COURSE SYLLABUS
ADVANCED THERAPEUTIC EXERCISE THEORY
PTH 230A
1 credit hour / 1 contact hour (lecture)

INSTRUCTOR:
Eric Osman PT
School of Allied Health
(618) 614-8110
eosman32@aol.com

OFFICE HOURS: Tuesday 7:30-8:00 am, 1:00-2:30pm

CLASS SCHEDULE:
Section 001 and 002: Tuesday 8:00-8:50

TEXTBOOKS:
Required:

COURSE CATALOG DESCRIPTION:
PTH 230A- Advanced Therapeutic Exercise Theory: This course is a progression of PTH 210A designed to present advanced theoretical concepts related to therapeutic exercise. Students will apply neuroanatomy and therapeutics principles to the spine, peripheral joints, connective tissue, vestibular, somatosensory and neuromuscular systems. Co-requisite: PTH 230B
Prerequisites: PTH 210A with a minimum grade of C and PTH 210B with a pass. Restricted to PTH majors.

COURSE OBJECTIVES:
Upon successful completion of this course, the student shall be able to:

1. Apply functional anatomy and arthrokinematics of the sacroiliac joint as measured by performance on written exams

2. Identify sacroiliac joint dysfunctions and understand appropriate treatment interventions as demonstrated by performance of written exams.

3. Understand the concepts and principles of movement impairment syndromes and treatment interventions as measured by performance on written exams.

4. Understand the concepts and treatment application of sacroiliac and spinal stabilization exercises as measured by performance on written exams.
5. Understand thoracic outlet syndrome and the areas of potential entrapment as measured by performance on written exams.

6. Understand the anatomy of the temporomandibular joint, common impairments, and treatment interventions as measured by performance on written exams.

7. Understand the histology and biomechanical effects of immobilizing and mobilizing connective tissue as measured by performance on written exams.

8. Understand the concepts and principles of soft tissue mobilization as measured by performance on written exams.

9. Understand the concepts and principles of joint mobilization as measured by performance on written exams.

10. Understand the concepts and principles of muscle energy treatment techniques as measured by the performance on written exams.

11. Understand the concepts and principles of proprioceptive neuromuscular facilitation as measured by performance on written exams.

12. Understand the concepts and principles of neurodynamics as measured by performance on written exams.

13. Understand the basic concepts and treatment application of the proprioceptive and vestibular balance systems as measured by performance on written exams.

14. Understand the concepts of therapeutic exercise related to common impairments of the upper and lower extremity as measured by performance on written exams.

OUTLINE OF TOPICS OF LECTURE:

<table>
<thead>
<tr>
<th>Topics</th>
<th>Percentages</th>
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</thead>
<tbody>
<tr>
<td>I. Sacroiliac Dysfunctions and Muscle Energy</td>
<td>7.5%</td>
</tr>
<tr>
<td>II. Sacroiliac and Spinal Stabilization Exercise Programs</td>
<td>10%</td>
</tr>
<tr>
<td>III. Temporomandibular Joint and Thoracic Outlet</td>
<td>7.5%</td>
</tr>
<tr>
<td>IV. Soft Tissue, Neural and Joint Mobilization</td>
<td>15%</td>
</tr>
<tr>
<td>V. Proprioceptive Neuromuscular Facilitation</td>
<td>12.5%</td>
</tr>
<tr>
<td>VI. Neurodynamics</td>
<td>7.5%</td>
</tr>
<tr>
<td>VII. Proprioceptive and Vestibular Balance</td>
<td>10%</td>
</tr>
<tr>
<td>VIII. Upper Extremity Therapeutic Exercise</td>
<td>15%</td>
</tr>
<tr>
<td>IX. Lower Extremity Therapeutic Exercise</td>
<td>15%</td>
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SCHEDULE OF WHEN TOPICS ARE TAUGHT:

Week 1

**Lecture** – Course syllabus, Review, Introduction / review of Peripheral Joint Mobilization. Chapter 5

Week 2

**Lecture** – Upper Extremity Mobilization, end feels, convex/concave rules with accessory motion, open/closed pack positions, capsular patterns. Chapter 5

Week 3

**Lecture** – Histological and biomechanical effects of immobilizing and mobilizing connective tissue. Chapter 4/10

Week 4

**Lecture** – Neuromobilization Chapter 13

Week 5

**Written test and practical exam** 2/16/16

Week 6

**Lecture** – Spine exercise, stabilization and mobilizations Chapter 16

Week 7

**Lecture** – Spine continued.
Week 8

Lecture – Sacroiliac joint anatomy, arthrokinematics, impairment and treatment interventions. Chapter 15 (end)

SPRING BREAK 3/15 NO CLASS!

Week 9

Lecture – Thoracic spine and thoracic outlet syndrome anatomy and treatment. Chap. 13

Week 10

Lecture – TMJ anatomy, arthrokinematics, and treatment Chapter 15 (end)

Week 11

Written test and practical exam 4/5/16

Week 12

Lecture – Lower Extremity Mobilization, end feels, convex-/concave rules with accessory motion, open/ closed pack positions capsular patterns. Chapter 5

Week 13

Lecture – Proprioceptors; PNF principles, procedures, terms and indications and precautions. Chapter 6

Week 14

Lecture – Balance Chapter 8

Week 15

Lecture – Review
DESCRIPTION OF TEACHING METHODS AND LEARNING EXPERIENCES

The lecture and written test component of the course is designed to increase the student’s cognitive domain of learning (knowledge base) by providing a didactic teaching experience. PowerPoint presentations will be complimented with examples that are clinically based. Students are encouraged to participate in the lecture component by asking questions and relating their own experiences to the topics discussed.

STUDENT EVALUATION:

Grading Policy:

A percentage scale is utilized for all written exams.

<table>
<thead>
<tr>
<th>Points</th>
<th>3 Written tests</th>
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</table>
| 270-300 points = A | 90% & above | 300  
| 240-269 points = B | 80 - 89% |
| 210-239 points = C | 70 - 79% |
| 180 - 209 points = D | 60- 69% |
| Less than 179 points = E |

NOTE: A grade of C or above is required for the Physical Therapist Assistant Program.

Class attendance and participation will not be calculated into the course grade as a percentage score. However, it is the expectation of the program faculty that all PTA students demonstrate a professional interest in the material, attend all classes and actively participate.