

**GEORGE MASON UNIVERSITY**  
**School of Recreation, Health and Tourism**

**ATEP 355-202 —Therapeutic Interventions I (3)**  
**Fall 2014**

DAY/TIME:	MW 9:00-10:15 AM	LOCATION:	Occoquan 318
INSTRUCTOR:	Marcie Fyock, MS, ATC	EMAIL ADDRESS:	mfyock@gmu.edu
OFFICE	Bull Run Hall 210	PHONE NUMBER:	703-993-7118
LOCATION:			
OFFICE HOURS:	T/H 12:00-1:00 M/W 12:00-1:00	FAX NUMBER:	703-993-2025
DEPT. WEBSITE	www.rht.gmu.edu	COURSE WEBSITE:	mymasonportal.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 (contact instructor in advance), 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. ***Students will have one week from the excused absence to complete any missed assignments.*** 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 therapeutic modalities. 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.

### **Technology Use During Class**

As per GMU policy, all sound emitting technology is required to be turned off during the class meeting time. Additionally, *no laptop computers* will be permitted for use during class time; the exceptions are for use during presentations/projects, and technology deemed as necessary by the Office of Disability Services. Students utilizing various technology devices during class will be asked to leave class and will not be permitted to complete course work or receive any points for assignments that day.

### **E-mail Correspondence**

Only messages that originate from a George Mason University address will be accepted.

Please note that e-mail is a wonderful tool for brief communication of ancillary matters, but is a poor substitute for in-person discussion of detailed matters. Therefore, to make communication more effective, e-mail correspondence from students should be limited to brief clarification of matters related to the class schedule, to receive confirmation of receipt of an assignment, to schedule a meeting, to notify the instructor of problems accessing materials on the course website, or to notify the instructor of an anticipated or unanticipated absence (to be followed by in-person discussion prior to or following the class meeting time). All other communication including clarification of information presented in lecture, questions regarding assignments, questions regarding grades, and all other matters should be addressed with the instructor in-person during office hours or during a scheduled meeting.

As a future health care practitioner, the ability to present yourself and communicate in a professional manner is essential, including the use of e-mail. The following is an appropriate professional format that should be followed for this class, as well as any other instructors/ACIs:

*(Beginning salutation)* Dear Dr./Mr./Mrs. *Last Name*

*(Text body)* I have a question regarding...

*(Ending Salutation)* Regards/Respectfully/Sincerely,

*(Your name)* *First and Last Name*

## 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.
EX-C1	Describe the physiological and pathological processes of trauma, wound healing and tissue repair and their implications on the development, progression and implementation of a therapeutic exercise program.
EX-C4	Describe the appropriate selection and application of therapeutic exercises taking the following into consideration:
EX-C4a	The physiological responses of the human body to trauma
EX-C4b	The physiological effects of inactivity and immobilization on the musculoskeletal, cardiovascular, nervous, and respiratory systems of the human body
EX-C4c	The anatomical and/or biomechanical alterations resulting from acute and chronic injury and improper mechanics
EX-C4d	The physiological adaptations induced by the various forms of therapeutic exercise, such as fast- versus slow-twitch muscle fibers
EX-C4e	The physiological responses of additional factors, such as age and disease
EX-C5	Describe the indications, contraindications, theory, and principles for the incorporation and application of various contemporary therapeutic exercise equipment and techniques, including aquatic therapy, manual therapy and mobilization.
EX-C6	Define the basic components of activity-specific rehabilitation goals, functional progressions, and functional outcomes in a therapeutic exercise program.
EX-C7	Describe the process/methods of assessing and reassessing the status of the patient using standard techniques and documentation strategies in order to determine appropriate treatment and rehabilitation plans and to evaluate the readiness to return to the appropriate level of activity. This includes the ability to:

## REQUIRED READINGS

1. Prentice WE. *Therapeutic Modalities for Sports Medicine and Athletic Training*. McGraw-Hill, 2009.
2. Houglum, P (2005) *Therapeutic Exercise For Musculoskeletal Injuries*. 3rd ed. Champaign, IL: Human Kinetics Co. Please order on-line now for end of semester and Spring 2015.
3. ATEP 355 Lab Manual.

Additional Readings that may be of help:

1. Denegar CR., Silba E., & Saliba S. *Therapeutic modality for musculoskeletal injuries*. Human Kinetics, 2010.
2. Prentice WE. *Therapeutic Modalities in Rehabilitation*. Mc-Graw Hill, 2011.

### **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**

Attending, being prompt, and active participation are important components of this course. Therefore, students will earn credit for attending and contributing to the class.

### **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**

<b>ASSESSMENT METHOD</b>	<b>NUMBER</b>	<b>POINTS EACH</b>	<b>POINTS TOTAL</b>
Class Participation	25	2	50
Competency Evaluations	5	70	350
Comprehensive Practical Examination	1	100	100
<b>TOTAL</b>	—	—	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 will not be permitted to participate in the class activities for credit the day of the absence

or tardy event. 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 *within a week of the excused absence*. It is the student's obligation to pursue any make-up work.

### **LATE ASSIGNMENTS**

All work is due at the beginning of class time on the indicated day. **NO LATE WORK WILL BE ACCEPTED!**

## TENTATIVE COURSE SCHEDULE

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

<b>ATEP 355 - Therapeutic Modalities Lab- Topical Outline</b>		
<b>**Schedule Subject to Change at Discretion of Instructor**</b>		
<b>Day</b>	<b>Date</b>	<b>Topic</b>
1	Aug 25	Course Introduction/Role of Modalities in Injury
2	Aug 27	Healing Process
3	Sep 3	Pain
4	Sep 8	Pain
5	Sep 10	Intro to Modalities
6	Sep 15	Cryotherapy
7	Sep 17	Cryotherapy/Compression
8	Sep 22	Thermotherapy
9	Sep 24	Thermotherapy
10	Sep 29	Traction
11	Oct 01	Competency Evaluation #1(Cryotherapy, Thermotherapy, Compression & Traction)
12	Oct 06	Electrotherapy- TENS, IFC
13	Oct 8	Electrotherapy- HVC, NMES
14	Oct 13	No Class
15	Oct 14	Electrotherapy –Iontophoresis
16	Oct 15	Competency Evaluation #2 (Electrotherapy)
17	Oct 20	Ultrasound
18	Oct 22	Ultrasound
19	Oct 27	Phonophoresis, Estim US Combination
20	Oct 29	Competency Evaluation #3 (Ultrasound)
21	Nov 03	Alternative Interventions
22	Nov 05	Manual Therapy
23	Nov 10	Range of Motion, Flexibility
24	Nov 12	Strength
25	Nov 17	Competency Evaluation #4 (ROM, Flexibility, Strength)
26	Nov 19	Proprioception
27	Nov 24	Plyometrics/Functional Exercise
26	Dec 01	Competency Evaluation #5 (Proprioception & Plyometrics)
27	Dec 03	Review Day
<b>FINAL</b>		
	Dec 15	Comprehensive Practical Examination 7:30am – 10:15am

## COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

### *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/>].

### *School of Recreation, Health, and Tourism*

- 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>].
- The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles.





### **Student Acknowledgement of Syllabus**

By signing the provided sheet, I attest to the following:

- I have read the course syllabus for ATEP 355 in its entirety, and I understand the policies contained therein. This syllabus serves as an agreement for ATEP 355 between the instructor and me.
- I have a clear understanding of the due dates for assignments and examinations, and I accept responsibility for the material.
- I understand the excused absence policy and acknowledge that it is my responsibility to inform the instructor of all excused absences in advance and my responsibility to pursue make-up work.
- I am aware that failure to submit assignments by the dates assigned will result in no points awarded, as late work will not be accepted.
- I understand the instructor reserves the right to alter the provided schedules as necessary and I am responsible for the assignments and examination dates for the most current version of the syllabus schedule.
- I accept responsibility for reading announcements that are sent to me via e-mail through Blackboard.

(For Your Reference)