COURSE OBJECTIVES:

At the completion of this course students should be able to complete the following:

- 1) Synthesize information obtained in a patient physical assessment to determine the indications, contraindications and precautions for the selection and evidence-based application of therapeutic modalities to patients;
- 2) Interpret baseline and post-treatment objective physical measurements to evaluate patient progress;
- 3) Appraise therapeutic modalities and treatment environment for potential safety hazards;
- 4) Conduct proper patient set-up for the application of therapeutic modalities;
- 5) Formulate a progressive treatment plan and appropriately incorporate therapeutic modalities;
- 6) Employ proper medical documentation procedures;
- 7) Establish lines of communication to elicit and convey information about the patient's status and the prescribed modality(s); and
- 8) Maintain patient confidentiality.

COURSE OVERVIEW

This clinical techniques laboratory course will be taught in the Athletic Training Clinical Simulation Laboratory. The focus of this course is to develop the cognitive and psychomotor competencies necessary for the safe, effective, and evidenced-based application of therapeutic modalities in a physically active patient population.

Attendance

Students are expected to be on time, attend all class meetings and be prepared for in class assignments and projects. Excused absences include the following: illness (must bring a receipt or note from a doctor), family death, athletic/academic event, and others at the discretion of the instructor. **Late work will not be accepted under any circumstances.** For known upcoming absences, students must contact the instructor at least one week in advance to the missed class to make up work. In the case of illness or some other unforeseen absence, the student must contact the instructor via e-mail or telephone. At the next attended class

meeting the student will discuss material that is to be completed. It is the student's obligation to pursue any make-up work.

Dress

During the laboratory section of the course, students will be asked to wear appropriate clothing to expose various body parts for the purposes of practicing the application of emergency medical procedures. Tank tops and sports bras/bathing suit tops will be required when topics focus on the upper body. Shorts will be required will be required when topics focus on the lower body.

Accreditation Standards

Upon completion of this course, students will meet the following Commission on Accreditation of Athletic Training Education (CAATE) competencies:

Code	Competency
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.
TM-P1	Assess patient to identify indications, contraindications, and precautions applicable to the application of therapeutic modalities.
TM-P2	Obtain and interpret baseline and post-treatment objective physical measurements to evaluate and interpret results.
TM-P3	Inspect the therapeutic modalities and treatment environment for potential safety hazards.
TM-P4	Position and prepare the patient for the application of therapeutic modalities.
TM-P5	Select and apply appropriate therapeutic modalities according to evidence-based guidelines.
TM-P6	Document treatment goals, expectations, and treatment outcomes.

REQUIRED READINGS

1. Knight, K.L., and Draper, D.O. (2008). Therapeutic modalities: The art and science. Lippincott, Williams & Wilkins.
2. Shultz, S. J., Houglum, P. A., Perrin, D. H: Examination of Musculoskeletal Injuries (3rd Ed). Champaign, IL: Human Kinetics; 2005

EVALUATION

Students will be evaluated on content standards (knowledge gained) and psychomotor competency performance (demonstration of the skill content). Content standards and psychomotor skills will be assessed via practical skill demonstrations (Competency Evaluations) and a comprehensive practical examination. Class participation will be assessed through completion of daily class activities.

Competency assessment

Performance will be assessed through completion of cognitive and psychomotor competency examinations.

Comprehensive Practical Examination

One comprehensive practical examination will be administered. The examination will require a demonstration of content knowledge and psychomotor skill gained throughout the entire semester.

Course Grading Scale

ASSESSMENT METHOD	NUMBER	POINTS EACH	POINTS TOTAL
Class Participation	25	2	50
Competency Evaluations	5	70	350
Comprehensive Practical Examination	1	100	100
TOTAL	—	—	500

The student's final letter grade will be earned based on the following scale:

A: 465 – 500 pts. (93%)	C+: 385 – 399 pts. (77%)
A-: 450 – 464 pts. (90%)	C: 365 – 384 pts. (73%)
B+: 435 – 449 pts. (87%)	C-: 350 – 364 pts. (70%)
B: 415 – 434 pts. (83%)	D: 315 – 349 pts. (63%)
B-: 400 – 414 pts. (80%)	F: < 315 pts.

MAKE UP WORK

Students who are absent or who arrive late without an official university or a medical doctor's excuse may miss quizzes or other in-class activities. There will be no make-up quizzes or exams unless an excused absence has been warranted. Students who miss an examination quiz or other class activity because of an excused absence must complete the assignment on their first time back in class. All make-up work must be completed by the last day of class unless other approved arrangements are made. It is the student's obligation to pursue any make-up work.

TENTATIVE COURSE SCHEDULE

DAY	DATE	TENTATIVE TOPIC	READING ASSIGNMENT
1	M - 8/29	Introduction to course	
2	W - 8/31	Goniometry Review – Lower Extremity	
3	W – 9/7	Goniometry Review – Upper Extremity	
4	M – 9/12	Manual Muscle Test Review – Lower Extremity	
5	W – 9/14	Manual Muscle Test Review – Upper Extremity	
6	M – 9/19	Manual Muscle Test Review - Continued	
7	W – 9/21	Competency Evaluation # 1	
8	M – 9/26	Care for Acute Injuries	Ch. 5
9	W – 9/28	Pain Theater	
10	M – 10/3	Cryotherapy	Ch. 3
11	W – 10/5	Cryotherapy	Ch. 13, 14
12	T-10/11	Cryotherapy (Columbus Day Make Up Time)	
13	W -10/12	Thermotherapy	Ch. 11, 12
14	M -10/17	Thermotherapy	
15	W -10/19	Competency Evaluation #2	
16	M -10/24	Ultrasound	Ch. 15
17	W -10/26	Ultrasound/Phonophoresis	
18	M -10/31	Competency Evaluation #3	
19	W - 11/2	Electrical stimulation	Ch. 10
20	M - 11/7	Electrical stimulation	
21	W - 11/9	Electrical stimulation, Iontophoresis	
22	M -11/14	Electrical stimulation, Ultrasound Combination Therapy	
23	W -11/16	Competency Evaluation #4	
24	M -11/21	Massage	Ch. 17
25	W -11/23	Thanksgiving Recess – No Class	
26	M -11/28	Compression	
27	W -11/30	Lumbar/Cervical traction	Ch. 18
28	M - 12/5	REVIEW	
29	W - 12/7	Competency Evaluation #5	
FINAL	W -12/14	Comprehensive Practical Examination 10:30 AM – 1:15 PM	

Note: Faculty reserves the right to alter the schedule as necessary.

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].
- Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].
- Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

Campus Resources

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].
- For additional information on the College of Education and Human Development, School of Recreation, Health, and Tourism, please visit our website [See <http://rht.gmu.edu>].