

**Western Kentucky University
Department of Physical Therapy
Doctor of Physical Therapy Program**

Course Number: DPT 749

Course Title: Neurological Assessment

Credit Hours: 1

Clock Hours/Contact Time: 25 hours (0;1)

Lecture/Lab Hours: 6 hours/week (5-week session)

Weekly Schedule: Lab 1: Monday 9 a.m. – 12 p.m. and Tuesday 1 p.m. - 4 p.m.

Lab 2: Monday 1 p.m. – 4 p.m. and Tuesday 9 a.m. – 12 p.m.

***SCHEDULE 1ST WEEK IS DIFFERENT. See Schedule below**

Office Hours: Monday/Tuesday 8-9 a.m.

Location: Health Sciences Complex; Room 3341, 3347

Instructors: Sonia Young, PT, DPT, EdD, MSCS;
Board-Certified Clinical Specialist in Neurologic Physical Therapy;
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Course Description:

Physical therapy examination, evaluation, and assessment of individuals with neurologically-based movement disorders. Prerequisites: Open only to DPT students in good standing.

Course Objectives:

At the completion of the course content, the student will be able to:

1. Analyze common movement tasks and problems and adapt the evaluation to meet needs of individual patients with neurologically-based movement disorders. (7D20) (7A) (7C)
2. Differentiate between normal and abnormal postural control and compare its relationship to balance. (7D19r) (7D19d) (7A) (7C)
3. Demonstrate ability to perform a safe and skillful subjective and objective examination that addresses the cognitive, affective, and sensorimotor aspects of the patient by selecting age appropriate tests and measures. Tests and measures include, but are not limited to: (7D17) (7A) (7C)(7D19p)
 - a. arousal, mentation, cognition (7D19l) (7A) (7C)
 - b. sensorimotor assessment including sensory integrity (7D19g) (7D19p) (7D19u) (7A) (7C)
 - c. posture (7D19r) (7A) (7C)
 - d. motor control (7D19n)(7D19p) (7A) (7C)
 - e. coordination (7D19n) (7A) (7C)
 - f. balance (7D19d) (7A) (7C)
 - g. righting and equilibrium (7A) (7C)

- h. functional assessments (7D19f)(7A) (7C)
 - i. gait and assisted locomotion (7D19m) (7A) (7C)
 - j. joint integrity and mobility including tone (7D19k) (7A) (7C)
 - k. ROM (7D19s) (7A) (7C)
 - l. assistive and adaptive devices (7D19l) (7D19f) (7A) (7C)
 - m. environmental, home, and work barriers (7D19f) (7D19h) (7A) (7C)
 - n. reflex integrity (7A) (7C) (7D19t)
4. Differentiate between musculoskeletal limitations, neuromuscular impairments, and sensory impairments through the use of screening and functional assessment. (7D19) (7A) (7C) (7D21)(7D20)
 - a. Evaluate conditions not appropriate for physical therapy intervention and describe how to refer for appropriate care. (7D16) (7A) (7C) (7D26)(7D18)
 - b. Provide culturally competent first-contact care to patients/clients needing physical therapy services. (7D34)(7D8) (7A) (7C)
 - c. Cooperates, collaborates, communicates, and integrates care with other health care practitioners as necessary to meet the patient's/client's needs. (7D28) (7D7) (7A) (7C)
 5. Utilize functional assessment tools to establish the presence of neuromuscular impairments. (7D19) (7A) (7C)
 6. Based on examination findings, formulate an appropriate evaluation and prognosis, set appropriate goals in a safe manner. (7D20) (7D23) (7A) (7C)
 7. Explain the importance of outcome assessment and its impact on plan of care and patient status. (7D30) (7A) (7C)(7D31)
 - a. Discuss importance of outcomes assessment in neurologic physical therapy in terms of patient outcomes, efficacy and effectiveness of interventions, financial considerations, and access to healthcare. (7D37) (7A) (7C)
 - b. Document results of selected outcome measures in a consistent and precise manner in individual patient/client records. (7D32) (7A) (7C)
 8. Demonstrate ability to document neurological examination findings for multiple conditions and effectively present them when collaborating with other practitioners and support personnel. (7D25) (7D32) (7A) (7C)
 9. Develop a safe and effective plan of care that includes diagnosis, prognosis, appropriate interventions and includes short- and long-term goals that demonstrates evidence-based principles including consideration of literature, clinical experience of the therapist, available resources, collaboration with other professionals, and incorporation of individual patient values beliefs and goals. (7D22) (7D24) (7D23) (7A) (7C)
 - a. Evaluate diagnostic tests results for their implication in planning a neurologic physical therapy intervention. (7A) (7C)

Course Structure:

This course combines lecture, lab, demonstration, and Blackboard teaching emphasizing knowledge of theoretical and clinical approaches to patient/client management of individuals with neurologically-based movement disorders. Lecture will encompass presentation of examination, evaluation, and assessment techniques for patients with neurologically-based movement dysfunction. Concurrent laboratory will focus on the psychomotor aspects of these techniques. The integration of concepts from this and previous classes must be evident in all written work, examinations, and performance on practical examinations.

The student will gain knowledge in this course from the combination of 1) lecture material, 2) classroom demonstrations, 3) group discussions 4) presentation of case studies, 5) laboratory experiences, and 6) Blackboard activities and Mediasite lectures. Emphasis will be placed on accuracy of patient examination techniques, the ability to interpret test results and application of movement science in the development of intervention approaches for individuals with neurologic dysfunction. This course will prepare students to perform elements of patient/client management with this patient population in clinical settings.

Student Evaluation and Grading:

1. **Attendance.** Attendance and promptness to class will be monitored. One percentage point will be deducted each occurrence of tardiness and 2 percentage points will be deducted for each unexcused absence.
2. **Testing**
 - a. **Written Exam (100 points):** One final exam will be given during the course of the semester. The exam will be comprehensive over the total material of the course, and all students must take the exams. In the event of emergency/illness, students must contact the instructor to arrange to take the examination.
 - b. **Labs (5 points):** Participation in all lab activities are required. Students who successfully complete all lab assignments and the Practice Write-up will receive full credit.
 - c. **Quizzes (45 points):** Quizzes. There will be 3 quizzes (15 points each) during the course. Quizzes will be over reading assignment, lecture, Mediasite, and or lab content.
 - d. **Practical Examination (25 points):** Students must perform a practical examination; the instructor will grade students on each performance criterion using their professional judgment in regards to the following areas: quality of care, supervision/guidance required (verbal cueing), and accuracy/consistency of performance, complexity of task/environment, safety, and efficiency of performance.

During the Practical Examination, students will demonstrate effective and efficient patient client management with an emphasis on examination, evaluation, and diagnosis. Students will perform an examination or part of an examination on a real or simulated patient (case study) with a neurologically-based movement disorder. Students must pass the practical examination to pass the class.

- e. **Practical write ups (25 points):** For the practical examination, students will generate a report of the assessment of their patient including examination data, evaluation of those data, PT diagnosis, and prognosis including plan of care. Detailed instructions and grading rubric will be provided separately. A practice write-up will be performed.

3. Grading:

a. Course Grading

The final course grade is a letter grade. The course grade will be based on the following:

Practical (25 pts)/write-up (25 pts)	50 points (25%)
Final Exam	100 points (50%)
Quizzes (3 x 15 points)	45 points (22.5%)
Labs including Practice Write-up	<u>5 points (2.5%)</u>
Total	200 points (100%)

Course grades are not rounded up. (Example: a final grade of 89.999 is not rounded to a 90.0%)

b. Numeric and Letter Grade Translation

A	90-100
B	80-89
C	70-79
F	<70

Instructional Practices:

1. Teaching Methods

- a. Lecture (Mediasite and/or in-class)
- b. Blackboard with Mediasite lectures
- c. Case studies
- d. Laboratory
- e. Student self-study
- f. Class discussion

2. Teaching Aides (may include)

- a. Blackboard/Mediasites
- b. PowerPoint
- c. Video

Course Policies

1. Refer to WKU DPT Student Manual for the following items:

- a. Student Responsibilities
- b. Student Disability Services
- c. Copyright
- d. Academic Misconduct
- e. Religious Holidays Notification
- f. WKU Writing Center
- g. Missed Class(es)/Student
- h. Professional Behaviors
- i. Course Policies

The instructor reserves the right to make changes in the course schedule as needed to accommodate guest lecturers or to alter course content.

Required Texts/Resources:

- O’Sullivan SB, Schmitz TS, Fulk GD. (2019). *Physical Rehabilitation* (7th Ed.). Philadelphia: FA Davis. ISBN 978-0-8036-6162-2 (Available on AccessPhysiotherapy)
- Bezkor EW, O’Sullivan SB, Schmitz TJ. (2021). *Improving Functional Outcomes in Physical Rehabilitation*. Philadelphia, PA: FA Davis. ISBN: 978-1719640909 (Available on AccessPhysiotherapy)

Participation, Preparation and Communication:

- a. **Expectations:** All students will be prepared for each class and participation is mandatory. Failure to participate (including non-clinical use of your phone during class) will result in an overall point loss of 1% of your grade, per occurrence. The professor reserves the right to ask you to leave class if you or your phone use becomes a disruption.

- b. **Classroom and Laboratory Housekeeping:** In accordance with the Student Manual you are responsible for maintaining and cleaning up the classroom and lab spaces.
- c. **Communication with Professor.** If you have any questions regarding course goals, tasks, or activities, you should contact the professor to discuss them. You should be polite, professional, and courteous in all communications. Replies to your email will be within 24 hours Monday-Friday and within 48 hours over the weekend. As DPT students, you should maintain professionalism and politeness with all forms of communication. Failure to do so could trigger a Student Professionalism Concern Report (see below).

Professional Responsibilities and Relationships

As a doctor of physical (DPT) student and future physical therapist, you have chosen to pursue a profession which requires personal integrity, compassion, and a constant awareness of the commitment made. Exhibiting personal behaviors consistent with a respect for this profession and having pride in your work are central tenets of professionalism. You are expected to incorporate them into your daily life. To demonstrate commitment to these responsibilities while enrolled in this course, you will be held to the professional standards listed in the Student Manual and you are expected to:

- a. Seek and accept feedback and constructive instruction from teachers, peers, and faculty in order to continually improve your educational experience, knowledge, and clinical skills.
 - b. Commit to the highest standards of competence.
 - c. Be mindful of your demeanor, language, and appearance in the classroom.
 - d. Be accountable to all members of the WKU community, including fellow students, faculty, and support staff.
 - e. Admit and assume responsibility for mistakes in a mature and honest manner and develop productive strategies for correcting them.
 - f. Be considerate and respectful of others' (teachers, peers, and faculty) time, rights, values, religious, ethnic and socioeconomic backgrounds, lifestyles, opinions, and choices, even when they differ from your own.
 - g. Meet the expectations for participation and timeliness.
 - h. Recognize limitations and seek help when expertise, knowledge, or level of experience is inadequate to handle a situation in the classroom, hospital, or research setting.
 - i. Maintain appropriate relationships with peers and faculty.
 - j. Treat all members of the WKU community with respect, compassion, and dignity.
 - k. Be mindful to avoid intentionally embarrassing or disparaging others.
 - l. Provide feedback to others (both colleagues and superiors) in a constructive manner, with the goal of helping them to improve.
 - m. Treat those who participate in the education process (e.g., standardized patients) with dignity and respect.
 - n. Actively work to create an atmosphere in classrooms, clinical settings, and in laboratories that is conducive to optimal, interactive learning.
- 1) **Professionalism Concern Process**
- Violation of the classroom professionalism policy may simply result in providing the student with feedback on his or her behavior. However, if the breach is significant enough, the student will be asked to leave the classroom. This will result in an unexcused absence and a **2% reduction in the student's overall grade**. The professor will also complete the **Student Professionalism Concern Report Form**. Once the form is completed, the student will meet individually with the Professor to discuss the situation.

STUDENT PROFESSIONALISM CONCERN REPORT FORM

Student: _____

Professor: _____

Which of the following unprofessional behaviors has the student exhibited? Check all that apply.

- ☐ Professional Responsibilities
 - ☐ Fails to accept and internalize criticism and feedback
 - ☐ Has inappropriate demeanor or appearance in the classroom
- ☐ Professional Relationships
 - ☐ Acts disrespectfully toward others
 - ☐ Engages in disruptive behavior in class
- ☐ Professional Ethic
 - ☐ Behaves in a dishonest manner, including falsifying documentation
- ☐ Other: _____

1. Describe in detail the incident which prompted the completion of this form (attach additional pages if needed).

2. Describe previous feedback and remediation which took place prior to the completion of this form (attach additional pages if needed).

3. Student Signature: _____ Date: _____

I acknowledge that I have reviewed this evaluation with the course professor and have the following additional comments:

4. Professor Signature: _____ Date: _____

Title IX Misconduct/Assault Statement

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's [Sex and Gender-Based Discrimination, Harassment, and Retaliation](#) (#0.070) and [Discrimination and Harassment Policy](#) (#0.2040). Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's [Counseling and Testing Center](#) at 270-745-3159.

ADA Accommodation Statement

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074. The SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Statement on Diversity, Equity, & Inclusion

Recognition and respect are core aspects of diversity, equity, and inclusion (DEI). The way we value and respond to facets of DEI is critical to our personal, academic, and professional growth. Every person in this class contributes to its diverse composition. We each contribute to the class by way of our being, values, thoughts, and experiences. While we may not always agree with or understand these factors and constructs, we are all responsible for maintaining a respectful environment for sharing and learning. I am committed to providing a teaching and learning environment conducive to fostering this recognition and respect.

Statement on COVID-19

All students are strongly encouraged to get the COVID-19 vaccine. In accordance with WKU policy, all students must call the WKU COVID-19 Assistance Line at 270-745-2019 within 4 hours of testing positive for COVID-19 or being identified as a close contact to someone who has tested positive. The COVID Assistance Line is available to answer questions regarding any COVID-19 related issue. This guidance is subject to change based on requirements set forth by federal, state, and local public health entities. Please refer to the Healthy on the Hill website for the most current information.

www.wku.edu/healthyonthehill

DPT 749 – NEUROLOGICAL ASSESSMENT
COURSE SCHEDULE
Summer 2022

Week	Labs/Times	Content	Reading*
Week 1			
July 4	NO CLASS	Semester Begins on July 5	
July 5	Tuesday Lab 1: 1 p.m.-4 p.m.	Course Introduction; Neurologic Exam Part 1: Sensory Function Neurologic Exam Lab 1	Ch 1 Ch 3
July 6	Wednesday Lab 2: 9 a.m.-12 p.m.	Course Introduction; Neurologic Exam Part 1: Sensory Function Neurologic Exam Lab 1	
Week 2			
July 11	Monday Lab 1: 9 a.m.-12 p.m. Lab 2: 1 p.m.-4 p.m.	Quiz 1 Neurological Exam Part 2: Motor Function Neurological Exam Lab 2a	Ch 5
July 12	Tuesday Lab 2: 9 a.m.-12 p.m. Lab 1: 1 p.m.-4 p.m.	Neurological Exam Part 2: Motor Function Neurological Exam Lab 2b	
Week 3			
July 18	Monday Lab 1: 9 a.m.-12 p.m. Lab 2: 1 p.m.-4 p.m.	Quiz 2 Neurological Exam Part 3a: Coordination	Ch 6
July 19	Tuesday Lab 2: 9 a.m.-12 p.m. Lab 1: 1 p.m.-4 p.m.	Neurological Exam Part 3b: Balance	
Week 4			
July 25	Monday Lab 1: 9 a.m.-12 p.m. Lab 2: 1 p.m.-4 p.m.	Quiz 3 Neurological Exam Part 4a: Gait Practice Write-up due at the end of class	Ch 7 and 8
July 26	Tuesday Lab 2: 9 a.m.-12 p.m. Lab 1: 1 p.m.-4 p.m.	Neurological Exam Part 4b: Functional Mobility	
July 29	Friday 8 a.m. – 5 p.m.	Practical Practical Write-up	
Week 5			
Aug 1	Monday 8 a.m. – 5 p.m.	Practical Practical Write-up Retakes	
Aug 2	Tuesday	Final Exam (9 a.m.) Practical Retakes (1 p.m. – 5 p.m.)	

O’Sullivan SB, Schmitz TS, Fulk GD. (2019). *Physical Rehabilitation* (7th Ed.). Philadelphia: FA Davis.

**A reading guide will also be provided weekly in Blackboard*