

George Mason University
College of Education and Human Development
Athletic Training

ATEP 350- 001 Therapeutic Interventions I
3 credits, Fall 2017

M/W 9:00-10:15 am, Colgan Hall 318 Science and Technology Campus

Faculty

Name: Jenna Siracuse
Office Hours: By Appointment only
Office Location: BRH 220
Office Phone: 703-993-7002
Email Address: jsiracus@gmu.edu

Prerequisites/Corequisites

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, 230; PHED 300

Co-requisites: Concurrent enrollment in ATEP 355 and 356

University Catalog Course Description

Integrates the use of therapeutic modalities and rehabilitation in the treatment of injuries and conditions including indications, contraindications, physiological effects, special programs, and resistance methods used with therapeutic modalities and prevention/rehabilitation methods. Offered by Recreation, Health & Tourism. May not be repeated for credit.

Course Overview

This didactic course will focus on the development of cognitive competencies necessary for the safe, effective, and evidenced-based application of therapeutic modalities in a physically active patient population.

Course Delivery Method

This course will be delivered using a face-to-face lecture format.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

1. Describe physiological effects of therapeutic modalities;
2. Identify therapeutic modalities used in athletic training;
3. Describe effects of electricity on the muscular, skeletal, circulatory and nervous system;
4. Describe the therapeutic effects of electricity on soft tissue injuries;
5. Describe effects of ultrasound on the muscular, skeletal, circulatory and nervous system;
6. Describe the therapeutic effects of ultrasound on soft tissue injuries;
7. Describe the effects of mechanical and manual therapy techniques on the muscular, skeletal, circulatory and nervous system;
8. Describe the therapeutic effects of mechanical and manual therapy on soft tissue injuries;
9. Describe the effects of light therapy on the muscular, skeletal, circulatory and nervous system;
10. Describe the therapeutic effects of light therapy on soft tissue injuries;
11. Describe the therapeutic effects of emergent therapeutic modalities;

12. Identify the indications and contraindications of therapeutic modalities; and
13. Demonstrate an appreciation for and ability to apply evidence-based clinical practices.
14. Identify goals of rehabilitation.
15. Identify flexibility techniques used in the prevention and rehabilitation of athletic injuries.
16. Identify muscular strength testing techniques.
17. Identify goniometric measurements for each joint.
18. Effectively perform special tests for individual joints.
19. Identify appropriate joint mobilization techniques for increased range of motion.
20. Identify therapeutic exercise equipment, techniques and principles.
21. Identify the indications and contraindications of rehabilitative equipment.

Professional Standards

Commission on Accreditation of Athletic Training Education (CAATE)

Upon completion of this course, students will have met the following professional standards: evidence-based practice, prevention and health promotion, clinical examination and diagnosis, acute care of injury and illness, therapeutic interventions, psychosocial strategies and referral, healthcare administration, professional development and responsibility.

Required Texts

1. Starkey C. Therapeutic Modalities. 4th ed. Philadelphia, PA: F.A. Davis Company.
2. Prentice, W. Rehabilitation Techniques for Sports Medicine and Athletic Training. 6th ed. Slack Incorporated.

Recommended Texts

1. Knight K, Draper D. Therapeutic Modalities: The Art and Science. 2nd ed. Philadelphia, PA: Lippincott, Williams & Wilkins.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner as outlined by the instructor (e.g., Blackboard, hard copy, etc).

Article Reviews/Reflections

Throughout the semester you will be assigned various articles for review or reflection. The format and outline for each review will be outlined in a separate document. Reviews/reflections are to be submitted via blackboard as either a word document or discussion board, as assigned by instructor.

Quizzes

Quizzes will be given during the first 10 minutes of class on the dates indicated on the Course Calendar. **Please note that the Course Calendar may change at the discretion of the instructor, and students will be promptly notified of any changes.** This will be a brief assessment of your knowledge from the reading. If you are not present in class before the instructor is done handing out the quiz to begin taking, you will be considered late and will not be allowed to complete the quiz.

Examinations

A total of 4 examinations, and a comprehensive final exam will be administered during this class. The format of these examinations may be multiple choice, true/false, short answer, matching, essay and fill in the blank type questions. Each of the examinations will test the material covered in the assigned reading and during the prior classes. **You are required to bring a scantron to each examination.**

Evidence Based Clinical Review

The purpose of this assignment is to provide an understanding of relevant research literature that justifies why and how therapeutic modalities are applied to patients. You will be required to write a research paper discussing the relevant research pertaining to the management of an injury you observed in your clinical experience this semester.

The topic for the Case Report must be submitted to the instructor and approved by the date indicated by the instructor. A detailed outline of the formatting of the Case Report will be provided for students. NO LATE SUBMISSIONS WILL BE ACCEPTED.

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.

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!**

Course Grading Scale

ASSESSMENT METHOD	NUMBER	POINTS EACH	POINTS TOTAL
Class Participation	24	2	48
Article Reflections	3	15	45
Article Reviews	4	15	60
Quizzes	7	10	70
Written Examinations	4	60	240
Evidence Based Clinical Review	1	120	120
Comprehensive Final Exam	1	100	100
TOTAL	—	—	683

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

A:	635.2 – 683 pts	(93%)
A-:	614.7– 635.2 pts	(90%)
B+:	594.2– 614.7 pts	(87%)
B:	566.9 – 594.2 pts	(83%)
B-:	546.4 – 566.8 pts	(80%)
C+:	525.9 – 546.3 pts	(77%)
C:	498.5 – 525.8 pts	(73%)
C-:	478.1 – 498.4 pts	(70%)
D:	430.3 – 478.0 pts	(63%)
F:	< 430.2 pts.	

Professional Dispositions

See <https://cehd.gmu.edu/students/polices-procedures/>

Students are expected to exhibit professional behaviors and dispositions at all times.

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. 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.

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*

CLASS SCHEDULE

Day	Date	Tentative Topic	Assignment
1	Aug 28	Intro to Therapeutic Modalities	
2	Aug 30	Tissue Response to Healing	Ch 1
3	Sept 6	Tissue Response to Healing con't	Ch 1
4	Sept 11	Understanding Pain	Ch 2 <i>Quiz #1</i>
5	Sept 13	General Application of Modalities	Ch 2 <i>Reflection #1 Due</i>
6	Sept 18	EXAM #1	
7	Sept 20	Cryotherapy/Compression	Ch 5, 6
8	Sept 25	Thermotherapy	Ch 5, 6 <i>Quiz #2</i>
9	Sept 27	Current Evidence re: Cryo/Thermotherapy in Healing	<i>Article Review #1</i>
10	Oct 2	EXAM #2	
11	Oct 4	Ultrasound	Ch 7
12	Oct 10	Ultrasound, Diathermy	Ch 7, 9, 10 <i>Quiz #3</i>
13	Oct 11	Current Evidence re: US in Healing	<i>Article Review #2</i>
14	Oct 16	EXAM #3	
15	Oct 18	Electrotherapy General Principles	Ch 11, 12
16	Oct 23	Electrotherapy (IFC, NMES, Ionto, Hi Volt)	Ch 13
17	Oct 25	Current Evidence re: Electrotherapy in Healing	<i>Quiz #4</i> <i>Article Review #3</i>
18	Oct 30	EXAM # 4	
19	Nov 1	Alternative Modalities	
20	Nov 6	Therapeutic Massage	Ch 17 <i>Reflection Due #2</i>
21	Nov 8	The Eval Process	Prentice Ch 3
22	Nov 13	Range of Motion/Flexibility	Prentice Ch 8 <i>Quiz #5</i>
23	Nov 15	Strength	Prentice Ch 9
24	Nov 20	Neuromuscular Control/ Proprioception	Prentice Ch 6, 7 <i>Quiz #6</i>
25	Nov 27	Cardiovascular Endurance, Plyometrics	Prentice Ch 10, 11 <i>Article Review #4</i>
26	Nov 29	Functional Exercise	Prentice Ch 12 <i>Quiz #7</i>
27	Dec 4	Putting it all Together	<i>EBP Clinical Review Due</i>
28	Dec 6	TBD	<i>Reflection Due #3</i>
29	TBD	FINAL EXAM	

**Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Core Values Commitment

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: <http://cehd.gmu.edu/values/>.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason 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 with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursessupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/>.