

Course Information

Course Number: KINE 427
Course Title: Therapeutic Principles
Section: 502
Room: GGB 105
Time: Tuesday & Thursday 2:20 – 3:35pm
Credit Hours: 3 credits
Class Notes: Canvas

Instructor Details

Instructor: Aaron B. Morton, Ph.D.

Office: Gilchrist 314

Phone: 979-862-1181

E-Mail: amorton@tamu.edu (TAMU email is the preferred contact method with response within 24 hours M-F; 48 hrs. on weekends. Any email received after 7PM will not be responded to until next day. If faculty will be out of office and know that they will not be able to respond in this time frame, they will set their email for an out of office notification and will provide contact information for another faculty member.)

Office Hours: Scheduled as needed.

Course Description

Therapeutic Principles. (3-0). Credit 3. Examination of human tissue types, characteristics, and physiology pertaining to injury, pain transmission, and the healing process; study of common therapeutic modalities such as ultrasound and electricity with emphasis on physiological mechanisms of effect.

Course Prerequisites

Grade of C or better in BIOL 319, 320, and PHYS 201; Junior or Senior classifications. ZOOL 319, ZOOL 320

Course Learning Outcomes

Students will:

1. Acquire a working understanding of the terminology, physiology, and structural / functional anatomy of various neuromuscular and musculoskeletal tissues and systems (skin, blood, tendon, ligament, cartilage, bone, muscle, nerve, connective tissue, and some organ systems) as they pertain to:
 - a) prevention of specific injuries & diseases
 - b) physiology of pain & inflammation
 - c) the physiology of healing and therapeutic strategies
 - d) treatment & rehabilitation of specific injuries & diseases
2. Become familiar with the rationale and techniques for various types of preventive and rehabilitative exercise.

3. Understand how such common therapeutic modalities as heat, cold, ultrasound, drugs, electricity, and other therapeutic regimens aid in the healing and rehabilitation process. To understand concepts and principles behind various diagnostic and therapeutic technologies. To understand medical strategies and procedures to combat selected injuries and diseases.

Textbook and/or Resource Materials

Required Text and Reading:

- Draper, D. O., Knight, K. L., & Jutte, L. S. (2021). Therapeutic modalities: The art and science, 3rd edition. Wolters Kluwer, ISBN 978-1975121327. Available from Barnes and Noble Bookstore, Amazon.com, or the publisher site. 30% OFF DISCOUNT CODE WZT46NFT for STUDENTS on <https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Flippincottdirect.lww.com%2FMedicalEducation-TexasAMUniversityCollegeStation-Fall2022&data=05%7C01%7Camorton%40tam.u.edu%7C5dca8c5d4602452c262c08da7ee7480c%7C68f381e346da47b9ba576f322b8f0da1%7C1%7C0%7C637961829080457285%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IjE6IHR5cGU6IjV9pft70w%3D%7C3000%7C%7C%7C&sdata=2uRmapz4dnoztugnmV3ehqGK5Zo6wags75VI9pft70w%3D&reserved=0>
- **Supplemental Readings** will be assigned and available in Canvas.
- **FYI Supplemental Readings** are not required reading but are provided in Canvas for additional information if interested.

Lectures, Reading Assignments and Exams. NOTE: Material will be presented in lecture that is not contained in the recommended text. Ideally, students should read the recommended text assignments before the lecture on the topic, take comprehensive notes during lecture on lecture slides printed out beforehand, then, using the notes and the text, create “study sheets” from which to:

1. commit the necessary material to memory
2. learn how to integrate and apply the related concepts.

Exams will be available on exam days on Canvas.

Helpful Resources:

- <http://tamulibguides.com/hlkn>
 - Includes links to anatomy resources (Anatomy TV, Clinical Key: Gray’s Atlas of Anatomy, Anatomy Expert)
- <http://tamulibguides.com/attr>
- <http://www.nata.org>
- <https://www.nata.org/practice-patient-care>
- <http://ksi.uconn.edu/>
- <http://www.swata.org>
- <http://www.tsata.org>
- <http://bocatc.org>
- <http://www.apta.org>
- <http://www.nbcot.org>
- <http://www.aota.org>
- <http://www.aapa.org>

Grading Policy

Grades awarded in this class will be calculated as a simple percentage of the total number of points possible. The specific point values for each of the various evaluative criteria appear below, as well as the grading scale to be applied to earned percentage values.

1. 3 Written Examinations: 100 points each	300 pts
2. Introduction Discussion	5pts
3. 8 Discussion Post Assignments 20 pts each	160pts
Total Points:	465 points

Grading Scale:

89.5% and above A; 79.5-89.49% B; 69.5-79.49% C; 59.5-69.49% D; Below 59.49% F

A. Discussion Board Posting.

You will create an initial Discussion Board post.

After creating this, you will then be able to see your classmates' original posts.

Once you have created your post, you will then reply to at least one classmate and add to the discussion. Ask questions, challenge one another and their train of thoughts.

*Make sure you challenge each other professionally. Be courteous to one another and appreciate each other's viewpoints.

Writing Help: The University Writing Center serves students, faculty, and staff at Texas A&M with the mission to produce competent writers and public speakers by providing specialized programs and services. You can contact the Writing Center or learn more about the services available by going online to <http://writingcenter.tamu.edu/> or calling 979-458-1455. You can also call 979-845-2160 for a fast answer to a quick question, or you can schedule a one-on-one session, participate in a group writing session, or submit your document online for help. There are special workshops and videos for graduate writing help. The Evans Library location is primarily by appointment only while the West Campus location is for walk-ins only.

Late Work Policy

Late work is not accepted. Late work is considered any work/assignment/product/exam, etc. that is submitted after the stated due date in the syllabus. All work should be turned in at the beginning of class unless otherwise indicated in the syllabus.

Course Schedule

Week	Topic	Reading	Assignment
Week 1			
T 8/22	Introduction, Course Objectives, Course Expectations, Schedule	Syllabus	Intro Discussion Post & Reply
Th 8/24	Tissue Types – Epithelial Tissue	PPT	



Week 2			
T 8/29	Tissue Types – Connective Tissue	PPT	
Th 8/31	Tissue Types – Muscular and Nervous Tissue	PPT	Discussion Board # 1 opens
Week 3			
T 9/5	Fascial Anatomy and Myofascial Lines – RECORDED OUT OF CLASS	PPT	
Th 9/7	The Injury Response Process	Ch 5 Knight	
Week 4			
T 9/12	Concepts of Healing and Therapeutic Exercise	Ch 7 Knight, PPT, Text, Video	Discussion Board # 2 opens
Th 9/14	Wound Healing	Ch 7 Knight PPT	
Week 5			
T 9/19	Wound healing and Review for Exam 1	PPT	
Th 9/21	Exam 1 in CANVAS		
Week 6			
T 9/26	Physiology and Psychology of Pain	Ch 8 Knight, PPT	Discussion Board # 3 opens
Th 9/28	Development of Intervention Strategies and Outcomes Measures Administrative Considerations RECORDED OUT OF CLASS	Ch 2 Knight, PPT	
Week 7			
T 10/3	Clinical Examination for Therapeutic Exercise	Ch1 Knight, PPT	
Th 10/5	ROM & Flexibility	PPT, Article, Video	Discussion Board # 4 opens
Week 8			
T 10/10	Fall Break		
Th 10/12	Physical Properties Governing Therapeutic Modalities and the Electromagnetic Spectrum Exam Review	PPT	
Week 9			
T 10/17	Exam 2 in CANVAS		
Th 10/19	Therapeutic Modalities Introduction Cryotherapy	Ch 12 Knight, PPT, Article	Discussion Board # 5 opens
Week 10			
T 10/24	Cryotherapy	Ch 13 Knight	

Th 10/26	Superficial Thermo Therapy	Ch 10 & 11 Knight, PPT	
Week 11			
T 10/31	Deep Thermotherapy - SWD	Ch 15 Knight, PPT	
Th 11/2	Ultrasound	Ch 14 Knight, PPT, Article	Discussion Board # 6 opens
Week 12			
T 11/7	Electrical Stimulation	Ch 16 & 17 Knight, PPT	
Th 11/9	Electrical Stimulation	Ch 16 & 17 Knight, PPT	Discussion Board # 7 opens
Week 13			
T 11/14	Traction	Ch 19 Knight, PPT, Article	
Th 11/16	Intermittent Compression/CPM	Ch 6 Knight, PPT	Discussion Board # 8 opens
Week 14			
T 11/21	Laser - RECORDED OUT OF CLASS	Ch 21 Knight, PPT	
Th 11/23	Thanksgiving Holiday		
Week 15			
T 11/28	Emerging Modalities/ Final Exam Review		
Th 11/30	Flex Day		
Week 16			
T 12/5	Reading Day, No Class		
W 12/12	Final Exam in CANVAS		

Class Specific Policies

Writing and Presentation Help:

The mission of the University Writing Center (UWC) is to help you develop and refine the communication skills vital to success in college and beyond. Currently, you can choose to work with a trained UWC peer consultant via web conference or email. You can schedule an appointment to discuss any kind of writing or speaking project, including research papers, lab reports, application essays, or creative writing. Their consultants can work with you at any stage of your process, whether you're deciding on a topic or reviewing your final draft. You can also get help with public speaking, presentations, and group projects. To schedule an appointment or to view handouts, video or interactive learning modules, visit writingcenter.tamu.edu. Questions? Call 979-458-1455 or email uwc@tamu.edu.

Course Preparation:

- Students are expected to be prepared for each class by reading the necessary materials (text,

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- supplementary reading, position statements, PowerPoint notes, etc.) prior to the class.
 - Students are expected to actively participate in classroom activities and discussions.
 - Students are expected to use professional and respectful communication skills including proper terminology during discussions, group activities, online discussions and in all verbal and written communications.

Electronic Submission of Course Assignments:

At times, students may be required to submit a course assignment electronically by emailing it to the course instructor or uploading it to Canvas on a specified date and time. **Failure to follow electronic submission guidelines may result in the assignment not being accepted.**

When doing so, students are expected to do the following:

- Send a professional email to the instructor which contains a professional salutation (Dr., or Ms., or Mr.),
- Brief information regarding the purpose of the email should be included, and;
- The email should end with the student's name, affiliation and contact information.
- The subject line on the email should include the course, assignment, and student name.
- The name of the attached or uploaded file should be as follows unless otherwise specified: Course prefix and number (ATTR 670), Name of assignment (Case Creation), Jane Doe, 11.14.20

Netiquette:

This course may have a web-based component, which will require students to communicate with instructor and classmates through email or online forums (discussion boards), making effective communication crucial to the success of online learning. Please avoid "net speak" like "u", "r", "omg", and "lol". Please also refrain from using all capital letters, as this is often interpreted as shouting. Treat your instructor and fellow students with respect at all times, and in all communication. Please review the Office of Digital Learning Technologies' Guidelines for effective communication. As an additional resource please review the following Wikipedia page: http://en.wikipedia.org/wiki/Etiquette_in_technology

Professional Conduct:

Students are expected to conduct themselves professionally at all times and to adhere to the guidelines published in the Texas A&M University Student Rules and the MSAT Student Handbook. Professional conduct entails but is not limited to attending classes on time, showing respect for the instructor and fellow classmates, being prepared for class, dressing appropriately and turning completed assignments in on time with exact adherence to instructions for completion.

The School of Education and Human Development upholds the Aggie Core Values, welcomes all individuals and respects their different experiences, beliefs and values. Our School promotes reasoned discussions and intellectual arguments, accepting disagreement as long as it is respectful. We will not tolerate unprofessional, insensitive, or disrespectful behavior.

Cell Phones, laptops/tablets and other electronic devices:

Cell phones should be turned OFF during class and put away – not in silent/vibrate or other mode. Students must not answer incoming calls or text (or other mode of communication) during class. These are to be turned off and put away before entering the classroom. If you have a situation (family illness, etc.), and you need to be contacted, notify the instructor to acquire permission to keep the device on vibrate and then step out of the room before answering. Laptops/tablets may only be utilized for note

taking or for other authorized classroom activities. Failure to abide by this policy will result in student being disallowed to utilize these devices.

University Policies

Attendance Policy

The university views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments.

Please refer to [Student Rule 7](#) in its entirety for information about excused absences, including definitions, and related documentation and timelines.

Makeup Work Policy

Students will be excused from attending class on the day of a graded activity or when attendance contributes to a student's grade, for the reasons stated in Student Rule 7, or other reason deemed appropriate by the instructor.

Please refer to [Student Rule 7](#) in its entirety for information about makeup work, including definitions, and related documentation and timelines.

Absences related to Title IX of the Education Amendments of 1972 may necessitate a period of more than 30 days for make-up work, and the timeframe for make-up work should be agreed upon by the student and instructor" ([Student Rule 7, Section 7.4.1](#)).

"The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence" ([Student Rule 7, Section 7.4.2](#)).

Students who request an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. (See [Student Rule 24](#).)

Academic Integrity Statement and Policy

"An Aggie does not lie, cheat or steal, or tolerate those who do."

"Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one's work, should the instructor request it, may be sufficient grounds to initiate an academic misconduct case"([Section 20.1.2.3, Student Rule 20](#)).

You can learn more about the Aggie Honor System Office Rules and Procedures, academic integrity, and your rights and responsibilities at aggiehonor.tamu.edu.

Americans with Disabilities Act (ADA) Policy

Texas A&M University is committed to providing equitable access to learning opportunities for all students. If you experience barriers to your education due to a disability or think you may have a disability, please contact Disability Resources in the Student Services Building or at (979) 845-1637 or visit disability.tamu.edu. Disabilities may include, but are not limited to attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability related needs with Disability Resources and their instructors as soon as possible.

Title IX and Statement on Limits to Confidentiality

Texas A&M University is committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws prohibit gender-based discrimination and sexual harassment, including sexual assault, sexual exploitation, domestic violence, dating violence, and stalking.

With the exception of some medical and mental health providers, all university employees (including full and part-time faculty, staff, paid graduate assistants, student workers, etc.) are Mandatory Reporters and must report to the Title IX Office if the employee experiences, observes, or becomes aware of an incident that meets the following conditions (see [University Rule 08.01.01.M1](#)):

- The incident is reasonably believed to be discrimination or harassment.
- The incident is alleged to have been committed by or against a person who, at the time of the incident, was (1) a student enrolled at the University or (2) an employee of the University.

Mandatory Reporters must file a report regardless of how the information comes to their attention – including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Although Mandatory Reporters must file a report, in most instances, a person who is subjected to the alleged conduct will be able to control how the report is handled, including whether or not to pursue a formal investigation. The University's goal is to make sure you are aware of the range of options available to you and to ensure access to the resources you need.

Students wishing to discuss concerns in a confidential setting are encouraged to make an appointment with [Counseling and Psychological Services](#) (CAPS).

Students can learn more about filing a report, accessing supportive resources, and navigating the Title IX investigation and resolution process on the University's [Title IX webpage](#).

Statement on Mental Health and Wellness

Texas A&M University recognizes that mental health and wellness are critical factors that influence a student's academic success and overall wellbeing. Students are encouraged to engage in healthy self-care by utilizing the resources and services available from Counseling & Psychological Services (CAPS). Students who need someone to talk to can call the TAMU Helpline (979-845-2700) from 4:00 p.m. to 8:00 a.m. weekdays and 24 hours on weekends. 24-hour emergency help is also available through the National Suicide Prevention Hotline (800-273-8255) or at suicidepreventionlifeline.org.