

**PT 511: APPLIED MOVEMENT SCIENCE AND REHABILITATION PROCEDURES**

Spring Semester, 2022

Lecture/Lab: Monday and Wednesday, 1:00-5:00 p.m.

Instructors: Meridee Danks, Cindy Flom-Meland, & Michelle LaBrecque

DATE	LECTURE/LAB	READINGS
1/12	Intro to Rehabilitation/CDM/ICF Model Psychosocial	1) Ch 1, 2) Ch 1; <i>Guide to PT</i> 1) CH 26; HO's/CH Quiz
	<u>Neuro Assessment/Intervention – CVA</u>	
<b>1/17</b>	<b>MLK Day – No Class</b>	
1/19	Neuro/Movement System Exam/IRF-PAI Case CVA - “Sandy” Stroke video/assignment	1) Ch 2-9 3) CH 9; <a href="http://www.neuropt.org">www.neuropt.org</a> ; Quizzes 3) Lab CH 4-6 (in Lab Man for Neuro Rehab)
1/24	CVA/Communication/Swallowing Lab - Neuro Assessment	1) Ch 15/28; Case 8-10 2) CH 11; <a href="#">CH Quizzes</a> <a href="#">ANPT Stroke EDGE</a>
1/26	NDT/ Motor Learning (ML) Principles Lab – <u>NDT/Cases</u> : Trunk Ant/Lat Tilt/Scapular mob	1) CH 5(MC/ML), 10; man Ch 2; PT 415 notes 1) CH 4/Case 13 O’S&S lab man
1/31	UE Hemiplegia Intervention – Lab – <u>Cases</u> : Hand/Foot mobs/UE Progression	1) O’S&S man CH 11-12/Case#5 3) CH 7 & 9 Neuro lab man
2/2	Hemiplegic Standing/Gait Lab – <u>Cases</u> : Transfers/STS/Stand/Gait	1) Ch 10,11/HO/Cases 3) CH 12 Neuro Lab Man
2/7	Perceptual Deficits Lab – <u>Cases</u> : Pusher syndrome and Review	1) CH 27; 3) CH 13 Lab Man Neuro
<b>2/9</b>	<b>1:00 – 5:00 EXAM I/Practical I</b>	
	<u>TBI/Degenerative Diseases/Vestibular</u>	
2/14	Case TBI - Behavioral/Cognitive RLA-LOC Interventions & Case Presentations	1) Ch 19 TBI, (2) CH 11; HO HBO Coma videos – YouTube; <a href="#">CH Quiz</a>
2/16	Case TBI POC Discussions	
<b>2/21</b>	<b>President’s Day – No Class</b>	
2/23	TBI Balance/Mobility Assessments Lab – Balance/Self-Defense Techniques/Cases	1) Review Ch 7,8 & Man Ch 9,10/Case 2 <a href="#">TBI EDGE</a>
2/28	Degenerative Diseases (DD) ->Case’s MS/ALS/HD Lab – Small Group Case Presentations MS and ALS	1) Ch 16, 17; 2) Ch 13; <a href="#">PD &amp; MS EDGE</a>
3/2	Case Parkinson’s Disease (PD) O’S&S Man Case # 6	1) Ch 18, Lab Man Case 6 2) Ch 14
3/7	LSVT BIG Amanda Wilson DPT– <u>Recorded Lecture?</u> Lab - PD Interventions/ <u>Case Study - Amanda Wilson, DPT LSVT “BIG” Program</u>	
3/9	Case Vestibular - <u>Jeff Haney, DPT</u> Lab Vestibular Assessments and Treatment O’S&S Lab Man Ch 13	1) Ch 21; Case #5; 2) CH 16
<b>3/15 - 3/19</b>	<b>Spring Break</b>	
<b>3/21</b>	<b>Exam II/Practical II</b>	
	<u>Environmental Assessment/WC Seating/Orthotics/Prosthetic’s</u>	
3/23	Environmental Assessment/Orthotics	1) CH 9,30; 10) B. May Text; <a href="#">CH Quiz</a>
3/28	Lab <u>WC Seating/positioning/mobility ?Jane Loscheider OT</u>	1) Ch 33, HO
3/30	<u>Case Amputation - Rehab/Pre-Prosthetic Program</u>	1) Ch 14, 22; 10) B. May Text
4/4	<u>Fabrication/Components of Prosthesis – Paul Edman (Altru)</u>	1) Ch 31
4/6	Prosthetic Gait/Gait Deviations	1) Ch 7,11; Ch 31
<b>4/11</b>	<b>Exam III/Case SCI Intro</b>	
	<u>Spinal Cord Injuries</u>	
	*Start using O’S&S Ch 20; <u>Man Cases #3,7,10,14</u> ; Somers Text & Field-Fote text	
4/13	<u>Case SCI - Intro/Bowel &amp; Bladder Function</u> Skin Care/Stabilization/Respiratory	1) Ch 20; 2) CH 12; 11) Ch 1-6,13,14 1) Ch14; H/O; video: <a href="#">Ch Quiz</a> ; <a href="#">SCI EDGE</a>
<b>4/18</b>	<b>Easter – No Class</b>	
<b>4/20</b>	<b>Assessment/ASIA/Functional Potentials/Goal Setting/Lab</b> <b>Biomechanical Principles of SCI</b>	11) Ch 7; H/O; video 11) Ch 8, 9; HO, video
4/25	Lab Application <b>Treatment Intervention/Transfers/Gait</b>	11) Ch 10, 12; HO, video
4/27	<b>Lab/SCI Assessment Wheelchair Mobility ? 3/28</b>	1) Ch 33; <u>man CH 8 11) Ch 11, 12, 15</u>
<b>5/2</b>	<b>Finals Week EXAM IV and Final Comprehensive Practical - TBA</b>	

**TEXTS:**

- Required:** (1) Physical Rehabilitation, O’Sullivan & Schmitz (7<sup>th</sup> ed – FA Davis) **Case videos and** Improving Functional Outcomes (manual in PT 415) **free online** in Accessphysiotherapy
- Accessphysiotherapy Reference Books (free online thru UND Med Library)**
- (2) Neurologic Rehabilitation, Nichols-Larsen (2016); Section II (McGraw-Hill Educ)
  - (3) Laboratory Manual for Neurologic Rehabilitation, Kegelmeyer DA (2020) - **videos**
  - (4) Neuro Notes: Clinical Pocket Guide (2009)
  - (5) Motor Learning & Control 12e, Magill & Anderson 2017
  - (6) Vestibular Rehabilitation, Herdman S (2014) – Videos
  - (7) ICE Learning Center – UNDSMHS library (Stroke/TBI/Ped/ortho **videos**)
  - (8) Movement Disorders 3e, Watts/Standaert/Obeso Multimedia **videos** – DD Clinical Disorders
  - (9) Spinal Cord Injury Rehabilitation, Field-Fote E (2009)
  - (10) Prosthetics and Orthotics (2011), Bella May (FA Davis)

**Recommend:** (11) Spinal Cord Injury: Functional Rehabilitation (3rd ed), Somers

**Ref. Books:** May be checked out from my office

- Steps to Follow, Davies (2<sup>nd</sup> ed)
- Pathology: Implications for PT (3<sup>rd</sup> ed – Section 4), Goodman & Fuller
- Stroke Rehabilitation, Carr & Shepherd
- Motor Control, Shumway-Cook & Woollacott
- Neurological Rehabilitation, Umphred
- Neurological Rehabilitation - Optimizing Motor Performance, Carr & Shepherd
  - VHI: General/Balance & Vestibular Rehab/Amputee-HEP Kit, on reserve in library
  - Adult Hemiplegia: Evaluation & Treatment, Bobath
  - Right in the Middle; & Starting Again, PM Davies
  - Physical Rehabilitation – EBP, Cameron MH & Monroe LG
  - Assistive Technologies, Cook & Hussey’s

**Websites:** 1) [www.stroking.ca/](http://www.stroking.ca/); 2) [www.rehabmeasures@shirleyryanabilitylab.org/](mailto:www.rehabmeasures@shirleyryanabilitylab.org); 3) [www.neuropt.org](http://www.neuropt.org), 4) [www.stroke.org](http://www.stroke.org), 5) [www.physio-pedia.com/](http://www.physio-pedia.com/) 6) [www.pva.org/](http://www.pva.org/) 7) [apta.org/continuingeducation](http://apta.org/continuingeducation) 8) [COMBI.org](http://COMBI.org) (9) [PhysioU](http://PhysioU) – videos 10) [Vestibular.org](http://Vestibular.org)

<b>Course Requirements and Grading:</b>		<b>Overall Grading Scale</b>
Quizzes/Pre-Tests	50 pts	A = 90% >
Written Examinations (4)	~280 pts.	B = 80 - 89%
Lab Practical(s)	~60 pts.	C = 76 - 79%
Cases	~60 pts	**D = 75% or <
<u>Assignments</u>	<u>~50 pts</u>	
<b>Total</b>	<b>~500 Points</b>	

**\*\*Written examinations receiving a score < 76% or Practical exam < 80% must be retaken and receive a passing grade. The original grade is retained for course grading purposes.**

**NOTE--Attendance & participation is required** (if you are going to be absent the instructor needs to be notified prior to absence or points may be lost); please refer to UND-PT Scholastic Standards for further policy information. Also, have *appropriate lab clothing* available!

**ACADEMIC INTEGRITY:** In accordance with the rules concerning scholastic dishonesty in the *Code of Student Life\** at the University of North Dakota, I affirm that I understand these rules and I agree to comply with them.

I will not:

- a) receive any additional information or assistance for any exam other than what was provided during class or approved tutor sessions
- b) copy from another student's test
- c) collaborate with or seek aid from another student who may have previously taken the exam
- d) knowingly use, buy, sell, steal, or solicit in whole or in part the contents of any exam
- e) bribe another person to obtain information about any exam

**DISABILITY SUPPORT:** If you have emergency medical information to share with me, if you need special arrangements in case the building must be evacuated, or if you need accommodations in this course because of a disability, please notify me. My office # is E-341 & office phone is 777-3861/cell 218-230-8064 (Meridee's) or e-mail [meridee.danks@und.edu](mailto:meridee.danks@und.edu). If you plan to request disability accommodations, you are expected to register with the Disability Support Services (DSS) office (180 McCannel Hall, 777-3425 v/tty)

**Notice of Nondiscrimination:** It is the policy of the University of North Dakota that no person shall be discriminated against because of race, religion, age, color, gender, disability, national origin, creed, sexual orientation, gender identity, genetic information, marital status, veteran's status, or political belief or affiliation and the equal opportunity and access to facilities shall be available to all. Concerns regarding Title IX, Title VI, Title VII, ADA, and Section 504 may be addressed to Donna Smith, Director of Equal Employment Opportunity/Affirmative Action and Title IX Coordinator, 401 Twamley Hall, 701.777.4171, [und.affirmativeactionoffice@UND.edu](mailto:und.affirmativeactionoffice@UND.edu) or the Office for Civil Rights, U.S. Dept. of Education, 500 West Madison, Suite 1475, Chicago, IL 60611 or any other federal agency.

**Disability Access Statement:** Contact me to request disability accommodations, discuss medical information, or plan for an [emergency evacuation](#). To get confidential guidance and support for disability accommodation requests, students are expected to register with DSS at [UND.edu/disability-services](http://UND.edu/disability-services) 180 McCannel Hall, or 701.777.3425.

**Reporting Sexual Violence:** If you or a friend has experienced sexual violence, such as sexual assault, domestic violence, dating violence or stalking, or sex-based harassment, please contact UND's Title IX Coordinator, Donna Smith, for assistance: 701.777.4171; [donna.smith@UND.edu](mailto:donna.smith@UND.edu) or go to [UND.edu/affirmative-action/title-ix](http://UND.edu/affirmative-action/title-ix).

**Faculty Reporting Obligations Regarding Sexual Violence:** It is important for students to understand that faculty are required to share with UND's Title IX Coordinator any incidents of sexual violence they become aware of, even if those incidents occurred in the past or are disclosed as part of a class assignment. This does not mean an investigation will occur if the student does not want that, but it does allow UND to provide resources to help the student continue to be successful at UND. If you have been the victim of sexual violence, you can find information about confidential support services at [UND.edu/affirmative-action/title-ix](http://UND.edu/affirmative-action/title-ix).

**Ombuds Office:** "It is not our differences that divide us. It is our inability to recognize, accept, and celebrate those differences" (Audre Lorde). Before your differences with others become difficult and costly conflicts or formal grievances, in both seen and unseen ways, talk with the Ombuds Office in an informal, identity-protecting, impartial, and independent space. 314 Cambridge St Room 201. 701.777.6239. [www.UND.edu/ombuds](http://www.UND.edu/ombuds).

**UND Cares Response Team:** The [UND Cares Response Team](#) is available to assist with incidents involving UND students 24 hours a day, seven days a week. They respond to incidents such as major accidents, missing students, sickness that interferes with attending classes, death, suicidal ideations, situations involving self-harm, psychological trauma and sexual violence. Contact directly at 701.777.2664 during regular business hours OR 701.777.3491 after hours.