

# Course Competency

## PHT 1211 DISAB & THERPTC PROC

### Course Description

The cause and effect factors associated with selected orthopedic and neuromuscular disabilities; preparing patient and equipment for electro-hydrotherapy, therapeutic exercise and other rehabilitative measures, and administering appropriate treatment procedures. Prerequisites: PTA 101, BIO 111, 112 or permission of the department chairman. Laboratory fee.

Course Competency	Learning Outcomes
<p><b>Competency 1:</b>The student will understand the physical agents associated with Physical Therapy by:</p>	<ol style="list-style-type: none"> <li>1. Communication</li> <li>2. Numbers / Data</li> <li>3. Critical thinking</li> <li>4. Ethical Issues</li> <li>5. Social Responsibility</li> <li>6. Computer / Technology Usage</li> </ol>
<ol style="list-style-type: none"> <li>1. Defining pain and edema</li> <li>2. Defining analgesia hyperalgesia, paraesthesia</li> <li>3. Listing three ways the pain cycle may be physically blocked</li> <li>4. Defining the sensory unit and location of “pain” fibers</li> <li>5. Listing effects of edema on the status of the patient</li> <li>6. Defining Trigger area</li> <li>7. Defining psychosomatic pain</li> <li>8. Listing medical or orthopedic disorders leading to the development of edema</li> <li>9. Describing the physiological effects of local heating on tissue temperature, metabolism, vascular system, lymphatic system and nervous system</li> <li>10. Listing immediate and secondary responses of the body to heat and cold</li> <li>11. Briefly describing how external heat affects the body’s heat regulating mechanisms</li> </ol>	

<ol style="list-style-type: none"> <li>12. Identifying general indications and contraindications for the use of therapeutic heat</li> <li>13. Identifying general indications and contraindications for the use of therapeutic cold</li> <li>14. Defining the following methods of heat transmission: conduction, convection, radiation and conversion</li> <li>15. Matching the source with the form of energy and the method of heat transmission, when given a source of heat</li> <li>16. Discussing the role of modalities in the total treatment plan of a patient with a specific disability</li> </ol>	
<p><b>Competency 2:</b>The student will have an understanding of Superficial Heating Agents by:</p>	
<ol style="list-style-type: none"> <li>1. Describing the physiological effects, indications and contraindications and physical therapy procedures for the application of hot packs</li> <li>2. Describing the physiological effects, indications and contraindications and physical therapy procedures for the application of paraffin</li> <li>3. Describing the physiological effects, indications and contraindications and physical therapy procedures for the application of infrared</li> <li>4. Describing the depth of penetration of infrared</li> </ol>	
<p><b>Competency 3:</b>The student will have an understanding of Cryotherapy by:</p>	
<ol style="list-style-type: none"> <li>1. Listing some of the possible forms of cryotherapy treatment</li> <li>2. Describing the physiological effects, indications, contraindications and physical therapy procedures for application</li> </ol>	
<p><b>Competency 4:</b>The student will have an understanding of Hydrotherapy/Asepsis by:</p>	

<ol style="list-style-type: none"> <li>1. Describing the physical properties of water</li> <li>2. Listing the effects, indications and contraindications for various hydrotherapy modalities</li> <li>3. Listing indications for terminating a treatment prematurely</li> <li>4. Defining asepsis</li> <li>5. Defining infection and briefly explaining how infection is transmitted and controlled</li> <li>6. Describing the indications and procedures for aseptic technique</li> <li>7. Listing some common anti-bacterial agents used in the clinic</li> </ol>	
<p><b>Competency 5:</b>The student will demonstrate an understanding of Ultrasound by:</p>	
<ol style="list-style-type: none"> <li>1. Listing indications, contraindications and precautions for the use of ultrasound</li> <li>2. Explaining how the patient dosage is determined when applying ultrasound</li> <li>3. Listing techniques for the application of ultrasound</li> <li>4. Listing and describing the primary effects of ultrasound</li> <li>5. Describing the procedure for the application of ultrasound</li> <li>6. Comparing the physiological difference in the effects of pulsed ultrasound as compared to continuous ultrasound</li> <li>7. Discussing indications for trigger-point technique in ultrasonic therapy</li> <li>8. Listing indication, contraindications, precautions and procedure for application of phonophoresis</li> </ol>	
<p><b>Competency 6:</b>The student will have an understanding of Electromagnetic radiations by:</p>	
<ol style="list-style-type: none"> <li>1. Listing the indication, contraindications and precautions for the use of diathermy</li> <li>2. Explaining the dosage scale used in short wave diathermy</li> <li>3. Listing the physiological effects of deep heating with short wave diathermy</li> <li>4. Describing the procedure for applying</li> </ol>	

<p>diathermy</p> <ol style="list-style-type: none"> <li>5. Listing the indications, contraindications and precautions for the use of microwave</li> <li>6. Describing the procedure for applying microwave</li> <li>7. Listing contraindications and precautions for treatment with ultraviolet radiation</li> <li>8. Listing the physiological effects of the erythema doses of ultraviolet</li> <li>9. Describing the penetration depth of ultraviolet rays</li> <li>10. Discussing the factors which influence the production of U.V. erythema</li> <li>11. Describing the procedure for determining patient sensitivity to U.V. rays</li> <li>12. Describing the procedure for ultraviolet application</li> <li>13. Listing some medical and pathological conditions indicated for treatment with ultraviolet</li> </ol>	
<p><b>Competency 7:</b>The student will have an understanding of Electrotherapy by:</p>	
<ol style="list-style-type: none"> <li>1. Defining motor unit, tetanus, tetany</li> <li>2. Describing the basic physiological mechanism of nerve conduction and muscle contraction</li> <li>3. Defining direct current, interrupted direct current and alternating current, unipolar and bipolar stimulation</li> <li>4. Describing how to decrease skin resistance to electrical current</li> <li>5. Explaining how dosage is determined when giving electrical stimulation</li> <li>6. Listing the indications, contraindications, precautions and procedures for applying various electrotherapy modalities</li> </ol>	
<p><b>Competency 8:</b>The student will have an understanding of Massage by:</p>	
<ol style="list-style-type: none"> <li>1. Defining massage</li> <li>2. Describing the mechanical effects of massage</li> <li>3. Describing the physical effects of massage</li> </ol>	

- |   |  |
|---|--|
| <ol style="list-style-type: none"><li>4. Describing the general procedure(s) for performing a massage treatment</li><li>5. Listing indications and contraindications for massage in general</li><li>6. Describing the relationship of massage to the total treatment program</li><li>7. Observing proper body mechanics while performing a massage</li><li>8. Describing the various types of massage</li></ol> |  |
|---|--|

Updated: FALL TERM 2022