STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK

# MASTER SYLLABUS

## PHTA 206 – Advanced Physical Therapy Modalities

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**School of Science, Health, and Criminal Justice**
**Department: Physical Therapist Assistant**
**Fall 2019**

A. **TITLE**: Advanced Physical Therapy Modalities

B. **COURSE NUMBER**: PHTA 206

C. **CREDIT HOURS**: 2 credit hours
1 hour of lecture per week
2 hours of lab per week

D. **WRITING INTENSIVE COURSE**: No

E. **GER CATEGORY**: None

F. **SEMESTER(S) OFFERED**: Fall

G. **COURSE DESCRIPTION**:
In this course students learn basic principles of electricity and electrotherapy. Application of electrotherapeutic agents for pain control, neuromuscular stimulation, and tissue healing are studied and applied. Students are introduced to spinal traction as a therapeutic modality.

H. **PRE-REQUISITES/CO-REQUISITES**:

a. Pre-requisite(s): PHTA 104
b. Co-requisite(s): N/A
c. Pre- or co-requisite(s): N/A

I. **STUDENT LEARNING OUTCOMES**:

| *Course Student Learning Outcome [SLO]* | *PSLO* | *GER* | *ISLO* |
|---|---|---|---|
| a. Demonstrate safe and effective implementation of the following electrotherapeutic agents:<br>1) TENS<br>2) High Volt Stimulation/combo<br>3) Interferential Stimulation<br>4) Iontophoresis<br>5) Neuromuscular Electrical Stimulation | PSLO #6<br>Demonstrate competence in implementing and adjusting selected components of interventions identified in the plan of care established by the physical therapist. | | 5 – Ind,Prof, Disc, Know Skills |
| b. Demonstrate safe and effective application of mechanical spinal traction. | PSLO #6<br>Demonstrate competence in implementing and adjusting selected components of interventions identified in the plan of care established by the physical therapist. | | 5 – Ind,Prof, Disc, Know Skills |

| | | | |
|---|---|---|---|
| c. Demonstrate safe and effective application of electromyographic biofeedback. | PSLO #6 Demonstrate competence in implementing and adjusting selected components of interventions identified in the plan of care established by the physical therapist. | | 5 – Ind,Prof, Disc, Know Skills |
| d. Discuss the principles of implementation, treatment rationale, safety considerations, and anticipated patient responses associated with #1,2, and 3 above. | PSLO #6 Demonstrate competence in implementing and adjusting selected components of interventions identified in the plan of care established by the physical therapist. | | 5 – Ind,Prof, Disc, Know Skills |
| e. Communicate verbally and non-verbally with the patient and others in an effective, appropriate, and capable manner during lab competencies and case scenario implementation. | PSLO #1 Communicate verbally and non-verbally with the patient, the physical therapist, health care delivery personnel, and others in an effective, appropriate, and capable manner. | | 1 – Comm Skills [O] |
| f. Demonstrate competency in performing components of data collection skills as part of the electrical stimulation or traction intervention. | PSLO #7 Demonstrate competency in performing components of data collection skills essential for carrying out the plan of care. | | 5 – Ind,Prof, Disc, Know Skills |
| g. Complete thorough, accurate, concise, timely, and legible documentation. | PSLO #10 Complete accurate and timely documentation in accordance with regulatory guidelines to support the delivery of physical therapy services. | | 5 – Ind,Prof, Disc, Know Skills |
| h. Provide effective education to patients and/or caregivers using appropriate teaching methods. | PSLO #9 Participate in educating and providing patient-related instruction to patients, family members, and caregivers based on the plan of care. | | 5 – Ind,Prof, Disc, Know Skills |
| i. Maintain safe working environment and assure safety of patient and self during all interactions. | PSLO #4 Demonstrate safe practice in all situations. | | 5 – Ind,Prof, Disc, Know Skills |

| | | | |
|---|---|---|---|
| j. Demonstrate comprehension of the physical therapy plan of care through case scenario implementation. | PSLO #5 Communicate an understanding of the plan of care developed by the physical therapist to achieve short and long term goals and intended outcomes. | | 5 – Ind,Prof, Disc, Know Skills |
| k. Make appropriate adjustments to the administration of modalities within the plan of care to maximize expected response to treatment. | PSLO #8 Demonstrate sound clinical problem solving in the provision of physical therapy services. | | 2- Crit Think [PS] |
| l. Recognize when a modality should not be administered due to changes in patient status and communicate to physical therapist. | PSLO #8 Demonstrate sound clinical problem solving in the provision of physical therapy services. | | 2- Crit Think [PS] |
| m. Demonstrate ability to submit accurate charge sheets following case scenario implementation. | PSLO #13 Participate in practice management functions within a physical therapy service, including billing and organizational planning. | | 5 – Ind,Prof, Disc, Know Skills |

| KEY | **Institutional Student Learning Outcomes [ISLO 1 – 5]** |
|---|---|
| **ISLO #** | **ISLO & Subsets** |
| **1** | **Communication Skills**<br>Oral [O], Written [W] |
| **2** | **Critical Thinking**<br>*Critical Analysis [CA] , Inquiry & Analysis [IA] , Problem Solving [PS]* |
| **3** | **Foundational Skills**<br>*Information Management [IM], Quantitative Lit,/Reasoning [QTR]* |
| **4** | **Social Responsibility**<br>*Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]* |
| **5** | **Industry, Professional, Discipline Specific Knowledge and Skills** |

**J.** **APPLIED LEARNING COMPONENT:** **Yes__X___ No_____**
Classroom/Lab

**K.** **TEXTS:**
Cameron, M.H., (2018) *Physical Agents in Rehabilitation*, St. Louis: Elsevier.

**L.** **REFERENCES:**
Michlovitz, S.L., (2012) *Modalities for Therapeutic Intervention*, Philadelphia: F.A. Davis.
Hayes, K.W. (2012) *Manual for Physical Agents*, Norwalk: Appleton& Lange.

**M.** **EQUIPMENT:**
Physical Therapy lab equipment and supplies

**N.** **GRADING METHOD:** A-F as per PTA program standards
The grading scale for the Physical Therapist Assistant program is as follows:

| | | | |
|---|---|---|---|
| A | = 90-100 | C | = 70-74 |
| B+ | = 85-89 | D+ | = 65-69 |
| B | = 80-84 | D | = 60-64 |
| C+ | = 75-79 | F | = below 60 |

**O.** **SUGGESTED MEASUREMENT CRITERIA/METHODS:**
Written Exams
Reading Guides
Case-Based Homework Assignments
Lab Competencies

**P.** **DETAILED COURSE OUTLINE:**

I. Principles of Electricity/Electrotherapy
   A. Introduction to Electricity
   B. Electrotherapeutic Parameters
   C. Physiology of Electrotherapy

II. Electrotherapeutic Modalities
   A. Principles of Pain Control
   B. Indications, Contraindications, Precautions
   C. TENS
   D. Interferential Current
   E. Neuromuscular Electrical Stimulation
   F. Light Therapy
   G. High Volt Stimulation/Combo
   H. Iontophoresis
   I. EMG Biofeedback

III. Mechanical Spinal Traction
   A. Cervical Traction
   B. Pelvic Traction

## Q. LABORATORY OUTLINE:

I. Introduction to Electrotherapy
A. Electrotherapy equipment
B. Patient Preparation

II. Pain Control Modalities
A. TENS
B. Interferential Current

III. Neuromuscular Electrical Stimulation

IV. HVPC/US Combo

V. Iontophoresis

VI. EMG Biofeedback

VII. Spinal Traction
A. Cervical Traction
B. Pelvic Traction