COURSE NO., HOURS, AND TITLE: PTH 233a - 2 credits—Physical Agents II Theory

COURSE DESCRIPTION: Students will understand and describe the physiological effects, indications and contraindications for electrotherapy, traction, and intermittent compression. Students will also explain the different theories and mechanics of 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 knowledge as measured by written examination.

1. Describe how neurotransmission occurs at the cellular level.

2. Describe the physiology of pain.

3. Describe the basic principles of electricity.

4. Describe proper preparation of the patient for treatment, including appropriate and comfortable positioning, proper draping, assessment of skin sensation, circulation, mental/cognitive status, and adequate explanation.

5. Determine the safe and correct application of the physical agent by describing the:
   a. appropriate modulations for the physical agent based upon the plan of care developed by the physical therapist.
   b. varying of the dosage/intensity according to patient tolerance, appropriate to the physical agent and the patient’s condition and treatment goals within the plan of care developed by the physical therapist.
   c. safety and comfort rules.
   d. time and intensity rules.
   e. appropriate action to take to objective and/or subjective patient responses to the applied physical agent.

6. Determine the need for modification of physical agent treatment by describing:
   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 by:
a. identifying whether appropriate modifications are within the limits specified in the plan of care developed by the physical therapist.
b. written and verbal communication with the physical therapist regarding modification and reason behind treatment modification.

8. Describe the procedure used to administer standardized pain assessments.

**TOPICAL 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>
</tr>
<tr>
<td>II. THEORIES OF PAIN CONTROL</td>
<td>10%</td>
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<tr>
<td>III. EXCITABLE CELLS</td>
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</tr>
<tr>
<td>IV. PRINCIPLES OF ELECTRICITY</td>
<td>15%</td>
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<td>V. MODALITIES</td>
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**TEXTBOOKS:**

**Required**
