PTHA 2509 Therapeutic Exercise

Course Syllabus: Spring 2018



"Northeast Texas Community College exists to provide responsible, exemplary learning opportunities."

Deanna Moody Office: UHS 106 Phone: 903-434-8358

Email: dmoody@ntcc.edu

Office Hours

| Monday | Tuesday | Wednesday | Thursday | Friday | Online |
|------------|-----------|------------|-----------|--------|--------|
| 9:00-12:00 | 1:00-3:00 | 9:00-12:00 | 1:00-3:00 | None | None |

The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Catalog Course Description (include prerequisites): Critical examination of concepts and application of techniques related to therapeutic exercise and functional training. Prerequisites: Admission to the program, Anatomy and Physiology I and/or II or equivalent.

Required Textbook(s):

- 1. <u>Fundamental Orthopedic Management for the Physical Therapist Assistant</u>, Manske, 4th ED., Mosby, 2016.
- 2. <u>Therapeutic Exercise: Foundations and Techniques</u>, Kisner and Colby, 7th ED., F.A. Davis, 2018.

Publisher: Elsevier, F. A Davis

ISBN Number: 9780323113472, 9780803658509 Recommended Reading(s): See Course Schedule

Student Learning Outcomes: Identify and utilize the theory, principles, and techniques of therapeutic exercise (1); demonstrate performance of and instruction in therapeutic exercise and functional training for various patient populations (2); discuss the rationale for the application and modification of therapeutic exercise (3); and utilize relevant communication techniques (4).

GENERAL OBJECTIVES

- 1. Discuss potential implications of in-attendance and tardiness in the classroom/lab setting.
- 2. Behave in a professional manner appropriate to the clinical setting during lab practicals.
- 3. Demonstrate acceptance and application of faculty feedback on written, oral and practical exams.
- 4. Describe errors and discuss correct responses upon completion of a practical exam or skill check.
- 5. Seek opportunities to promote access to or awareness of PT.

SPECIFIC OBJECTIVES

On a written exam and/or lab partner through lab check-off with a lab partner or practical examination with simulated patients as listed below with 75% proficiency, the student will be able to:

Therapeutic Exercise - General Information:

- 1. Define terms utilized in therapeutic exercise programs.
- 2. Correlate muscle action with selected exercises or functional activities.
- 3. Link pathological conditions and patient problems with appropriate therapeutic exercises and equipment.
- 4. Describe the factors affecting selection of therapeutic exercise equipment.
- 5. Describe the phases of soft tissue injury, repair, and management including acute, subacute, chronic, and cumulative trauma/chronic recurring pain.
- 6. Identify and describe the basic components of ligament, bone, cartilage, muscle/tendon, and neurovascular healing; and thromboembolic resolution.
- 7. Identify common medications used in orthopedic patient populations.
- 8. Demonstrate beginning skills in the performance of selected basic exercise techniques and progressions.
- 9. Demonstrate the use of various types of equipment available for basic exercise.
- 10. Demonstrate safe use of therapeutic exercise equipment.
- 11. Demonstrate safe body mechanics in carrying out therapeutic exercise.
- 12. Instruct patient in appropriate body mechanics during therapeutic exercise simulated treatment sessions.
- 13. The student will instruct in a therapeutic exercise program consistent with the treatment plan developed by the physical therapist.
- 14. Demonstrate the skills needed to manage a program of therapeutic exercise by implementing the treatment plan and carrying out appropriate progression within the POC.
- 15. Document treatment sessions using a SOAP note format demonstrating the ability to place data in appropriate sections.

Joint Mobilizations:

- 16. Identify the role of joint mobilization in treatment of orthopedic conditions.
- 17. Identify the limitations of practice of joint mobilization as it relates to the PTA.
- 18. Identify indications, contraindications, and precautions for performing peripheral joint mobilization.
- 19. Describe the basic grades utilized in extremity joint mobilization techniques and identify a purpose of each.
- 20. Identify the direction of glide for peripheral joint mobilization using the rule of concave/convex to demonstrate knowledge of appropriate joint function.
- 21. Identify the resting positions and capsular patterns for each of the major extremity ioints of the body.
- 22. Demonstrate beginning skills in the performance of selected extremity joint mobilizations.

Communication:

- 22. Demonstrate effective communication skills with patients including introduction of self as a student, giving effective instructions, adequate feedback, and encouragement during simulated patient scenarios.
- 23. Demonstrate effective communication skills with physical therapist including demonstration of appropriate understanding of the plan of care during simulated patient scenarios.
- 24. Demonstrate effective communication skills with rehab tech including requesting assistance when needed and giving appropriate instructions for assisting with patient care.
- 25. Demonstrate effective communication skills during presentation of professional information to instructors and students.

Shoulder Girdle:

- 26. Define terms utilized in orthopedic conditions of the shoulder girdle.
- 27. Identify the etiology and clinical signs/impairments or functional limitations of various shoulder disorders.
- 28. Select appropriate exercises or other treatments for patients with various non-surgical and surgical shoulder disorders to achieve the desired outcome/goal as set by the physical therapist in the plan of care.
- 29. Identify precautions/contraindications to exercise or other activities for various shoulder disorders.
- 30. Integrate information regarding the surgical procedure into the postoperative rehab exercise program for various shoulder surgeries.
- 31. Demonstrate and explain the techniques of different exercises for treatment of shoulder girdle pain and disorders.
- 32. Select appropriate home exercises for various shoulder girdle disorders from text and class materials or home exercise program software.

Elbow, Forearm, Wrist and Hand:

- 33. Define terms utilized in orthopedic conditions of the elbow, forearm, wrist and hand.
- 34. Identify the etiology and clinical signs/impairments or functional limitations for various elbow, forearm, wrist and hand disorders.
- 35. Select appropriate exercises and other treatments for patients with various non-surgical and surgical elbow, forearm, wrist, or hand disorders to achieve the desired outcome/goal as set by the physical therapist in the plan of care.
- 36. Identify precautions/contraindications to exercise or other activities for various elbow, forearm, wrist, and hand disorders.
- 37. Integrate information regarding the surgical procedure into the post-operative rehab exercise program for various elbow, forearm, wrist, or hand surgeries.

- 38. Demonstrate and explain the techniques of different exercises for treatment of various elbow, forearm, wrist, and hand disorders.
- 39. Select appropriate home exercises for various elbow, forearm, wrist and hand disorders from text and class materials or home exercise program software.

Hip and Knee:

- 40. Define terms utilized in orthopedic conditions of the hip or knee.
- 41. Identify the etiology and clinical signs/impairments or functional limitations of various non- surgical hip and knee disorders.
- 42. Select appropriate exercises and other treatments for patients with various nonsurgical and surgical hip and knee disorders to achieve the desired outcome/goal as set by the physical therapist in the plan of care.
- 43. Identify precautions/contraindications to exercise or other activities for various hip and knee disorders.
- 44. Integrate information regarding the surgical procedure into the post-operative rehab exercise program for various hip and knee surgeries.
- 45. Identify the purpose of various skin and skeletal traction devices for LE fractures.
- 46. Demonstrate and explain the techniques of different exercises for treatment of various hip and knee disorders.
- 47. Select appropriate home exercises for various hip and knee disorders from text and class materials or home exercise program software.

Ankle and Foot:

- 48. Define terms utilized in orthopedic conditions of the ankle or foot.
- 49. Identify the etiology and clinical signs/impairments or functional limitations of various foot and ankle disorders.
- 50. Select appropriate exercises and other treatments for patients with various nonsurgical and surgical ankle and foot disorders to achieve the desired outcome/goal as set by the physical therapist in the plan of care.
- 51. Identify precautions/contraindications to exercise or other activities for various foot and ankle disorders.
- 52. Integrate information regarding the surgical procedure into the post-operative rehab exercise program for various ankle and foot surgeries.
- 53. Demonstrate and explain the techniques of different exercises for treatment of various foot and ankle disorders.
- 54. Select appropriate home exercises for various ankle and foot disorders from text or class materials or home exercise program software.

Spinal Pain Dysfunction Syndromes:

- 55. Define terms utilized in various spinal pain and dysfunction syndromes.
- 56. Differentiate between normal and pathological posture.
- 57. Identify common postural deformities from anterior, posterior, and lateral views.
- 58. Identify the etiologies and clinical signs/impairments or functional limitations of various spinal pain dysfunction syndromes.

- 59. Outline the theories behind the various approaches to treatment of the spine patient.
- 60. Select appropriate exercises and other treatments for patients with various nonsurgical and surgical spinal pain and dysfunction syndromes to achieve the desired outcome/goal as set by the physical therapist in the plan of care.
- 61. Compare and contrast work hardening and work conditioning in the rehabilitation of a patient.
- 62. Define FCE and identify its purpose.
- 63. Identify reasons why therapy should be discontinued and the patient be referred back to their physician when treating a spinal patient.
- 64. Demonstrate and instruct a simulated patient in various postural exercises for specific muscle groups and postural deviations.
- 65. Demonstrate and instruct patient in appropriate exercises for patients with various spinal pain dysfunction syndromes.
- 66. Select appropriate home exercises for various spinal pain dysfunction disorders from text and class materials or home exercise program software.

SCANS Skills: Scans addressed as follows: Resources (allocates time, allocates materials and facility resources); Information (acquires and evaluates information, organizes and maintains information, interprets and communicates information, uses computers to process information); Interpersonal (participates as a member of a team, teaches others, serves clients/customers, exercises leadership); Systems (understands systems), Technology (applies technology); Basic Skills (reading, writing, arithmetic, listening, speaking); Thinking Skills (creative thinking, problem solving, seeing things in the mind's eye, knowing how to learn, reasoning); Personal Qualities (responsibility, self-esteem, sociability, self-management, integrity/honesty)

Lectures & Discussions:

METHODS OF PRESENTATION

- 1. Lecture
- 2. Assigned Readings
- 3. Guest Lectures/Field Trips
- 4. Demonstrations
- 5. Multi Media
- 6. Computer Exercise Program

OUTLINE OF CONTENT

- 1. Therapeutic Exercise- Introduction and Review
- 2. Joint Mobilization Introduction
- 3. Shoulder Girdle Disorders
- 4. Elbow, Forearm, Wrist and Hand Disorders
- 5. Hip and Knee Disorders
- 6. Orthopedic LE Traction
- 7. Ankle and Foot Disorders
- 8. Posture and Spinal Pain Dysfunction Syndromes

Evaluation/Grading Policy:

GRADING

A - 92-100

B - 83-91

C - 75-82

D - 66-74

F – 65 and below

A grade below 75 constitutes unsatisfactory understanding of the course content and/or unsatisfactory performance of skills.

Tests/Exams:

EVALUATION

| Unit Tests (4) | 40 % |
|---|------|
| Lab Practical Examinations (2) | 20 % |
| Pop Quizzes/Assignments/lab check sheet | 5% |
| Final Comprehensive Lab Practical | 15% |
| Final Comprehensive Exam | 20% |

Assignments:

See Tests/Exams above

Other Course Requirements:

Tentative Lecture and Lab Schedule

Module 1 Soft Tissue Injury

Ligament Healing Bone Healing Cartilage Healing

Muscle & Tendon Healing Neurovascular Healing

and Thromboembolic Disease

Orthopedic Pharmacology

Joint Mobilization

Module 2 Intro to Computer Lab Software

Shoulder Girdle

Exercise Software Lab

Elbow/Forearm Wrist/Hand

Module 3 Hip

Knee

Ankle/Foot

Module 4 Spine/Posture

Spine

Work Hardening Field Trip

Student Responsibilities/Expectations:

CLASS PREPAREDNESS

Students are expected to complete all reading assignments, as outlined in the course schedule or assigned by the instructor, prior to class time. It is the responsibility of the student to turn in assignments on time. Assignments are due at the beginning of the class period. Late assignments received by the next class period will result in a maximum grade of 75. If assignment is not turned in by the next class period the student will receive a grade of "0" for that assignment.

Students are expected to participate in and perform a variety of physical therapy procedures on each other in lab and the classroom for educational purposes; after practicing each laboratory skill, the student will be asked to present a return demonstration to the instructor at some point prior to the conclusion of the lab. This participation is vital to the learning process. The student's consent is needed to participate in these procedures.

POLICY ON CIVILITY IN THE CLASSROOM

Students are expected to assist in maintaining a classroom environment that is conducive to learning. Inappropriate or distractive classroom behavior is prohibited in order to assure that everyone has opportunity to gain from time spent in class. Inappropriate or distractive language is also prohibited. Should a disruptive classroom incident occur, the faculty member in charge may remove a student. The student has the right to appeal through appropriate channels.

Use of cell phones is **prohibited** in class/lab. Phones are **NOT** allowed and should be kept out of sight during class time. If the student is observed using the phone (texting, calling) during class he/she will be asked to turn the phone off and surrender it to the instructor. If the student desires to use the phone to access course materials, the student is asked to inform the instructor prior to class for approval. If a student's cell phone rings in class, the student will be required to turn off the phone immediately. If a student is expecting a very important call, he/she is to notify the instructor prior to class regarding the nature of the situation. The student will be asked to keep the phone silent, and upon receiving the call he/she must step out of the room to answer.

ATTENDANCE AND ABSENTEEISM

TARDIES AND ABSENCES ARE STRONGLY DISCOURAGED

The PTA faculty believes that the habits and work patterns established in school will be carried over to the work setting. Therefore, every effort should be made to establish patterns of good attendance and promptness. This applies not only to the technical courses but also the general education and support courses. Student attendance is addressed under student responsibilities in the school catalog. In addition, student attendance and participation is also addressed utilizing the Professionalism Development Rubric. This document provides the student a means to identify and track any area(s) of deficiency regarding professional behaviors; and, to improve in the area(s). For the PTA Program, the following guidelines concerning attendance will be enforced:

- 1. For every class period missed, one (1) absence is accumulated.
- 2. A student more than five (5) minutes late or leaving class early with or without instructor permission is considered tardy.
- 3. Three (3) tardies constitute one (1) absence.

- 4. After absences (excused or unexcused) in any 4 class periods per semester, the student will be placed on probation. Stipulations of probation will be developed based on the student's history and circumstances surrounding the absences; and conditions for dismissal in the event of a future absence will be included in the probationary contract.
- 5. Make-up work is required for all absences in order to ensure that the student acquires information and skills presented during his/her absence (see Make-up work section). It is the **student's responsibility** to meet with instructor(s) on the first day back to schedule make-up work and/or lab check-off.
- 6. Students must notify (voicemail or e-mail) the PTA office in **advance** whenever excessive (>5 minutes) tardiness or absence is unavoidable. **Notification of the student's absence by classmates is not acceptable!**

*Note: An absence will be excused by provision of a note written and signed by a medical professional; and by uncontrollable or unavoidable extenuating circumstances as documented below. All other absences/tardies will be considered unexcused.

Further explanation of **excused absences** is as follows:

- "A student's serious illness" shall mean a condition such as pneumonia, surgery, hospital confinement, or valid documented medical reason. A physician's documentation verifying illness must be provided.
- "Death in the immediate family" shall be interpreted to mean mother, father, mother-inlaw, father-in-law, spouse, child, brother, sister, grandparents, or significant other. Documentation must be provided.
- "Statutory government responsibilities" refer to such matters as jury duty or subpoena for court appearance. Documentation must be provided.
- Inclement weather see policy below.

MAKE-UP WORK

Due to Absence:

Each student is responsible for all material and techniques presented in class and labs. If a class is missed, the student is responsible for obtaining from a classmate, information/ notes, handouts, lab work, covered during that absence. It is the **student's responsibility** to schedule a time with the instructor to complete lab check-offs for content missed. Lab check-offs must be made up within one week of the date absent. The student's grade will be lowered **10 points** on the corresponding lab practical for each lab session and check-off not made up within the allocated timeframe. If the student has not "checked-off", any missed lab material/techniques; they will **NOT** be allowed to take the corresponding lab practical and a grade of "0" will be assigned. If a test, lab practical, or special assignment is missed due to an **excused** absence, it is the student's responsibility to consult the instructor the next time the student is on campus about making up a test or turning in an assignment. The student must make-up the missed test or lab practical within one week from the date missed providing appropriate notification of absence was made **prior** to the original test time. Lack of notification prior to exam time will result in a grade of "0" for the missed exam; notifying classmates to relay the student's absence is not acceptable! Assignments due on the date of the excused absence must be turned in the next time the student is on campus; otherwise, the student will receive a "0" for the work missed. An **unexcused** absence

will result in a "0" on a test, lab practical, or special assignment missed; the student will not have the opportunity to make up the work missed work.

One make-up test and/or lab practical due to excused absence, per class, per semester is allowable without penalty. It is the student's responsibility to set up a time with the instructor to make up the test or lab practical missed.

Remediation:

In the event a student scores less than a 75 on a lab practical exam, the student **may be assigned remediation** for the previously failed practical components (based on specified course lab practical rubric). Failure to complete remediation satisfactorily (demonstration of proficiency) will result in failure of the course.

Due to failure of safety criteria on lab practicals:

On lab practical exams several areas on each exam are considered to be patient safety criteria or "critical elements"; if a student **fails a patient safety element/criteria**, **he/she will be required to re-do the lab practical**. The re-do (2nd) lab practical cannot be taken on the same day as the failed lab practical. It is the **student's responsibility** to schedule a time with the instructor to re-do the practical and must be <u>scheduled and completed</u> during the instructor's office hours or other established time within the next week. The highest grade that a student can receive on the "re-do" is 75. If a student fails the safety criteria on the lab practical "re-do", the student is given a grade of "0" and automatically fails the course. Only one lab re-do per course, per semester, will be permitted for failure of safety criteria.

DRESS FOR CLASS AND LABORATORY

Students should be dressed appropriately for lab **prior to the beginning** of each lab session **unless specified differently**. Students not dressed properly for lab will receive a "0" for any lab work for that lab period. Students **not dressed properly for** lab practicals will **not be permitted to take the lab practical test and will receive a "0" for that test.** If appropriate attire is not available, a student may be asked to wear a patient gown for that lab period and will receive a "0" for that lab period. *Remember, when not dressed properly for lab one deprives himself/herself and a partner of valuable learning opportunities.

Option 1: NTCC PTA Program Polo, khaki pants and appropriate closed-toed shoes

Option 2: NTCC PTA Program Scrubs and appropriate closed-toed shoes

Option 3: NTCC PTA Program approved t-shirt and black athletic shorts and

appropriate closed-toed shoes

Instructors will determine appropriate options per class/lab period.

Additional clothing requirements:

WOMEN: Back-fastening halter-type tops are required for some labs. Tops must allow for the back to be fully exposed. T-shirts will be worn over the clothes when practicing on a partner.

MEN: Tanks or bare torso are required for some labs.

HAIR& NAILS:

Nails must be short, clean and void of nail polish. Nails should be shorter than the fingertips when observed from the palm side. Hair should be clean and out of the way with rubber bands or hair clips as necessary. **Personal hygiene is very important since many of the lab techniques require close contact**.

NTCC Academic Honesty Statement:

It is the responsibility of students and faculty to help maintain scholastic integrity at the College by refusing to participate in or tolerate scholastic dishonesty. **Plagiarism** and other **forms of dishonesty** undermine the very purpose of the college and diminish the value of an education. Specific sanctions for academic dishonesty are outlined in the Northeast Texas Community College Student Handbook and in this manual. Personal and professional ethics are inherent in the field of physical therapy therefore; the highest standards of honesty and integrity must be adhered to. This Honor Code, in its simplest form means that you will neither give nor receive any unauthorized assistance from any person, paper, or object on any examination, lab practical, paper, or project. This includes talking about lab practical exams, regular exam questions, looking at copies of old tests from previous students, copying or allowing anyone to copy off of your test or assignment, and discussing any aspect of an exam or practical with a student who has not yet taken the test and/or practical (this includes the State Board exam).

With regards to research papers, in-services, group projects, etc. the use of another person's words or ideas must be cited and credit given to the source(s). Examples of plagiarism include:

- The inclusion of another person's exact words in a paper or assignment without placing quotation marks around the words to indicate an exact quote, *even if the source is cited*;
- Using <u>several</u> consecutive sentences written by another person, changing the words somewhat to keep the passage from being an exact quote, *even if the source is cited*;
- Presenting someone else's ideas without citing that person as the original thinker;
- Submitting a paper written in part or in whole by another person;
- Any other act intended to circumvent the process of performing and presenting original academic research in completion of a course assignment.

Violations of this policy will be brought to the attention of the student by the instructor. If there is suspicion of wrongdoing without corroborating evidence, the matter will be discussed with the student and a written warning/contract will be issued if warranted. If there is clear evidence that a violation has taken place, the student will receive a grade of "0" for that test/assignment in question; and the instructor will impose a sanction ranging from a written warning to expulsion from the course with a failing grade.

If the student does not feel that the issue is satisfactorily resolved, the student should contact the PTA Program Director to discuss the matter. If the matter cannot be resolved at that level, the student may contact the Dean of Allied Health, followed by the Vice President for Instruction and Student Development. If the issue in not satisfactorily resolved at the end of this process, the student may initiate a formal grievance procedure outlined in the NTCC Student Handbook and in this manual.

Academic Ethics:

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with Shannin Garrett, Academic Advisor/Coordinator of Special Populations located in the College Connection. She can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the NTCC website-Special Populations

Family Educational Rights And Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Other Course Policies:

In addition to upholding the NTCC Academic Honesty Policy, students in the PTA program are required to follow the honor code provided in the program policy and procedure manual. The program honor code states that you will neither give nor receive any unauthorized assistance from any person, paper, or object on any test, paper, examination, or project. This includes talking about lab practical exams, regular exam questions, looking at copies of old tests from previous students, copying or allowing anyone to copy off of your test or assignment, and discussing any aspect of an exam with a student who has not yet taken the test. When using another person's words or ideas, credit should be given to the source. Failure to abide by this policy may result in expulsion from the PTA Program.

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