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

PT 6414 **Neuromuscular Rehabilitation II** **Spring 2021**

COURSE SYLLABUS

Credit Hours:

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

Schedule:

Monday	3:30 pm - 5:30 pm
Tuesday	2:30 pm - 5:30 pm
Thursday	8:00 am – 11:00 am

Coordinator/Instructor(s):

Faculty: *Michelle Gutierrez, PT, Dsc*
Office location: *Campbell Room 308*
Phone #: *915-747-8148*
Cell Phone for emergency: *575-650-9121*
E-mail: *mgutierrez28@utep.edu*

Office hours: By appointment. *Schedule meetings at:*
https://calendly.com/drgutierrez/3o-minute-meeting
Virtual Hours are via Zoom platform with wait room enabled.
I will send you a zoom link when I receive the notice that you have requested the meeting.
I HIGHLY recommend adding the appointment to your calendar.
If the times don't work for your schedule email some suggestions of meeting times.

Teaching Assistant: *Andrea Goche, goche2004@hotmail.com*

COVID-19 Notice: This course has transitioned to a blended learning course with a mix of virtual (online) and face-to-face (F2F) content delivery and assessment. Blue italicized text indicates syllabus additions to align with this transition.

- *Lectures: virtual using Zoom. Lectures are typically synchronous (real-time). Alternative platforms may be used as needed.*

First week and eighth week will be virtual

Second week through seventh week and tenth week through fifteenth week.

- *Labs: Face to face (F2F) labs are essential to develop and refine the psychomotor skills required to perform the skills that you will be learning this*

semester, and this capability is necessary to safely and competently evaluate and treat patients.

Note:** We have a prudent, UTEP approved infection control plan that will be implemented to maximize your safety. This plan concurrently parallels current, contemporary infection control practices seen in physical therapy clinical settings.* ***Also, proactive testing will be available on Tuesdays at Campbell building. I encourage all of you to receive testing weekly to keep everyone in the classroom safe!

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.

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.

Item	**Grade Composition**
Quizzes (written)	5%
Assignments	5%
Skills Checkout	5%
Exam 1	15%
Exam 2	15%
Exam 3 (written)	15%
Practical exam (psychomotor)	20%
Final Exam (written)	20%
Total	100%

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

Letter Grade Scale	Numerical Grade Scale
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.
- Exercise Considerations for persons with neurological disability part 1
  - https://www.youtube.com/watch?v=BWhB_bsRWqk
- Exercise Considerations for persons with neurological disability part 2 CVA
  - https://www.youtube.com/watch?v=0oCdZqtUTW4
- Exercise Considerations for persons with neurological disability part 3 MS
  - https://www.youtube.com/watch?v=AbLLp3jGR9k
- Exercise Considerations for persons with neurological disability part 4 SCI
  - https://www.youtube.com/watch?v=uHMRsF1LTbI
- Exercise Considerations for persons with neurological disability part 5 Post-Polio
  - https://www.youtube.com/watch?v=StolCfyCcus

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 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

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. 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. 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 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.
    - *During online 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.*

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.
    - 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.
3. **Electronic Devices:** Refer to current DPT Student Handbook "Electronic Devices" for DPT Program policy. Additional course-specific policy is as follows:
    - Lap tops 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.*
- *NOTE: The online learning environment is generally not optimally conducive to promoting a professional environment. Dogs bark and kids scream, and most of us have "offices" in bedrooms. I understand that flexibility is necessary. However, I expect students to be sitting or standing upright during class – as opposed to lying down. Lying down would not be acceptable in a face-to-face classroom. Additionally, 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. Mute your microphone when you are not contributing to the discussion in the virtual classroom to avoid being unnecessarily disruptive.*
- *See above attendance policy.*
- *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.
    - There will be a 10% reduction per day for all late assignments. Any assignment more than 3 days late will receive no credit.

6. **Skills Check Policy:**
    - not applicable
7. **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 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.
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 blank paper, randomized questions, use of security software (such as Respondus Lock Down 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 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), 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 lectures are remote on Zoom and all Quizzes and Exams are on Respondus Lockdown Browser (RLB). Labs are face to face unless otherwise listed.

Date	Room	Topic	Reading Assignment (Readings may be added/or changed at the discretion of the instructor)
Week 1 Jan 18 (Mon)	**MARTIN LUTHER KING JR HOLIDAY**		
Jan 19 (Tue) 2:00-4:00	Zoom	Neuro 2 Introductions/ Expectations Vestibular Rehabilitation: Review A&P **(Gutierrez)**	**Required** -Review Neuroscience Vestibular A&P **-View Intro Video prior to day one** -Fell Chpt 8 -Goebel JA. The ten-minute examination of the dizzy patient. Seminars in Neurology 2001;21:391-398. **Recommended** -O'Sullivan Chp 21 -Nichols-Larson Chp 12 -Fell Chpt 29
Jan 21 (Thur) 8:00-10:00	Zoom	Vestibular Rehabilitation: Common Conditions Testing **(Gutierrez)**	**Required** See above **-View Common Vestibular Disorders Video prior to class**
Week 2 Jan 25 (Mon) 3:30-5:30	RLB Zoom	***QUIZ 1*** Vestibular Rehabilitation: Testing **(Gutierrez)**	See above

Jan 26 (Tue) 2:30-5:30	113/115	Vestibular Rehabilitation: Tests Vestibular Rehabilitation: BPPV **(Gutierrez/Goche)** Spanish	See above
Jan 28 (Thur)		**NO CLASS; IPE**	
Jan 29 (Fri) Lab B 9:00-12:00 Lab A 1:00-4:00	115	Vestibular Rehabilitation: BPPV Treatment **(Gutierrez)**	See above
Week 3 Feb 1 (Mon) 3:30-5:30	Zoom	Vestibular Rehabilitation: Differential Diagnosis **(Gutierrez)**	See above
Feb 2 (Tue) 2:30-5:30	113/115	Balance/Postural Control Intervention **(Gutierrez/Goche)**	**Required** -Fell Chpt 30 pg 949-973 -Shumway Cook Chpt 11 pg 285-306 **Recommended** -Shumway Cook Review pg 260-285
Feb 4 (Thur) 8:00-11:00	113/115	Balance/Postural Control Intervention **(Gutierrez/Goche)** Spanish	See above
Week 4 Feb 8 (Mon) 3:30-5:30	RLB Zoom	***QUIZ 2*** Age-Related Neurologic Changes Change in Cognitive Function/Dementia **(Gutierrez)**	**Required** **-See BBL for videos to review and chapters** **Recommended** -O' Sullivan Chp 27 -Nichols-Larson Chp 17 (Cognitive, Dementia)
Feb 9 (Tue) 2:30-5:30	113/115	Age-Related Neurologic Changes Cerebellar Damage **(Goche/Gutierrez)**	**Required** -Nichols-Larson Chp 16 (Cerebellar)
Feb 11 (Thur)	113/115	Age-Related Neurologic Changes Cerebellar Damage/Cognitive Function **(Goche/Gutierrez)**	Required See above -**View Exercise Videos:** **-Exercise Considerations for persons with**

			neurological disability part 1 **-Exercise Considerations for persons with neurological disability part 2 CVA**
Week 5 Feb 15 (Mon) 3:30-5:30	Zoom	***Not on Exam 1*** Spinal Cord Injury **(Gutierrez)**	**Required** -Review Neuroscience SCI -Nichols-Larson Chp 12 **-Watch Video lectures Part 1 and Part 2** **Recommended** -O'Sullivan Chp 20
Feb 16 (Tue) 2:30-5:30	113/115	***Not on Exam 1*** Spinal Cord Injury ASIA **(Gutierrez/Goche)**	**Required** See above **-Watch ASIA Scoring Video** -Also review ASIA on PHYSIOU **-If you need a review – watch Spinal Anatomy and Syndrome Review**
Feb 18 (Thur) 8:00-11:00	RLB 113/115	***QUIZ 3*** ***Not on Exam 1*** Spinal Cord Injury **(Gutierrez/Goche)**	**Required** -O'Sullivan **Lab** Chp 6 -Nichols-Larson Chp 12
Feb 20 (Sat) Time TBD	113/115	***SKILLS CHECKOUT: Vestibular Rehabilitation***	
Week 6 Feb 22 (Mon) 3:30-5:30	RLB	***EXAM 1 (Vestibular, Balance, Age Related Changes: Covering everything through Feb 11)***	
Feb 23 (Tue) 2:30-5:30	113/115	Spinal Cord Injury Transfers ADLs **(Gutierrez/Goche)**	**Required** -O'Sullivan **Lab** Chp 6 -Nichols-Larson Chp 12
Feb 25 (Thur)	113/115	Spinal Cord Injury Transfers ADLs **(Gutierrez/Goche)**	**Required** -O'Sullivan **Lab** Chp 6 -Nichols-Larson Chp 12
Week 7 Mar 1 (Mon) 3:30-5:30	Zoom	Spinal Cord Injury Prognostication Psychological Issues **(Gutierrez)**	**Required** -Waters RL, Adkins R, Yakura J, Sie I. Functional and neurologic recovery

			following acute SCI. J of Spinal Cord Medicine. 1998; 21:195-199. **-View lecture video before class**
Mar 2 (Tue) 2:30-5:30	113/115	Spinal Cord Injury **(Gutierrez/Goche)**	**Required** **-View Neuro Exercise Video part 4 SCI**
Mar 4 (Thur) 8:00-11:00	113/115	Spinal Cord Injury Interventions ADLs/Practice for practical **(Gutierrez/Goche)** Spanish	TBD
Mar 5 (Fri)	***SCI ASSIGNMENT DUE ON BBL BY MIDNIGHT***		
Week 8 Mar 8 (Mon) 3:30-5:30	RLB	***EXAM 2 (SCI: Covering everything from Feb 15 – Mar 4)***	
Mar 9 (Tue) 2:30-5:30	113/115	Progressive Neurologic Disorders Multiple Sclerosis **(Gutierrez/Cwiklinski)**	**Required** -Nichols-Larson Chp 13 (Signs and Symptoms, Prognosis, PT Management)
Mar 11 (Thur) 8:00-11:00	113/115	Progressive Neurologic Disorders Multiple Sclerosis **(Gutierrez/Goche)**	**Required** -Watch Exercise Video: **-Exercise Considerations for persons with neurological disability part 3 MS** -See Above
Mar 15-19	**SPRING BREAK**		
Week 9 Mar 22 (Mon) 3:30-5:30	Zoom	Basal Ganglia Disorders: Parkinson's Disease **(Brooks/Gutierrez)**	**Required** -Nichols-Larson Chp 14 (Parkinson's) **Recommended** -O'Sullivan Chp 18
Mar 23 (Tue) 2:30-5:30	RLB Zoom	***QUIZ 4*** Acute Care Neuro **(Jimenez/Gutierrez)**	See BBL for required reading

Mar 25 (Thur) 8:00-11:00	Zoom	Basal Ganglia Disorders: Huntington's Disease	**Required** -Videos/PPT posted BBL **Recommended** -Nichols-Larson Chp 14 (Huntington's)
Week 10 Mar 29 (Mon) 3:30-5:30	Zoom	CARE **(Kincaid/Gutierrez)**	-See BBL for required readings
Mar 30 (Tue) 2:30-5:30	113/115	Basal Ganglia Disorders: Parkinson's Disease **(Brooks/Gutierrez/Goche)** Spanish	**Required** -See Above
Apr 1 (Thur) 8:00-11:00	RLB 113/115	***QUIZ 5*** Fun with Neuro/Prep for practical **(Gutierrez/Goche/Jimenez)**	TBD
Week 11 Apr 5 (Mon) 3:30-5:30	Zoom	Motor Neuron Disease and Neuropathies Amyotrophic Lateral Sclerosis, Gillian Barre, Post-Polio Syndrome, Peripheral Neuropathies **(Gutierrez, Jimenez)**	**Required** -Nichols-Larson Chp 15
Apr 6 (Tue) 2:30-5:30	113/115	Motor Neuron Disease and Neuropathies Treatment **(Gutierrez/Goche)**	**Required** -See above **-View Neuro Exercise Video part 5 Post-Polio**
Apr 8 (Thur) 8:00-11:00	113/115 or Zoom	Neuro Aquatics **(Dillon/Gutierrez)**	See BBL for required readings
Week 12 Apr 12 (Mon) 3:30-5:30	RLB Zoom	***QUIZ 6*** Pathologic Gait **(Gutierrez)**	**Required** -Review Gait from Neuro 1, Kines
Apr 13 (Tue) 2:30-5:30	113/115	Pathologic Gait treatment **(Gutierrez/Goche)**	**Required** -Shumway Cook Chpt 16 pg 431-461 -Fell Chpt 31 pg 1149-1168 **Recommended** -O'Sullivan Lab Chpt 10
Apr 15 (Thur)	113/115	Pathologic Gait treatment **(Gutierrez/Goche/Jimenez)**	**Required** -See Above

		Spanish	
Week 13 Apr 19 (Mon) 3:30-5:30	Zoom	Pathologic Gait treatment **(Gutierrez)**	**Required** -See Above
Apr 20 (Tue) 2:30-5:30	RLB 113/115	***QUIZ 7*** Fun with Neuro/Prep for practical **(Gutierrez/Goche)**	TBD
Apr 21 (Thur) 8:00-11:00	113/115	Fun with Neuro/Prep for practical **(Gutierrez/Goche/Jimenez)**	TBD
Apr 24 (Sat) Time TBD	113/115	***PRACTICAL EXAM***	
Week 14 Apr 26 (Mon) 3:30-5:30	RLB	***EXAM 3 (Patho Gait, Progressive Neurologic Changes & Motor Neuron Diseases: Covering everything from Mar 9 through Apr 19)***	
Apr 27 (Tue) 2:30-5:30	113/115 or Zoom	Chronic Pain/ CRPS **(Haribhai/Gutierrez)**	See BBL for required readings
Apr 29 (Thur) 8:00-11:00	113/115 or Zoom	Tremors/ DBS **(Sandberg/Gutierrez)**	See BBL for required readings
Week 15 May 3 (Mon) 3:30-5:30	Zoom	Community Reintegration **(Moody/Stevens/Gutierrez)**	See BBL for required readings
May 4 (Tue) 2:30-5:30	113/115	Community Reintegration **(Moody/Stevens/Gutierrez/ Goche)** Dress for walking in the community	See BBL for required readings
May 6 (Thur) 8:00-11:00	113/115 or Zoom	AAC lecture **(SLPs: Amelia Rau/Deena Peterson)**	See BBL for required readings
Week 16 May 13 (Thur) 9:00-12:00	RLB	***FINAL WRITTEN COMPREHENSIVE EXAM***	