

McLennan Community College
PTHA 2431: Management of Neurological Disorders
Syllabus, Fall 2009

Course Credit: 4 semester hours
Clock Hours: 3 Lec hours/week 48 Lec hours/semester
3 Lab hours/week 48 Lab hours/semester

COURSE DESCRIPTION: Integrates previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders.

REQUIRED TEXTS:

Martin and Kessler. Neurologic Interventions for Physical Therapy, 2nd Edition, W.B. Saunders, St. Louis, MO., 2007.

O'Sullivan and Schmitz. Physical Rehabilitation: Assessment and Treatment, 5th Edition, F. A. Davis Co., Philadelphia, Pa., 2007.

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COURSE OBJECTIVES:

Upon successful completion of this course, the student will be able to:

1. Identify the basic elements of critical thinking and apply those principles to patient care decision-making (**F2.3**)
2. Describe and demonstrate the following data collection techniques and correctly document the information in a role playing situation: (**C1.1, 1.3, 2.1, 2.2, 3.1, 3.3, 5.1, 5.2, F1.2, 1.4**)
 - a. sensation
 - b. coordination
 - c. perception
3. Describe and utilize strategies to improve communication with geriatric patients.
4. Discuss the concepts of motor control, reflexes, and motor development skills. (**C3.1, 3.3**)
5. Describe the following treatment techniques and be able to demonstrate: (**C3.1, 5.1, 5.2, 5.3, F1.4, 2.1-2.3**)
 - a. motor learning
 - b. PNF
 - b. NDT
 - c. Brunnstrom
 - d. other selected techniques

6. Describe treatment procedures and considerations utilized in the management of the following disabilities: **(C3.1, 5.1, 5.2, F2.1-2.3, 3.1)**
 - a. CVA (stroke)
 - b. Head injury
 - c. Spinal cord injury
 - d. Multiple sclerosis
 - e. Parkinsonism
 - f. Other neurological disorders
7. Given a plan of treatment for a patient with a specific disability, the student will apply or instruct the patient in the appropriate treatment procedure in a role playing situation. These procedures will include: **(C3.1, 5.1-5.3, F1.1-1.5, 2.1-2.6, 3.1-3.4)**
 - a. therapeutic exercise
 - b. pre-ambulation and gait training
 - c. ADL training
 - d. selected facilitation and inhibition techniques
 - e. home programs
8. Identify and describe possible adverse affects of the procedures listed in #6 and #7 above and correctly modify treatment as indicated within the plan of treatment. **(C3.1, F2.3)**
9. Identify various sources of information (textbooks, peer-reviewed professional journals, websites, etc.) for the purpose of gaining additional knowledge/insights in the various areas/topics presented in this course. **(C3.1, F1.1, 2.5, 3.4)**
10. Utilize the basic procedures of EBP to create a presentation for the class on a neurological intervention-related topic.
11. Develop an awareness of the APTA by attending one district or state meeting or program and writing a report. (Due date: Nov. 24, 2007) Report must include the student's impression of the meeting/program and discussion of how the TPTA impacts students, PTAs, and PTs in the field. **(C1.1, 2.1, 4.1, F1.2, 1.4, 1.5, 3.1-3.5)**
12. Recognize the importance of physical therapy professional's involvement in the community by performing a community service project (2-4 hours) and writing a brief summary of the project. (Due date: Nov. 24, 2007) **(C1.1, 2.1, 4.1, F1.2, 1.4, 1.5, 3.1-3.5)**

In addition, students will be expected to:

13. Maintain a clean and orderly lab working area. **(C1.3, F3.1)**
14. Have materials organized and prepared for lecture and lab sessions. **(F3.4)**
15. Work with assigned lab partners in a positive and constructive manner in order to accomplish tasks. **(C2.1, 2.6, F3.1, 3.3, 3.4)**

COURSE OUTLINE:

- A. Orientation to Rehabilitation
Critical thinking/Clinical decision making
- B. Neurology review
- C. Data Collection
 - 1. Sensation
 - 2. Coordination
 - 3. Perception
 - 4. Motor control
 - 5. Normal development
 - 6. Gait
- D. Treatment/Intervention Activities
- E. Specific Neurological Problems and Appropriate Treatment Procedures
 - 1. Aging process/changes
 - 2. CVA
 - 3. MS
 - 4. Parkinson's
 - 5. TBI
 - 6. SCI
 - 7. ALS

FACILITIES:

Class will be held in classrooms in the Community Services Center Building, and labs will be held in the Physical Therapist Assistant Department. Any student wishing to use lab equipment any time other than regular class hours must make arrangements with a PTA instructor.

INSTRUCTIONAL CLASSROOM METHODS:

The material will be presented in lecture/demonstration format, along with other learning activities. Performance of specific techniques and skills in the laboratory will follow the lecture. Guest lecturers may be used. Audio-visual materials will be utilized regularly.

ATTENDANCE:

Attendance is essential for attainment of course objectives. A student who is more than five (5) minutes late is considered tardy, and three (3) tardies constitute one absence.

Two (2) absences or absence from 2 lecture hours:	verbal warning
Three (3) absences or absence from 3 lecture hours:	written warning
Four (4) absences or absence from 4 lecture hours:	program probation
Five (5) absences or absence from 5 lecture hours:	withdrawal from program

Absences from lab will be handled following the above policy, but hours missed from lecture and lab will not be combined to penalize the student. Make-up work may be required for absences in order to ensure that students acquire information and skills presented during their absence and will be the responsibility of the student to attain and complete. Students must notify the PTA office in advance whenever tardiness or absence is unavoidable.

LABORATORY:

All students must be prepared for lab sessions at all times. Lab uniforms are described in the PTA student handbook.

GRADE COMPILATION:

Written Tests & Quizzes	40%
Written Final	15%
Mid-term Skills Practical	15%
Final Skills Practical	15%
EBP and other assignments	<u>15%</u>
TOTAL	100%

REQUIREMENTS FOR SUCCESSFUL GRADE COMPLETION: A student must have an average of 75% on written exams **and** an average of 75% on lab exams and must prove competency in lab skills at 75% accuracy or above on each lab exam in order to receive a passing grade of C or better for this course. In addition, any student scoring below 75% on a lab exam will be required to repeat that exam, with one chance to meet the 75% competency. A maximum of one lab exam may be repeated during the semester secondary to failure, and the maximum grade that can be achieved on the repeat exam is 75%.

Make-up exams, written or lab, will be considered **only** with proper documentation of an excused reason for absence and instructor approval.

Lab skills evaluations, or check offs, will be required for all skills covered during lab sessions. A student must demonstrate proficiency (safe, effective, reasonable time) on each skill. Students may not attempt to check off on a skill the same day that it is taught in the lab. All skills covered in lab prior to a lab test must be checked off prior to the lab test.

Any student who receives a D or below for the course may not continue in the PTA program but may be eligible to re-enter the following year.

Evidence Review Assignment

Assignment: Each student will select a neurologically related topic. Perform a search on established health/medical search engines (PEDron, Pubmed, CINAHL, Medline, etc) to find 4-6 peer reviewed journal articles related to your topic. If you have a topic you would like that is not listed, please let me know and we can change it.

Grade: You will then write a 3-5 page cohesive summary of the evidence utilizing AMA style with proper referencing to avoid plagiarism. Please write it up in a user-friendly manner as copies will be provided for your classmates to build a quick reference library. You will also make a 10 minute presentation to the class. The presentation should be done professionally and well-rehearsed prior to presenting. For this presentation you will be expected to put together a basic powerpoint to guide the presentation. This activity is to help develop your abilities in giving quality inservices in clinical settings.

ADA Statement

In accordance with the requirements of the Americans with Disabilities Act (ADA) and the regulations published by the United States Department of Justice 28 C.F.R. 35.107(a), MCC's designated ADA co-coordinators, Mr. Gene Gooch, Vice President-Finance and Administration and Dr. Santos Martinez, Vice President, Student Services shall be responsible for coordinating the College's efforts to comply with and carry out its responsibilities under ADA. Students with disabilities requiring physical, classroom, or testing accommodations should contact Marc Sweatt, Disability Specialist, at 299.8122 or msweatt@mclennan.edu.