

AT 6315
Therapeutic Modalities
S10 & Lab S1Z
Spring 2022



Instructor: Dr. Yo-Rong Chen, PhD, LAT, ATC

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Phone: (325)486-6507

Class Time: March 21- May 11; Mon/Tues/Wed; 12-2 PM

Classroom: HHS 114

Office Hours: Tuesday and Friday 10 AM-12 PM and by appointment

Office Number: HHS 224M

Course Information

Course Description

This course will study the principles, biophysical effects, indications, and contraindications associated with therapeutic modalities used in the treatment and rehabilitation of orthopedic injuries. Topics include but are not limited to thermal agents, therapeutic ultrasound, electrical stimulation, mechanical devices.

Prerequisite Courses

NA

Prerequisite Skills

Accessing Internet websites, using ASU Library resources, and proficiency with Microsoft Word and/or PowerPoint are expectations of the AT 6315.

Program Outcomes

Upon completion of the course, students will be prepared to:

Student Learning Outcomes

CODE	Student Learning Outcome Description By completing all course requirements, students will be able to:	Assessments
PCL-69	Develop a care plan for each patient. The care plan includes (but is not limited to) the following:	Case Study Presentation Practical Exam
PCL-69.1	Assessment of the patient on an ongoing basis and adjustment of care accordingly	Case Study Presentation Practical Exam
PCL-69.2	Collection, analysis, and use of patient-reported and clinician-rated outcome measures to improve patient care	Case Study Presentation Practical Exam
PCL-69.3	Consideration of the patient's goals and level of function in treatment decisions	Case Study Presentation Practical Exam
PCL-69.4	Discharge of the patient when goals are met or the patient is no longer making progress	Case Study Presentation Practical Exam
PCL-69.5	Referral when warranted	Case Study Presentation Practical Exam
PCL-71.4.j	Pain level	Case Study Presentation Practical Exam
PCL-71.4	Selecting and using tests and measures that assess the following, as relevant to the patient's clinical presentation:	Case Study Presentation Practical Exam, Quiz, Written Exam
PCL-73	Select and incorporate interventions (for pre-op patients, post-op patients, and patients with nonsurgical conditions) that align with the care plan. Interventions include (but are not limited to) the following:	Case Study Presentation Practical Exam, Quiz, Written Exam
PCL-73.7	Therapeutic modalities	

Course Delivery

This is primarily a face-to-face course with roughly 25% of the course delivered online via Blackboard¹. All of the course lectures and PowerPoints should be accessed via Blackboard.

Required Texts and Materials

Therapeutic Modalities: the art and science (3th ed.). Wolters Kluwer. David O. Draper, Lisa S. Jutte, and Kenneth L. Knight

¹ <https://blackboard.angelo.edu>

Technology Requirements

To participate in one of ASU's distance education programs, you need this technology:

- A computer capable of running Windows 7 or later, or Mac OSX 10.8 or later
- The latest version of one of these web browsers: internet Explorer, Firefox, or Safari
- 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](#)

Topic Outline

Date	Topic	Assignments	Ch.
Week 1 3/21-3/23	<u>Perspective. Part I</u> 1: Therapeutic Modalities: What and why they are used (15 pts) 2: Evidence-Based Practice (15 pts) 3: General Application Procedures (10 pts) 4: Injury Record Documentation (10 pts)	Week #1 Prelab Videos Week #1 Quiz Lab Activity-1	1, 2, 3, 4,
	<u>Thermo Therapy. I</u> 10. Principle of Heat for Thermotherapy 11. Superficial Thermotherapy Application	*Pre-Learning Presentation	10, 11
	3/23 *Wednesday: Pre learning Presentation (ATrack-SOAP)		
Week 2 3/28-3/30	<u>Perspective. Part II</u> 5: Tissue Responses to Injury (20 pts) 6: Immediate Care of Acute Injuries (20 pts) 7: The healing process (10 pts)	Week #2 Prelab Videos Week #2 Quiz Lab Activity-2	5, 6, 7, 8, 9,
	<u>Thermo Therapy.II</u> 12. Cryotherapy Beyond Immediate Care 13. Cryotherapy Application for Post-immediate Care	* Case study scenario assigned for Final Presentation	12, 13
Week 3 4/4-4/6	<u>Perspective. Part III</u> 8: Pain and Injuries (35 pts) 9: Relieving Pain (15 pts) <u>Thermo Therapy.III</u> 14. Therapeutic Ultrasound	Week #3 Prelab Videos Week #3 Quiz Lab Activity-3	14,

Date	Topic	Assignments	Ch.
Week 4 4/11-4/13	<u>Electrotherapy</u> 16. Principle of Electricity for Electrotherapy (50 pts) *Hivamat * Dry Needling	Week #4 Prelab Videos Week #4 Quiz Lab Activity-4	16, 17,
Week 5 4/18-4/20	<u>Mechanical Modalities</u> 18. Therapeutic Massage 19. Spinal Traction 20. Positional Release Therapy * Suction/Fire Cupping	Week #5 Prelab Videos Week #5 Quiz Lab Activity-5	18, 19, 20,
Week 6 4/25-4/27	<u>Other Energy</u> 21. Laser Therapy 22. Nitrogen Vapor Cryotherapy 23. Pulsed Electromagnetic Field Therapy April 26th: Blood Flow Restriction Guest Speaker: Dr. Kendra Nicks, PT, ScD, COMT	Week #6 Prelab Videos Week #6 Quiz Lab Activity-6	21, 22, 23
Week 7 5/2-5/4	24 & 25. Differential Application & Case Studies 5/2 (M): Final case study presentation 5/3 (T): Open Lab Practice 5/4 (W): Practical Exam Day * 1:00 PM-5:00 PM	Case study presentation Week #7 Quiz * See rubric	24, 25,
Week 8 5/9-5/11	Mon: 5/9 Final Written Exam † 1:00 PM-3:00 PM	† Lockdown browser	

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, includes the course name and section number in your subject line.

Grading - Evaluation and Grades

Course grades will be determined as indicated in the table below.

Assessment	Points of Total Grade
Prelab Videos (50 points each) *6	300
Weekly Quiz (50 points each) *7	350
Lab Activity (50 points each) *6	300
Pre-learning Presentation	50
Final Case Study Presentation	200
- Quiz Inputs (50 points)	
- Presentation Slides PDF (50 points)	
- Peers Grading (50 points)	
- Instructor Grading (50 points)	
Final Practical Exam	200
Final Written Exam	200
TOTAL	1600

*It is students' responsibility to complete each assignment on time. Late submission will not be accepted only if 24 hours earlier communication initiates from students to the instructor.

Prelab Videos (300/1600)

Students are required and responsible to complete watching the video and answering the questions built into the video prior to the Monday classes by 12 PM, except the first week video due by Wed 11:59 PM.

Weekly Quizzes (350/1600)

Sectional quizzes will be opened on individual Wednesdays and close on the same Sunday at 11:59 PM. There are 7 sections, 50 points for each with 5 to 10 questions.

Lab Activities (300/1600)

Lab activities will be assigned each week. Students are required to submit the lab report by each Wednesday at 11:59 PM.

Pre-learning Presentation (50/1600)

This presentation is to help the instructor to understand students' background knowledge regarding modality and clinical reasoning. Students will require to complete a SOAP (subjective, objective, assessment, and plan report) on ATrack and present their rational with their interventions. Students will present one of the case they experienced in the current semester clinical rotation.

Final Case Study Presentation (200/1600)

Each student will receive a case scenario on the second week. According to the scenario's pathological stage and modalities introduced in this course, students are required to implement a protocol to the assigned case and present it in the class in a conference style. The presentation needs to include: 1) introduction of the scenario, 2) summaries of peer-reviewed journals evidence (at least 5 articles published within the past 5 years), 3) suggestions from at least 2 mentors' interviews, and 4) a treatment plan with critical rational. Please read the document [Case Presentation Explanation](#) for more detailed information, including grading scales for Peers and Instructor Feedback, Quiz Inputs, and Presentation PPT and PDF.

Final Written Exam (200/1600)

The final written exam will be taken place on Wednesday, May 11th, at 1:00 PM. It will be performed on a lockdown browser with the Board of Certification examination style.

Practical Exam (200/1600)

Each student will receive a case scenario and require to incorporate the knowledge of modalities to choose an appropriate intervention with clear rationale and communication skills. Each student has 60 minutes exam window. In the first 30 minutes, each student will study the case scenario and write down the modality/parameter/rationale...on a paper. In the last 30 minutes, the students will perform the modality on a patient and explain the protocol to the instructor. See the [Practical Exam Grading Rubric](#) for detailed information.

This course is graded strictly on points NOT percentages. The amount of points you earn determines your grade in the course. I DO NOT ROUND UP GRADES at the end of the semester. It is your responsibility to keep track of the total course points you have accumulated and take advantage of the bonus points available in the course.

Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

A = 1440-1600 points

B = 1280-1439.99 points

C = 1120-1279.99 points

D = 960-1119.99 points

F = 0-959.99 points (Grades are not rounded up)

Teaching Strategies

Students are expected to be “active learners.” It is a basic assumption of the instructor that students will be involved (**beyond the materials and lectures presented in the course**) discovering, processing, and applying the course information using peer-review journal articles, researching additional information and examples on the Internet, and discussing course material and clinical experiences with their peers.

Assignment and Activity Descriptions

All exams are closed book in class examinations. This means you are expected to take all exams on the scheduled date under the supervision of the instructor. Any absence during a scheduled time must be discussed on an individual basis with the instructor prior to the absence on when and if the exam may be made up.

Assignment Submission

All assignments MUST be submitted through the Assignments link in 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 yo-rong.chen@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 in Blackboard. 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

Late work will not be accepted unless you have received permission from the instructor prior to the due date. If you miss an assignment due to an unexcused absence, you are out of luck. Show up for class!

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](https://www.angelo.edu/student-handbook/)²
- [Angelo State University Catalog](https://www.angelo.edu/catalogs/)³

Recommended Use of Masks/Facial Coverings by Students in Class At ASU

² <https://www.angelo.edu/student-handbook/>

³ <https://www.angelo.edu/catalogs/>

As a member of the Texas Tech University System, Angelo State University strongly recommends the use of masks/facial coverings to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, we strongly recommend that students in this class wear a mask/facial covering before, during, and after class. Faculty members will also ask you to display your daily screening badge as a prerequisite to enter the classroom.

Student Responsibility and Attendance

It is the student's responsibility to be on time for class, participate in class discussions, and be actively engaged in the learning process. Instructions and assignments will often be given during class, therefore it is in your best interest to attend. If you have to miss class due to an unforeseen event/accident or illness, please contact the instructor prior to the start of class. Pending the reason for your absence, the instructor may inform you of any missed homework assigned during class. Not acceptable reasons for absences include but are not limited to: over sleeping, work, wanting to leave early or come back late from the weekend, and celebrating a friend, relative or pet's birthday. If you are sick, let the instructor know and bring a physician's note when you come back to class.

Food and Drink Policy

Only bottles of water or water in containers with lids are allowed in the HHS building.

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](#).⁴

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.

⁴ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

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](#).⁵ 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](#)⁶ for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)⁷ 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](#).⁸

⁵ <https://www.angelo.edu/services/disability-services/>

⁶ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁷ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

⁸ https://www.angelo.edu/dept/writing_center/academic_honesty.php

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](#)⁹ 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 Boone, 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

⁹ <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

Email: michelle.boone@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 Outcomes

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.
4. Acquiring skills in working with others as a member of a team.
5. Learning to apply knowledge and skills to benefit others or serve the public good

End of Syllabus