INSTRUCTOR:  
Julie Davis, PT  
CASA 114B  
618-453-3618  
jfrman@siu.edu

OFFICE HOURS:  
Monday 1:00 pm-3:00 pm  
Wednesday 12:00 pm – 3:00 pm  
Thursday 1:00 pm – 2:00 pm  
or by appointment

CLASS SCHEDULE:  
ASA Room 064  
Monday 11:00 am - 12:50 pm

TEXTBOOK:  
Required  
W.B. Saunders Co, St. Louis, MO.  
ISBN: 9780721604275

PREREQUISITES:  
Minimum of C in PTH 210A, Pass in PTH 210B  
Restricted to major  
Concurrent enrollment in 220B, 230A, B

COURSE CATALOG DESCRIPTION:  
Students will understand the principles of advanced therapeutic exercise for patients with neurologic dysfunction. Theories behind motor control, motor reflexes, motor learning, sensory integration, motor development, and utilization of synergies are covered. Students will be able to identify the need for adaptive equipment for individuals with neurologic dysfunction.

COURSE OBJECTIVES:  
Upon successful completion of this course, the student shall be able to:

1. Understand the scientific principles of therapeutic exercise.  
2. Identify and describe the developmental reflexes and reactions that are appropriate from 0-12 months.  
3. Identify and describe the gross motor milestones from 0-15 months.  
4. Identify and describe the fine motor milestones from 0-15 months.  
5. Identify and describe the basic stages of individual development throughout the lifespan.  
6. Describe neuroplasticity changes across the lifespan.  
7. Describe the basic principles of Motor Learning and Motor Control.  
8. Identify strategies to facilitate learning across the lifespan.  
9. Describe how one’s ability to learn is influenced by age, stage of development and sensory preferences.  
10. Describe the influence of normal and abnormal reflex activity on gross motor development.
11. Describe how sensorimotor facilitation and inhibition techniques to enhance therapeutic exercise.
12. Describe the synergistic movement components normally seen with central nervous system deficits resulting in spasticity.
13. Describe therapeutic exercises for specific conditions including developmental delay, cerebral vascular accident, traumatic brain injury, cerebral palsy, and other central nervous system disorders including degenerative diseases of the central nervous system.
15. Describe therapeutic exercises for balance and coordination.
16. Recognize changes in the direction and magnitude of patient's state of arousal, mentation and cognition.

TENTATIVE OUTLINE OF TOPICS OF LECTURE:  ASSIGNMENT:
Week 1 HOLIDAY
Week 2 Chapter 1; Chapter 3-Motor Control and Motor Learning Quiz Chap 1 & 3
Week 3 Chapter 4-Motor Development Quiz Chap 3 & 4
Week 4 TEST 1
Week 5 Chapter 5-Positioning and Handling Quiz Chap 5
Treatment Theories
Week 6 Chapter 6-Cerebral Palsy Quiz Chap 5-7
Chapter 7-Myelomeningocele
Week 7 Chapter 8-Genetic Disorders Quiz Chap 6-8
Week 8 TEST 2
Week 9 SPRING BREAK
Week 10 Chapter 10-CVA Quiz Chap 10
Week 11 Chapter 11-TBI Quiz Chap 10 & 11
Week 12 Chapter 12-SCI Quiz Chap 11 & 12
Week 13 TEST 3
Week 14 TBA
Week 15 Chapter 13-Other Neurological Disorders Quiz Chap 13
Week 16 Balance Quiz Chap 13
WEEK 17 FINAL EXAM – Friday, May 13, 10:15 am

DESCRIPTION OF TEACHING METHODS AND LEARNING EXPERIENCES:
This course is taught in a lecture format. Students will be provided reading assignments for each lecture topic. Lectures may be supplemented by power point presentations and video. Additional information may be available to students via Desire 2 Learn.

STUDENT EVALUATION:
Tests: 4 hourly 400 (100 points each)
Quizzes 90 (10 points each) 490 points total

Grading
490 – 441 = A
440 - 392 = B
391 - 343 = C A GRADE OF C OR HIGHER IS REQUIRED FOR PTH MAJORS
342 - 294 = D
293 or less = F
Tests (4)
Each hourly test is worth a total of 100 points. If a student is unable to take test during the assigned time, the instructor must be notified PRIOR to the exam so that arrangements may be made. Any missed test must be made up by the next scheduled class period or a score of 0 will be received for that test.

Quizzes (9)
Students are expected to read the chapter to be covered in lecture PRIOR to arriving in class. There will be 10 quizzes over the course of the semester. Quizzes will cover the material from the reading and/or the prior week’s lecture. Quizzes will be given during the first 15 minutes of class. After 15 minutes, all quizzes will be collected. Those arriving to class late will not be given extra time. At the end of the semester, the lowest quiz grade will be dropped before calculation of the final class grade. No make-up quizzes will be given in the event of absence or tardy.

Professional Behavior - The development of professional behaviors is essential to any aspiring health care professional. One realm of professional behavior lies in the expectation of the person to be punctual, prepared and present.

Student Grades/Confidentiality – No information regarding student grades or class progress will be communicated via telephone or email. All grades will be posted on Desire2Learn as soon as they are available. If you have questions regarding current course grades or course information, students must speak directly with the instructor. This may be possible either immediately before or after class, during office hours or by making an appointment to meet with the instructor.

Classroom Attendance Policy – This is a professional program. Attendance in class is expected, but is the responsibility of the student. Students should be prepared to participate in class at the designated start time for the course. Prepared means the student is seated in the class with all necessary classroom supplies available to them and assignments due that day are turned in to the instructor.

Electronic Devices- The use of electronic devices, such as cell phones, will not be permitted in the classroom. All electronic devices should be TURNED OFF when entering the classroom. In the case of an emergency, persons may call the School of Allied Health office at (618) 453-7211 and a message will be delivered to the classroom.

SIU PTA course materials, including the course syllabus are not to be duplicated without consent of the SIU PTA Program.