

The University of Texas at El Paso  
College of Health Sciences  
Doctor of Physical Therapy Program

] PT 6414

Neuromuscular Rehabilitation II

Spring 2023

**COURSE SYLLABUS**

**Credit Hours:**

**Contact Hours:** Total: 120 hrs  
Lecture: 30 hrs; Lab: 90 hrs; Clinic: 0 hrs

**Schedule:**

Tuesday 10:00 am – 12:00 pm  
Tuesday 1:30 pm - 4:30 pm  
Thursday 1:30 pm – 4:30 pm

**Coordinator/Instructor(s):**

Faculty: *Lily Jimenez, PT, DPT, NCS*  
Office location: *Mesa Building, Room 115Q*  
Phone #: *(915) 599-7306*  
E-mail: *ljimenez8@utep.edu*  
Office hours: *By appointment.*

Faculty: *Michelle Gutierrez, PT, DSc*  
Office location: *Mesa Building, Room 115U*  
Phone #: *(915) 747-8148*  
Cell Phone for emergency: *575-650-9121*  
E-mail: [mgutierrez28@utep.edu](mailto:mgutierrez28@utep.edu)  
Office hours: *By appointment. Schedule meetings at:*  
<https://calendly.com/drgutierrez>

Faculty: *Kathy Reyes, PT, DPT*  
Phone #: *(915) 491-2033*  
E-mail: [kmreyes6@miners.utep.edu](mailto:kmreyes6@miners.utep.edu)  
Office hours: *By appointment only*

**COVID-19 Notice:** *This course is face-to-face (F2F) format. The course could revert to a blended learning course with a mix of virtual (online) and face-to-face (F2F) content delivery and assessment based on emerging CDC, Texas, and UTEP COVID-19 policies. Blue text is still applicable for this course as some content may be delivered online. These policies may change, depending on local, state, and national conditions. Failure to follow safety policies will be treated as unprofessional behavior.*

*Infection Control: Compliance with UTEP approved infection control policies is required to maximize safety. This plan parallels current, contemporary infection control practices seen in physical therapy educational and clinical settings.*

*Special Request: We request students to continue vigilance with personal and class level infection control measures to maximize safety to your family, your UTEP family (peers, faculty, staff), and community at large. Simple measures such as continued vigilance with hand hygiene, mask wear, social distancing, and maintaining your personal health and wellness are proven measures to minimize risk.*

**Course Description:** Building on knowledge acquired in Neuromuscular Rehabilitation I, this course develops clinical approaches to the long-term management of pathology and trauma in neurologic patients. Using differential diagnosis, students develop the ability to identify neurologic disorders in real and simulated patients, with the goal of implementing an effective plan of care. Emphasis will be on clinical application.

**Course Prerequisites for DPT Students:** The UTEP DPT Program curriculum is a lock-step curriculum. Therefore, students must pass all courses in the prior semester of the DPT Program in order to enroll in courses in the subsequent semester. Faculty may consider exceptions for PT 6116 PT Capstone Project I and PT 6117 PT Capstone Project II.

**Course Objectives:**

1. Demonstrate effective clinical reasoning for the management of patients/clients\* with common neurologic conditions by applying key course concepts (including vestibular disorders, spinal cord injuries, Parkinson's Disease, Alzheimer's disease, multiple sclerosis, amyotrophic lateral sclerosis, Guillain-Barre). (7A Neuroscience, 7B Clinical Reasoning, 7C Nervous System; 7D11) [Application]
2. Determine when patients/clients with common neurologic conditions need further examination or consultation by a physical therapist or a referral to another health care professional. (7D16) [Analysis]
3. Obtain a history and relevant information from patients/clients with a common neurologic condition and from other sources including medical records. (7D17) [Synthesis]
4. Perform a systems review with patients/clients with common neurologic conditions. (7D18) [Application]
5. Select and competently administer appropriate tests and measures with simulated patients/clients with common neurologic conditions, including the following tests and measures: [Application]
  - Aerobic Capacity/Endurance (7D19a)
  - Assistive Technology (7D19c)
  - Balance (7D19d)
  - Circulation (Arterial, Venous, Lymphatic (7D19e)

- Self-Care and Civic, Community, Domestic, Education, Social and Work Life (7D19f)
  - Cranial and Peripheral Nerve Integrity (7D19g)
  - Environmental Factors (7D19h)
  - Gait (7D19i)
  - Integumentary Integrity (7D19j)
  - Joint Integrity and Mobility (7D19k)
  - Mental Functions (7D19l)
  - Mobility (including locomotion) (7D19m)
  - Motor function (7D19n)
  - Muscle Performance (7D19o)
  - Neuromotor Development and Sensory Processing (7D19p)
  - Pain (7D19q)
  - Posture (7D19r)
  - Range of motion (7D19s)
  - Reflex Integrity (7D19t)
  - Sensory Integrity (7D19u)
6. Evaluate data from the examination of clients/patients with common neurologic conditions to make clinical judgements (7D20) [Evaluation]
  7. Determine goals and expected outcomes for patients/clients with common neurologic conditions that are realistic given the available resources and specify expected length of time to achieve them. (7D23) [Analysis]
  8. Establish a safe and effective plan of care for patients/clients with common neurologic conditions in collaboration with the patients, family, and other health professionals. (7D24) [Application]
  9. Determine those components of the plan of care for patients/clients with common neurologic conditions that may, or may not, be directed to the physical therapist assistant based on patient/client needs, PTA training and education, and Texas PT Practice Act & Rules. (7D25) [Analysis]
  10. Select and competently perform appropriate interventions to achieve the goals for patients/clients with common neurologic conditions, including the following interventions: [Application]
    - Assistive technology (7D27b)
    - Functional training (7D27d)
    - Integumentary protection (7D27e)
    - Motor function training (including balance and gait) (7D27g)
    - Patient/client education (7D27h)
    - Therapeutic exercise (7D27i)
  11. Monitor and adjust the plan of care in response to the status of patients/clients with common neurologic conditions. (7D30) [Application]
  12. Assess outcomes for patients/clients with common neurologic conditions, including the use of appropriate standardized tests and measures that address impairments, functional status, and participation. (7D31) [Evaluation]

13. Respond effectively to urgent and emergent situations for patients/clients with common neurologic conditions, including performing CPR. (7D33) [Application]
14. Document physical therapy patient/client encounter in a manner that communicates clear, concise, and complete information. Further, the document should accurately convey medical necessity, be evidence-based and defensible, and complies with local, state, and federal regulations. (7D32) [Application]
15. Demonstrate professional behavior that is consistent with the APTA Code of Ethics and Core Values during class and lab. (7D4, 7D5) [Application]
16. Communicate effectively and professionally with patients/clients with common neurologic conditions, their families, and other health professionals. (7B Communication, 7D7) [Comprehension]

\*NOTE: "Patients/clients" in course objectives refer to simulated patients/clients in the simulation laboratory and/or to patients/clients in written cases and/or people with neurologic conditions.

### **Curricular Threads:**

- **Cultural / Linguistic Engagement and Competence:**
  - Students practice using Neuro-related Spanish in 2 Spanish Lunch & Learn sessions
  - Students are given and practice Spanish Terminology during 3 labs
- **Evidence-Based Practice and Research:**
  - Students are assigned to read current evidence (eg, Core Outcomes CPG, Vestibular Hypofunction CPG, and many other current articles) and then apply the evidence as part of their clinical decision-making.
- **Clinical Reasoning:**
  - Using the UTEP DPT Clinical Reasoning Framework as a foundation, clinical reasoning is woven across the course using paper cases, and faculty-guided questioning in class and lab. Clinical reasoning is assessed in quizzes, written exams, skills checkout, and practical exam.
- **Interprofessional Collaborative Practice:** n/a

**Methods of Instruction:** Teaching methods and learning activities will include lecture, lab, video presentations, small group discussion and problem-solving exercises, role playing, independent reading, homework assignments and independent case studies. Students are expected to take full advantage of office hours and any supplemental study sessions as an opportunity for individual feedback regarding understanding of course material from instructors and peers.

**Methods of Evaluation:** Student competence and attainment of course objectives are assessed using a variety of methods. These methods and their contribution to the final grade are listed in the table below.

<u>Item</u>	<u>Grade Composition</u>
Quizzes (written)	5%
Assignments	5%
Skills Checkout	5%
Exam 1	20%
Exam 2	20%
Practical exam (psychomotor)	20%
Final Exam (written)	25%
Total	100%

**Grading Scale:** The following letter grade scale is used for the UTEP Doctor of Physical Therapy Program:

<u>Letter Grade Scale</u>	<u>Numerical Grade Scale</u>
A	90-100
B	80-89
C	75-79
F	Below 75

**Required Textbooks and Other Learning Resources:**

- Fell DW, Lunnen KY, Rauk RP. Lifespan Neurorehabilitation: A Patient-Centered Approach from Examination to Interventions and Outcomes. Philadelphia, PA: FA Davis; 2018. (ISBN-13: 978-0803646094) <https://0-fadavispt-mhmedical-com.lib.utep.edu/book.aspx?bookid=2327>
- Nichols-Larsen DS, Kegelmeyer DA, Buford JA, Kloos AD, Heathcock D, Basso DM. Neurologic Rehabilitation: Neuroscience and Neuroplasticity in Physical Therapy Practice. New York, NY: McGraw-Hill; 2016. <http://0-accessphysiotherapy.mhmedical.com.lib.utep.edu/content.aspx?bookid=1760&sectionid=120047216>
- O'Sullivan SB, Schmitz TJ. Physical Rehabilitation. 6th ed. Philadelphia, PA: FA Davis Co; 2014. (ISBN 978-0-8036-2579-2)
- O'Sullivan SB, Schmitz TJ. Improving Functional Outcomes in Physical Rehabilitation. 2nd Edition. Philadelphia, PA: FA Davis Co; 2016. (ISBN: 978-0-8036-4612-4)
- Shumway-Cook A, Woollacott, MH. Motor Control: Theory and Practical Applications. 4th ed. Philadelphia, PA: Lippincott, Williams & Wilkins; 2012.

**Recommended Textbooks and Other Learning Resources:**

- Blumenfeld H, Neuroanatomy through Clinical Cases. 2nd ed. Sunderland, Mass: Sinauer Associates, Inc. Publishers; 2010.
- Fenderson CB, Ling WK. Neuro Notes Clinical Pocket Guide. Philadelphia, PA. FA Davis, 2009. (ISBN 10: 0-8036-1747-X, ISBN 13: 978-0-8036-1747-6)

- Martin S, Kessler M. Neurologic Interventions for Physical Therapy. 2nd ed. St. Louis, MO: Saunders Elsevier; 2007. (ISBN 978-0-7216-0427-5)
- Herdman, SJ. Vestibular Rehabilitation. 4th ed. Philadelphia, PA: FA Davis Co; 2014 (ISBN 978-0-8036-3970-6)
- Observational Gait Analysis. Downey, CA: Los Amigos Research and Education Institute, Rancho Los Amigos National Rehabilitation Center; 2001. (ISBN 0-9676335-1-6)
- Perry J, Burnfield JM. Gait Analysis Normal and Pathological Function, 2nd Ed. Thorofare, New Jersey: SLACK Inc; 2010. (ISBN 978-1556427664)
- Somers MF. Spinal Cord Injury: Functional Rehabilitation. 3rd ed. Upper Saddle River, NJ: Prentice Hall; 2010. (ISBN 13: 978-0-13-159866-9)
- Umphred D. Neurological Rehabilitation, 6th ed. St. Louis, MO: Mosby; 2013. (ISBN 978-0-323-07586-2)

### Resources Available for Student Success:

#### **Technology Requirements**

1. *Computing device with video camera is required. The computer device must be able to support Respondus Lock Down Browser used to enhance the integrity of quizzes and exam completed online. Note: Tablets and cell phones are poorly suited to accomplish the majority of doctoral level readings, assignments, activities, and research requirements of the program.*
2. *Reliable internet connection and data access.*

#### **Confidential Resources:**

- **Center for Accommodations and Support Services (CASS):** If you have or suspect a disability and need accommodations, you should contact the Center for Accommodations and Support Services (CASS) at 747-5148. You can also e-mail the office at [cass@utep.edu](mailto:cass@utep.edu) or go by their office in Union Building East, room 106 (next to the UTEP post-office). For additional information, visit the CASS website at <http://sa.utep.edu/cass>.
- **The UTEP Student Health Center:** Union East Suite 100; 915.747.5624; [www.utep.edu/chs/shc](http://www.utep.edu/chs/shc)
- **The UTEP Counseling and Psychological Services:** 202 Union West, 915.747.5302; [www.utep.edu/student-affairs/counsel](http://www.utep.edu/student-affairs/counsel)

#### **Additional Resources:**

- Division of Student Affairs. 915.747.5076, [www.utep.edu/student-affairs](http://www.utep.edu/student-affairs)
- DPT Library Research Guide: <http://libguides.utep.edu/pt>
- Writing Center: 915.747.5112. <https://uwc.utep.edu>
- Computer Labs: Independent Learning Center (ILC), 1<sup>st</sup> floor Campbell Building
- Military Student Success Center: 915.747.5342, [www.utep.edu/student-affairs/mssc](http://www.utep.edu/student-affairs/mssc)
- Student Wellness Program. 915.747.6738, [www.utep.edu/chs/wellness](http://www.utep.edu/chs/wellness)

**University Policies:** All students are responsible for following UTEP policies and procedures found in the Handbook of Operating Procedures at [www.utep.edu/vpba/hoop](http://www.utep.edu/vpba/hoop)

**Program Policies:** All DPT students are responsible for following all policies and procedures documented in the current DPT Student Handbook. Course policies found in the DPT Student Handbook apply to all courses in the DPT curriculum. The current DPT Student Handbook may be found on the DPT Student Resources site on Blackboard.

**Academic Integrity:** The UTEP DPT Program has a “zero tolerance policy” for scholastic dishonesty. DPT students must demonstrate academic integrity at all times. The current DPT Student Handbook outlines specific definitions, expectations, details, and consequences related to academic integrity and scholastic dishonesty. Additional information related to academic integrity is available through the UTEP Division of Student Affairs at [www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html](http://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html)

### **Course-Specific Policies:**

1. **Attendance Policy - Absences:** Refer to current DPT Student Handbook “Attendance and Classroom Behavior” for the DPT Program policy. Additional course-specific policy are as follows:
  - Attendance at all classes/labs is expected. **All faculty have different policies.** Treat this class as you would a job. I am expected to be at class/labs as scheduled and to be on time; I expect the same from you. You are expected to be in class during the time listed. In this class, students are expected to be on time and prepared to begin the course. If you expect to miss a class you should notify the instructor in writing by email at a minimum of 24 hours in advance.
  - *NOTE: Being “on time” in the online learning environment means that you have arrived into the virtual classroom & are fully “connected” PRIOR to the start of class.*
  - If an emergency or illness prevents a student from attending class (e.g., documented serious illness or emergency), communication directly with the instructor is expected **2 hours prior to the beginning of class** in writing by email. A verbal message through another student will not suffice. For any missed class, it is the responsibility of the student to obtain any materials presented in class and to ensure assignments are turned in on time.
  - There will be NO accommodations offered for missed class time. Specifically, there is NO opportunity to make up exams, either in advance of or after the scheduled class, or provide individual tutoring for missed content. Additionally, late work caused by your absence will not be accepted and this could affect your team performance. You should make prior arrangements with a classmate to find out what you missed, turn in any work, and/or pick up any hand-outs.
  - Missing 30 minutes or more of a class or lab will be considered an absence – during any part of the class/lab.

- Each unexcused absence will result in a 5% deduction from your final course grade.
2. **Attendance Policy - Tardiness & Early Departures:** Refer to current DPT Student Handbook “Attendance and Classroom Behavior” for DPT Program policy. Additional course-specific policy is as follows:
- Attendance at all classes/labs is expected. **All faculty have different policies.** In this class students are expected to be on time and prepared to begin the course; therefore, students who are tardy will be penalized. I use the clock on the computer to determine when class should start. If you expect to arrive late (e.g., doctor’s appointment), you should notify me in writing by email at a minimum of 24 hours in advance.
  - Please do not get up and leave during lectures without permission. This is considered disruptive behavior.
  - Similarly, if you need to leave class or lab early, I should be notified in writing at least 2 hours prior to the start of class by email or text.
  - Each incidence of tardiness may result in 1% deduction from your final semester grade.
  - Missing 30 minutes or more of a class or lab will be considered an absence.
  - Each unexcused absence will result in a 5% deduction from your final course grade.
  - *If for any reason, we have online lectures during those lectures, I expect your cameras to be turned on so that we may maximize our engagement with each other; I consider having your camera on to be a component of active participation/attendance. Mute your microphone when you are not contributing to the discussion in the virtual classroom to avoid being unnecessarily disruptive. If you must “leave” briefly (e.g., to go to the toilet), then please use the relevant online symbol to indicate to me that you have “stepped out” or send me a private message in the Chat box.*
    - i. *If your Internet bandwidth is too poor to allow consistent use of video, please contact me to discuss it.*
3. **Electronic Devices:** Refer to current DPT Student Handbook “Electronic Devices” for DPT Program policy. Additional course-specific policy is as follows:
- Laptops are allowed for taking notes, accessing lecture/ lab material or books. Email and social media should be turned off during all class time.
  - Cell phones and telecommunication devices should be in silent mode, turned off, or left outside of the classroom during lecture or presentations and labs. If any circumstance necessitates the student to have his/her cell phone turned on in the classroom, it MUST be discussed with the instructor PRIOR to class.
  - Any student who is observed to be using these devices during class time without permission will be deemed to be demonstrating unprofessional behavior will be warned one time and if the behavior continues the student will be instructed to leave the classroom for the day and the class session will be considered an unexcused absence. This includes but not limited to



using a laptop computer or smart phone/watch for accessing email, messaging, or the internet for purposes not related to class topics during class time.

- If a student is consistently caught using electronic devices, the student will be contacted to meet with the instructor to discuss the problem.
- Each subsequent incidence of using electronic devices may result in 1% deduction from the final semester grade.
- **The taking of pictures or video during classes or labs must be approved.**

4. **Professional Behavior Policy:** See DPT Student Handbook “Attendance and Classroom Behavior”, “Professional Behaviors” and “Unprofessional Behavior:” for general program policy. Additional course-specific is as follows:

- *Professional behavior will be expected in ALL class sessions and inside and outside of the classroom.*
- *I expect each student to arrive to class and lab prepared and to actively participate while not being disruptive.*
- *Students demonstrating unprofessional behavior will be warned one time and if the behavior continues the student will be instructed to leave the classroom for the day and the class session will be considered an unexcused absence.*
- *If a student is consistently ill-prepared, not actively participating, and/or being disruptive (including leaving class during lectures), the student will be contacted to meet with the instructor to discuss the problem.*
- *Each subsequent incidence of poor preparation, poor participation, and/or disruption may result in 1% deduction from the final semester grade.*
- *All students are expected to wear appropriate attire for all lab sessions. Appropriate attire is discussed in the Policies and Procedures manual. Professional dress is appropriate for presentations and for all guest speakers and when representing UTEP outside of the class room (i.e. clinic visits). Shorts and tank tops or t-shirts are required for all lab sessions (JEANS OR OPEN TOED SHOES ARE NOT APPROPRIATE FOR ANY LAB SESSION). Students who are not appropriately attired will be instructed to leave the classroom for the day and the class session will be considered an unexcused absence.*
- *Each unexcused absence will result in a 5% reduction of your total class grade.*

5. **Late or Missed Assignments and Assessments Policy:** See current DPT Student Handbook “Written Examination Policy”. Additional course-specific policy is as follows:

- Homework assignments are due online BEFORE the due date, unless otherwise specified. Students must assure that their papers have successfully uploaded as an attachment. Students who have difficulty with submitting their work online must contact the instructor or help desk immediately. Only after this process has been completed will an assignment be considered to be accepted via email.

- A late assignment is any assignment turned in  $>$  or  $=$  1 minute after deadline time. If an assignment is submitted late, there will be a warning at the first occurrence.
- There will be a 10% reduction per day for all late assignments. Any assignment more than 3 days late will receive no credit.

#### 6. **Pandemic Safety:**

- **General Course Policy.** *All students are expected to follow the safety policies of the DPT Program. These policies may change, depending on local, state, and national conditions. Failure to follow safety policies will be treated as unprofessional behavior.*
  - *Mask wear is not required. However, if you are not comfortable sitting with or working in close proximity with a student(s), faculty member, or guest speaker who chooses to not wear a mask, you have the right to ask them (in a non-confrontational manner) to don a mask. If they still choose not to wear a mask (which is their right), please notify me so that I may make alternate arrangements.*
  - *Course faculty and guest speakers have the right to request non-mask wearing students to don a mask if close interactions are required for teaching-learning purposes. Students are encouraged to respect their request. If the student(s) chooses not to don a mask, then the faculty and/or guest speakers have the right to avoid close contact – even if avoiding close interactions may compromise teaching-learning.*
  - *Mask wear will be expected during skills checks/practical examinations when close contact cannot be avoided – similar to use of masks in clinical sites.*
- **Dr Jimenez, Dr Gutierrez's, & Dr Reyes Pandemic Special Requests:**
  - **Wear a facemask** *when in lab as social distancing is not possible. In light of the new COVID-19 variants and unknown emerging variants, I request each student make the personal choice to wear a properly fitted/worn facemask to 1) minimize transmission risk to yourself, your family, your UTEP family (peers, faculty, staff), and the community at large, 2) minimize risk of potential barrier to learning imparted by quarantine, and 3) minimize risk of educational delays. Mask wear is an effective, scientifically supported measure to reduce COVID transmission and is the standard of care in clinical environments regardless of vaccination status.*
  - **Continue vigilance** *in and out of the classroom with maintaining: 1) your personal health and wellness to maximize your immune system 2) hand hygiene, 3) surface sanitization protocols, and 4), apply social distancing when able.*
  - **Vaccination.** *Importantly, I also encourage vaccination but recognize this is a personal choice with many nuanced personal concerns.*
- **Student Responsibilities**
  - **Comply with UTEP-approved infection control policies** *are required to maximize safety. This plan parallels current, contemporary infection control practices seen in physical therapy educational and clinical settings.*

- **Contact the course instructor** as soon as possible so that we can work on appropriate response and accommodations if 1) you are feeling unwell, 2) have been diagnosed with COVID-19, 3) are experiencing COVID-19 symptoms, or 4) have had recent contact with a person who received a positive coronavirus test.
  - **Stay at home** if you (1) have been diagnosed with COVID-19, (2) are experiencing COVID-19 symptoms.
  - **Report:** If you have tested positive for COVID-19, notify:
    - 1) Dr Gurovich (to assess appropriate program response),
    - 2) course instructor (so temporary accommodations can be coordinated if needed), and
    - 3) [covidaction@utep.edu](mailto:covidaction@utep.edu) (so that the Dean of Students Office can provide you with support and help with communication with your professors).
  - The Student Health Center is equipped to provide COVID-19 testing. For details go to <https://www.utep.edu/chs/covid-testing>
  - The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit [epstrong.org](http://epstrong.org).
7. **Skills Check Policy:** The UTEP Doctor of Physical Therapy (DPT) Program uses skills check-outs as part of the student assessment process in most clinical courses. In this course, each student is required to demonstrate competence by means of skills check-outs. The student will perform specific skills; may or may not be asked to answer questions related to the general clinical application of skills.
- Information will be shared in class and on Blackboard.
- not applicable
8. **Practical Exam Policy:**
- In clinically oriented, kinesthetically-based courses, each student is required to demonstrate competence by means of laboratory practical examinations. The student must successfully complete each practical examination with a passing score (“C” or better). Should a lower grade be attained, the student may be provided ONE additional testing opportunity to demonstrate competence in that material. The student must demonstrate a passing score on the retake. The student will earn no better than 75% if he/she passed the 2nd exam. Students failing to achieve this standard for each competency test in a given course will not pass the course.
  - Refer to the DPT Student Handbook “Practical Exam Policy” for details.
8. **Expectations to promote Success**
- Students attaining a grade below 80% on any quiz, exam, or assignment are expected to schedule a meeting with the professor. The goal is to

ensure comprehension of the material, identify strategies to improve student performance and determine if alternative teaching methods may enhance learning. Our goal is for your success.

- Students will practice psychomotor skills on a variety of body types for at least 3-4 additional hours weekly outside of dedicated lab times. This is the minimal time required to attain basic competence and ability to perform that will be required during clinical rotations. Practice, practice, practice.
- Additionally, it is essential to practice these skills on multiple body types to refine precision and efficiency. Students will not develop the required competency and efficiency if they only practice these skills in scheduled lab sessions.

**9. Academic Integrity (continued): In addition to the information presented above, additional course-specific details follow.**

- **Junior Cohorts:** NO COURSE content will be shared with junior cohorts.
- **Testing:** To accurately reflect the individual's knowledge contained within their grey matter and ensure fair, unbiased, and unassisted testing, I reserve the right to control the test environment. Controls may include (non-exhaustive list) assigned seating, issued blank paper, randomized questions, use of security software (such as Respondus LockDown Browser with webcam) and ensuring all electronics and other materials that might contain or be able to record information is stowed away from student's access.
- **Recording:** Students are not authorized to record and/or share any testing activities (quizzes, exams, skills checks, practical exams, or other testing scenarios). Further, graded assignments and activities will not be shared unless assignment directions specifically state the activity will be shared. "Recording" includes but is not limited to any method used to retain information for future use to include but not limited to audio or video capture, screenshots, pictures, etc. The recording and/or sharing of graded materials is considered cheating regardless of how obtained, distributed, or used (or not used).
- **Recording:** Student recording of classroom lectures, labs, or other activities is not authorized. If you feel recording of a specific non-graded activity is needed, students must attain instructor approval PRIOR TO recording. Further, authorization by student(s) being recorded must be attained. If approved, recordings are for local, UTEP student educational use only and will not be posted to unsecure, public social media sites. The acceptable site is Microsoft OneDrive (and share the file), email through your UTEP email account.

**Course Content and Schedule:** (Note: Students will be notified of changes via Blackboard or email. Additional details may be available in supporting course documents provided by the course instructor).

**All Quizzes and Exams are on Respondus Lockdown Browser (RLB).**

Week	Date	Topic	<u>REQUIRED</u> Reading Assignment (Readings may be added/or changed at the discretion of the instructor-see Blackboard)
1	Mon Jan 16	<b>MARTIN LUTHER KING JR HOLIDAY</b>	
	Tue LECT Jan 17 10-12	<b>Sign up for Diagnosis Outline</b>  Postural Control Assessment (Lecture) ( <b>Gutierrez</b> )	Fell (F) Chpt 9
	Tue LAB Jan 17 1:30-4:30	Postural Control/Balance: Assessment ( <b>Jimenez &amp; Reyes</b> )	<b>CPG: A Core set of Outcome Measures for Adults with Neurologic Conditions Undergoing Rehabilitation</b>
	Thur LAB Jan 19 1:30-4:30	Postural Control/Balance: Assessment ( <b>Gutierrez &amp; Reyes</b> )	
2	Tue LECT Jan 24 10-12	<b>Quiz 1</b> Vestibular Rehabilitation Treatment UVH – BVH- BPPV ( <b>Gutierrez</b> )	(F) Ch 29
	Tue LAB Jan 24 1:30-4:30	Vestibular Rehabilitation Treatment BPPV ( <b>Gutierrez &amp; Reyes</b> )	Neuropt.org> Practice resources -Vestibular Hypofunction CPG
	Thur LAB Jan 26 8:30-11:30 1:30-4:30	Vestibular Rehabilitation Treatment UVH – BVH ( <b>Gutierrez &amp; Reyes</b> )	
3	Tues LECT Jan 31 10-12	<b>Quiz 2</b> Vestibular Rehabilitation: Diff Dx ( <b>Gutierrez</b> )	PDF: Vestibular Rehab***
	Tues LAB Jan 31 1:30-4:30	Postural Control/Balance: Treatment ( <b>Gutierrez &amp; Reyes</b> )	Fell (F) Ch 30
	Thur LAB Feb 2 1:30-4:30	Postural Control/Balance: Treatment ( <b>Jimenez &amp; Reyes</b> )	Fell (F) Ch 30  *Review CORE outcomes measures

4	Tues LECT Feb 7 10-12	<b>Quiz 3</b> Theories in Neuro Rehab Recovery vs Compensation Motor Control/Motor Learning (Jimenez)	<b>PREP * Webinar:</b> "The OPTIMAL Theory"  Review from Neuro 1 Fell (F) Ch 14
	Tues LAB Feb 7 LAB 1:30-4:30	COMMUNITY GUEST Jaclyn Pelicotte Recovering from a Severe Traumatic Brain Injury & the Power of Neuroplasticity Time: 1:30 -2:30 pm  PNF (LE & UE) & Cueing without words (Jimenez & Gutierrez & Reyes)	<b>Article:</b> Klein and Jones "Principles of experience-dependent neural plasticity"  Swan: "Unilateral Spatial Neglect"
	Thur LAB Feb 9 1:30-4:30	Functional Activity Intervention in Sitting (Jimenez & Reyes)	(F) Ch 35
5	Tues LECT Feb 14 10-12:00	<b>Quiz 4</b> Stroke and TBI Intervention Principles of Experience Dependent Neuroplasticity (Jimenez)	<b>PREP *Webinar:</b> "The Hemiplegic Shoulder"  <b>Article:</b> Klein and Jones "Principles of experience- dependent neural plasticity"
	Tue LAB Feb 14 1:30-4:30	Functional Activity Intervention in Supine: Bed Mobility (Jimenez & Gutierrez)	<b>Article:</b> Lewthwaite & Wulf: "Optimizing performance through intrinsic motivation and attention for learning: The OPTIMAL theory of motor learning"  (F) Ch 34
	Thurs LAB Feb 16 1:30-4:30	Functional Activity Intervention in sit-to- stand, stand-to-sit, pre-gait, Sit-to-stand / Standing (Jimenez & Gutierrez)	(F) Ch 36
6	Tues Feb 21 10-12	<b>Exam 1</b> (over Jan 18-Feb 14)	
	Tues Feb 21 1:30-4:30	Cases	(F) Ch 37
	Thurs 23	<b>NO CLASS</b> CSM Feb 22-25	

7	Tues LECT Feb 28 10-12	<b>Quiz 5</b> Gait (Pelvis and Trunk) ( <b>Gutierrez &amp; Jimenez</b> )	(F) Ch 37
	Tues LAB Feb 28 1:30-4:30	Improving Gait: Interventions ( <b>Gutierrez, Jimenez &amp; Reyes</b> )	
	Thurs LAB March 2 <b>2:30-5:30</b>	Improving Gait: Interventions ( <b>Gutierrez, Jimenez &amp; Reyes</b> )  GUEST LECTURER Paulina Solis, PT "Implementing High-Intensity Gait Training" Time: 4:30-5:30	<b>ARTICLE:</b> Stacy Fritz - White Paper: "Walking Speed: the Sixth Vital Sign"  Duncan et al: LEAPS trial
	Saturday, March 4 9:00-12:00	<b>Skills checkout Vestibular Assessment/Intervention</b>	
8	Tues LECT March 7 10-12	<b>Quiz 6</b> Progressive Neurologic Disorders Cerebellar ( <b>Jimenez</b> )	(F) Ch 21  <b>ARTICLE:</b> "Moving, sensing and learning with cerebellar damage" Amy J Bastian
	Tues LAB March 7 1:30-4:30	Interv: Ataxia ( <b>Jimenez &amp; Reyes</b> )	
	Thursday Mar 9 1:30-4:30	Cases ATAXIA Putting it all together + Hands-on Skills ( <b>Jimenez &amp; Reyes</b> )	
<b>Week 8- SPRING BREAK – MARCH 13-17</b>			
9	Tues LECT Mar 21 10-12	<b>Quiz 7</b> Progressive Neurologic Disorders Multiple Sclerosis ( <b>Jimenez</b> )	<b>ARTICLES: Distinguishing between Fatigue and Fatigability in Multiple Sclerosis</b> Roger M. Enoka 2021  Multiple Sclerosis and exercise: A Review of the evidence. Karpatkin, H 2006
	Tues LAB Mar 21 1:30-5:30	Aquatics Lab (Guest Instructor <b>Dillon</b> , PT, DPT, Brooks) You will be getting into the pool. The exact time and location will be give to you.	Watch Aquatics VIDEOS on Blackboard
	Thur LAB Mar 23 1:30-4:30	Cases Cerebellar + MS ( <b>Jimenez &amp; Reyes</b> )	

10	Tues LECT Mar 28 10-12:00	<b>Quiz 8</b> Interv: Paralysis/SCI (Jimenez)	(F) Ch 26  <b>Article:</b> "Who is going to walk? A Review of the Factors influencing Walking Recovery after Spinal Cord Injury" Scivoletto G
	Tues LAB Mar 28 1:30-4:30	Bed mobility, ADL WC mobility for complete paralysis (Gutierrez, Jimenez, Reyes)	
	Thur LAB Mar 30 1:30-4:30	Bed mobility, ADL WC mobility for complete paralysis (Gutierrez, Jimenez, Reyes)	Mulroy SJ: "STOMPS Trial"  • Exercise Considerations for persons with neurological disability part 4 SCI <a href="https://www.youtube.com/watch?v=uHMRsF1LTbl">https://www.youtube.com/watch?v=uHMRsF1LTbl</a>
11	Tues LECT April 4 10-12:00	<b>Quiz 9</b> Spinal Cord Injury Prognostication Psychological Issues Q&A about SCI treatment (Jimenez)	
	Tues LAB Apr 4 1:30-4:30	Bed mobility, ADL WC mobility for complete paralysis (Gutierrez, Jimenez, Reyes)	
	Thur LAB April 6 1:30-4:30	Exercise Program Prescription For the Neurologic Population (Reyes)	
	Thur Apr 6 By 10:00 pm	<b>Diagnosis Outline Due on the Discussion board and Blackboard by one member of the group, and each individual will submit one multiple choice question (4 answers) with an explanation on a separate BB dropbox.</b>	
12	Tues LECT April 11 10-12:00	<b>Exam 2</b> (Feb 21-April 4)	
	Tues LECT/LAB April 11 1:30 – 4:30	Basal Ganglia Disorders: Parkinson's Disease (Reyes)	CH 14 – Nichols Larson et al BOOK
	Thur LAB Apr 13 2:30-5:30	Basal Ganglia Disorders: Interventions for Parkinson's Disease (Reyes & Jimenez) @ MOVE Therapy	CH 14 – Nichols Larson et al BOOK



13	Tues LECT Apr 18 10-12:00	<p style="text-align: center;"><b>Quiz 11</b></p> <p style="text-align: center;">Motor Neuron Disease and Neuropathies Amyotrophic Lateral Sclerosis, Gillian Barre, Post-Polio Syndrome, Peripheral Neuropathies (Jimenez)</p> <p style="text-align: center;"><b>Discussion of Dal Bello Haas Article and – Come prepared</b></p>	<p><b>ARTICLES:</b> Physical Therapy for a Patient Through Six Stages of Amyotrophic Lateral Sclerosis Dal Bello – Haas</p> <p>★Pre-recorded Interview with Cesar Castillo, person with ALS</p>
	Tue LAB Apr 18  1:30-3:30pm  4:00-5:00pm	<p style="text-align: center;">Cases - "Let's TACO 'bout Motor Neuron Diseases" (Jimenez)</p> <p style="text-align: center;">Virtual Webinar Wheelchair Prescription for people with Neurologic Conditions Dr Eli Rodriguez, PT, DPT, NCS, GCS Through ZOOM</p>	
	Thur LEC/LAB Apr 20 1:30-4:30	<p style="text-align: center;">Acute Care Neuro (Online Recorded lecture on your own time)</p> <p style="text-align: center;">Practical Practice with Cases/ Hands-on skills (Jimenez &amp; Reyes)</p>	<p style="text-align: center;">Acute Care Neuro (Online lecture on your own time)</p>
14	Tues LECT/LAB April 25 10-12:00	<p style="text-align: center;"><b>Quiz 12</b></p> <p style="text-align: center;">Neuro PT in Acute Care (Jimenez)</p>	TBD
	Tue LEC/LAB Apr 25 1:30-4:30	<p style="text-align: center;">Orthotics + Casting (TBD) (Fabian Calderon) (Reyes)</p>	VIDEOS: see BBL
	Thur LAB Apr 27 1:30-4:30	<p style="text-align: center;">Community Reintegration (Stevens, OT) (Jimenez &amp; Reyes)</p>	
	Tues LECT/LAB May 2 10-12:00	<p style="text-align: center;">Augmentative and Alternative Communications (AAC) (Rau &amp; Peterson, SLP) (Jimenez)</p>	<p><b>ARTICLES:</b> Physiotherapy for functional motor disorders: a consensus recommendation</p>

15	Tues LECT/LAB May 2 1:00-4:30	<p style="text-align: center;"><b>Quiz 13 (Acute Care Neuro PT)</b></p> <p style="text-align: center;">Functional Neurologic Disorders (FND) (Jimenez)</p> <p style="text-align: center;">FND &amp; OPTIMAL Theory of Motor Learning: How do I implement it? LAB (Jimenez)</p> <p style="text-align: center;"><b>Discussion of Nielsen G Article AND Wulf and Lewthwaite article – Come prepared</b></p>	Nielsen G, 2014  “Optimizing performance through intrinsic motivation and attention for learning: The OPTIMAL theory of motor learning”
	Thur May 4 1:30 – 4:30	<b>PRACTICAL EXAM</b>	
16	Tue May 9 9:00-11:30	<b>FINAL WRITTEN COMPREHENSIVE EXAM</b>	
	Wed May 10 2-4	<b>PRACTICAL RETAKE AS NEEDED</b>	

### Student Expectations:

1. Homework assignments are due online and must be submitted the due date. There will be a 10% reduction per day for all late assignments. Any assignment more than 3 days late will receive no credit. Student names are required on all assignments- both in the file name and at the top right corner of the paper.
2. All assignments are to be submitted online ONLY unless otherwise specified. Students must ensure that their papers have been successfully uploaded as an attachment. Students who have difficulty submitting their work online must contact the instructor or help desk immediately. Only after this process has been completed will an assignment be considered to be accepted via e-mail.
3. All papers submitted for grading in this course must have a title page and references, use 11-12-point font, 1-inch margins, and 1.5 spacing. Papers should be submitted in Microsoft Word document format. AMA Style must be adhered to for all student work. Assignments must include students' names in BOTH the document file name and in the top right corner of all pages. Document file names should adhere to the following pattern: student last name\_PT6414\_assignment name.doc.  
Example: STUDENTNAME\_PT6414\_HospDays.doc.

### Quizzes:

There will be a short quiz at the beginning of class every week for a total of 13 quizzes. They will be over the topic or topics of the week before, mentioned on the syllabus

(posted information and reading). Quizzes will be online- Lockdown Browser must be installed, and if those quizzes are taken outside of class for any reason, you must have a camera.

**Spanish Lunch and Learn:**

You are expected to attend two Neuro content Spanish lunch and learn from Dr. Gurovich/Solis. Times and dates TBA. There will not be a grade for this requirement; however, if you do attend two Neuro topics, your lowest quiz grade will be dropped. You must sign the attendance form and be in attendance the whole time to be counted.

**Exams:**

Exams will be in person in Room 120. See the syllabus for the content covered and dates on the schedule. Lockdown Browser must be installed, and if those quizzes are taken outside of class for any reason, you must have a camera.

**Skills Checkout:**

You will have one (1) Skills Checkout in this course. You will be assessed on your ability to perform tasks you have learned in this course. Instructions will be given the week before the skills check-out.

**Practical Exam:**

Information will be shared in class and on Blackboard.

**Assignments:****1) Diagnosis Outline Project (group assignment)**

Project objective:

- To provide updated information, including etiology, examination, and prognosis, regarding common neurological diagnoses and conditions across the lifespan **that will serve as a resource in your later clinical practice for health professionals and consumers.**

Project requirements:

- Each student will sign up with a group of 3 on a list of specific neuromuscular diagnoses for one diagnosis or condition on the first day of class.
- Students will work with their partners to update a summary diagnosis outline to include the major divisions as outlined below\*, using Roman numerals I–VI as division headings with bullet subpoints. Start with a careful literature search for recent evidence-based practice articles for each division heading related to the diagnosis. Each group will update the content of each of the roman numerals for Neuro II.

\*For neurological evaluation in the context of specific adult medical diagnoses

Discuss each of the following for specified neuromuscular disease processes:

- I. Etiology of the disorder, if known, and pathogenesis
- II. Diagnostics, including symptoms, signs, and diagnostic testing
- III. Prognosis including trends of progression and expected sequelae (structural/functional)

- IV. Medical/surgical management (pharmaceuticals and possible surgical techniques)
- V. Implications for therapeutic management, discuss the role of PT; include general PT options, contraindications/precautions, health promotion and prevention measures (education), and healthcare team contributions
- VI. Consumer and Professional Resources, including credible local and national resources, including information, support groups, camps or retreats, and organizations

- A blank template will be provided in the resources folder on Blackboard to ensure that formatting is consistent and that all essential information is included.

- The student will use information from their literature search and review of previous diagnosis outlines to update recent evidence and develop a summary document for their topic.

- Your Fall text will have diagnosis outlines in the online Compendium of Medical Diagnoses for reference. <https://0-fadavispt-mhmedical-com.lib.utep.edu/content.aspx?bookid=2327&sectionid=182071996>

- You may use 11-12-point font of your choice for the text of your outline with division heads in bold. (When the final paper is turned in, it should be one file with the same font)

- You may use paragraph format or bullet points to enter information into each section, but be sure that you summarize each section fully. The information should be concise and easy to understand.

- The outline must be appropriately referenced with recent journal articles. (a minimum of 2 articles within the past 5 years for each roman numeral) Use (Author, Year) to reference within the outline, but the “references cited” list should be AMA format citations but in an alphabetized list instead of a numerical list.

- **This time, you will not submit a draft, only the finished product.**

- Name the document DOYourTopicLastName.doc (e.g., DOStrokeJones.docx ) and post your revised outline to the “DO Final” discussion board for access by faculty and class members by **April 6 by 10:00 PM**. You will turn in your FINAL assignment Three (3) ways: 1) (without track changes) for the diagnoses group on the Discussion board. 2) One person from your group will also submit your DO (in word **with the track changes**) in Blackboard Assignment and include your reference articles in PDF format. 3) Each person will submit on blackboard one multiple choice question over their topic with 4 answers, with the justification of why the answer is wrong or right.

#### **Grading for Diagnosis Outline Project:**

- 75% DO hand-out/summary, 25% references (provide electronic copies of your articles).
- Following directions, timeliness, completeness, grammar/spelling, readability, and correct format will be considered in each area.

- A 15% penalty off of the total assignment grade will be imposed for each day that any part of the assignment is late.

Rubric for Diagnosis Outline assignment

0-69%	Did not complete a portion of the assignment by the deadline
70%	SATISFACTORY: Met all basic requirements, followed all format directions, submitted all required material by the deadline, relied on opinion, and review articles more than evidence or presented evidence as opinion.
80%	GOOD: Beyond "satisfactory": Some emphasis on evidence-basis for content, the information provided is important and would be helpful for all students
90%	EXCELLENT: Beyond "good": Strong emphasis on evidence-basis for all content, the content has obvious learning value for others (each part contributed toward learning objectives for the course) and utilized evidence (article references) to support the response
95%	Beyond "excellent": Demonstrates mastery of the topic, content/presentation/visual aids are meaningful (beyond the minimum required), and memorable components significantly added to student learning. Able to answer questions accurately and confidently.
100%	PERFECT: No improvement is possible