



# Therapeutic Exercise PTHA 2509

Course Syllabus: Spring 2012

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

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	8:00-12:00	1:00-2:00	8:00-12:00	1:00-2:00		

*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. Fundamental Orthopedic Management for the Physical Therapist Assistant, Shankman, 3rd ED., Mosby, 2011.
2. Therapeutic Exercise: Foundations and Techniques, Kisner and Colby, 5th ED., F.A. Davis, 2007.

**Publisher:** Elsevier, Davis Plus

**ISBN Number:** 978-0-323-05669-4, 978-0-8036-1585-4

**Recommended Reading(s):** None

**Student Learning Outcomes:**

**GENERAL COURSE LEARNING OUTCOMES**

Identify and utilize the theory, principles, and techniques of therapeutic exercise; demonstrate performance of and instruction in therapeutic exercise and functional training for various patient populations; discuss the rationale for the application and modification of therapeutic exercise; and utilize relevant communication techniques.

**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 examination 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 and tendon, neurovascular healing; and thromboembolic resolution.
7. Identify common medications used in orthopedic patient populations.
8. Integrate the information from assessment procedures in setting up an appropriate exercise program based on the plan of care (POC) established by the physical therapist.
9. Identify how a therapeutic exercise program may be modified or progressed within the limits of the POC in response to changes in patient status.
10. Identify the role of joint mobilization in treatment of orthopedic conditions.
11. Identify the limitations of practice of joint mobilization as it relates to the PTA.
12. Identify indications, contraindications, and precautions for performing peripheral joint mobilization.
13. Describe the basic grades utilized in extremity joint mobilization techniques and identify a purpose of each.
14. Identify the direction of glide for peripheral joint mobilization using the rule of concave/convex to demonstrate knowledge of the concave/convex rule.
15. Identify the resting positions and capsular patterns for each of the major extremity joints of the body.

### Hip and Knee:

16. Define terms utilized in orthopedic conditions of the hip or knee.
17. Identify the etiology and clinical signs/impairments or functional limitations of various non-surgical hip and knee disorders.
18. Select appropriate exercises and other treatments for patients with various non surgical and surgical hip and knee disorders to achieve the desired outcome/goal as set by the physical therapist in the plan of care.
19. Identify precautions/contraindications to exercise or other activities for various hip and knee disorders.
20. Integrate information regarding the surgical procedure into the post-operative rehab exercise program for various hip and knee surgeries.
21. Identify the purpose of various skin and skeletal traction devices for LE fractures.

### Ankle and Foot:

22. Define terms utilized in orthopedic conditions of the ankle or foot.
23. Identify the etiology and clinical signs/impairments or functional limitations of various foot and ankle disorders.

24. Select appropriate exercises and other treatments for patients with various non-surgical and surgical ankle and foot disorders to achieve the desired outcome/goal as set by the physical therapist in the plan of care.
25. Identify precautions/contraindications to exercise or other activities for various foot and ankle disorders.
26. Integrate information regarding the surgical procedure into the post-operative rehab exercise program for various ankle and foot surgeries.

#### Spinal Pain Dysfunction Syndromes:

27. Define terms utilized in various spinal pain and dysfunction syndromes.
28. Differentiate between normal and pathological posture.
29. Identify common postural deformities from anterior, posterior, and lateral views.
30. Identify the etiologies and clinical signs/impairments or functional limitations of various spinal pain dysfunction syndromes.
31. Outline the theories behind the various approaches to treatment of the spine patient.
32. Select appropriate exercises and other treatments for patients with various non-surgical and surgical spinal pain and dysfunction syndromes to achieve the desired outcome/goal as set by the physical therapist in the plan of care.
33. Compare and contrast work hardening and work conditioning in the rehabilitation of the Spinal Pain Dysfunction Syndrome patient.
34. Define FCE and identify its purpose.
35. Identify reasons why therapy should be discontinued and the patient be referred back to their physician when treating a post-op spine patient.

#### Shoulder Girdle:

36. Define terms utilized in orthopedic conditions of the shoulder girdle.
37. Identify the etiology and clinical signs/impairments or functional limitations of various shoulder disorders.
38. 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.
39. Identify precautions/contraindications to exercise or other activities for various shoulder disorders.
40. Integrate information regarding the surgical procedure into the postoperative rehab exercise program for various shoulder surgeries.

#### Elbow, Forearm, Wrist and Hand:

41. Define terms utilized in orthopedic conditions of the elbow, forearm, wrist and hand.
42. Identify the etiology and clinical signs/impairments or functional limitations for various elbow, forearm, wrist and hand disorders.
43. 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.
44. Integrate information regarding the surgical procedure into the post-operative rehab exercise program for various elbow, forearm, wrist, or hand surgeries.
45. Identify precautions/contraindications to exercise or other activities for various elbow, forearm,

wrist, and hand disorders.

On a lab partner and/or on a lab practical examination with 75% proficiency, the student will be able to:

Therapeutic Exercise- General:

45. Demonstrate beginning skills in the performances of selected basic exercise techniques.
46. Demonstrate the use of various types of equipment available for basic exercise.
47. Demonstrate safe use of therapeutic exercise equipment.
48. Demonstrate safe body mechanics in carrying out therapeutic exercise.
49. The student will instruct in a therapeutic exercise program consistent with the treatment plan developed by the physical therapist.
50. Demonstrate the skills needed to manage a program of therapeutic exercise by implementing the treatment plan and suggesting appropriate progression within the POC.
51. Document treatment sessions using a SOAP note format demonstrating the ability to place data in appropriate sections.

Hip and Knee:

52. Demonstrate and explain the techniques of different exercises for treatment of various hip and knee disorders.
53. Select appropriate home exercise programs for various hip and knee disorders using the Exercise Xpress computer software.

Ankle and Foot:

54. Demonstrate and explain the techniques of different exercises for treatment of various foot and ankle disorders.
55. Select appropriate home exercise programs for various ankle and foot disorders using the Exercise Xpress computer software.

Spinal Pain Dysfunction Syndromes:

56. Demonstrate various postural exercises for specific muscle groups and postural deviations.
57. Demonstrate appropriate exercises for patients with various spinal pain dysfunction syndromes.
58. Select appropriate home exercise programs for various spinal pain dysfunction disorders using the Exercises Xpress computer software.

Shoulder Girdle:

59. Demonstrate and explain the techniques of different exercises for treatment of shoulder girdle pain and disorders.
60. Select appropriate home exercise programs for various shoulder girdle disorders using the Exercise Xpress computer software.

Elbow, Forearm, Wrist and Hand:

61. Demonstrate and explain the techniques of different exercises for treatment of various elbow, forearm, wrist, and hand disorders.

62. Select appropriate home exercise programs for various elbow, forearm, wrist and hand disorders using the Exercise Xpress computer software.

**Exemplary Educational Objectives:**

NA

**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. Hip and Knee Disorders
4. Orthopedic LE Traction
5. Ankle and Foot Disorders
6. Posture and Spinal Pain Dysfunction Syndromes
7. Shoulder Girdle Disorders
8. Elbow, Forearm, Wrist and Hand Disorders

**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 section above

**Other Course Requirements:**

Tentative Lecture and Lab Schedule

Reading Legend:

S=Shankman

K=Kisner

Module 1

Soft Tissue Injury

K: Ch:10; pgs. 329-335;  
optional pgs. 335-345

Ligament Healing

S: Ch: 8

Bone Healing

S: Ch: 9; K: pgs. 322-325, 343-345

Cartilage Healing

S: Ch. 10

Muscle & Tendon Healing

S: Ch. 11

Neurovascular Healing

S: Ch. 12

and Thromboembolic Disease

Orthopedic Pharmacology

S: Ch. 13

Joint Mobilization

S: Ch:15; optional K: Ch: 5

EXAM I

Module 2

Intro to Computer Lab Software

Shoulder Girdle

S: Ch:21; optional K:Ch:17

Exercise Software Lab

Guest Speaker - Joint Mobilization

Basic Computer Lab Assignment Due

Elbow/Forearm

S:Ch:22; optional K: Ch:18

Wrist/Hand

S:Ch:23; optional K: Ch:1

Shoulder Exercise Software Assignment Due

EXAM II/PRACTICAL I

Module 3

Hip

S:Ch:19;optional K:Ch:20

Knee

S:Ch:18; optional K:Ch:21

Ankle/Foot

S:Ch:17;optional K:Ch:22

EXAM III/PRACTICAL II

Module 4

Spine/Posture

K:pgs. 384-385;393-403

Spine

S:Ch:20;opt. K:Ch:15,16

Work Hardening Field Trip

EXAM IV

COMPREHENSIVE PRACTICAL (Spine, Therapeutic  
Exercise, Data Collections, Physical Agents)  
FINAL EXAM

**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 AND CELL PHONES IN THE CLASSROOM AND LAB**

Students are expected to assist in maintaining a classroom environment that is conducive to learning. Inappropriate or distracting classroom behavior is prohibited in order to assure that everyone has opportunity to gain from time spent in class. Inappropriate or distracting 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.

If you bring your cell phone to class or lab, it must be turned off or silent. Do not answer your phone in the classroom or lab room. If you are expecting a very important call, please notify the instructor before class regarding the nature of the emergency situation. Keep the phone on silent, and if you receive the call, please step out of the room quietly.

**NTCC Academic Honesty Statement:**

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

**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 arrange an appointment with a College counselor to obtain a Request for Accommodations form. For more information, please refer to the NTCC Catalog or Student Handbook.

### **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:**

#### **PTA PROGRAM ACADEMIC HONESTY POLICY**

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.

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 is 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.