SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
PHYSICAL THERAPIST ASSISTANT
Revision Date: 10/2018
Syllabus Statements

I. CATALOG DESCRIPTION

Course Number: **PTAS1209**
Course Title: Neurological Conditions and Rehabilitation

Prerequisite(s): PTAS1101, PTAS1110, PTAS1112

Catalog Description: This course includes instruction in the theory and clinical application of therapeutic interventions for neurological conditions commonly seen in physical therapy. Neuroanatomy and physiology, neurological pathologies, and neurological development from birth to adult will be studied.

Credit Hours: 5
Class Hours: 45

Lab Hours: 90

Total Contact Hours: 135

II. COURSE OBJECTIVES: *Course will:*

1. Summarize the abnormalities of the structure and function of the neurological system.
2. Summarize the abnormalities of the structure and function of the cardiovascular system and the effect on neurological rehabilitation.
3. Illustrate the pathogenesis and prognosis of neurological diseases commonly encountered in physical therapy.
4. Summarize the clinical application of therapeutic interventions and data collection for health conditions of the neuromuscular system for the pediatric population.
5. Summarize the clinical application of therapeutic interventions and data collection for health conditions of the neuromuscular system for the adult population.
6. Advance skills in physical therapy documentation.

Note: Unit objectives are located in the learning management system within each unit of study.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: *The student will be able to:*

1. Distinguish pertinent anatomy and physiology related to the neurological and cardiovascular systems.
2. Understand the pathophysiology of neurological and cardiovascular disorders.
3. Assess the effects of neuromuscular conditions across the lifespan on PTA data collection and interventions.

4. Examine the concepts and principles of normal motor development, motor control, motor learning and neuroplasticity across the lifespan.
5. Identify the concepts and principles of general sensorimotor approaches and advanced therapeutic interventions such as NDT/Bobath, PNF, Rood and Brunnstrom in the treatment of patients with neuromuscular health conditions across the lifespan.
6. Select the appropriate data collection and advanced therapeutic intervention(s) in the treatment of a pediatric patient with a neuromuscular health condition.
7. Select the appropriate data collection and advanced therapeutic intervention(s) in the treatment of an adult patient with a neuromuscular condition.
8. Demonstrate safe and accurate data collection in the treatment of a patient with a neuromuscular condition.
9. Demonstrate safe application of advanced therapeutic intervention(s) in the treatment of a patient with a neuromuscular condition.
10. Compose thorough and defensible documentation in the treatment of a simulated patient with a neuromuscular health condition.
11. Demonstrate accurate billing in the treatment of a simulated patient with a neuromuscular health condition.
12. Value individual and cultural differences which may affect PTA data collection and interventions for the patients with neuromuscular health conditions.
13. Assess when an intervention should not be provided or should be adjusted within the plan of care.
14. Decide when an intervention is beyond that which is appropriate for a PTA.
15. Relate the results of standardized tests and measures utilized for patients with neuromuscular health conditions.
16. Choose the appropriate equipment in the treatment of a patient with a neuromuscular health condition.
17. Distinguish the members of the healthcare team involved in the medical care services of the patient with a neuromuscular health condition.
18. Demonstrate appropriate verbal and nonverbal communication with a simulated patient across the lifespan.
19. Demonstrate proper draping with respect for dignity, safe body mechanics for injury prevention, and universal precautions before, during and after application of therapeutic interventions.
20. Demonstrate proper positioning for the intervention with concern for the impairment.
21. Demonstrate professional conduct during interactions with peers and members of the healthcare team.

B. GENERAL EDUCATION LEARNING OUTCOMES

1. GELO 3: Critical Thinking and Problem Solving Skills

Outcome: Synthesize information to arrive at reasoned solutions to problems.

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information)*

A. Neurologic and Cardiovascular Anatomy and Physiology

B. Neurologic and Cardiovascular Pathophysiology

C. Neuro Concepts

D. Pediatrics

E. Spinal Cord Injury
F. Traumatic Brain Injury
G. Other Neuromuscular Diseases
H. Cerebrovascular Accidents

V. INSTRUCTIONAL MATERIALS REQUIRED

A. Required Text(s):

Martin, Kessler, *Neurological Interventions for Physical Therapy* (most current edition)
O'Sullivan, Schmitz, Fulk, *Physical Rehabilitation,* (most current edition)
Gould, *Pathophysiology for the Health Professional*, (most current edition)

B. Other Resources:

Vann, Lynn, *Cram Session in Goniometry & Manual Muscle Testing,* (most current edition)

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:

1. Lecture
2. Laboratory
3. Demonstration
4. Handout Materials
5. Class Participation/Presentations
6. Case Studies and Group Work
7. Guest Presenters
8. Websites
9. Power Point slides and videos
10. Pretests and worksheets
11. Field Trips

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination of assignments, quizzes, exam, projects, skill checkoffs, etc. For grading expectations please see the course information document.

SCC STANDARD GRADING SCALE POLICY:

A+	**95-100**	**C+**	**75-79**
A	**90-94**	**C**	**70-74**
B+	**85-89**	**D+**	**65-69**
B	**80-84**	**D**	**60-64**
		F	**Below 60**

VIII. SPECIFIC COURSE REQUIREMENTS

A. ATTENDANCE

Attendance is crucial to the success of this course. Any class missed could mean valuable missed information, which is difficult to obtain. Please notify the instructor of any pending absences or if you will be late. Absences in excess of four hours may result in failing the course.

B. Must pass all program courses with a C+ to progress to the next term. Courses with a classroom and lab portion must have a C+ or better in both.

Please see course information document for course policies related to grading, expectations, assignments, assessments, and participation.