COURSE NO., HOURS, AND TITLE: PTH 233b -1 credit–Physical Agents II Application

COURSE DESCRIPTION: Students will be able to demonstrate the safe and appropriate application of: compression units, traction, electrical currents, electrical muscle stimulation and electrotherapy for pain and healing functions. Students will administer standardized questionnaires, graphs, behavioral scales or visual analog scales for pain.

PREREQUISITES: PTH 107, 207, 123A & B; Restricted to program major.

COREQUISITE: PTH 233A

PREREQUISITE TO: PTH 234, 321A, 321B, 322

COURSE OBJECTIVES:
Upon successful completion of this course, the student shall be able to successfully demonstrate the following skills and knowledge as measured practical examination and successful completion of all required check offs.

1. Describe the physiology of pain.
   2. Describe the basic principles of electricity.
   3. Correctly prepare the physical agents covered in this course to include
      High Volt/Monophasic Pulsatile Current
      electrodes/indirect
      Low Volt/ Biphasic Muscle Re-education
      Low Volt/Monophasic Continuous
      point stimulation
      Russian Stimulation
      Functional Electrical Stimulation/NMES
      Interferential/Pre-modulated Current
      Ultrasound with Electrical Stimulation
      TENS
      Iontophoresis
      Biofeedback
      Cervical Traction
      Pelvic Traction
      Intermittent Compression

by:
   -- Identifying and correctly describing the physical agent’s characteristics, indications, contraindications and safety requirements.

4. Demonstrate proper preparation of the patient for treatment, including appropriate and comfortable positioning, proper draping, assessment of skin sensation, circulation, cognitive/mental status, and adequate explanation.
Demonstrate interaction with patients/family in a manner that provides psychosocial support and recognizing cultural and socioeconomic differences.

5. Safely and correctly apply the physical agent by:
   a. appropriate modulations for the physical agent based upon the plan of care developed by the physical therapist.
   b. Correctly identifying and manipulating all controls and switches
c. Correctly applying the contact device to the patient.
c. Performing all operations in the correct sequence
d. Establishing, monitoring, and varying the dosage according to patient tolerance and appropriate to the physical agent, the patient’s condition and within the plan of care developed by the physical therapist.
d. Describe and apply safety and comfort rules
e. Describe, apply and manipulate the time, distance and intensity rules
f. Demonstrate effective communication with the patient by checking for precautions and contraindications, and explaining the treatment using language they can understand.
g. Recognize and respond to objective and/or subjective patient responses to the applied physical agent 100% of the time

6. Determine and describe the need for modification of physical agent treatment by recognizing:
   a. Changes in patient’s physical status, mental status and tolerance to treatment
   b. Deviations from anticipated rate of progress
   c. Objective indications of patient tolerance to treatment
d. All physiological, biomechanical, and psychological secondary effects of treatment
e. Responses to treatment.

7. Determine and describe the appropriate modification of ongoing physical agent treatment by:
   a. Determining whether appropriate modifications are within the limits specified in the plan of care developed by the physical therapist.
b. Providing written and verbal communication with the physical therapist regarding modification and reason behind treatment modification.
c. Correctly implementing modification of the treatment plan developed by the physical therapist.

8. Demonstrate the ability to administer standardized pain assessments.
9. Demonstrate basic skills in measuring length, girth, height and weight.
**TOPIC OUTLINE:**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Percentage of Time</th>
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<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>5%</td>
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<tr>
<td>II. EQUIPMENT CARE</td>
<td>10%</td>
</tr>
<tr>
<td>III. MODULATIONS</td>
<td>10%</td>
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<tr>
<td>IV. MODALITIES</td>
<td>75%</td>
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</tbody>
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**TEXTBOOKS:**

 Required