

Therapeutic Modalities

KIN 4345

Instructor: Sherry Ann Miller, ATC, LAT

Term: Fall 2021

Office: Center of Human Performance (CHP) 104; 942-2173(Kinesiology)/486-6171(Direct)

Course Days: Monday, Wednesday, & Friday: 11 AM to 11:50 AM in CHP 143

Office Hours: Monday and Wednesday: 1 PM to 3 PM; Tuesday: 11 AM to 12 PM; and Thursday: 11 AM to 2 PM

E-mail: smiller@angelo.edu

Required Textbook:

- Therapeutic Modalities: The Art and Science, 3rd ed., Knight, Jutte, & Draper, Lippincott Williams & Wilkins, 2021
- Principles of Pharmacology for Athletic Trainers, 3rd ed., Houglum, Harrelson & Seefeldt, SLACK, Inc., 2016. {You may purchase the e-book and/or a used copy from where ever you find to be the least expensive site}.

Course Description:

This course is designed to study theories, applications and methods of various modalities consisting of: cryotherapy, thermotherapy, electrotherapy, acoustic therapy, compression, traction, and massage in addition to therapeutic medications used in sports medicine.

Course Objectives:

Upon completion of this course the student will be able to:

1. Describe and differentiate the physiological events associated with the different phases of the healing process and specific modalities for effective use during each phase with a rationale for their use.
2. Describe pain by definition and classification along with information about painful stimuli.
3. Describe characteristics of sensory receptors and neurophysiological mechanisms for pain control by the use of therapeutic modalities.
4. Describe the principles of electricity and the characteristics of currents.
5. Discuss principles relating to the electromagnetic and acoustic spectra.
6. Describe the parameters and clinical set-up for various therapeutic modalities.
7. Describe the physiological responses and clinical applications of electrical stimulation, iontophoresis, biofeedback, diathermy, infrared modalities, ultrasound, spinal traction, intermittent compression, and massage.
8. Describe the basic physics relating to therapeutic modalities.
9. Describe the use of therapeutic modalities for reduction of acute/chronic inflammation, muscle re-education, muscle pump contraction, retardation of atrophy, muscle strengthening, increasing range of motion, and reducing edema/swelling.
10. Describe the indications and contraindication of electrical stimulation, iontophoresis, biofeedback, diathermy, infrared modalities, ultrasound, spinal traction, intermittent compression, and massage.
11. Relate the findings of a physical examination to determine the appropriate course of treatment.
12. Demonstrate the ability to apply therapeutic modalities for cryotherapy, thermotherapy, electrotherapy, ultrasound, traction, intermittent compression, and massage.
13. Demonstrate the ability to set-up and apply the following types of electrical stimulation:
 - Monophasic stimulator (high volt stimulation) Biphasic stimulator (Transcutaneous Electrical Nerve Stimulation – TENS, Neuromuscular Electrical Stimulation – NMES)
 - Direct current (iontophoresis)
 - Alternating current (interferential NMES)

- Multi-functional electrical stimulation devices
- 14. Demonstrate the ability to select the appropriate parameters for, and then prepare and apply with cryotherapy, thermotherapy, electrotherapy, and ultrasound.
- 15. Demonstrate the ability to select the appropriate parameter for, and then prepare and apply intermittent compression to the upper and lower extremities.
- 16. Demonstrate the ability to prepare and apply a massage treatment using various massage strokes.
- 17. Recognize concepts related to non-prescription, prescription, and classified pharmaceuticals, to include tracking, documentation, storage, disposal, dispensing, and transportation issues.
- 18. Identify terminology and abbreviations as they relate to pharmaceutical preparations.
- 19. Utilize the PDR to search for information on commonly prescribed medications.
- 20. Identify the indications, contraindications, precautions, adverse reactions, co-interactions of appropriate drug use. This will include cortical and anabolic steroids, androgenics, anti-inflammatory, analgesics, bronchodilators, antibiotics, gastrointestinal medications, anaphylaxis medications, beta-blockers, hypertensives, topical ointments, and regulated and non-regulated performance enhancing substances.
- 21. Recognize the role of prevailing laws, regulations, and appropriate regulatory agencies and associations as to the use, storage, transportation, approval, recall, and dispensation of pharmaceuticals.

Course Delivery:

This is “in person or “face to face” course offering. This course has an online component in addition to an “in person” component. Both components are required in order for the student to be successful. The online course component will be delivered via the Blackboard Learning Management System. The course site can be accessed at [ASU's Blackboard Learning Management System](#)

Technology Requirements:

To participate in the online portion of this course, you need this technology:

- A computer capable of running Windows 7 or later, or Mac OSX 10.8 or later
- The latest version of Google Chrome
- Microsoft Office Suite or a compatible Open Office Suite
- Adobe Acrobat Reader
- High Speed Internet Access
- Ethernet adapter cable required (wireless connections can drop during tests and Collaborate sessions)
- Webcam

Refer to Angelo State University's Distance Education website for further technology requirements: [Angelo State University's Distance Education Website](#)

Communication:

Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Written communication via email: All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line.

Academic Integrity:

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Health and Human Services adheres to the university's [Statement of Academic Integrity](#).ⁱ

Accommodations for Students with Disabilities:

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#).ⁱⁱ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy:

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)ⁱⁱⁱ for more information.

Plagiarism:

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)^{iv} in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the [ASU Writing Center](#).^v

Student Absence for Observance of Religious Holy Days:

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)^{vi} for more information.

Copyright Policy:

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

Syllabus Changes:

The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify students of such changes by

email, course announcements and/or via a discussion board announcement. It is the student's responsibility to look for such communications about the course on a daily basis.

Title IX at Angelo State University:

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: www.angelo.edu/incident-form

Face to face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.miller@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit: www.angelo.edu/title-ix.

Student Evaluation of Faculty and Course:

Students in all programs are given the opportunity to evaluate their courses and the faculty who teach them. Evaluations are most helpful when they are honest, fair, constructive, and pertinent to the class, clinical experience, or course. Faculty value student evaluations, and use student suggestions in making modifications in courses, labs and clinical experiences.

Angelo State University uses the IDEA (Individual Development and Educational Assessment) system administered through Kansas State University for all course evaluations. The Office of Institutional Research and Assessment administers IDEA for the entire university, online and has established a policy whereby students can complete course evaluations free from coercion.

Student Learning Objectives for this course:

1. Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)
2. Learning to apply course material (to improve thinking, problem solving, and decisions)
3. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course

Assignment Submission:

All assignments must be submitted according to each assignment criteria on the Blackboard site. This is for grading, documenting, and archiving purposes. Issues with technology use arise from time to time. If a technology issue does occur regarding an assignment submission, email me at smiller@angelo.edu and attach a copy of what you are trying to submit. Please contact the IT Service Center at (325) 942-2911 or go to your Technology Support tab to report the issue. This lets your faculty know you completed the assignment on time and are just having problems with the online submission feature. Once the problem is resolved, submit your assignment through the appropriate link. This process will document the problem and establish a timeline. Be sure to keep a backup of all work.

Late Work or Missed Assignments Policy:

Due dates and times are posted for all assignments, quizzes, and examination. Online homework and exams will not be extended beyond their due date nor accepted past the due date and time. Other assignments, quizzes, and/or exams will not be accepted passed their due date and time.

General Policies Related to This Course:

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)^{vii}
- [Angelo State University Catalog](#)^{viii}

Student Responsibility and Attendance:

This course is an “in person” class which means that the student is responsible for completing the online portion of this course asynchronously. The student is also responsible to complete and submit this material by its due date and time. The “face to face” portion of this class, the student is required to be present in order to receive credit. The material that will be presented in class will not be presented online. Points will be deducted from cumulative total for each absence. Ten (10) points for each absence.

Instructor Expectations:

The instructor and/or instructors have several expectations of you, the student, while in this course.

1. Professional behavior and language are required. Profanity is not acceptable as professional language.
2. It is your responsibility to read and comply with the syllabus. There will be no e-mail reminders to do homework or to take exams.
3. It is your responsibility to report missing grades on Blackboard immediately. Waiting until the end of the semester is not a plausible excuse.
4. Punctuality is a must.
5. Please be dressed appropriately for class especially on days we do activities.
6. Electronic devices need to be on silence mode and put away unless you are using these devices to take notes. It is acceptable and encouraged to have them out in this situation. Please understand that if you have an emergency and are expecting a call, please let the instructor know. Step outside of the classroom and attend to your affairs. Otherwise if your phone rings during class and/or you are “on” your phone during class time, you will be counted as absent.
7. All assignments are due on the day and time listed on the syllabus. If an assignment is to be turned in during class, the assignment must be submitted at the beginning of class. If late submissions are accepted, points will be deducted as follows: 1 class day: 5 points; 2 class days: 10 points; 3 class days: 15 points.

Physical Health and Well Being Expectations:

Students are responsible to monitor and self-screen their physical health everyday they attend campus. To assist you with this endeavor, the following material is for your information:

COVID-19 symptoms:

- Fever of 100 degrees Fahrenheit or greater
- A new cough that is not attributable to another medical condition
- New muscle aches not attributable to another medical condition or another specific activity (e.g., due to physical activity and/or exercise)
- New or worsening headache
- New loss of taste or smell
- Throat pain not attributable to another medical condition
- Congestion and/or runny nose not attributable to another medical condition
- New shortness of breath not attributable to another condition
- Nausea or vomiting
- Diarrhea

Expectations for class:

1. Complete the “COVID-19 Reporting Form” found on the ASU website if you experience any of the above symptoms before coming to campus.
2. Face coverings are optional on campus and in class.
3. On days you will be engaged in “hands on activities”, you will be provided a pair of gloves to perform such activities.
4. If you are experiencing symptoms, email the instructor after you have sought medical attention.

If you are exhibiting COVID-19 symptoms and/or have a temperature of 100 degrees Fahrenheit or greater, it is recommended that the student stay home and seek medical attention.

Seek medical attention:

- Call and make an appointment with ASU Shannon Clinic – Jackson by calling 325-942-2171
- Attend appointment
- Carefully follow the physician’s and/or healthcare provider’s instructions

In addition to your physical health, your mental and emotional health should be monitored and screened as well. If you are experiencing signs and symptoms related to anxiety and/or depression revolving around this current pandemic situation, please contact the ASU Counseling Services at 325-942-2371 or visiting [Counseling Services](#).

Safety Standards in Class at Angelo State University

- Students, faculty and staff are required to complete the wellness check only if they are experiencing symptoms.
- Masks are optional everywhere on campus.
- Washing hands is highly encouraged to prevent spread of all germs.
- Students who do not pass the wellness check should contact their instructors, just as they would for any illness.

Course Requirements:

Written Exams:

1. Each student must successfully pass 4 examinations for 500 points total.
Each exam will be in the format of: multiple choice, true/false, matching, fill in the blank, short answer, and essay.
2. The final written examination is worth 200 points and is comprehensive.

Each exam will be in the format of: multiple choice, true/false, matching, fill in the blank, short answer, and essay.

Assignments:

3. Case studies due for each chapter assigned. Total point value is 160. Each is worth 20 points for a total of eight (8) studies.
4. Article critiques: 11 critiques at 20 points each – 220 points total

Lab Practical:

5. Each student must successfully pass 2 practical examinations.
Each practical exam will be in the format of: oral short answers, hands on demonstrations, and mock scenarios.
6. Each practical exam is worth 100 points.
Each practical exam will be in the format of: oral short answers, hands on demonstrations, and mock scenarios.

Laboratories:

7. Each student must successfully complete each lab activity. Each laboratory activity {11} is worth 20 points for a total of 220 points. Laboratory assignments and examinations must be successfully completed, as your total points earned in lab will be combined with lecture for a complete modalities grade.
8. Missed lab activities must be made up on the students' own time.
9. Regular course attendance correlates with success. Therefore, no make-up exams and/or quizzes will be allowed unless prior arrangements have been made with the instructor.

Grading is based off total points for lecture and lab combined falling within a grading range: total points possible – 1500 points. This is not percentage points, and your grade will not be “rounded up”.

Letter Grade	Point Ranges
A	1350 - 1500
B	1200 – 1349.999
C	1050 – 1199.999
D	900 – 1049.999
F	750 – 899.999

Athletic Training Specialization Students: All students in the Athletic Training Specialization Program must comply with clinical hours and clinical skill assessments even if you decide to withdraw from the program. If students do not comply with the clinical skill assessments, you will be suspended from clinical hours in which will jeopardize your grade and date of graduation.

12. Clinical Hours – 100 points

Clinical Hours	Point Value
240 – 300	100
165 – 239	70
105 – 164	40
45 – 104	10
0 – 44	0

13. Clinical Skill Assessments: 6 @ 40 points each. 240 points total. It is required that you pass 80% of the skill assessment in order to progress to the next assessment.

Clinical Skill Assessment:	Point value
90-100% of assessment correct	40
80-89.99% of assessment correct	20
70-79.99% of assessment correct	5
69.99% and below of assessment correct	0

14. Any Athletic Training Specialization student who is ill and misses class due to that illness must bring documentation from a physician that they can return to class and clinical observation rotations.

Grading range for athletic training specialization students – total points possible are 1775. This is not percentage points, and your grade will not be “rounded up”.

Letter Grade	Point Ranges
A	1597.5 – 1775
B	1420 – 1597.499
C	1242.5 – 1419.999
D	1065 – 1242.499
F	887.5 – 1064.999

All athletic training specialization students must pass the course with a “C” or better in order to progress to the next course.

All athletic training specialization students must make an “80%” or better on all skill assessments in order to be certified to take the Texas State Licensure (LAT) Examination.

Daily Lecture and Lab Schedule:

Date	Topic/In Class	Assignments/Exams/Due Dates
August 23	First Day of Class <ul style="list-style-type: none"> • Orientation of Class • Syllabus • Course Expectations 	Due by 10:00 PM <ul style="list-style-type: none"> • Review Syllabus and mark on Blackboard
August 25	Read Knight & Draper: Ch. 1: Therapeutic Modalities: What They Are and Why They Are Used; Review PPTs for Ch. 1. In Class: Lecture over Ch. 1	
August 27	Read Knight and Draper: Ch. 3: General Application Procedures, and Read Ch. 4: Injury Record Keeping; Review PPTs for Ch. 3 and Ch. 4. Read Lab 1 before class In Class: Perform Lab 1.	
August 30	Read Knight and Draper: Ch. 5: Tissue Response to Injury: Inflammation, Swelling, and Edema; Review PPTs for Ch. 5 In Class: Lecture over Ch. 5	Due by 10:00 PM <ul style="list-style-type: none"> • Complete and Submit Lab 1
September 1	Read Knight and Draper: Ch. 7: The Healing Process; Review PPTs for Ch. 7 Read Starkey: Ch. 1: The Injury Response Process; Review PPTs for Ch. 1 In Class: Lecture over Chapters 7 & 1	
September 3	Read Knight and Draper: Ch. 6: Immediate Care of Acute Orthopedic Injuries; Review PPTs for Ch. 6 In Class: Lecture over Ch. 6	
September 6	University Holiday	
September 8	Read Starkey: Ch. 2: The Physiology and Psychology of Pain; Review PPTs for Ch. 2 In Class: Lecture over Ch. 2	
September 10	Read Knight and Draper: Ch. 8: Understanding Pain and Its Relationship to Injury; Review PPTs for Ch. 8 In Class: Lecture over Ch. 8	Due by 10:00 PM <ul style="list-style-type: none"> • Complete & Submit Article Critique (AC) 1
September 13	Read Knight and Draper: Ch. 9: Relieving Orthopedic Injury Pain; Review PPTs for Ch. 9 Read Lab 2 before class In Lab (Athletic Training Facility ATF): Perform Lab 2.	

Date	Topic/In Class	Assignments/Exams/Due Dates
September 15	<p>Read Knight and Draper: Ch. 10: Principles of Heat for Thermotherapy; Review PPTs for Ch. 10</p> <p>Read Lab 5 before class</p> <p>In Class: Lecture over Ch. 9 & 10</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Written Exam One <ul style="list-style-type: none"> ❖ Online Only ❖ Respondus LockDown Browser & Monitor ❖ 1 attempt ❖ Covers Chs. (K&D) 1, 3, 4, 5, 6, 7, 8, 9, (Starkey) Chapters 1 & 2 ❖ Opens September 15 at 7 AM ❖ Closes September 17 at 10 PM ❖ Under the “Examinations” tab • Complete & Submit Lab 2
September 17	<p>Read Knight and Draper: Ch. 11: Superficial Thermotherapy Application; Review PPTs for Ch. 11</p> <p>Read Lab 5 before class</p> <p>In Lab (ATF): Perform Lab 5.</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit AC 2
September 20	<p>In Lab (ATF): Perform Lab 5.</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Case study – Thermotherapy
September 22	<p>Read Knight & Draper: Ch. 12: Cryotherapy Beyond Immediate Care; Review PPTs for Ch. 12</p> <p>Read Lab 4 before class</p> <p>In Class: Lecture over Ch. 12.</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Lab 5
September 24	<p>Read Knight and Draper: Ch. 13: Application Procedures: Post-Immediate Care; Review PPTs for Ch. 13</p> <p>Read Lab 4 before class</p> <p>In Lab (ATF): Perform Lab 4</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit AC 3
September 27	<p>In Lab (ATF): Perform Lab 4</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Case study – Cryotherapy
September 29	<p>Read Knight and Draper: Ch. 14: Therapeutic Ultrasound; Review PPTs for Ch. 14</p> <p>Read Starkey: Ch. 8: Clinical Application of Therapeutic Ultrasound: Review PPTs for Ch. 8</p> <p>In Class: Lecture over Ch. 14 & CH.8</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Lab 4
October 1	<p>Read Lab 6 before class</p> <p>In Lab (ATF): Perform Lab 6</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit AC 4 • Complete & Submit Case study - Ultrasound

Date	Topic/In Class	Assignments/Exams/Due Dates
October 4	<p>Read Knight and Draper: Ch. 16: Principles of Electricity for Electrotherapy; Review PPTs for Ch. 16</p> <p>Read Starkey: Ch. 12: Electrical Stimulation Techniques; Review PPTs for Ch. 12</p> <p>In Class: Lecture over Ch. 16 & Ch. 12</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit AC 5 • Written Exam Two <ul style="list-style-type: none"> ❖ Online only ❖ Respondus LockDown Browser & Monitor ❖ 1 attempt ❖ Covers (K&D) Ch. 10, 11, 12, 13, & 14; Starkey Chapter 8 ❖ Opens October 4 at 7 AM ❖ Closes October 6 at 10 PM ❖ Under the “Examinations” tab
October 6	<p>Review Knight and Draper: Ch. 16: Principles of Electricity for Electrotherapy</p> <p>Review Starkey: Ch. 12: Electrical Stimulation Techniques</p> <p>In Class: Lecture over Ch. 16 & Ch. 12</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Lab 6 • Complete & Submit Case study – electrical stimulation
October 8	<p>Read Knight and Draper: Ch. 17; Application Procedures: Electrotherapy; Review PPTs for Ch. 17</p> <p>Read Starkey: Ch. 13: Clinical Application of Electrical Agents; Review PPTs for Ch. 13</p> <p>Read Lab 8 before class</p> <p>In Lab (ATF): Perform Lab 8</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit AC 6
October 11	<p>Review Knight and Draper: Ch. 17: Application Procedures: Electrotherapy</p> <p>Review Starkey: Ch. 13: Clinical Application of Electrical Agents</p> <p>In Lab (ATF): Perform Lab 8</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit AC 7
October 13	<p>Read Lab 9 before class</p> <p>In Lab (ATF): Perform Lab 9</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Lab 8
October 15	<p>Read Lab 10 before class</p> <p>In Lab (ATF): Perform Lab 9 & Lab 10</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit AC 8
October 18	<p>Read Knight and Draper: Ch. 18: Therapeutic Massage; Review PPTs for Ch. 18</p> <p>In Class: Lecture over Ch. 18</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Case study – Iontophoresis • Complete & Submit Lab 9
October 20	<p>Read Lab 11 before class</p> <p>In Class: Perform Lab 11</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Lab 10
October 22	<p>Lab – midterm practical; In Athletic Training Facility</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit Case study – Massage;
October 25	<p>Lab – midterm practical; In Athletic Training Facility</p>	<p>Due by 10:00 PM</p> <ul style="list-style-type: none"> • Complete & Submit AC 10 • Complete & Submit Lab 11
October 27	<p>Read Starkey: Ch. 16: Cervical & Lumbar Traction; Review PPTs for Ch. 16</p> <p>Read Knight & Draper: Ch. 19: Spinal Traction; Review PPTs for Ch. 19</p> <p>In Class: Lecture over Ch. 16 & Ch. 19</p>	

Date	Topic/In Class	Assignments/Exams/Due Dates
October 29	Read Lab 12 before class In Class: Perform Lab 12	Due by 10:00 PM <ul style="list-style-type: none"> • Complete & Submit AC 9
November 1	Read Starkey: Ch. 14: Intermittent Compression; Review PPTs for Ch. 14 In Class: Lecture over Ch. 14	Due by 10:00 PM <ul style="list-style-type: none"> • Complete & Submit Case study – Traction • Complete & Submit Lab 12
November 3	Read Lab 13 before class In Lab (ATF): Perform Lab 13	Due by 10:00 PM <ul style="list-style-type: none"> • Complete & Submit AC 11 • Complete & Submit Case study – Intermittent Compression
November 5	Read Chapter 1: Introduction to Pharmacology; Review PPTs for Ch. 1 In Class: Lecture over Ch. 1	Due by 10:00 PM <ul style="list-style-type: none"> • Written Exam Three <ul style="list-style-type: none"> ❖ Online only ❖ Respondus LockDown Browser & Monitor ❖ 1 attempt ❖ Covers (K&D) Chs. 16, 17, 18, & 19; Starkey Chs. 12, 13, 14, & 16 ❖ Opens November 5 at 7 AM ❖ Closes November 7 at 10 PM ❖ Under “Examinations” tab
November 8	Read Chapter 2: Pharmacokinetic Principles: Processes that Affect Drugs from Entry to Exit; Review PPTs for Ch. 2 In Class: Lecture over Ch. 2	Due by 10:00 PM <ul style="list-style-type: none"> • Complete & Submit Lab 13
November 10	Read Chapter 3: Pharmacodynamic Principles: Mechanism of Drug Action and Therapeutic Considerations; Review PPTs for Ch. 3 In Class: Lecture over Ch. 3	
November 12	Read Chapter 5: Drugs for Treating Infections; Review PPTs for Ch. 5 In Class: Lecture over Ch. 5	
November 15	Read Chapter 6: Drugs for Treating Inflammation; Review PPTs for Ch. 6 In Class: Lecture over Ch. 6	
November 17	Read Chapter 7: Drugs for Treating Pain; Review PPTs for Ch. 7 In Class: Lecture over Ch. 7	
November 19	Read Chapter 8: Drugs for Relaxing Skeletal Muscle; Review PPTs for Ch. 8 In Class: Lecture over Ch. 8	
November 22	Read Chapter 9: Drugs for Treating Asthma; Review PPTs for Ch. 9 In Class: Lecture over Ch. 9	
November 24 – 26	University Holiday (Thanksgiving)	No class

Date	Topic/In Class	Assignments/Exams/Due Dates
November 29	Read Chapter 16: Performance Enhancing Drugs; Review PPTs for Ch. 16 In Class: Lecture over Ch. 16	Due by 10:00 PM <ul style="list-style-type: none"> • Written Exam Four (Pharmacology) <ul style="list-style-type: none"> ❖ Online only ❖ Respondus LockDown Browser & Monitor ❖ 1 attempt ❖ Covers Chs. 1, 2, 3, 5, 6, 7, 8, 9, & 16 ❖ Opens November 29 at 7 AM ❖ Closes December 1 at 10 PM ❖ Under “Examinations” tab
December 1	Lab – Final practical in ATF during class time	
December 3	Lab – Final practical in ATF during class time	
December 8	FINAL EXAM	Due by 12:30 PM <ul style="list-style-type: none"> • Opens at 6 AM • Closes at 12:30 PM • Cumulative • 1 attempt • Respondus LockDown Browser & Monitor • Under “Examinations” tab

Case Study:

- Create an injury/case/situation whose best treatment option encompasses that modality topic of the day.
- Write the scenario out including athlete's subjective, objective, and assessment. The plan would be the desired treatment.
- It has to be written in such a way that your chosen modality would be the only treatment of choice.
- You need to include which modality you wrote your case for and the rationale for using that modality.
- Include a cover page with your name, date, and which case study is being submitted. A reference page with at least 2 references. APA format
- 8 case studies at 20 points each. Total of 160 points

Example:

Subjective:

A patient comes to the sidelines during volleyball practice to report an immediate injury. The patient stated that she dove for a ball and hit the court with her thumb. She rates her pain as a 6/10 on a 0-10 pain scale. She denies that she has injured this thumb in the past.

Objective:

- Pain 6/10 on 0-10 pain scale
- Obvious swelling and ecchymosis
- PPT over the DIP of the thumb
- AROM is limited due to swelling and pain.
- PROM is limited due to swelling
- Positive (+) percussion test to the distal phalanx

Assessment:

Possible distal phalanx fracture/bony contusion

Plan:

Methods of treatment most appropriate for this athlete:

- Cold Whirlpool for comfort and to affect the whole hand

Why:

- For vasoconstriction immediately following an acute injury
- To decrease pain and muscle spasm
- To decrease the rate of secondary cell death due to hypoxia and the production of cellular waste

Parameters:

- Time: 10-20 minutes is the guideline; in this case, 10-15 minutes due to the superficial nature of the injury and the hand.
- Skin Temp: 57 degrees for optimal decrease in local blood flow, 58 degrees for analgesia

Physiological effects of the chosen modality on pain:

- Local decrease in free nerve ending sensitivity
- Increase in the threshold for nerve firing
- Slowing of synaptic activity
- Disruption of the pain-spasm-pain cycle through analgesia

Article Critiques:

There are 11 topics that you will read and critique an article pertaining to that topic. The critiques are worth 20 points each.

1. Find a referenced journal article (e.g.: Journal of Athletic Training) pertaining to the topic to be covered
2. READ the entire ARTICLE, not just the abstract
3. Summarize the article in 1-3 paragraphs at least 400 words minimal; then reflect on the article.
 - a. What did you learn?
 - b. What made sense?
 - c. What did you not understand or was confusing?
 - d. What did you agree or disagree with?
 - e. How will you incorporate the information into practice?
4. Turn in at least 1 full page, typed.
5. Provide a cover sheet with your name and topic of article critique.
6. At top of page of your article critique in APA format list the article citation.
7. The journal article must be from 2002 to present.

Example of Citation:

Northam, A.N., Miller, S.A., & Hill, T.J. (2006). How to cite an article in APA format. *Journal of Angelo State University*, 1, 20-25.

Topics:

- Article 1: Pain Perception
- Article 2: Thermotherapy
- Article 3: Cryotherapy
- Article 4: Ultrasound
- Article 5: Phonophoresis
- Article 6: Electrical stimulation
- Article 7: Electrical stimulation (in combination with ultrasound)
- Article 8: Iontophoresis
- Article 9: Spinal traction
- Article 10: Massage
- Article 11: Intermittent compression

Skill Assessment Guidelines and Rules:

Skill Assessments need to be completed in the following manner. Assessments are not optional.

- Due by the assigned due date.
- Peer checked at least 24 hours prior to preceptor check.
- Must schedule an approved time with your preceptor to complete your skill assessment [up to preceptor's discretion (i.e. 24 hours prior, 1 week in advance, etc.)]
- Must score an 80% or better on ALL skill assessments in ALL athletic training related courses in order to be certified to take your LAT exam.
- Must make an 80% or better on first attempt of a skill assessment with your preceptor. Points for the class will be awarded based on the grading scales below.
- If you score below an 80% on the first attempt:
 - ❖ You are required to re-do that skill assessment with your preceptor for a second attempt within 1 week from the assigned due date for a maximum of 20 points in the class.
 - ❖ A first attempt must be made by the assigned due date in order to perform a second attempt.
- If a first attempt is not made by the assigned due date, you will receive 0 points for that skill assessment in the class. (However, you must make an 80% or better to be certified to take your LAT exam. The date and time will be scheduled by your preceptor by the end of the current semester.)

Grading Scale – First Attempt	Point value
90-100%	40
80-89%	20
70-79%	5
69% and below	0

Grading Scale – Second Attempt	Point value
90-100%	20
80-89%	10
79% and below	0

Due Date:	Skill Assessment:
September 13, 2021	Introduction Quiz
September 20, 2021	Superficial Heat
September 27, 2021	Cryotherapy
October 4, 2021	Ultrasound
October 15, 2021	Electrotherapy
November 1, 2021	Massage/Traction

Professionalism:

You as a student are responsible for your academic career. The Athletic Training Specialization faculty and clinical preceptors expect you to develop certain attributes and qualities as a professional athletic trainer. One attribute is to establish professional goals and develop and foster professional relationships.

In order to reach your goal to become a licensed professional, here are some priorities that must be met:

A. Academic Endeavors

Your courses should be your first priority. Academic endeavors must be pursued rigorously. This means all of your courses. Attending class, supplemental instruction, study hours, and study sessions should be your main focus. For every hour of course work you take, you should spend approximately 3 hours studying. For example – if you have 15 credit hours, you should spend a minimum of 45 hours a week in study and preparation for those courses. You need to be present for all courses no matter if the professor/instructor has an attendance policy or not. If you are ill, please seek medical attention. You will need to provide medical documentation to return to classes and clinical hours.

B. Clinical Experience

Clinical experiences and opportunities should be your second priority. Your clinical hours should be viewed as another learning opportunity and an extension of what you are learning in the classroom. You need to establish professional habits while in the clinical setting. Some of these habits and actions include but are not limited to:

- Dressing appropriately and being in professional work attire
- Actively seeking learning opportunities in the clinical setting
- Being productive in the clinical setting
- Practicing your knowledge, skills, and abilities while in the clinical setting with the guidance of your clinical preceptors
- Developing professional relationships with your clinical preceptors

C. College life

I understand and acknowledge your need to be social and possess healthy relationships with your peers, but this should not be a priority for your entire academic career. Starting this semester, you may study in the athletic training facility from 7 am to 12 pm, but in the afternoons you will no longer will be allowed to study and do homework at the expense of patient care and your athletic training knowledge, skills, and abilities. In other words, “no more sitting at the counter, hiding in the athletic training facility, and/or sitting in your clinical preceptor’s office” to avoid participating in patient care and learning opportunities.

Statement of Acknowledgement:

My signature is my acknowledgement that I have read the syllabus and “Professionalism Statement.”

Signature:

Date:

Please print and return to Sherry Ann Miller by the second course day.

ⁱ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

ⁱⁱ <https://www.angelo.edu/services/disability-services/>

ⁱⁱⁱ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

^{iv} <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

^v https://www.angelo.edu/dept/writing_center/academic_honesty.php

^{vi} <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

^{vii} <https://www.angelo.edu/student-handbook/>

^{viii} <https://www.angelo.edu/catalogs/>