



## Physical Therapist Assistant Program

### Therapeutic Exercise

PTHA 2409

Fall 2013

M, T, W, TH: 12:30 – 2:30 pm

CT 105/108

**Instructor:** Dr. Mikala Reznik

**Email:** [mreznik@odessa.edu](mailto:mreznik@odessa.edu)

**Office:** CT 104A

**Office Phone:** 432.335.6842, **Cell Phone:** 512.618.1295

**Office Hours:** Monday, Tuesday, Wednesday, Thursday 8:30 – 10:30 am, 2:30 – 3:00 pm

### Course Description:

Concepts, principles, and application of techniques related to therapeutic exercise and functional training. In addition to exercise concepts, various orthopedic conditions are studied, with emphasis on diagnosis-specific precautions and treatment guidelines. (ICOs 1 & 3)

### Required Texts:

1. Fundamentals of Orthopedic Management for the Physical Therapist Assistant, 3<sup>rd</sup> Edition; by Shankman & Manske; Mosby, 2011
2. Therapeutic Exercise for the Physical Therapist Assistants, 3<sup>rd</sup> Edition, by Bandy & Sanders; Wolters Kluwer/LWW, 2013.
3. PTHA 2409 course packet or daily lecture notes for Fall 2013

### Description of Institutional Core Objectives (ICO's)

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Therefore, with the assistance of the Undergraduate Education Advisory Committee, the Coordinating Board has approved guidelines for a core curriculum for all undergraduate students in Texas.

Through the application and assessment of objectives within the institution's core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning. Appropriate Odessa College faculty periodically evaluates all of the courses listed in the descriptions on the following pages of this catalog and keys them to Odessa College's Institutional Core Objectives (ICOs), as defined by the Texas Higher Education Coordinating Board (THECB). (Source: *Odessa College Catalog of Courses 2012-2013, page 73*)

### Odessa College's Institutional Core Objectives (ICOs):

- 1) *Critical Thinking Skills* - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 2) *Communication Skills* - to include effective development, interpretation and expression of ideas through written, oral and visual communication

- 3) *Empirical and Quantitative Skills* - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- 4) *Teamwork* - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- 5) *Personal Responsibility* - to include the ability to connect choices, actions and consequences to ethical decision-making
- 6) *Social Responsibility* - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

**Learning Outcomes for PTHA 2409 (Source: *Odessa College Catalog of Courses*)**

<b>Outcome</b>	<b>ICO</b>
<ol style="list-style-type: none"> <li>1) The student will understand the relationship of the musculoskeletal and neuromuscular systems to normal and abnormal movement.</li> <li>2) The student will demonstrate a working knowledge of the human musculoskeletal and neuromuscular systems and an understanding of how these systems interact to produce efficient human movement.</li> <li>3) Evidence of learning will be provided by successful completion of the Strengthening Project</li> </ol>	<p><i>Critical Thinking Skills</i> - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information</p>
n/a	<p><i>Communication Skills</i> - to include effective development, interpretation and expression of ideas through written, oral and visual communication</p>
<ol style="list-style-type: none"> <li>1) The student will describe specific criteria for progression of exercises within the plan of care as patient conditions change</li> <li>2) Evidence of learning will be provided by successful completion of the Strengthening Project</li> </ol>	<p><i>Empirical and Quantitative Skills</i> - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions</p>
n/a	<p><i>Teamwork</i> - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal</p>
n/a	<p><i>Personal Responsibility</i> - to include the ability to connect choices, actions and consequences to ethical decision-making</p>
n/a	<p><i>Social Responsibility</i> - to include intercultural competence, knowledge of civic responsibility, and the ability to engage</p>

	effectively in regional, national, and global communities
--	---

**Odessa College Policies**

**Academic Policies**

Note that the OC Student Handbook states (page 32) that “[i]n cases of academic dishonesty, the instructor has the authority to impose appropriate scholastic penalties. Complaints or appeals of disciplinary sanctions may be filed in accordance with the college due process procedure. Copies of the college due process procedure are available in the office of The Director of Student Life (CC104).”

For more information on your rights and responsibilities as a student at Odessa College, please refer to the following: *The 411 of OC: Student Handbook 2012-2013; Student Rights & Responsibilities* <http://www.odessa.edu/dept/studenthandbook/handbook.pdf>

**Scholastic Dishonesty**

Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by board policies. Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism and collusion.

**"Cheating on a test" shall include:**

- Copying from another student's test paper
- Using test materials not authorized by the person administering the test.
- Collaborating with or seeking aid from another student during a test without permission from the test administrator.
- Knowingly using, buying, selling, stealing or soliciting, in whole or in part, the contents of an unadministered test.
- The unauthorized transporting or removal, in whole or in part, of the contents of the unadministered test.
- Substituting for another student, or permitting another student to substitute for one's self, to take a test.
- Bribing another person to obtain an unadministered test or information about an unadministered test.
- "Plagiarism" shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own written work.
- "Collusion" shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements. (Source: *Odessa College Student Handbook 2012-2013, page 29-30*)

**Special Populations/Disability Services/Learning Assistance**

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Odessa College affirms that it will provide access to programs, services and activities to qualified individuals with known disabilities as required by **Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990 (ADA)**, unless doing so poses an undue hardship or fundamentally alters the nature of the program or activity. Disabilities may include hearing, mobility or visual impairments as well as hidden disabilities such as chronic medical conditions (arthritis, cancer, diabetes, heart disease, kidney disorders, lupus, seizure disorders, etc.), learning disabilities or psychiatric or emotional disabilities. A student who comes to Odessa College with diagnosed disabilities which may interfere with learning may receive accommodations when the student requests them and submits proper documentation of the diagnosis. A Request for Accommodations form and guidelines for beginning the request process are available in the OC Help Center or on the Odessa College web site at [www.odessa.edu/dept/counseling/disabilities.htm](http://www.odessa.edu/dept/counseling/disabilities.htm). The college strives to provide a complete and appropriate range of services for students with disabilities such as assistance with testing, registration, information on adaptive and assistive equipment, tutoring, assistance with access and accommodations for the classroom where appropriate. For information regarding services, students with

disabilities should contact the Office of Disability Services in the OC Help Center located in Room 204 of the Student Union Building or call 432-335-6433. (Source: *Odessa College Catalog of Courses 2012-2013, page 52*)

### **Dropping a Course or Withdrawing from College**

Students wishing to drop a non-developmental course may do so online using WebAdvisor, at the Wrangler Express, or Registrar's Office. A student wishing to drop a developmental course or withdraw from college should obtain a drop or withdrawal form from the Wrangler Express or the Registrar's Office. Students are encouraged to consult with instructors prior to dropping a class. Students may not completely withdraw from the college by use of the Web. Students must drop a class or withdraw from college before the official withdrawal date stated in the class schedule. Students who are part of the Armed Forces Reserves may withdraw with a full refund if the withdrawal is due to their being ordered into active duty. A copy of the student's orders must be presented to the Registrar's Office at the time of the withdrawal. For details, please contact the Office of the Registrar. **No longer attending class does not automatically constitute withdrawal from that class, nor does a student's notification to an instructor that the student wishes to be dropped. Failure of a student to complete the drop/withdrawal process will result in a grade of "F."** (Source: *Odessa College Catalog of Courses 2012-2013, page 36*)

### **Learning Resource Center (LRC; Library)**

The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian " service provide additional help.

### **Student Success Center (SSC)**

Located in the LRC, the Student Success Center (SSC) provides assistance to students in meeting their academic and career goals. We strive to provide new and updated resources and services at no charge to OC students. Academic support services include tutoring, study skills training, workshops, and the mentoring program. Tutoring is available for a variety of subjects including college mathematics, English, government, history, speech, chemistry, biology, and all developmental coursework. Appointments are preferred, but walk-ins will be served as soon as possible. Smarthinking online tutoring is also available. All computers in the center have Internet access, Microsoft Office, and software resources to assist OC students in improving their reading, writing and mathematical skills. The center also offers special assistance to students preparing for the THEA/COMPASS test. Computer lab assistants are available to assist students with student email, Blackboard, OC portal, Course Compass and more. For more information or to make an appointment, please call 432-335-6673 or visit [www.odessa.edu/dept/ssc/](http://www.odessa.edu/dept/ssc/) (Source: *Odessa College Catalog of Courses 2012-2013, page 54*)

As part of the Design for Completion initiative, your Odessa College Student Success Coach and faculty mentor will help you stay focused and on track to complete your educational goals. If an instructor sees that you might need additional help or success coaching, he or she may submit a Retention Alert. Your Student Success Coach or faculty mentor will contact you to work toward a solution.

### **Student E-mail**

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **Correspondence will be submitted using your Odessa College email as an alternative method to contact you with information regarding this course.**

### **Technical Support**

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at [https://www.odessa.edu/dept/ssc/helpdesk\\_form.htm](https://www.odessa.edu/dept/ssc/helpdesk_form.htm).

### **Expectations for Engagement – Face to Face Learning**

To help make the learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

#### *Reasonable Expectations of Engagement for Instructors*

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will

- provided my contact information at the beginning of the syllabus;
  - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,
  - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.
2. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
    - provide clear information about grading policies and assignment requirements in the course syllabus, and
    - communicate any changes to assignments and/or to the course calendar to students as quickly as possible.
  3. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
    - return classroom activities and homework within one week of the due date and
    - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

*Reasonable Expectations of Engagement for Students*

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will
  - attend the course regularly and line up alternative transportation in case my primary means of transportation is unavailable;
  - recognize that the college provides free wi-fi, computer labs, and library resources during regular campus hours to help me with completing my assignments; and,
  - understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my personal computer equipment or internet service is unreliable.
2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to,
  - missing class when a major test is planned or a major assignment is due;
  - having trouble submitting assignments;
  - dealing with a traumatic personal event; and,
  - having my work or childcare schedule changed so that my classroom attendance is affected.
3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will
  - seek out help from my instructor and/or from tutors;
  - ask questions if I don't understand; and,
  - attend class regularly to keep up with assignments and announcements.

## Institutional Calendar Fall 2012 (8/27-12/14/2013)

[http://www.odessa.edu/catalog/schedule/FA13/pg03\\_academic-calendar.pdf](http://www.odessa.edu/catalog/schedule/FA13/pg03_academic-calendar.pdf)

### Registration:

On the Web (5 am to Midnight, 7 days a week).....	Apr 15-Aug 25
In Person (See Business Hours Above).....	Apr 15-Aug 23
FOR TUITION AND FEE SCHEDULES & PAYMENT INFORMATION, PLEASE CHECK ONLINE AT <a href="http://www.odessa.edu">www.odessa.edu</a>	
Classes Begin.....	Aug 26 (Mon)
Late Registration & Schedule Changes (Add/Drop):	
On the Web (5 am to Midnight, 7 days a week).....	Aug 26-27 (Mon-Tues)
In Person (See Business Hours Above).....	Aug 26-27 (Mon-Tues)
Holiday (Labor Day – Offices closed except for Wrangler Express – No Classes).....	Sep 2 (Mon)
Census Day.....	Sep 11 (Wed)
Last Day to Drop or Withdraw with a “W” (1st eight week courses).....	Oct 4 (Fri)
First Eight Weeks End.....	Oct 18 (Fri)
Second Eight Weeks Begin.....	Oct 21 (Mon)
Deadline for Fall Degree Application.....	Nov 1 (Fri)
Last Day to Drop or Withdraw with a “W” (full semester length courses).....	Nov 12 (Tues)
Last Day to Drop or Withdraw with a “W” (2nd eight week courses).....	Nov 26 (Tues)
Student Evaluation of Instruction Survey Available Online.....	Nov 18-22 (Mon-Fri)
Thanksgiving Holiday (begins 9 pm Tues, Nov 26).....	Nov 27-30 (Thurs-Sat)
Last Class Day.....	Dec 7 (Sat)
Final Exams.....	Dec 9-12 (Mon-Thurs)
End of Semester.....	Dec 12 (Thurs)
Fall Graduation.....	Dec 14 (Sat)
College Offices Closed.....	Dec 21-Jan 5 (Sat-Sun)

### Course Policies

#### Disclaimer

This syllabus is tentative and subject to change in any part at the discretion of the instructor. Any changes will be in accordance with Odessa College policies. Students will be notified of changes, if any, in timely manner.

#### Original Effort

The work submitted for this course must be original work prepared by the student enrolled in this course. Efforts will be recognized and graded in terms of individual participation and in terms of ability to collaborate with other students in this course.

#### Description of students

Students enrolled in this course are preparing to enter into their first clinical rotation.

#### Course prerequisites

Prerequisite: PTHA2460.

Corequisites: PTHA 2201 and PTHA 2435 (Source: *Odessa College Catalog of Courses 2012-2013, page 218*)

**Course Alignment with Industry Standards** This course (Therapeutic Exercise/ PTHA 2409/ Fall) has been identified as a course by Career, Technical, and Workforce Education as one in which teaching and learning strategies adopted by AVID will be implemented. As a student in The PTA program, you will be expected to develop an understanding of the strategies, to model the strategies, to maintain fidelity of implementation, and to examine how these strategies may impact your effectiveness as a professional in your chosen area of occupation, either through coursework or practicum experience as outlined by the course instructor.

#### Digital Protocol

Cell phones must be placed on the *silent* mode and are to be accessed in emergency cases only. The use of laptops or any other digital device is permitted in order to facilitate note-taking relative to instruction. Any written assignments will be submitted electronically on Blackboard. **The electronic recording of the time on Blackboard will be considered the time of assignment submission. Take necessary steps to ensure that your assignments are submitted on “Blackboard” time.** Back-up and/or additional copies of all assignments submitted is encouraged. **Computers/printers are available to OC students in the LRC (301-303); therefore, not having access to a computer due to technical issues (crash; corrupted files) will not be considered as an**

**acceptable reason for not completing assignments.** If there is a loss of server connection with Odessa College due to maintenance, then an email will be sent to student with pertinent information and status reports. Assignments submitted electronically need to be **WORD document (doc or docx).**

### **Professional Behavior:**

Professional behavior is absolutely essential both while the individual is a student in this program as well as after graduation. The Professional Behaviors Assessment form provides a standard for behavior and a mechanism for self-assessment by the student as well as assessment by faculty during the academic component of the program. If a faculty member observes consistent failure to demonstrate acceptable professional behavior by a student, the faculty member will utilize the assessment form as a tool for counseling the student. **Failure to respond appropriately to counseling regarding professional behaviors may result from one letter grade decrease to dismissal from the program, contingent upon the individual situation, decided by the Program Director/Chair.**

### **Attendance Policy**

Regular attendance at lecture and lab is essential and has a direct effect on the final grade that a student earns in class. Non-attendance on the part of a student may result in grade penalty or may lead to dismissal from the program.

A student should attend all lecture and laboratory sessions. Habitual or patterned absenteeism in lecture or lab will not be tolerated. As soon as such a problem is identified, the student will be required to meet with the faculty to determine a course of action and, if the problem is not corrected, the student will be subject to dismissal from the program. Absences in laboratory sessions are particularly problematic because of the lost opportunity to practice skills; therefore, students will be penalized for missing more than one lab session per semester. Should a student miss more than one lab session, one point for each missed session will be deducted from the final course grade.

All absences must be reported to the appropriate faculty member prior to the start of class. If the faculty member cannot be reached directly, a voice mail message may be left. Failure to notify the faculty prior to an absence will affect the student's Professional Behaviors Assessment.

### **AVID**

This course has been identified as a course by Career, Technical, and Workforce Education as one in which teaching and learning strategies adopted by AVID will be implemented. As a student in the legal program, you will be expected to develop an understanding of the strategies, to model the strategies, to maintain fidelity of implementation, and to examine how these strategies may impact your effectiveness as a professional in your chosen area of occupation, either through coursework or practicum experience as outlined by the course instructor.

### **Grading Policy**

Please understand that this is a required course for the PTA program in order to prepare you for your first Acute Clinical Rotation, PTHA 2460. Quality work and active participation is expected and not to be negotiated. As a general policy, grades will be taken in class. Any written assignments or tests will be graded outside of class. You can expect feedback on assignments within a week's time. A minimum grade of a 70 is required to pass PTHA 2409.

### **Grade Inquiry Policy**

It is the responsibility of the individual taking this course to maintain accurate track of assignment submissions and grades. There will be opportunities during the semester to meet with the instructor to discuss your academic progress. Contact the instructor to schedule an appointment. Class time will not be used for grade inquiries. All grades are final.

### **Communication Plan**

The best way to communicate with the course instructor is via email or text. Do not text after 10 PM unless it is an emergency. Also, check in Blackboard regularly for announcements, including any changes in the course schedule due to instructor illness or conference attendance. Appointments with the instructor may also be scheduled.

### **General Course Requirements**

1. Attend class and participate.
2. Complete all scheduled unit exams.
3. Complete all lab check-offs, as applicable

4. Complete all worksheets
5. Complete all assigned projects and/or presentations
6. Complete the final exam
7. **Submit assignments on time. Late work will not be accepted. Medical and/or family circumstances which warrant an extension on assignments need to be presented to the instructor. Extensions will be allowed at the instructor's discretion.**

### Acceptance of Late Assignments:

Projects or outside assignments are due at the beginning of class on the assigned due date. Late papers will receive a 5% per day grade penalty. This penalty will continue to be assessed each day the assignment is not turned in.

### Missing an Exam:

Exams are defined as formally scheduled examinations covering a major portion of the course content and cumulatively comprising a relatively large percentage of the overall grade for a course. Every effort should be made by the student to be present for all exams. If it is necessary for a student to miss an exam, the instructor must be notified prior to the scheduled exam time and arrangements must be made for make-up, to be taken at the OC Testing Center. It is the instructor's option to give the same exam as the one missed or a different exam over the same content. If the exam is not made up within one class day, a 5% per day penalty will be assessed each day the exam is not taken, including weekend.

### Grading Scale:

- "A" = 90-100
- "B" = 80-89
- "C" = 70-79
- "D" = 60-69
- "F" = 0-59

### Incomplete Policy

An 'Incomplete' grade may be given only if:

1. The student has passed all completed work
2. If he/she has completed a minimum of 75% of the required coursework. A grade of an "I" will only be assigned when the conditions for completions have been discussed and agreed upon by the instructor and the student.

### Overview of assignments

<u>Type of Assignment</u>	<u>Percentage</u>
Unit Exams/Quizzes	60%
Labs/Projects/Assignments	10%
Final Exam	30%

*Note: Students must make a minimum grade of C in each PTA course in order to remain in the PTA Program.*

### Goals:

After completing this course, the student should be able to:

- 1.0 Understand the characteristics of therapeutic exercise.
- 2.0 Understand the role of the physical therapist assistant in the provision of therapeutic exercise.
- 3.0 Understand the response of various body systems to exercise.
- 4.0 Understand effective use of various types of exercise equipment.
- 5.0 Understand various manual therapeutic exercise techniques.
- 6.0 Understand specific parameters of selected types of exercise which are required to produce desired outcomes.
- 7.0 Understand specific characteristics of selected orthopedic conditions.
- 8.0 Demonstrate and provide instruction in appropriate exercise techniques for various diagnoses and understand guidelines for progression of exercises based on patient responses.



## Objectives:

- 1.0 To demonstrate competency in understanding the characteristics of therapeutic exercise, the student should be able to:
  - 1.1. Define therapeutic exercise.
  - 1.2. \*Define and differentiate selected types of exercise, including passive, active and active-assisted range of motion, stretching, strengthening, coordination, endurance (aerobic, conditioning, reconditioning) and relaxation exercises, posture awareness training and proprioceptive neuromuscular facilitation.
  - 1.3. \*Define and differentiate selected types of strengthening exercise, including isometric, isotonic, isokinetic, concentric and eccentric exercise.
- 2.0 To demonstrate competency in understanding the role of the physical therapist assistant in the provision of therapeutic exercise, the student should be able to:
  - 2.1. \*Describe the process of treatment planning to achieve short and long term goals established by the supervising physical therapist.
  - 2.2. \*Identify specific patient responses and conditions which require the physical therapist assistant to contact the supervising physical therapist for additional guidance before proceeding with therapeutic exercise.
  - 2.3. \*Describe requirements for effective documentation of therapeutic exercise.
  - 2.4. \*Analyze patient scenarios to determine patient readiness for treatment, ongoing appropriateness of therapeutic exercise and potential need for adjustments within the plan of care.
- 3.0 To demonstrate competency in understanding the response of various body systems to exercise, the student should be able to:
  - 3.1. \*Describe changes in heart rate and blood pressure which normally occur during exercise.
  - 3.2. \*Measure heart rate and blood pressure during and after aerobic exercise and compare the changes which are observed to the expected normal response
  - 3.3. \*Describe changes in muscle, bone and other connective tissue which normally occur during exercise.
  - 3.4. \*Describe changes in selected body systems and structures which normally occur as a result of exercise.
- 4.0 To demonstrate competency in effective use of various types of exercise equipment, the student should be able to:
  - 4.1. \*Describe types of exercises which can be performed using selected pieces of exercise equipment
  - 4.2. \*Determine the most effective piece or type of exercise equipment to use to accomplish selected treatment goals
  - 4.3. \*Incorporate appropriate exercise equipment into class presentations of treatment programs.
- 5.0 To demonstrate competency in understanding of various manual therapeutic exercise techniques, the student should be able to:
  - 5.1. \*Perform selected passive range of motion, manual stretching, manual strengthening, inhibition and facilitation techniques.
  - 5.2. \*Describe manual exercise techniques to accomplish treatment goals identified in the plan of care.
- 6.0 To demonstrate competency in understanding specific parameters of selected types of exercise which are required to produce desired outcomes, the student should be able to:
  - 6.1. \*Describe specific characteristics of exercise (frequency, intensity, duration, movement quality, etc.) necessary to effect desired changes when using selected exercises.
  - 6.2. \*Apply exercise parameters appropriately in the provision of therapeutic exercise programs.
- 7.0 To demonstrate competency in understanding specific characteristics of selected orthopedic conditions, the student should be able to:
  - 7.1. \*Describe the structure which is affected and the characteristics of selected orthopedic injuries.
  - 7.2. \*Describe general treatment guidelines for selected orthopedic conditions.
  - 7.3. \*Describe specific precautions during the treatment of selected orthopedic conditions.
- 8.0 To demonstrate competency in demonstrating and providing instruction in appropriate exercise techniques for various diagnoses and understanding of guidelines for progression of exercises based on patient responses, the student should be able to:
  - 8.1. \*Describe exercises which are typically used for the treatment of selected diagnoses.

- 8.2. \*Demonstrate selected exercise techniques, including passive, active and active-assisted range of motion, stretching, strengthening, coordination, endurance (aerobic, conditioning, reconditioning) and relaxation exercises, posture awareness training and proprioceptive neuromuscular facilitation.
- 8.3. \*Instruct other students in the performance of selected exercises.
- 8.4. \*Describe specific criteria for progression of exercises within the plan of care as patient conditions change.

*\* Indicates integrated, core curriculum skills (math, reading, writing, communication, technological literacy and/or critical thinking)*

#### **Laboratory Check-offs:**

Laboratory check-offs are formal procedures in which students must perform selected skills to a predetermined minimum level of competence. Students receive skills check-off sheets on which all expected performance elements are listed. Critical safety elements that, if not performed correctly will result in failure, are identified with an asterisk. All check-offs must be passed in order for students to pass the course. If a check-off is failed, students must repeat it; students are allowed three attempts to pass a check-off and will receive a **maximum grade of 70** on a repeated check-off. If a student is not successful within the allowed number of repeats, the student will not be allowed to complete the course and will be withdrawn from the PTA Program.

#### **Quizzes:**

All quizzes given, whether scheduled or given unannounced, may not be rescheduled if missed. A zero will be the grade recorded for an unexcused missed quiz. All quizzes will be averaged together to obtain a percentage of the final class grade. Any exceptions to this policy will be announced in class.

#### **Course Outline:**

##### **INTRODUCTION**

- I. Definitions
- II. Goals of Therapeutic Exercise
- III. Objectives of Therapeutic Exercise
- IV. Characteristics of Therapeutic Exercise
- V. Characteristics of Effective Patient Supervision
- VI. Patient Status Assessment
- VII. Treatment planning

##### **EXERCISE EQUIPMENT**

- I. General Guidelines
- II. ROM and Stretching Equipment
- III. Strengthening Equipment
- IV. Endurance Equipment
- V. Coordination / Balance Equipment

##### **STRENGTHENING EXERCISE**

- I. Definitions
- II. Benefits of Strengthening Exercises
- III. Goals of Strengthening Exercise

- IV. Indications for Strengthening Exercise
- V. Precautions
- VI. Contraindications for Strengthening Exercises
- VII. Types of Muscle Contractions
- VIII. General Guidelines for Strengthening Exercises
- IX. Isotonic Exercise
- X. Progressive Resistance Exercises (PRE's)
- XI. Practical Application of PRE
- XII. Isometric Exercise
- XIII. Isokinetic Exercise
- XIV. Plyometric Exercises (stretch-shortening drills)
- XV. Closed Kinetic Chain Exercises
- XVI. Progression (beginning with weakness or injury)
- XVII. Circuit Training
- XVIII. Special Populations
- XIX. Reversibility or "Detraining"

#### RELAXATION EXERCISES

- I. Definitions
- II. Review of Autonomic Nervous System
- III. Goals of relaxation exercises
- IV. Relaxation Principles
- V. General Guidelines
- VI. Interventions to Enhance the Effectiveness of Relaxation Exercises
- VII. Techniques for General Relaxation

#### STRETCHING EXERCISES

- I. Definitions
- II. Contractile Tissue (Muscle)
- III. Causes of Flexibility Loss
- IV. Multi-joint Flexibility
- V. General Guidelines for Stretching Exercises
- VI. Stretching Techniques

## ENDURANCE (AEROBIC) EXERCISES

- I. Definitions
- II. Cardiovascular System Response to Endurance Exercise
- III. Respiration Response to Endurance Exercise
- IV. Muscle Response to Endurance Exercises
- V. Abnormal Responses to Aerobic Exercise
- VI. Health Benefits from Endurance Exercise
- VII. Guidelines for Cardiovascular Endurance Exercises
- VIII. Guidelines for Muscular Endurance Exercises
- IX. Precautions

## ORTHOPEDIC INJURIES

- I. Definitions
- II. Ligament Injury (Sprains)
- III. Treatment of Ligament Injuries
- IV. Bone Injury - Fracture
- V. Treatment of Fractures
- VI. Cartilage Injury and Treatment
- VII. Muscle Injury and Treatment
- VIII. Tendon Injury and Treatment

## THE ELBOW AND FOREARM

- I. Elbow / Forearm Exercises
- II. Nerve Injuries Around the Elbow Joint
- III. Lateral Epicondylitis (Tennis Elbow)
- IV. Medial Epicondylitis (Golfers Elbow)
- V. Medial Valgus Stress Overload
- VI. Fractures / Dislocations
- VII. Total Elbow Arthroplasty

## THE WRIST AND HAND

- I. Wrist / Hand Exercises
- II. Rheumatoid Arthritis
- III. Carpal Tunnel Syndrome

- IV. de Quervain's Disease (de ker vanz)
- V. Sprains
- VI. Fractures
- VII. Dupuytren's Disease (de pwe trahn)
- VIII. Tendon Injuries and Repairs
- IX. Complex Regional Pain Syndrome (CRPS)

#### THE SHOULDER

- I. Shoulder Exercises
- II. Impingement Syndrome
- III. Rotator Cuff Tears
- IV. Anterior Shoulder Dislocation
- V. Posterior Shoulder Dislocation
- VI. Adhesive Capsulitis
- VII. Acromioclavicular Joint Sprain
- VIII. Fractures
- IX. Shoulder Arthroplasty
- X. Shoulder Arthrodesis

#### THE HIP

- I. Definitions
- II. Hip Exercises
- III. Hip Fractures
- IV. Pelvic fractures
- V. Osteoarthritis (DJD)
- VI. Total Hip Replacement (arthroplasty)
- VII. Hemiarthroplasty of Hip
- VIII. Legg-Calvé-Perthes Disease (leg-cal-VAY-PER-teez)
- IX. Trochanteric Bursitis
- X. Ischial Bursitis (ischioagluteal bursitis, Tailor's or Weaver's bottom)
- XI. Iliopectineal bursitis (Psoas bursitis)
- XII. Soft Tissue Injuries

#### THE KNEE

- I. Knee Exercises
- II. Anterior Cruciate Ligament Sprain
- III. Posterior Cruciate Ligament Sprain
- IV. Medial Collateral Ligament Sprain
- V. Meniscus Injuries
- VI. Articular Cartilage Injuries
- VII. Patellofemoral Pain Syndromes
- VIII. Fractures
- IX. Total Knee Replacement (arthroplasty)

#### THE ANKLE AND FOOT

- I. Functional Relationships of the Ankle and Foot
- II. Ankle / Foot Exercises
- III. Ankle Sprains
- IV. Achilles Tendinopathy
- V. Achilles Tendon Rupture
- VI. Overuse Syndromes
- VII. Fractures of the Ankle and Foot
- VIII. Foot Deformities
- IX. Total Ankle Replacement
- X. Arthrodesis (fusion)

#### TMJ AND FACIAL MUSCLES

- I. TMJ Dysfunction
- II. Bell's Palsy
- III. CVA with facial droop and poor oral control

#### WOMEN'S HEALTH

- I. Anatomic and Physiologic Changes of Pregnancy
- II. Pregnancy Induced Pathology/Problems and Treatment
- III. Childbirth Preparation Exercises
- IV. Postpartum Exercises
- V. Mastectomy

#### THE SPINE

- I. The Lumbar Spine
- II. Lumbar Strains and Sprains
- III. Lumbar Disc Injury
- IV. Other Lumbar Spine Pathologies
- V. The Thoracic Spine
- VI. The Cervical Spine
- VII. Cervical Strains and Sprains
- VIII. Cervical Disc Injury
- IX. Other Cervical Spine Pathologies
- X. Mechanical Traction for Disc Injuries
- XI. Spine Exercises

#### COORDINATION EXERCISES

- I. Definitions
- II. Development of Coordination
- III. Coordination Assessment
- IV. General Guidelines for Coordination Exercises
- V. Frenkel's Exercises

#### PROPRIOCEPTIVE NEUROMUSCULAR FACILITATION (PNF)

- I. Introduction
- II. Patterns of The Head, Neck and Trunk
- III. Extremity Patterns
- IV. Specific Techniques
- V. Application of PNF Techniques Within the Developmental Sequence

**The SEI process for face-to-face and online courses is scheduled for the week of November 18<sup>th</sup>.**