Instructor Name: Rachelle Studer-Byrnes, PT, DPT, NCS  
Secondary Instructor: Gloria Miller, PT, PHD  
Secondary Instructor: Ali Kraus, PT, DPT, NCS  
Room Number: CLC  
Phone Number: 352-745-6489 (cell number)  
Email Address: rstuder@phhp.ufl.edu  
Office Hours: Immediately after class for short questions or by appointment if more time is needed (Office Rm. 1134)  
Teaching Assistants:  
Preferred Course Communications: email or in-person  

Prerequisites: Course participation is limited to entry-level DPT students who have successfully completed their previous three semesters of study  

PURPOSE AND OUTCOME  
Course Overview:  
This course will provide the knowledge, framework, and role of physical therapy in the treatment and management of progressive neurologic diseases and disorders that are common to clients evaluated and treated by physical therapists. From a medical perspective, information will include disease epidemiology, etiology, pathology, clinical signs and symptoms, diagnostic procedures, medical management, prognosis and precautions and/or special considerations pertinent to physical therapists. From a physical therapy perspective, specific standardized assessments, evaluation and treatment strategies, techniques, and approaches will be presented and utilized in class discussions and in clinical reasoning activities for provided patient cases. The role of the physical therapist will be addressed across treatment environments and across the time course or progression of the disease (acute through chronic).  

Relation to Program Outcomes:  
The primary objective of this course is to prepare you to provide patient-centered, holistic care to individuals with neurologic disorders. We will continue to build upon the principles introduced in Neuroscience and Neurehabilitation I including current clinical models, neuroplasticity and its characteristics in the face of injury and recovery, evidence-based approaches, and clinical decision-making. The cornerstone of this course is a clinical problem-solving approach that will enable you as a physical therapist to effectively examine, evaluate, analyze, draw conclusions, and make decisions regarding prognosis and interventions with your clients. Specific neurologic pathologies will be explored including but not limited to: progressive neurologic disorders, movement disorders, multiple sclerosis, basal ganglia disorders, cerebellar disorders, and vestibular disorders. Particular importance is placed upon the promotion of quality of life as one faces neurologic injury, and the critical role that a physical therapist can play in providing prevention and intervention strategies that enable people to live well as they move throughout their lifespan. This course challenges you to draw from knowledge gained in previous courses while applying problem solving and critical thinking techniques to various clinical and simulated patient scenarios.
Course Objectives and/or Goals
Upon successful completion of this course the student will meet the following objectives for persons with a neurological disorder:

1. Identify clinical signs and symptoms associated with neurological diseases and movement disorders presented in this course as well as based on your observation, subjective and objective materials collected during a physical therapy examination.

2. Determine appropriate tests, measures, and outcome measures to utilize for a physical therapy examination based on patient presentation, etiology and epidemiology of neurological disease, stage of disease, environmental and personal factors, and best supportive evidence.

3. Interpret and prioritize examination results identifying contextual, environmental, and personal factors that may inform:
   a. Patient/client level of health status
   b. Body Structure and Function
   c. Activity level
   d. Participation
   e. Need for re-examination
   f. Use of best available scientific evidence

4. Provide a physical therapy diagnosis and rehabilitation prognosis following a completed physical therapy examination and evaluation of a patient with a neurological disorder based on:
   a. Patient/client level of health status
   b. Body Structure and Function
   c. Activity level
   d. Participation
   e. Use of best available scientific evidence
   f. Medical management and treatment plan

5. Formulate realistic and acceptable therapeutic goals that are patient centered, consistent with the needs and goals of the patient/client and other interested parties:
   a. Consistent with examination findings and PT diagnosis
   b. Consistent with motor learning principles
   c. Consistent with criteria for specific intervention procedure
   d. Documentation consistent with professional and setting guidelines

6. Provide and prioritize skilled intervention based on the physical therapist examination and diagnostic process and findings including contextual, environmental, and personal factors the neurological patient may present with in the following areas:
   a. Body structure and function
   b. Activity level and functional mobility
   c. Participation
   d. Prevention
   e. Overall health and wellness
   f. Quality of Life

7. Accurately differentiate between neurological diseases presented in this course based on data gathered from patient presentation, subjective history, objective test and measures, observations, and assessments.

Instructional Methods
Real cases will be presented to provide the opportunity for you to develop effective clinical problem solving and decision-making skills when working with individuals with neurologic problems. Lectures, videos, interactive methods,
presentations, group problem solving and discussion will all be utilized in this course. Individuals with neurologic disorders will be invited into the classroom to allow you direct experience performing an examination and synthesizing evaluation findings as well as demonstrating skilled intervention.

You will have the opportunity to complete clinical reasoning and treatment application in groups during lab activities. Assignments in this course will allow for individual and group synthesis of material and feedback on topic understanding.

Following the quizzes and tests, a discussion will take place to address any questions about the reading material, and engage in additional critical evaluation of assigned readings and supplemented by presentations by clinical experts and guest lecturers.

DESCRIPTION OF COURSE CONTENT

Course Materials and Technology

Recommended texts:


Website:
Please check the website daily.
We will use Canvas found at http://lss.at.ufl.edu/. Lecture notes, assigned readings, announcements, grades, etc., will be located here.

Technology requirements:

There will be 5 quizzes that will require the use of laptop or other device able to connect online to the canvas website during class. It is highly encouraged to have a laptop or other device able to connect to the internet for all class sessions for interaction with course materials that will be posted on canvas. The midterm and final exams will be on paper and will require use of pencil for scantron submission.

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
Topical Outline/Course Schedule

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Time</th>
<th>Activity</th>
<th>Prep for class</th>
<th>Quizzes/Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon</td>
<td>7-Jan</td>
<td>8:30-11:30</td>
<td>Intro to neuromuscular disorders, Class intro</td>
<td></td>
<td>In-Class patient case</td>
</tr>
<tr>
<td>Wed</td>
<td>9-Jan</td>
<td>8:30-11:30</td>
<td>PD lecture 1/Patient Panel</td>
<td></td>
<td>PD Quiz</td>
</tr>
<tr>
<td>Mon</td>
<td>14-Jan</td>
<td>8:30-11:30</td>
<td>PD lecture 2/Lab</td>
<td></td>
<td>Cerebellar Quiz</td>
</tr>
<tr>
<td>Wed</td>
<td>16-Jan</td>
<td>8:30-11:30</td>
<td>Cerebellar/HD and Case studies (PD, HD, Cerebellar)</td>
<td></td>
<td>Cerebellar Quiz</td>
</tr>
<tr>
<td>Mon</td>
<td>21-Jan</td>
<td>8:30-11:30</td>
<td>No class MLK</td>
<td></td>
<td>MS Quiz</td>
</tr>
<tr>
<td>Tues</td>
<td>22-Jan</td>
<td>12:30-2:30</td>
<td>DBS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon</td>
<td>28-Jan</td>
<td>8:30-11:30</td>
<td>GBS/CIDP/MG and ALS</td>
<td></td>
<td>MS Quiz</td>
</tr>
<tr>
<td>Wed</td>
<td>30-Jan</td>
<td>10:00-12:30</td>
<td>MS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon</td>
<td>4-Feb</td>
<td>8:30-11:30</td>
<td>Exam 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wed</td>
<td>6-Feb</td>
<td>8:30-11:30</td>
<td>Post-polio/MS Patient Presentation/Patient case (MS/GBS/ALS)</td>
<td></td>
<td>GBS Quiz</td>
</tr>
<tr>
<td>Mon</td>
<td>11-Feb</td>
<td>8:00-12:30</td>
<td>Postpolio patient day</td>
<td></td>
<td>Vestibular Quiz; Post-polio assignment by 2/15 by midnight</td>
</tr>
<tr>
<td>Wed</td>
<td>13-Feb</td>
<td>8:30-11:30</td>
<td>Vestibular lecture 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon</td>
<td>18-Feb</td>
<td>8:30-11:30</td>
<td>Vestibular lecture 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wed</td>
<td>20-Feb</td>
<td>8:30-11:30</td>
<td>Seizures/Migraines/Brain and Spinal Tumors</td>
<td></td>
<td>Comprehensive Case Study by Midnight</td>
</tr>
<tr>
<td>Fri</td>
<td>22-Feb</td>
<td>8:30-11:30</td>
<td>Exam 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon</td>
<td>25-Feb</td>
<td>8:30-11:30</td>
<td>Case studies (Differential dx) Practical prep</td>
<td></td>
<td>Parkinson's Reflection by Midnight</td>
</tr>
<tr>
<td>Wed</td>
<td>27-Feb</td>
<td>8:30-12:30</td>
<td>Practicals</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACADEMIC REQUIREMENTS AND GRADING

Assignments
1. Comprehensive case study (15% of final grade)
   a. You will be assigned a patient case, and in pairs you will submit the following (may only work with partner, may not share information among other classmates):
a. Justification for the diagnosis and PT diagnosis, including appropriate signs and symptoms and examination findings.
b. Identification of tests, measures, and outcome measures you would use during your examination
c. Justification of stage of disease, rehabilitation prognosis and realistic and acceptable therapeutic goals.
d. Appropriate intervention reflective of rehabilitation prognosis, PT diagnosis, and therapeutic goals and support of best available scientific evidence
e. Identified interventions will be utilized in final practical

2. Post-polio assignment (10% of final grade)
a. Following post-polio patient day you will complete an examination/evaluation of your submit the completed form including plan of care and recommended home exercise program either as a group or individually based on instructor assignment. If you complete the examination in a pair or small group you will be expected to turn in a single submission for the pair or small group and if the examination is completed individually, an individual submission is required.

3. Parkinson’s exercise class reflection paper (5%)
a. Each student will have an opportunity to assist and attend a Parkinson’s group exercise class and work to develop appropriate exercises for the class for overall health and wellness, as well as participate in guarding for patient safety and fall prevention.
b. This is a 1-page self-reflection on your experience in the Parkinson’s group exercise class including areas of personal confidence and strength as well as identifying areas for further growth and development.
c. Please refer to the posted Parkinson’s group schedule for team members and assigned date for attendance. All students will attend 1 class on a Tuesday from 1:10-1:55pm at the Senior Center. Driving directions are also posted on canvas.

4. Quizzes (10% of final grade)
a. There will be a total of five knowledge based quizzes throughout the semester. Please see detailed course schedule for dates and times.

5. Participation (10% of final grade)
a. Your participation grade will be based on observation of your behaviors during clinical reasoning group activities, participation in PD exercise class, and overall professionalism demonstrated with your peers and instructors.

Grading

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Due date</th>
<th>Points or % of final grade (% must sum to 100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam</td>
<td>2/4/2019</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>2/22/2019</td>
<td>25%</td>
</tr>
<tr>
<td>Quizzes x 5</td>
<td>See detailed schedule</td>
<td>10%</td>
</tr>
<tr>
<td>Participation</td>
<td>See detailed schedule</td>
<td>10%</td>
</tr>
<tr>
<td>Comprehensive Case Study</td>
<td>2/20/2019 @ midnight</td>
<td>15%</td>
</tr>
<tr>
<td>Post-polio assignment</td>
<td>2/15/2019 by midnight</td>
<td>10%</td>
</tr>
<tr>
<td>Parkinson’s reflection</td>
<td>2/27/2019 by midnight</td>
<td>5%</td>
</tr>
<tr>
<td>Practicals</td>
<td>2/27/2019</td>
<td>P/F</td>
</tr>
</tbody>
</table>
Point system used (i.e., how do course points translate into letter grades).

<table>
<thead>
<tr>
<th>Points earned</th>
<th>93-100</th>
<th>90-92</th>
<th>87-89</th>
<th>83-86</th>
<th>80-82</th>
<th>70-79</th>
<th>60-69</th>
<th>&lt;60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grade</td>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td>B</td>
<td>B-</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>

Please be aware that a C- is not an acceptable grade for graduate students. A grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A.

Letter grade to grade point conversions are fixed by UF and cannot be changed.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C</th>
<th>D</th>
<th>WF</th>
<th>I</th>
<th>NG</th>
<th>S-U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Points</td>
<td>4.0</td>
<td>3.67</td>
<td>3.33</td>
<td>3.0</td>
<td>2.67</td>
<td>2.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar’s Grade Policy regulations at:
http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Exam Policy
Exams will cover reading assignments, class lectures/discussions, lab activities, and journal articles. Grading will follow the PT department grading scale.

Policy Related to Make up Exams or Other Work
a. Policy Related to Make-up Quizzes, Assignments, and Exam: Quizzes, assignments and exams can only be made up with an excused absence. In extraordinary circumstances it may be possible to take an exam early or late. Please consult with the instructor if necessary. If for any reason you are unable to attend an exam at the last minute, you must notify the instructors as soon as possible. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis.

b. Policy Related to Unexcused Absences: Excerpt from the Student Handbook: “Unexcused absence: No opportunity to take missed practical, assignments, quiz, exam. Instructors and teaching assistants are not obligated to teach material in class or lab to students with unexcused absences. All absences are assumed to be unexcused unless meeting below criteria: Illness, death in family, special circumstances (must be approved by Professionalism Committee and Instructors)”

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance
All faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT
Expectations Regarding Course Behavior

PHYSICAL THERAPY PROGRAM POLICIES FOR ALL COURSES

Attendance is expected for all class sessions, labs, and examinations. Each student is allowed 1 unexcused absence, however quizzes, exams, assignments or practicals missed that day will not be allowed for make-up. In the case of a student missing more than one lecture/lab, the students final letter grade will be lowered by one grade level (e.g. an “A” will become an “A-”). The Physical Therapy Program at the University of Florida strongly believes that professional behavior patterns begin during the student’s academic preparation. According to the PT Student Handbook, students are expected to notify the department by phone (273-6085) in the event of unexpected absence from a scheduled class session. Students are expected to inform the instructor of planned absences at least two days in advance. Personal issues with respect to class attendance, unexcused absences or fulfillment of course requirements will be handled on an individual basis.

Punctuality is important in both the clinic and classroom. Students are expected to arrive to class on time (i.e. prior to the instructor initiating class) and to return from breaks on time. The clock in the classroom will be considered the “official” clock. You are encouraged to notify your instructor(s) when appointments/unavoidable commitments will cause arrival to class after start time, or require you to leave early. It is also the responsibility of the instructor to begin and end class at agreed upon times, and to notify you when changes of schedule may occur.

Course Accommodations:
If for any reason you feel you will have difficulty meeting the objectives and expectations of this course, please notify me within five (5) weekdays of the start of class so that accommodations may be implemented where indicated.

Individuals who require reasonable accommodations must contact the Dean of Students Office, 202 Peabody Hall, phone: 392-1261, as soon as possible. This office will provide necessary documentation. The student who is requesting accommodation must then provide this documentation to the instructor.

Counseling and Student Health
Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575, or Student Mental Health Services, 352-392-1171. Visit their web sites for more information: http://www.counsel.ufl.edu/ or http://www.health.ufl.edu/shcc/smhs/index.htm#urgent

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, including primary care, women's health care, immunizations, mental health care, and pharmacy 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: www.health.ufl.edu/shcc

Crisis intervention is always available 24/7 from: Alachua County Crisis Center: (352) 264-6789.

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.

Professional Behavior:
Professional Behavior is described in the Student Handbook and is exemplified by:

1. attendance to all classes and labs
2. timeliness
3. attentiveness
4. respectful and polite interaction with peers, instructors, and patients
5. active learning as demonstrated by questions and discussion

6. active participation in lab activities

7. responsibility shown for maintenance, organization, and cleanliness of lab equipment and facilities

8. leads and/or contributes to lab preparation and clean-up, as requested

Professionalism Expectations

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.

a. 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:

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

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


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

Laptop & Smartphone policy Laptop computers are permitted for taking notes. However, inappropriate internet use of any kind is not permitted during lectures. Likewise, smartphones and other technology (e.g., iPads, Kindles, etc.) are permitted in the classroom but their use during class time is not permitted unless related to coursework.

Social Media policy Materials are not to be posted or discussed on social media.

Dress Code Please review the policies for lecture attire in your Student Handbook. For lab sessions, scrubs or lab coat are needed if we are handling wet tissue specimens.

Student Responsibilities for Safety and Learning for Clinical Labs Students will be expected to practice neurologic exam skills on their classmates, instructors, or other simulated patients. They will also serve as patients for their classmates and instructors. Students are responsible for providing their lab partners and instructors with necessary feedback and information in order to prevent injury, or when a student has a condition that prevents participation. Students are also responsible for notifying the instructor of behaviors, circumstances, or conditions that hinder student learning. Students will be expected to practice with multiple laboratory partners and may be assigned a partner by a course instructor for specific activities.

*Unprofessional behavior can lead to a lower letter grade in this course, or dismissal from this course.

Communication Guidelines

Consider that your communication with colleagues and professors is an extension of your professional identity. Below are links for guidelines for online communication:

Netiquette Guidelines:
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/sscr/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.

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. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. 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, you must register with the Dean of Students Office http://www.dso.ufl.edu within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. 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:
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.