

University of Florida
College of Public Health and Health Professions Syllabus
Department of Physical Therapy
PHT 6761C: Neurorehabilitation I (3 credit hours)
Fall 2019
Location: CLC
Mondays 8:30 a.m. – 12:35 p.m.
Thursdays 3:15 - 5:15 p.m.

Instructor Information

Course Coordinator and Course Instructor Stroke Unit

Dorian Rose, PT, PhD

Room Number: HPNP Building; Office 1133

Phone Number: 352-273-8307

dkrose@php.ufl.edu

Office hours: by appointment

Course Instructor SCI Unit

Emily Fox, PT, DPT, PhD, NCS

ejfox@php.ufl.edu

Course Instructor TBI Unit

Gloria Miller, PT, PhD, NCS

gtmiller@php.ufl.edu

Adjunct Clinical Lecturer

Rachelle Studer-Byrnes, PT, DPT, NCS

rstuder@php.ufl.edu

Clinical faculty:

Alison Kraus, PT, DPT, NCS; Norman Fixel Institute for Neurological Diseases

Mike Chiarelli, PT; UF Health Rehabilitation Hospital (SCI Unit)

Jen Fogel, PT, DPT, NCS, CBIST; UF Health Rehabilitation Hospital (TBI Unit)

Instructional Aid:

Michell Pirapakaran, BS (mpirapakaran@ufl.edu)

Teaching guests:

Kanika Bansal, MPT; RSD student

Katie Butera, DPT ; RSD student (SCI Unit)

Kelly Hawkins, PT, DPT, NCS ; RSD student

Steve Nadeau, MD ; UF Health and VA Neurologist (Stroke Unit)

Tommy Sutor, MS ; RSD student (SCI Unit)

Zach Sutton, DPT (TBI Unit)

Course prerequisites: Successful completion of the UF entry-level DPT program up through Summer 2019.

Course Overview/Purpose

Active engagement in the learning process is a foundation to success in Neurorehabilitation I. In this course, we will apply fundamentals in physical therapy including but not limited to neuroscience, anatomy, patient evaluation, motor learning/control, cardiopulmonary, exercise training, and patient monitoring as a foundation to evaluation and treatment for persons with movement disorders secondary to neurologic injury or disease. You will acquire key information concerning neurologic diseases and disorders that are common to clients evaluated and treated by physical therapists. Medical information will include disease description, etiology, pathology, clinical signs and symptoms, diagnostic procedures, medical management, and precautions or special considerations pertinent to physical therapists. From a physical therapy perspective, specific standardized assessments, evaluation and treatment strategies, and rehabilitation practices will be addressed pertinent to the movement problems associated with a neurologic injury/disease while identifying and using appropriate guidelines in clinical decision-making.

The role of the physical therapist will be introduced across treatment environments and across the time course or progression of the disease (acute through chronic). Medical and psychosocial aspects of living with a disability will be discussed. The role of the physical therapist and other health professionals in the rehabilitation team will be presented including the neurologist, physiatrist, speech pathologist, nurse, occupational therapist, neuropsychologist, and orthotist. Evidence-based practice and the ICF model of health and disability will be applied as models for assessment and treatment for persons with neurologic disorders resulting in movement dysfunction.

Instructional Methods

Course materials will be presented in laboratory, class discussion, lecture and electronic formats.

Expectations:

As the next generation of physical therapists, the overall aim of this course is to prepare you for entry-level practice in adult neurorehabilitation. Expect to develop an understanding of knowledge and skills that can be applied to clinical decision-making; expect to be able to access resources currently and in the future relative to guidelines and evidence to guide your practice, and lastly expect to exercise good critical thinking to assess your patients, progress and challenge patients toward their goals. *This course is an introductory level course. You will have the opportunity to apply this information, clinical decision-making, and your skills in greater depth with patients in the rehab setting in Therapeutic Exercise II Summer 2020.* In TherExII, much of this course becomes integrated into patient evaluation, treatment planning, and delivery. We are preparing you to continue the learning process on your affiliations. Neurorehab II will accompany this course in the Spring and add aspects relative to degenerative diseases and vestibular rehabilitation.

As a student of excellence, each student is expected to make a meaningful contribution to the class learning experience through your uniquely individual experience, perspective and thinking; synthesis of readings; preparation for class; participation in labs, discussions, and guest instructor.

Class Attendance: Class attendance is mandatory. A sign-in sheet will be available each class period to register your attendance. If you don't sign in, you'll be considered as absent. If a quiz or in-class assignment is missed secondary to class absence other than illness it will not be able to be made up. One class absence for reasons other than illness within the semester is permitted without penalty. If you choose to exercise this option, as a professional courtesy, please email Dr. Rose to let her know you will not be in attendance. Class absence beyond one will result in a reduction of one-half letter grade (i.e. a B will become a B-; B- will become a C). If illness prevents you from attending class, call the PT Main Office by 8:00 a.m. and faculty will be notified of your absence. If you do not call the PT Main Office by 8:00 a.m., your absence will be considered unexcused.

Course Objectives: These broad objectives and the specific class session objectives should guide your preparation for this class, internships, licensure exam, and ultimately, clinical practice. Upon successful completion of PHT 6761C, students should be able to:

1. Know the individual and the potential implications of personal factors for therapy goal setting and clinical decision-making.
2. Describe the disease/injury pathology and course of the disease, as well as the medical, surgical, and/or pharmacological management including medical precautions.
3. Use the ICF model to describe the expected consequences of the disease/pathology on function, activities, and participation and identify the contextual factors: environmental and personal.
4. Describe a comprehensive PT evaluation using standardized assessments at appropriate time points and environments establishing baseline patient abilities/performance, for goal-setting, re-evaluation, and outcomes assessment applying the ICF model, and clinical practice guidelines.
5. Identify problems for referral to MD, other health professionals, or resources.
6. Set appropriate therapeutic goals specific to the goals of the individual, the disease/injury and its progression or recovery (and secondary or other problems) across the continuum of care: acute care, in-patient rehab, outpatient, home health, wellness and fitness using clinical practice guidelines, evidence, and best clinical judgment.
7. Identify PT treatments specific to this population and according to the best evidence-to-date (*categorize the Rxs: compensation to recovery-based interventions, prevention, and comfort*).
8. Identify how to progress the patient towards achieving set goals.
9. Monitor patient response to therapy/exercise and adjust Rx accordingly.
10. Identify and recommend appropriate durable medical equipment including assistive devices and orthotics.
11. Recognize the psychosocial aspects of disability in treatment planning and relative to the individual's role in his/her family and society.
12. Identify and understand the various roles of the PT through the course of the disease/injury and the individual's life including patient and family education, Rx of the caregiver(s), and referral source.

13. Understand and view the patient as a student or learner and the role of the interaction with a PT as
- informing and sharing a vision of what is possible for a patient/learner,
 - an agent for change,
 - an instructor/coach for the individual,
 - an educator for the individual, family, and caregivers, and
 - empowering individuals.

Course Materials and Technology

Required:

- UF DPT Neuroscience course syllabus and notes
- UF DPT Therapeutic Exercise I syllabus and notes
- Clinical practice guidelines will be accessible on the internet and identified during the course.
- O'Sullivan and Schmitz. *Improving Functional Outcomes in Physical Rehabilitation*. F.A. Davis. 2010.
- Lundy-Eckman. *Neuroscience: Fundamentals for Rehabilitation*. 4th edition, Elsevier. 2013.
- We will use Canvas at UF (<http://lss.at.ufl.edu/>) for web-based assignments, readings, etc. Please check the website for the next week's readings and assignments. Homework feedback will be provided directly on your hard copy or on Canvas.

Suggested Texts/Resources:

- Winstein CJ, Stein J, Arena R, Bates B, et al. Guidelines for Adult Stroke Rehabilitation and Recovery: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*. 2016. Jun;47(6): e98-e169.
- Shumway-Cook & Woolacott. *Motor Control: Translating Research into Clinical Practice*. 5th edition. LWW. 2016.
- Umphred (2013). *Neurological Rehabilitation*. 6th edition. Elsevier.
- O'Sullivan (2007). *Physical Rehabilitation*. 5th edition. F.A. Davis.
- Somers MF (2009). *Spinal Cord Injury: Functional Rehabilitation*. Norwalk, CN: Appleton & Lange.
- International Standards for Neurological Classification of Spinal Cord Injury. American Spinal Injury Association. 2nd edition. 2011.
- Sisto, Sue Ann, Druin E, Sliwinski MM (2008). *Spinal Cord Injuries: Management and Rehabilitation*. St. Louis, Missouri: Mosby Inc., Elsevier.
- *Guide to Physical Therapist Practice*, 3.0, American Physical Therapy Association, <http://guidetoptpractice.apta.org/>
- Web-Based Resources:
 - Stroke Unit:
 - www.ebrsr.com
 - www.strokenegine.ca
 - www.strokeassociation.org
 - www.canadianstrokenetwork.com
 - www.healthquality.va.gov/guidelines/Rehab/stroke/
 - www.viatherapy.org

- SCI Unit:
 - www.scireproject.com
 - www.asialearningcenter.org
 - www.pva.org
- TBI Unit:
 - www.braintrauma.org
 - www.tbims.org

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

Course Requirements/Evaluation/Grading

- Homework Assignments provided during the semester must be submitted by the assigned due date. They will be submitted either on-line or in class at the discretion of the instructor. Please refer Canvas at <http://lss.at.ufl.edu/> for posting of on-going assignments and due dates including the format for satisfactory completion of each assignment. Complete assignments fully and submit responses consistent with the pursuit of excellence as an emerging professional in Physical Therapy and worthy of the title Doctor of PT.
- Written and Practical Exams are scheduled – make note of dates and times in course schedule.

GRADES:

Course Exams, assignments and quizzes will total 400 points and will be distributed across the Stroke, SCI and TBI topic areas as indicated below:

- Introduction and Stroke Unit (160 points total derived from the following evaluative tools):
 - Assignments
 - Quizzes
 - Written Exam (note date of exam)
The practical exam will be Pass/Fail (80% or higher is a Passing Grade)
- SCI Unit (140 points total derived from the following evaluative tools)
 - Assignments
 - Quizzes
 - Written Exam (note date of exam)
The practical exam will be Pass/Fail (80% or higher is a Passing Grade)
- TBI Unit (100 points total derived from the following evaluative tools):
 - Assignments
 - Written Exam (exam to be held during finals week)
The practical exam will be Pass/Fail (80% or higher is a Passing Grade)
Practical exam will be held during finals week.

Grading Scale:

A (4.00 grade point) = 93-100

A- (3.67 grade point) = 90-92

B+ (3.33 grade point) = 87-89

B (3.00 grade point) = 83-86

B- (2.67 grade point) = 80-82

C (2.00 grade point) = 70-79

D (1.00 grade point) = 60-69

E (0 grade point) = < 60

Academic Integrity:

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Professional Behavior

- Professional behavior is critical for a successful transition from the classroom to the clinical setting. The faculty recognizes the importance of this by incorporating the development and evaluation of professional behavior into each academic course.

Professional Behavior is described in the Student Handbook that each student receives and acknowledges reading/understanding upon beginning the DPT program. Professional behavior is expected at all times; including but not exclusively: during scheduled class, curricular and clinical activities, extracurricular professional events, community and clinical activities. Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Furthermore, students are expected to act in accordance with the University of Florida policy on academic integrity (see Student Conduct Code, the Graduate Student Handbook or these web sites for more details:

<https://sccr.dso.ufl.edu/students/student-conduct-code/>

<https://sccr.dso.ufl.edu/process/students-rights-responsibilities/>

<http://www.graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf>

Students may be referred to the Professionalism Committee if they exhibit behavior not in accordance to these standards/expectations.

- Electronic devices to be used for professional purposes only.
- Students are expected to read/view materials in preparation for class participation.
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- Students are expected to dress appropriately for class or lab. Note the schedule for delineation for lab attire by an “P” or “L” next to the Week/class. P= Professional and L = lab attire. Lab attire consists of department-issued t-shirts and shorts of the appropriate length as noted in the Student Handbook.
- Call PT Dept. front desk by 8:00 a.m. if illness will cause you to miss class

Test Scores: Every effort will be made to return exams/assignments in a timely manner. Students receiving a grade of “C” (less than 80) are required to make arrangements to meet with the instructor within one week of receiving the grade. Students should refer first to their notes, then the text and other references, to classmates, and to TAs to review questions and answers and understand the material.

Online Faculty Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. As three different instructors lead three different units in this course, you will evaluate each instructor separately at the end of each respective unit. Your evaluations will be reviewed by each individual instructor and by our Department Chair which she will use in our annual evaluation. We take your evaluations and comments seriously and use them to improve the course. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

Support Services

Accommodations for Students with Disabilities:

If you require classroom accommodation because of a disability, it is strongly recommended you register with the [Disability Resource Center](#) within the first week of class or as soon as you believe you might be eligible for accommodations. The Disability Resource Center will provide documentation of accommodations to you, which you must then give to me as the instructor of

the course to receive accommodations. Please do this as soon as possible after you receive the letter. Students with disabilities should follow this procedure as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:
Alachua County Crisis Center:
(352) 264-6789
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.