

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

PT 6314

Neuromuscular Rehabilitation I

Fall 2022

COURSE SYLLABUS

Credit Hours: 3

Contact Hours: Total: 75 hrs
Lecture: 30 hrs; Lab: 45 hrs; Clinic: 0 hrs

Schedule: Lecture: Tue 9:30 am - 11:30 am
Lab: Tue 1:00 pm - 4:00 pm

Coordinator/Instructor:

Faculty:

Lily Jimenez, PT, DPT

Board-Certified Clinical Specialist in Neurologic Physical Therapy

Office location: 1101 N Campbell Street, Room 410

Phone #: 915-599-7306

E-mail: ljimenez8@utep.edu

Office hours: **TBD**

Faculty: Michelle L. Gutierrez, PT, DSc

Office location: 1101 N Campbell Street, Room 308

Phone #: (915) 747-8148; cell phone # 575-650-9121

E-mail: mgutierrez28@utep.edu

Office hours: By appointment only <https://calendly.com/drgutierrez/30-minute-meeting>, if available times do not work with your schedule, please email be directly to coordinate alternative time.

Course Description:

Building on anatomical knowledge presented in Neuroscience for Health Sciences, this course offers a systematic review of clinical disorders of the central and peripheral nervous systems, with emphasis on accompanying sensorimotor sequelae. Basic neurological tests and measures are introduced, along with basic treatment interventions.

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:

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

1. Demonstrate effective clinical reasoning for the management of patients/clients* with common neurologic conditions by applying key course concepts. (7A Neuroscience, 7A Pathology; 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 judgments (7D20) [Evaluation]
7. Determine goals and expected outcomes for patients/clients with common neurologic conditions that are realistic given the available resources and specify the expected length of time to achieve them. (7D23) [Analysis]

8. 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]
9. Respond effectively to urgent and emergent situations for patients/clients with common neurologic conditions, including performing CPR. (7D33) [Application]
10. 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]
11. Demonstrate professional behavior that is consistent with the APTA Code of Ethics and Core Values during class and lab. (7D4, 7D5) [Application]
12. Communicate effectively and professionally with patients/clients with common neurologic conditions, their families, and other health professionals. (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.

Methods of Instruction: Teaching methods and learning activities will include lectures, labs, video presentations, small group discussions 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 the 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)	10%
Assignments (written)	20%
Lab homework (individual)	5%
Diagnosis Outline (group)	10%
Vestibular Video (group)	5%
Skills Checkout (psychomotor)	10%
Mid-Term Exam (written)	20%
Practical exam (critical thinking)	15%
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:

- 1) (F) 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) Available online at UTEP Library: <https://0-fadavispt-mhmedical-com.lib.utep.edu/book.aspx?bookid=2327>
- 2) (N-L) 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. Available online at UTEP Library: <http://0-accessphysiotherapy.mhmedical.com.lib.utep.edu/content.aspx?bookid=1760§ionid=120047216>
- 3) (OS-lab) 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) Available online at UTEP Library: <https://0-fadavispt-mhmedical-com.lib.utep.edu/book.aspx?bookID=1860>
- 4) (O'S) O'Sullivan SB, Schmitz TJ, Fulk GD. Physical Rehabilitation. 7th Edition. Philadelphia, PA: FA Davis Co; 2019. (ISBN-13: 978-0-8036-6162-2) Available online at UTEP Library: <https://0-fadavispt-mhmedical-com.lib.utep.edu/book.aspx?bookid=2603>
- 5) (D) Davenport TE, Kulig K, Sevelski CA, Gordon J, Watts HG. Diagnosis for Physical Therapists: A symptom-based approach. 1st Edition. McGraw Hill; 2013. Available online at UTEP Library: <https://fadavispt.mhmedical.com/book.aspx?bookid=1902>

Recommended Textbooks and Other Learning Resources:

- 1) Shumway-Cook A, Woollacott, MH. Motor Control: Theory and Practical Applications. 4th ed. Philadelphia, PA: Lippincott, Williams & Wilkins; 2012.
- 2) Lundy-Ekman L. Neuroscience: Fundamentals for Rehabilitation. 4th ed. Philadelphia, PA: WB Saunders Co; 2013. (ISBN 978-1-4557-0643-3)
- 3) Paz, Jaime C and West, Michele P. Acute Care Handbook for Physical Therapists. 4th Edition. Boston: Butterworth-Heinemann; 2014. (ISBN: 978-1-4557-2896-1)
- 4) Blumenfeld H, Neuroanatomy through Clinical Cases. 2nd ed. Sunderland, Mass: Sinauer Associates, Inc. Publishers; 2010.

- 5) 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)
- 6) Herdman, SJ. Vestibular Rehabilitation. 4th ed. Philadelphia, PA: FA Davis Co; 2014 (ISBN 978-0-8036-3970-6)
- 7) Goldberg S. Clinical Neuroanatomy made ridiculously simple, 3rd ed. Miami FL: MedMaster, Inc; 2003. (ISBN: 0-940780-57-7)
- 8) Goldberg S. The Four-Minute Neurologic Exam, 2nd Ed. Miami FL: MedMaster, Inc; 2012. (ISBN: 978-0-940780-96-5)
- 9) Observational Gait Analysis. Downey, CA: Los Amigos Research and Education Institute, Rancho Los Amigos National Rehabilitation Center; 2001. (ISBN 0-9676335-1-6)
- 10) Perry J, Burnfield JM. Gait Analysis Normal and Pathological Function, 2nd Ed. Thorofare, New Jersey: SLACK Inc; 2010. (ISBN 978-1556427664)
- 11) Somers MF. Spinal Cord Injury: Functional Rehabilitation. 3rd ed. Upper Saddle River, NJ: Prentice Hall; 2010. (ISBN 13: 978-0-13-159866-9)
- 12) Umphred D. Neurological Rehabilitation, 6th ed. St. Louis, MO: Mosby; 2013. (ISBN 978-0-323-07586-2)
- 13) Avers D, Brown M. Daniels and Worthingham's Muscle Testing Techniques of Manual Examination and Performance Testing. 10th ed. St. Louis, MO: Elsevier Saunders; 2019

Technology Requirements

1. *A computing device with a video camera is required. The computer device must be able to support Respondus Lock Down Browser used to enhance the integrity of quizzes and exams 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 are also required.*

Resources Available for Student Success:

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 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
- **The UTEP Counseling and Psychological Services:** 202 Union West, 915.747.5302; www.utep.edu/student-affairs/counsel
- **Togetherall:** Free online 24/7 mental health support <https://www.utep.edu/student-affairs/counsel/services/togetherall.html>

Additional Resources:

- Division of Student Affairs. 915.747.5076, 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), 1st floor Campbell Building
- Military Student Success Center: 915.747.5342, www.utep.edu/student-affairs/mssc
- Student Wellness Program. 915.747.6738, 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

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

Course-Specific Policies:

1. **Attendance Policy - Absences:** Refer to current DPT Student Handbook “Attendance and Classroom Behavior” for the DPT Program policy. **All faculty have different policies.** Additional course-specific policy are as follows:
 - Attendance is expected to each class. Therefore, **no absences are allowed.** HOWEVER, with very rare exception (e.g., documented serious illness or emergency), the absence will be considered on a case-by-case basis.
 - 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.
 - Treat this class as you would a job. If you plan to miss a class, you should notify the instructor in writing by e-mail at a minimum of 24 hours in advance.
 - If you miss a class for any reason, it will be considered unexcused unless it is due to documented illness or emergency.
 - If an emergency or illness prevents a student from attending a 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 e-mail. 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. HOWEVER, (with very rare exception, which will be considered on a case-by-case basis) there will be NO accommodations offered for missed class time. Specifically, there is NO opportunity to make up in-class quizzes or 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. 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 50% or more of a class will be considered an absence – during any part of the class/lab.
- For each incident of an unexcused absence, 5% will be deducted from your final semester grade

2. **Attendance Policy - Tardiness & Early Departures:** Refer to current DPT Student Handbook “Attendance and Classroom Behavior” for DPT Program policy. The additional course-specific policy is as follows:

- In this class, students are expected to be on time and prepared to begin the course; therefore, tardy students will be penalized. We use the clock on the computer to determine when the class should start. If you expect to arrive late (e.g., doctor’s appointment), you should notify your faculty in writing by e-mail 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, the faculty should be notified in writing at least 2 hours prior to the start of class.
- Each incidence of tardiness may result in a 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.

If your Internet bandwidth is too poor to allow consistent use of video, please contact me to discuss it.

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3. **Electronic Devices:** Refer to current DPT Student Handbook “Electronic Devices” for DPT Program policy. The additional course-specific policy is as follows:

- Laptops are allowed for taking notes, accessing lecture/ lab material, or books. E-mail 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 lectures 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.

• If during the class time, students are found not to be engaged in the class assignment (e.g., on Facebook, studying for another course, etc.) the student will be told to leave the class. This will result in an unexcused absence which will result in a 5% decrease in the final grade for the course.

- Each subsequent incidence of using electronic devices may result in 1% deduction from the final semester grade.
- **The taking of pictures or videos 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 at classes and labs 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 a 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 classroom (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 in your total class grade.*

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

- Homework assignments are due online BEFORE the due date unless otherwise specified. Students must ensure 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 e-mail.
- 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.*
- **Faculty’s Pandemic Special Requests:**
 - *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.*
 - **Vaccination.** *Importantly, We 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.
- **ISOLATION / TESTING / RETURN TO CLASS GUIDANCE:**
 - (Based on CDC website that was updated March 30, 2022)
 - SITUATION 1:** Test Positive or have Symptoms of COVID-19 (regardless of vaccination status)
 - Report it to Dr. Gurovich (agurovich@utep.edu)
 - Stay home for 5 days and isolate from others in your home.
 - Wear a well-fitting mask if you must be around others in your home.
 - End isolation after 5 full days if you are fever-free for 24 hours (without the use of fever-reducing medication) and your symptoms are improving
 - Take precautions until day 10 (wear well-fitting mask, social distancing, hygiene)
 - Do not travel until a full 10 days
 - You need a negative viral/rapid test to come back face-to-face
 - SITUATION 2:** You were exposed to COVID-19, Do Not have Symptoms and...
 - a) are NOT Up to Date on COVID-19 vaccinations**
 - Report it to Dr. Gurovich (agurovich@utep.edu)
 - Stay home for 5 days and isolate from others in your home.
 - Wear a well-fitting mask if you must be around others in your home.
 - Complete a viral/rapid test no sooner than 5 days after exposure
 - End isolation after 5 full days if viral/rapid testing is negative and you did not develop symptoms.
 - Take precautions until day 10 (wear well-fitting mask, social distancing, hygiene)
 - Do not travel for 5 full days, days 6-10 avoid travel if possible, take precautions if must travel
 - b) are Up to Date on COVID-19 vaccinations**
 - No quarantine necessary (if you do develop symptoms, start quarantine (situation 1)
 - Complete a viral test no sooner than 5 days after exposure
 - Wear mask for 10 days
 - Take precautions during travel
 - c) had (+) Viral Test for COVID-19 within the past 90 days**
 - No quarantine necessary (if you do develop symptoms, start quarantine (situation 1)
 - Wear mask for 10 days
 - Take precautions during travel
 - 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 www.epstrong.org.

○ **VACCINATION**

- *Even though vaccination is not mandatory, the DPT program strongly recommends getting vaccinated and receive boosters when eligible. The nature of all PT activities, such as hands-on labs and community engagement, increases the risk of COVID-19 infection and vaccinations can mitigate that risk. In addition, some clinical rotation sites are already requiring proof of vaccination, including boosters, to students attending their facilities; therefore, being vaccinated increases the chances to attend those sites.*
- *If you are not vaccinated, or you need a booster, and you would like to get vaccinated, please register in any private pharmacy (e.g., Walgreens, CVS, Albertson's, Walmart, etc,) or in the City of El Paso vaccination website (<https://www.epcovidvaccine.com/>) and make an appointment at your earliest convenience.*

7. **EXAM Policy:** This includes (written/oral exams, quizzes, skills checks, practical exams)

- Students are not authorized to use any outside help. This includes electronic devices, notes, books.
- No electronics including phones and smart watches should be on or near the student during the examination.
- No hats with brims to be worn during examinations.
- Any suspicious behavior will be reported to the Office of Student Conduct and Conflict Resolution (OSCCR).
- See the current DPT Student Handbook for complete policy.

8. **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.

9. **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 a 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 a fair, unbiased, and unassisted testing, I reserve the right to control the test environment. Controls may include (non-exhaustive list) assigned seating, issued a blank paper, randomized questions, use of security software (such as Respondus Lock Down Browser with a 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 not limited to any method used to retain information for future use to include but not limited to audio or video capture, screen shots, 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. Acceptable site is Microsoft OneDrive (and share the file), e-mail through your UTEP e-mail account.
- **Labs:** Labs are generally divided into two groups to enhance professor to student ratio and student learning. Do not share answers,

outcomes, cases, or other materials used during the labs with the other lab group. Actively completing labs assignments (without the answers) from start to finish is essential to the active learning, retention, reflection, and clinical reasoning process.

Course Content and Schedule: Course outline/schedule is below (Note: Students will be notified of changes via Blackboard or e-mail. Additional details may be available in supporting course documents provided by the course instructor).

NOTE: All Quizzes, Tests, and written examinations are F2F in lab using Respondus Lock Down Browser unless otherwise noted. Be sure to bring your computer to lab and are using the most recent version of RLDB. Home based examinations also require RLDB with webcam.

Week		Date	Topic	Reading Assignment (Readings may be added/or changed at the discretion of the instructor-see Blackboard) *(F)= Fell Book *(N-L)= Nichols-Larson
1	Lect	Tue Aug 23 9:30- 11:30	Course Introduction/Overview/ Objectives Clinical Decision Making <i>Sign up for Diagnosis Outline</i> <i>See Required readings, and HOAC article posted on BB – Come prepared*</i>	Rothstein HOAC II article on BBL (F) Ch 1 and 2 Lecture video Recommend: Guide to PT Practice (N-L) Ch 9
	Lab	Tue Aug 23 HOMEWORK + VIRTUAL (VIDEO)	TEST YOUR KNOWLEDGE: Neuroanatomy Worksheet + Neurology Terms Worksheet Introduction to Neurologic PT & Principles of Experience Dependent Neuroplasticity to optimize learning in our patients (WATCH VIDEO – Located in WEEK 1 folder)	Neuro Worksheet due and Neurology Terms Worksheet due before 4 pm Readings on BBL Focus on the Evidence Tables
2	Lec	Tue Aug 30 9:30- 11:30	QUIZ 1 Neurologic Exam: Differential Diagnosis: Phase 1: <ul style="list-style-type: none"> • Medical Screening • History/Interview 	(F) Ch 3 (D) Ch 24
	Lab	Tue Aug 30 1:00-4:00	Neurologic Exam: Differential Diagnosis: Phase 2 Examination and evaluation of Body Structure and Function: Intro toThe Neuro Exam Lab - <u>Frontal Lobe:</u> <ul style="list-style-type: none"> • Arousal/Attention/Cognition 	(F) Ch 4 -See BBL for videos to review and chapters Recommended -O' Sullivan Chp 27

			<ul style="list-style-type: none"> Disorders of Consciousness Aphasia/Communication disorders 	
3	Lec	Tue Sep 6 9:30- 11:30	Examination of the Motor System: <u>Motor Cortex</u> <ul style="list-style-type: none"> UMN/LMN: Muscle Tone Muscle Stretch Reflexes Muscle Synergies 	(F) Ch 6 (Strength and tone) Sheean G. The pathophysiology of spasticity. EJM. 2002;9:3-9.
	Lab	Tue Sep 6 1:00-4:00	Lab: <u>Motor Cortex</u> <ul style="list-style-type: none"> Motor Exam Muscle Tone DTR Muscle Synergies 	
4	Lec	Tue Sep 13 9:30- 11:30	QUIZ 2 <u>Sensory Cortex and Spinal Cord-</u> General Somatosensory System <ul style="list-style-type: none"> Higher level/ Cortical sensations Spinal Cord sensations 	(F) Ch 5 (OS) Ch 3
	Lab	Tue Sep 13 1:00-4:00	LAB: <u>Sensory Cortex and SC</u> <ul style="list-style-type: none"> Higher level/ Cortical sensations Spinal Cord sensations 	
5	Lec	Tue Sep 20 9:30- 11:30	QUIZ 3 Examination of the Motor System (Cont'd): <u>Cerebellum & Basal Ganglia</u> <ul style="list-style-type: none"> Movement Disorders of Cerebellum Movement Disorders of Basal Ganglia 	(F) Ch 6 (OS) Ch 6 Motor Coordination Tests/Measures for Motor Coordination and invol movement PDF: "Overview of movement disorders and approach to the patient Ch 1" (Synaptic Center)
	Lab	Tue Sep 20 1:00-4:00	Lab: <u>Cerebellum & BG</u> <ul style="list-style-type: none"> Cerebellar Testing Motor Control/ Coordination Involuntary Movement 	
6	Assign- ment	Sun Sep 25	Diagnosis Outline Polished Draft along with the PDF of each new article due on BBL by 10:00 pm	
	Lec	Tue Sep 27 9:30- 11:30	QUIZ 4 <u>Cortex & Brainstem:</u> Cranial Nerves	(F) Ch 7 Avers Ch 7 (face muscles) University of Utah Neurologic Exam Webpage
	Lab	Tue Sep 27 1:00-4:00	<u>Lab: Cortex & Brainstem:</u> Cranial Nerves Summary of Neuro Exam	

			+ Practice	FULL Neuro Exam Blumenfeld - PDF (Synaptic Center)
7	Lec	Tue Oct 4 9:30- 11:30	QUIZ 5 Stroke (CVA) pathology CVA – BS&F/Activity Limitations	Please review Stroke and TBI PPTs on BBL (N- L) Ch 10, 11 Recommended: (O'S) Ch 15, 19 NeuroBytes video #1: CVA Pathology for Review
	Lab	Tue Oct 4 1:00-4:00	LAB: CVA <ul style="list-style-type: none"> • Neuro Exam Practice • Cases • Stroke Localization Worksheet 	
	SKILLS CHECK	Thur Oct 8 Time TBD	SKILLS CHECKOUT Cranial Nerves Tone Synergy	
8	EXAM	Tue Oct 11 9:00- 10:00	Exam 1/ MIDTERM Over Aug 24 – Oct 5 On lockdown Browser	
	Lec	Tue Oct 11 10:30- 11:30	QUIZ 6 Traumatic Brain Injury (TBI) pathology TBI - BS&F/Activity Limitations <ul style="list-style-type: none"> • Glasgow Coma Scale (GCS) • Rancho Los Amigos 	(OS) Ch 19 Rancho Los Amigos LOF PDF NeuroBytes video #2: TBI Pathology for review
	Lab	Tue Oct 11 1:00-4:00	LAB: TBI <ul style="list-style-type: none"> • Neuro Exam Practice • Cases • GCS • Rancho Los Amigos 	
9	Lec	Tue Oct 18 9:30- 11:30	QUIZ 7 Spinal Cord Injury (SCI) pathology Incomplete Spinal Cord Syndromes SCI: BS&F/Activity Limitations <ul style="list-style-type: none"> • ASIA 	(OS) Ch 20 TBA NeuroBytes video #3 & 4: SCI Pathology for review SCI Incomplete Syndromes
	Lab	Tue Oct 18	LAB: Spinal Cord Injury (Cont'd) ASIA Testing	

		1:00-4:00	Incomplete SC Worksheet Cases	
10	Lec	Tue Oct 25 9:30-11:30	QUIZ 8 <u>Peripheral NS:</u> Vestibular Hypofunction WIGGLE ROOM**	(F) Ch 8 Please review Vestibular and TBI PPTs on BBL Goebel JA. The ten-minute examination of the dizzy patient. Seminars in Neurology 2001;21:391-398.
	Lab	Tue Oct 25 1:00-4:00	<u>Peripheral NS:</u> Vestibular Evaluation (including CNS)	
11	Assignment	Sun Oct 30	Diagnosis Outline Final paper due on BBL by 10:00 pm	
	Lec	Tue Nov 1 9:30-11:30	WIGGLE ROOM**	TBA
	Lab	Tue Nov 1 1:00-4:00	WIGGLE ROOM**	
	Assignment	Sun Nov 6	Vestibular Evaluation Videos due	
12	Lec	Tue Nov 8 9:30-11:30	QUIZ 9 Pathological Gait	TBA
	Lab	Tue Nov 8 1:00-4:00	Pathological Gait LAB	
	Assignment	Sun Nov 13	Vestibular Evaluation Peer reviews due	
13	Lec	Tue Nov 15 9:30-11:30	Pathological Gait (CONT'D)	TBA
	Lab	Tue Nov 15 1:00-4:00	Pathological Gait	
14	Lec	Tue Nov 22 9:30-11:30	QUIZ 10 Postural Control/ Balance Examination of Functional Status and Choosing Outcome Measures	Schenkman M. Deutsch JE, Gill-Body KM. An Integrated Framework for Decision Making in Neurologic Physical Therapist Practice.

				PTJ. 2006;86:1681-1702 (F) Ch 9 (OS) Ch 6
	Lab	Thu Nov 22 1:00-4:00	Choosing Outcome Measures for Balance Testing and Functional Status	ARTICLE: "A core set of Outcome Measures for Adults with Neurologic Conditions Undergoing Rehabilitation" by Moore JL et al.
15	Lec	Tue Nov 29 9:30-11:30	QUIZ 11 Evaluation in PT, NM Prognosis/ Problem List Formulation/ Prioritize Treatment/ Objectives/Goals	
	Lab	Tue Nov 29 1:00-4:00	Putting it all together - Practice for Practical!!	
16	PRACT	Dec 3 8:00-12:00	PRACTICAL	
	EXAM	TBD	CUMULATIVE FINAL EXAM	

Student Expectations:

- 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.
- All assignments are to be submitted online ONLY unless otherwise specified. Students must ensure 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 e-mail.
- 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 on every other Tue morning except the week of the midterm exam. See schedule for dates. It will be over the topic covered

that day (posted information and reading) and previous information from last week's topic. 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.

Exams:

Exams will be in person in Room 113 or 115. See syllabus for content covered and dates on schedule. 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 2 Neuro content Spanish lunch and learn by Dr. Gurovich. Times and dates TBA. There will not be a grade for this requirement; however, if you do attend both 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.

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 class.
- Students will work with your 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 student will update the content the roman numerals for Neuro I.

*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 health-care team contributions

VI. Consumer and Professional Resources, including credible local and national resource, 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§ionid=182071996>

- You may use 11-12-point font of your choice for the text of your outline with division heads in bold. (When final paper is turned in, it should be one file with 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 “references cited” list should be AMA format citations but in an alphabetized list instead of a numerical list.

- **No later than Sept 26 at 10:00 PM**, submit a polished draft of your summary document in Blackboard Assignment. Include PDF of your reference articles. After review/correction/approval, suggestions will be made for you to make final corrections within 2 weeks.

- 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 **October 30 by 10:00 PM**. You will turn in your FINAL assignment for the diagnoses group on the Discussion board. The document you post to the thread should be your revised copy including outline and reference list as one document.

- Finally, you will individually turn in one multiple choice question with answers along with justification of each answer of why it is right and wrong **by Oct 30 on BBL by 10:00 PM**)

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. Any part of the assignment is late.

Rubric for All Assignments

0-69%	Did not complete portion of the assignment by the deadline
70%	SATISFACTORY: Met all basic requirements, and 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

2) ICF Impairment & AD Assignment: (Make up from Patient Care Skills)
See Blackboard