MASTER SYLLABUS

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 233b

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. Properly prepare the patient for treatment, including appropriate and comfortable positioning, proper draping, assessment of skin sensation and circulation and adequate explanation.
-- Interact with patients/family in a manner that provides psychosocial support and recognizes cultural and socioeconomic differences.

5. Safely and correctly apply the physical agent by:
   a. Correctly identifying and manipulating all controls and switches
   b. Correctly performing all operations in correct sequence
   c. Establishing, monitoring, and varying the dosage according to patient tolerance and appropriate to the physical agent, the patient’s condition and treatment goals
   d. Describe and apply safety and comfort rules
   e. Describe, apply and manipulate the time, distance and intensity rules
   f. Recognize and respond to objective and/or subjective patient responses to the applied physical agent 100% of the time

6. Determine 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 the appropriate modification of ongoing physical agent treatment:
   a. Determine whether appropriate modifications are within the limits specified in the treatment plan
   b. Written and verbal communication with the therapist regarding modification and reason behind treatment modification
   c. Correctly implement modification of treatment plan.

8. Demonstrate the ability to administer standardized pain assessments.

9. Demonstrates basic skills in measuring length and girth.
**TOPIC OUTLINE:**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Percentage of Time</th>
</tr>
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<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>5%</td>
</tr>
<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>
</table>

**TEXTBOOKS:**

**Required**
